Alcohol Use and Risk Drinking in Ontario Ethnic Groups

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Social and Behavioural Health Sciences
Dalla Lana School of Public Health
University of Toronto

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Abstract

This thesis examines the prevalence and patterns of alcohol consumption among Ontario ethnic groups, as well as socio-demographic and cultural factors that increase or reduce their vulnerability to risk drinking. A mixed methods approach was applied. Qualitative data were obtained through focus group discussions with the key informants and community members from seven Ontario communities: the Polish, Portuguese, Russian, Tamil, Punjabi, Serbian and Somali. Quantitative data were derived from the CAMH Monitor, a cross-sectional survey of Ontario adults, collected between January 2005 and December 2010 (N=13,557).

The results show higher prevalence of self-reported lifetime, current and risk drinking among the Canadian and the European-origin groups compared with other ethnic groups. Within-group gender differences were evident for all ethnic groups, with the narrowest gender gap being observed within the North European group and the widest in the South Asian group.
First generation immigrants have generally lower prevalence of alcohol consumption and risk drinking than Canadian-born respondents, with foreign born individuals from the European groups reporting higher rates of alcohol use and risk drinking than other groups. While previous studies generally found an increase in immigrants’ alcohol consumption with years in Canada, our data suggest that longer duration of residence may have either positive or negative effects on immigrants' alcohol use, depending on the country of origin/traditional drinking pattern.

Although the non-European ethnic groups have higher rates of abstinence and lower alcohol consumption rates, a considerable proportion of people from these ethnic groups may be at risk of alcohol-related harm due to risky and harmful alcohol consumption patterns. Drinking levels that are considered ‘normal’ or ‘excessive’, the type and size of alcoholic beverages, and the perception of the risks and problems related to alcohol use are largely shaped by cultural norms and beliefs. Socio-economic disadvantages and barriers to service utilization heighten the minority ethnic groups' vulnerability to alcohol-related problems.

This thesis contributes new and important evidence on the prevalence and patterns of alcohol consumption in Canada's ethnic groups, and factors that contribute to risk drinking. The findings have significant implications for prevention and service provision, particularly for minority ethnic groups that are already marginalized and unlikely to access mainstream services.
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Key terms

**Culture** - A common heritage or set of beliefs, norms, and values (U.S. Department of Health and Human Services [DHHS], 1999).

**Ethnicity** - A multidimensional concept that includes aspects such as race, origin or ancestry, identity, language and religion. It may also include more subtle dimensions such as culture, the arts, customs and beliefs and even practices. It is dynamic and in a constant state of flux (Statistics Canada, 2012).

**Ethnic group** - A group of people who share the same culture or are descendants of such people who identify themselves and/or are identified by others as belonging to the same involuntary group (Isajiw, 197, p. 122).

**Immigrants** - Persons residing in Canada who were born outside of Canada, excluding temporary foreign workers, Canadian citizens born outside Canada and those with student or working visas who (Statistics Canada, 2010).

**Minority ethnic group** - An ethnic group in a non-dominant position characterized by their own ethnic identity which differs from that of the dominant group (Office of the High Commissioner for Human Rights, 2010).

**Race** - A social construct that defines and limits people’s access to power, resources and opportunities mainly on the basis of visible physical characteristics among which skin colour is a dominant, but not the sole attribute (Bhopal, 2003; Ford & Harawa, 2010)

**Racialized groups** - Individuals, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour (Ontario Human Rights Commission, n.d.).

**Risk drinking** - Drinking in a way that is associated with negative consequences. Risk drinking was defined by three indicators: Exceeding the Canada’s Low Risk Drinking Guidelines (LRDG) (Butt et al., 2011), consuming five or more drinks at least once a month (“binge drinking”) and Reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT screener. All three potential risk drinking indicators refer to the past 12 months.
Chapter 1
Introduction

The principal aim of this thesis is to explore the prevalence and patterns of alcohol use in Ontario ethnic groups, and the socio-demographic and cultural factors that may increase or reduce their vulnerability to risk drinking. It consists of three papers addressing related aspects of this aim. The first paper is a qualitative study that examines cultural norms, beliefs and patterns of alcohol consumption in seven ethnic groups: the Polish, Portuguese, Russian, Tamil, Punjabi, Serbian and Somali group. The second and third paper utilize data from the CAMH Monitor, an ongoing cross-sectional survey of Ontario adults. The second paper investigates the prevalence of alcohol consumption and risk drinking among Ontario ethnic groups, and gender differences across alcohol measures among these ethnic groups. The third paper explores prevalence of alcohol consumption among immigrants and the Canadian-born populations of Ontario by ethnic origin, and the association between ethnicity, age at migration, length of residence and drinking measures. This first chapter sets the context for the remainder of this thesis.

1.1 Background
Alcohol is the most widely used psychoactive substance in Canada. In 2010, 80% of males and 74% of females reported consuming alcohol in the past year. While most people drink in moderation, 25.5% of Canadians are considered risky drinkers (Thomas, 2012). Alcohol is the third leading risk factor contributing to the burden of disease, disability and morality (Giesbrecht, Patra & Popova, 2008; National Alcohol Strategy Working Group, 2007). The estimated economic cost of alcohol-related harm in Canada is $14.6 billion per year. Recent data indicate that alcohol consumption in Canada increased by 13% between 1996 and 2010. Increases in alcohol use and risky drinking patterns are associated with increasing alcohol-related harms (Giesbrecht et al., 2013).
International studies have found significant variations in alcohol consumption across ethnic groups (e.g. Caetano, et al., 2008; Brown et al, 2005; Dawson, 1998; Heath, 2000; Hjern & Allebeck, 2003; Johnson, 2007; Room & Makela, 2000; Room, 2005). While the overall prevalence of alcohol use seems to be higher among White/European groups, the negative outcomes of alcohol use appear to be more profound in some minority ethnic groups (Chartier & Caetano, 2010; Hurcombe, Bayley & Goodman, 2010). Factors that account for differences in alcohol use among ethnic groups are complex, and include socio-cultural norms, beliefs and expectancies about alcohol use, migration and acculturation, and experiences of discrimination, social exclusion and poverty (McDonald, 2006; Brown et al., 2005; Caetano, Clark & Tam, 1998; MacAndrew & Edgerton, 1969; Mandelbaum, 1965; Mulia, Ye, Greenfield & Zemore, 2009; Reid, Beyer, Aitke & Crofts, 2001; Room, 2005).

Despite the enormous ethnic diversity of the Canadian population, very little is known about alcohol use and related problems in Canada's ethnic groups. The available data indicate low awareness of alcohol-related harm among some minority ethnic groups, a high level of stigma associated with substance use problems and lack of culturally relevant prevention and treatment programs (Cheung, Weber, & Biring, 1997; Centre for Addiction and Mental Health [CAMH], 2003; Ethnoracial Coalition: Access to Services, 2003).

Understanding the prevalence and patterns of alcohol consumption in different ethnic groups and how they change over time have significant implications for the development of appropriate alcohol-related policies and effective prevention and treatment interventions (Durrant & Thakker, 2003; National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2002; Trimble, Bolek & Niemczyk 1992). From a health equity perspective, this knowledge is of particular significance for minority ethnic groups experiencing disparities in consequences of alcohol use and access to services (Browne & Renzaho, 2010; Donato-Hunt, Sonali & Copeland, 2009; United Nations Office on Drugs and Crime, 2004).
1.2 Canada's ethnic diversity

One of the distinctive features of Canadian society is the ethnic diversity of the population reflecting the origins of various waves of more than 13.5 million immigrants who have settled in Canada over time. Data from the 2011 National Household Survey (NHS) show that 20.6% of the population are foreign born and more than 17.4% of the population born in Canada are the direct descendants of immigrant parents. The number of reported ethnic groups exceeds two hundred with 13 ethnic groups each numbering more than one million people (Statistics Canada, 2013). The increasing diversity of Canada's population is reflected in a variety of alcohol consumption patterns and outcomes that are not well understood (Adrian et al, 1995; Heath, 1995).

People of British and French descent represent the two earliest and dominant ethnic groups. At the beginning of the century, the majority of immigrants to Canada had originated in the United States or the United Kingdom. However, during the 1910s and 1920s, the number of immigrants born in other European countries started to grow steadily, reaching its highest levels in the 1960s and 1970s (Boyd & Vickers, 2000; Statistics Canada, 2008). By 1961, one out of four Canadians was not of British and French origin. Most of these immigrants arrived from European countries where the moderate use of alcohol was a longstanding tradition (Marquis, 2003).

In the late 1960s, Canada’s immigration policy which favoured European immigrants, began to change. Since the mid-1970s, the majority of immigrants arrived from regions other than Europe. In the past ten years almost 80% of new immigrants arrived from Asia, Africa, the Middle East, and South and Central America (Statistics Canada, 2008). While many of them came from societies where alcohol does not play a prominent role, in a number of these countries alcohol misuse has been identified as a serious public health problem (Marquis, 2003).
In more recent decades, the origins of European immigrants has changed. Whereas in the early and mid-twentieth century, the United Kingdom, Italy, Germany, the Netherlands and Portugal were the major source countries of European immigrants, since the 1990s, the number of newcomers from Eastern European countries has increased steadily, surpassing the number of newcomers born in the UK (Citizenship and Immigration Canada [CIC], 2009). The population drinking levels and patterns found in Eastern European countries have been among the most detrimental in the world (Popova, Rehm, Patra & Zatonski, 2007; WHO, 2011).

1.3 Rationale for research

Despite the attention to ethnic diversity and multiculturalism, there is a paucity of Canadian data on alcohol use in ethnic groups. Unlike other socio-demographic variables associated with alcohol use, ethnicity has received little attention among researchers in Canada. Epidemiological evidence on this topic is scarce. Most national or provincial surveys providing information on alcohol consumption either do not collect or do not report data on ethnicity.

The available data reveal heterogeneity in alcohol use across different groups and raise some questions that require more in-depth research. The results of the 1989 Canadian National Alcohol and Drug (NAD) Survey show differences in alcohol consumption among ethnic groups. Further, alcohol use in each group differed from the national average. The Ukrainian/Polish group had the largest percentage of current drinkers, followed by the German/Dutch group. The Irish, Scottish and the Italian/Portuguese groups had lower proportions of current drinkers than the Canadian average. The English and French ethnic groups had similar percentages of current drinkers, while those belonging to “other” ethnic groups (e.g. Chinese, Jewish) had the smallest percentage of current drinkers (Adrian et al., 1995; Heath, 1995). The 2001 Canadian Community Health Survey (CCHS) showed generally lower rates of alcohol dependence among first generation immigrants compared to the Canadian-born population. Nakamura et al. (2011) found lower rates of self-reported drinking among South Asians and Chinese compared with
Caucasians. Findings from several small-scale qualitative studies indicate that alcohol misuse is a problem in some ethnic groups which has not been adequately addressed. Minority ethnic groups are less likely to access mainstream prevention and treatment programs due to systemic and service barriers (Cheung et al., 1997; Ethnoracial Coalition: Access to Services 2003; CAMH, 2003).

Some of the Canadian data is decades old and the extent to which the constructs being explored may have changed is unclear (Johnson, 2007). The rates of alcohol use among immigrants who arrived in Canada in the 1950s and 1960s are not necessarily predictive for recent immigrants because the origins of immigrants to Canada have changed significantly over time (Ali, 2002; CIC, 2009). The recency of research information impacts the ability to accurately address alcohol misuse and related problems in an ethnic group.

Understanding of alcohol consumption among ethnic groups is largely based on studies conducted in other countries such as the US, UK and Australia. While these findings provide important information about diverse drinking patterns, the literature on alcohol use in ethnic groups is limited in generalizability. Ethnic groups are not homogeneous units. Ethnic groups in Canada differ from the corresponding communities in other countries according to their national origin, pre-migration experiences, social class and the level of acculturation. Furthermore, different countries use different definitions of ethnic groups, which further complicates comparison across countries (Feskens, Hox, Lensvelt-Mulders & Schmeets, 2006).

The ethnic diversity of Canada's population is expected to increase significantly by 2031 (Statistics Canada, 2013). To ensure that policy and program planning is sensitive to, and serves the needs of diverse population groups, patterns and rates of alcohol use in ethnic groups have to be understood in the local context (Bhopal et al., 2004; Salway et al., 2011). The literature underscores the importance of investigating alcohol use in ethnic groups, regardless of whether
prevalence rates are higher or lower than national rates, in order to effectively address potential problems and reduce health inequities (NIAAA, 2002; Brown et al, 2005).

1.4 Research aims
The overall purpose of this research was to examine the prevalence and patterns of alcohol consumption among ethnic groups in Ontario, as well as socio-demographic and cultural factors that increase or reduce their vulnerability to risk drinking. The specific aims were:
1. To explore cultural norms, beliefs and attitudes towards alcohol use, drinking patterns and ethnic communities' perception of alcohol related harm
2. To estimate the prevalence of alcohol consumption and risk drinking among Ontario ethnic groups
3. To evaluate the contribution that socio-demographic factors (including gender, place of birth and length of residence in Canada) make to alcohol use and risk drinking among Ontario ethnic groups

The research focused on adults aged 18 and older, and included both immigrants and the Canadian-born respondents. Alcohol use in Aboriginal groups was not included in this research. Aboriginal peoples in Canada are recognized as having unique social, cultural and historical characteristics. They are the descendants of the original inhabitants of North America who lived in the region at the time when people of different ethnic origins arrived (Aboriginal Affairs and Northern Development Canada, 2010; UN Office of the High Commissioner for Human Rights, 1997).

1.5 Ethics approval
This research has been reviewed and approved by the Research Ethics Boards at CAMH and the University of Toronto.
1.6 Organization of thesis
This thesis consists of three separate papers for publication. The thesis begins with a brief review of the literature pertaining to alcohol use in ethnic groups. Chapter 2 summarizes and examines the main theoretical frameworks underpinning studies on alcohol use in ethnic groups. Chapter 3 describes research methods used to explore this topic area, and discusses major methodological issues and challenges in research with ethnic groups. Chapters 5 to 7 present the three separate manuscripts. Chapter 8 summarizes the research results and discusses the implications of the research findings and future research directions.

1.7 Student's contribution to the thesis
Chapter 5 is based on work conducted in partnership with eight community based organizations. The first manuscript titled "Alcohol use in seven ethnic communities in Ontario: A qualitative investigation" by Agic, B., Mann, R.E. and Kobus-Matthews, M. was published in Volume 18, Issue 2, of the journal Drugs: Education, Prevention and Policy (2011).

Chapters 6 and 7 are based on the secondary analysis of the CAMH Monitor survey data collected between January 2005 and December 2010. The second manuscript titled "Gender differences in alcohol use and risk drinking in Ontario ethnic groups" by Agic, B., Mann, R. E., Tuck, A., Ialomiteanu, A., Bondy, S., Simich, L. has been submitted for publication in the Journal of Ethnicity in Substance Abuse. The third manuscript titled "Alcohol use among immigrants in Ontario, Canada" by Agic, B., Mann, R. E., Tuck, A., Ialomiteanu, A., Bondy, S., Simich, L. has been submitted for publication in the journal Drug and Alcohol Review.

Under the guidance of my thesis committee and the assistance of my CAMH colleagues, I planned, implemented and coordinated all aspects of this research, interpreted the results and wrote each manuscript.
1.8 References


Chapter 2

Literature Review

This chapter provides an overview of the major Canadian and international literature pertaining to alcohol use in societies and ethnic groups. Databases searched included Medline, PubMed, Scholars Portal, PsycINFO and Google Scholar. The database searches were supplemented by a search of relevant websites (e.g. Canadian Centre on Substance Abuse, Health Canada, Statistics Canada) and resource centres (e.g. Centre for Addiction and Mental Health [CAMH], Joint Centre of Excellence for Research on Immigration and Settlement [CERIS]). Key words used were: alcohol, drugs, substance use, alcoholism, ethnic, immigrants, refugees, culture, cross-cultural, multicultural. Cumulatively, the search covered the years 1945-2013.

2.1 Introduction

The prevalence of alcohol use, volume of consumption and patterns of drinking vary widely across societies and ethnic groups (Rehm, Taylor & Patra, 2002; Rehm et al., 2003; Shield et al., 2013; World Health Organization [WHO], 2011). The proportion of users worldwide ranges from 18% to 90% among adult males, and from 1% to 81% among adult females (WHO, 2004). There is an almost 23-fold range in per-adult consumption across sub-regions of the world (WHO Expert Committee on Problems Related to Alcohol Consumption, 2007).

The world’s highest alcohol consumption levels are found in Central-Eastern and Eastern Europe, in particular the former Soviet Union countries, while the lowest consumption levels are found in the North African, Middle Eastern and South Asian countries (Rehm et al, 2009; WHO, 2011). Risky patterns of drinking are highly prevalent in the Russian Federation and neighbouring countries, southern African and Tropical Latin American countries. In countries with high abstinence rates, such as India, Pakistan and Zambia, a high proportion of drinkers
engage in heavy episodic drinking (Anderson, Moler & Galea, 2012; Shield et al., 2013; WHO, 2011).

Research conducted in multiethnic societies found considerable differences in prevalence, quantity and frequency of alcohol consumption between ethnic groups within individual countries (Brown et al., 2005; Caetano, et al., 2008; Durrant & Thakker, 2003; Galvan & Caetano, 2003; Hjern & Allebeck, 2003; Hurcombe et al., 2010).

2.2 Ethnic variations in alcohol consumption
A relatively large body of literature has been devoted to diverse patterns of alcohol use among cultural and ethnic groups. Starting in the 1940s, holocultural studies explored intercultural variations in alcohol use and function of drinking in preindustrial, tribal societies. A groundbreaking work in this area was Horton’s cross-cultural comparative study (1943) on the functions of alcohol in primitive societies based on a survey of drinking practices in 56 tribes (Mandelbaum, 1965; Marshall, 1979a). Building on Horton’s work other researchers explored cultural aspects of alcohol use (e.g. Field, 1962; Heath, 1958; MacAndrew & Edgerton, 1969; Mahoney, 1974; Marshall, 1979a, 1979b). Findings from these early studies provided valuable data for later cross-cultural comparisons (e.g., Adrian, 2002; Heath, 1995, 2000; Room, 1988; 2005; Room & Mäkelä, 2000).

Since the mid-1970s, an increasing number of studies have investigated ethnic and cross-country variations in alcohol consumption (e.g., Bennett, Campillo, Chandrashejar & Gureje, 1998; Demers, Room & Bourgault, 2001; Heath 1995, 2000; Obot & Room, 2005; WHO, 2004, 2011). Most of the research compared drinking rates and patterns across different regions and countries (e.g. Obot & Room, 2005; Shield et al., 2013; WHO, 2011). A smaller number of studies examined alcohol use and related problems within a particular society or ethnic group.
Comparative studies carried out within multiethnic societies explored the differences in drinking between minority and majority ethnic groups, and between immigrants and the host country population (e.g. Adrian, Dini, MacGregor & Stoduto, 1995).

While the findings show in general higher levels of drinking among White/European groups compared to minority ethnic groups, they also reveal large diversity in drinking patterns and problems both between and within ethnic groups (e.g. Amundsen, 2012; Bhopal et al., 2005; Hjern & Allebeck, 2003; Hurcombe et al., 2010; Jarvis, 2009). In the UK, the highest levels of alcohol consumption were found among people of Irish and Scottish background (Bhopal et al., 2004; Jarvis, 2009; Pannu, Zaman, Bhaki & Zaman, 2009). Black Caribbean and Black African people reported higher rates of drinking than South Asians and Chinese. Although overall abstinence is high amongst South Asians, particularly those of Muslim background, Muslim men who drink appear to drink more heavily than those of other religious backgrounds (Heim et al., 2004; Hurcombe et al., 2010). High rates of heavy drinking have also been observed among Sikhs (Hurcombe et al., 2010).

Australian research has found lower levels of alcohol use among several ethnic groups including Chinese, Vietnamese, Italian, Pasifika, Arabic-speaking and Spanish-speaking groups compared to the general population. Among the minority ethnic groups, Arabic-speaking respondents had the highest rate of non-drinking, while the Pasifika group had the highest rate of harmful and hazardous drinking (Donato-Hunt at al., 2008).

The US research has mainly focused on four major ethnic groups: African Americans, Hispanics, Asian Americans/Pacific Islanders, and American Indians/Alaska Natives in comparison or contrast to White Americans. The findings show that the prevalence of alcohol use is highest among Whites and lowest among Asian Americans. Native Americans have the highest prevalence of heavy drinking, followed by White Americans and Hispanics (Chartier & Caetano,
Within these broad ethnic categories the prevalence of drinking varies significantly for different subgroups. For example, among the Asian groups, Chinese have the lowest prevalence of alcohol use, while Koreans and Japanese had the highest. Among Hispanics, Mexican Americans have more alcohol–related problems than those of Cuban and Puerto Rican origins (Caetano et al., 1998; Galvan & Caetano, 2003). Among White Americans, those originating from Northern and Central Europe report more frequent heavy drinking than those of Eastern and Southern European origin (Durrant & Thakker, 2004).

In the past few decades, there has been increased interest in alcohol use among immigrant populations. Considerable variations in patterns of alcohol use according to ethnic group, country of origin and length of residence in the host country have been observed (Ali, 2002; Brown et al., 2005; Hjern & Allebeck, 2003; Johnson, VanGeest & Cho, 2002; McDonald, 2006). Studies conducted in Europe generally found lower rates of drinking among immigrants from Islamic countries compared to the host population. Yet, other groups such as Albanian immigrants to Italy, Hispanic immigrants to Spain and immigrants from the former Soviet Union to Germany are found to be drinking more or at the levels similar to that of the host population (Allamani at al., 2009; Amundsen, 2012; Tortajada at al., 2010).

There are strong indications that in some non-Western ethnic groups risky and harmful drinking is occurring at higher rates than the available data suggest (Browne & Renzaho, 2010; Galvan & Caetano, 2003; Hurcombe et al. 2010; NIAAA, 2002; Rao, 2006). Hidden drinking seems to be an emerging problem among some of the minority ethnic groups in the UK, in particular among young women and older men from groups with strong religious or cultural norms that prohibit or condemn alcohol use (Rao, 2006; Thom et al., 2010).

Increasing evidence reveals that despite drinking less, some minority ethnic groups suffer disproportionately from health consequences of alcohol use (Chartier & Caetano, 2010; Haasen,
Demiralay & Reimer, 2008; Hurcombe, et al., 2010). In the US, the prevalence of alcohol related health problems among Americans of Hispanic origin, has doubled over the past 10 years (Galvan & Caetano, 2003; Rao, 2006). Hispanics are also approximately twice as likely as White Americans to die from liver cirrhosis, despite a lower prevalence of drinking and heavy drinking. The paradox between relatively light drinking and high prevalence of alcohol-related problems has also been observed among African Americans (Godette, Headen & Ford, 2006). Likewise, in the UK, despite drinking less, people from minority ethnic groups have similar levels of alcohol dependence compared to the general population. Rates of liver cirrhosis among Sikh men and alcohol-related deaths among Indian men are disproportionately high compared to that of the general population (Huricombe et al., 2010). In Germany, alcohol use disorders appear to be more prevalent among some immigrant groups, in particular Eastern European (Haasen et al., 2008).

It is important to note that drinking patterns are not static. For any given ethnic group, they can change over time. Changes in wealth, social disadvantage, and migration all influence changes in alcohol use (Durrant & Thakker, 2003; Heath, 1995). In some ethnic groups, cultural norms and beliefs related to alcohol consumption may be resistant to change, but the frequency of drinking including heavy drinking occasions can change (Room et al. (2002).

2.3 Social determinants of alcohol use
Factors that shape patterns of alcohol use in ethnic groups are multiple and complex, and include socio-cultural norms, beliefs and expectations about alcohol use; immigration and acculturation; and experiences of marginalization, discrimination and deprivation (Brown et al., 2005; Caetano et al., 1998; Durrant & Thakker, 2003; MacAndrew & Edgerton, 1969; Mandelbaum, 1965; McDonald, 2006; Room, 2005; Trimble et al, 1992).
2.3.1 Cultural norms, beliefs and expectations about alcohol use

Cultural norms are defined as “the rules a particular group uses for appropriate and inappropriate values, beliefs, attitudes and behaviours” (Grønkjær et al., 2011, pp.1). The importance of socio-cultural norms, attitudes and beliefs about drinking in shaping patterns of alcohol use and related behaviors has been well discussed in the literature. In all cultures social norms govern who may drink, as well as how much of what beverage, when, how, in what contexts, and what behaviors arise from their drinking (Durrant & Thakker, 2003; Heath, 1995; Mendelbaum, 1965; Social Issues Research Centre [SIRC], 1998; Room et al., 2002).

Cross-cultural variation in social regulation of alcohol use ranges from the total prohibition to 'avid immersion', with various degrees of alcohol acceptance and patterns of use in between these two extremes (Heath, 1995, 2002, Marshall, 1979b). Cultural differences in the dominant pattern of drinking, including quantity and frequency of alcohol consumption, drinking location and reasons for drinking, contribute to differences in rates of alcohol-related problems between populations (Bennett et al., 1998; Room, 1988, 2005; WHO, 2004). It has been well recognized that, depending on the consumption pattern, e.g., regularly in moderate amounts with meals or irregularly in heavy drinking occasions often outside meals, alcohol use can increase the risk of health problems and social problems (Popova et al., 2007; WHO, 2004; WHO Expert Committee on Problems Related to Alcohol Consumption, 2007).

Although moderate drinking is a norm in almost all cultures, the meaning of “moderate” or “excessive” drinking differs in terms of quantity and frequency, depending on cultural context. For example, heavy episodic drinking is defined as having 60 grams (4-5 standard drinks) or more per occasion (Gmel & Rehm, 2004; WHO, 2011). Popova et al. (2007) note that in societies such as Russia where almost half of the male population drink four or more drinks on a daily basis, such a definition of high episodic drinking does not seem relevant. There are also significant cross-cultural variations in the size of glasses used to consume alcohol, ways of measuring volume and the alcohol content of culturally specific beverages (Bennett, Campillo,
Chandrashekar & Bennett,, 1998). It has been suggested that what is perceived as “normal” drinking provides a basis for understanding excessive alcohol consumption in a given society or ethnic group (Grønkjær et al., 2011).

In many cultures, if people are seen to be in control of their drinking, even at risky levels, their alcohol use is viewed as “normal” and socially acceptable. For example, in societies such as Spain, France and other Mediterranean cultures “proper drinking” means knowing when and how to drink, and avoiding drunkenness (Calafat et al., 2010; Heath, 1995). Yet, in other cultures such as Pacifica, a person could drink as much as they liked as long as their behaviour during intoxication does not disturb others (Donato-Hunt et al., 2008).

Drinking is in many societies important to socializing (Heath, 2000; Rebhun, 1998). For many ethnic groups heavy drinking in the context of celebrations is culturally normative (Durrant & Thakker, 2003; Heath, 2000; MacAndrew & Edgerton, 1969). Heath (1995) notes that in the Polish culture “heavy drinking seemed to be not only a right, but almost a duty of a nobleman” (p. 228). In Scandinavian societies, binge drinking among men, often for the purpose of intoxication, is the norm (Heath, 2000). The practice of “standing rounds”, such as in Czech society, where people in the group take turns to pay for everyone’s drink, encourages heavy drinking (Durrant & Thakker, 2003; Hall, 2003).

Although most cultures condemn excessive drinking, societal attitudes toward drunkenness and the behaviours associated with intoxication differ greatly from society to society. For example, in Italy and France social norms strongly condemn drunkenness. In other societies, such as Australia, occasional inebriation is acceptable for men as long as they are not violent. In contrast, for Chilean men occasional drunkenness is almost expected (Heath, 2000).
The way people behave when they are intoxicated also varies between societies and ethnic groups. In some countries, such as the UK and Scandinavian countries, alcohol is commonly associated with violent and anti-social behaviour, while in others, such as Mediterranean and some South American countries, drinking behaviour is largely peaceful and harmonious. MacAndrew & Edgerton (1969) argue that drunken comportment is culturally constructed rather than pharmacologically determined. It is a society’s expectations about the effects of alcohol and the type of behaviour associated with drunkenness that determines the behavioural consequences of drinking; in the societies in which people do not believe that alcohol causes disinhibition, intoxication does not necessarily lead to bad and unacceptable behavior (Mandelbaum, 1965; Marshall, 1976b). The combined outcomes of the differences in drinking patterns and cultural norms of drunken behavior can be quite remarkable. For example, an extra unit of alcohol has been found to increase the homicide rates twice as much in northern European countries such as Sweden compared to southern European countries such as Portugal (Bonnie & O’Connell, 2004).

Social expectations also influence subsequent explanation, justification and excuses related to drunken comportment (MacAndrew & Edgerton, 1969). In societies where alcohol is expected to lead to aggression, e.g., Britain, people use intoxication as an excuse for their aggressive behavior. In contrast, in societies with different expectations about the effects of alcohol, using intoxication as an excuse for anti-social behaviour is met with skepticism (SIRC, 1998).

Drinking patterns and behavior are associated with the perception of risk related to alcohol consumption. In some cultures, a high tolerance for alcohol in men, that is, being able to drink considerable amounts without showing the effects of alcohol, is not seen as a symptom of problematic drinking, but in fact holds a positive connotation (Bennett et al., 1998; Room et al, 1996). In Mexico, for example, men are expected to be able to drink large quantities of alcohol, which is culturally directly linked to masculinity (Heath, 1995; Bennett et al., 1998). Although most people are aware of some negative consequences of alcohol use, the level of knowledge
about the problems varies both across and within ethnic groups. In the U.S., for example, White Americans were the least likely to perceive risks for alcohol use compared to Blacks and Hispanics (Ma & Shive, 2000). Australian and Canadian studies found generally inadequate knowledge of the harmful effects of alcohol among minority ethnic groups, in particular first generation immigrants (CAMH, 2003; Ethnoracial Coalition: Access to Services, 2003; Brown & Renzaho, 2010).

Within group variance
Frequently within one society or ethnic group drinking norms differ according to other identities that intersect with ethnicity, such as religion, gender, age and class (Obot & Room, 2005; SIRC, 1998).

Religious affiliation has been considered as an explanatory variable with respect to people’s alcohol use. The major religions have differing views on alcohol use. Christianity and Judaism accept alcohol use for social purposes, while Islam, Buddhism and Sikhism prohibit its consumption. The Hindu religion generally condemns alcohol consumption, but seems to condone its occasional use by certain classes (Dubé & Lewis, 1994). Research with South Asian groups carried out in several Western countries found that Sikh men were most likely to regularly use alcohol followed by Hindus, while Muslims were the least likely to report any drinking (Bradby & Williams, 2006; Cheung, Weber & Biring, 1997; Cochrane & Bal, 1990; Jarvis, 2009).

In some societies and ethnic groups with cultural or religious sanctions against alcohol, drinking still takes place within certain degrees of social acceptability. The rates of alcohol use by Egyptian Muslims and Punjabi Sikhs, for example, are much higher than would be anticipated
given the clear prohibition of alcohol use in both religions (Bradby & Williams, 2006; Cheung et al., 1997; Heath, 1995; Hurcombe et al., 2010).

Gender is commonly cited as a source of diversity in alcohol use. Generally, men are more likely than women to consume large quantities of alcohol, drink more often or drink to intoxication (Heath, 1995; WHO, 2004; Brown et al., 2005; NIH, 2008). However, the size of the gender gap varies greatly from one society and ethnic group to the other (Bloomfield, Gmel & Wilsnack, 2006; Heath, 2000; Wilsnack et al., 2000). The gender difference in the proportion of drinkers is particularly noticeable among the Middle Eastern, South Asian and Southeast Asian groups (NIH, 2008). Even in the societies where use of alcohol is socially acceptable for both men and women, different norms apply. Women are either expected to abstain or expected to drink different beverages, usually with less alcohol and on special occasions. Women who publicly consume more than the socially acceptable amount of alcohol are often ostracized (Heath, 1995).

The age at which young people are introduced to alcohol varies across societies and ethnic groups. Survey data show that alcohol use by age 15 is much more common in European countries than in the Middle East or Africa (National Institute on Drug Abuse [NIDA], 2003). In Mediterranean cultures such as France, Italy, Portugal and Spain, young people are introduced to alcohol early in life as wine is routinely given as part of a meal or celebration (Heath, 1995). Most cultures impose some restrictions on “underage” drinking, but both the definitions of “underage” and the nature of the restrictions vary across societies. The prescribed minimum drinking age ranges from 21 in countries such as the United States and Indonesia to 16 in countries such as Germany and Jamaica. A few countries have no established legal limits (International Center for Alcohol and Polices [ICAP], 2013). Significant differences in the prevalence of underage drinking across ethnic groups within one country have also been observed. For instance, in the U.S., prevalence rates for alcohol use by persons age 12 to 20 were highest among non-Hispanic Whites, followed closely by Native Americans (including
Alaskan Natives). The prevalence rates for African-Americans and Asians are substantially lower than those for whites and Native Americans (Flewelling et al., 2004).

It is important to note that in multiethnic societies, both patterns of abstinence and drinking vary within specific ethnic groups, often representing quite diverse alcohol norms and practices (Heath, 1995; WHO, 2004). The drinking patterns of each ethnic group may reflect its unique characteristics as well as the cultural frame of the whole society (Mandelbaum, 1963). Also, not all members of an ethnic group adhere to cultural norms regulating alcohol use. Individual variations in settings, motivations and experiences may sometimes be larger within ethnic groups than across them. However, as Mandelbaum (1965) noted, before we learn about someone’s individual drinking practices, it is important to understand what choices about drinking are possible in their culture.

2.3.2 Immigration and acculturation

Patterns of alcohol use in recent immigrants were found to be a continuation of norms and traditions from their country of origin (Brown et al., 2005; Donato-Hunt et al., 2009; Hjern & Allebeck, 2004; Rundberg et al., 2006). For example, European studies show that immigrants from Islamic countries generally drink less or less often than the host population. Other groups such as Hispanic immigrants to Spain and former Soviet Union immigrants to Germany are found to be drinking more or at the levels similar to that of the host population (Allamani et al., 2009; Amundsen, 2012; Tortajada et al., 2010). A higher prevalence of alcohol use disorders has been observed among Eastern European immigrants compared to other immigrant groups and the host population (Hassen et al., 2008). In Canada, immigrants born in Asian countries reported low rates of alcohol use and problem drinking while immigrants from the European countries displayed the highest rates of alcohol use (Ali, 2002; Johnson et al., 2002). Similarly, in the US, Asian immigrants have lower rates of alcohol use, but their alcohol use patterns vary by country of origin (Szaflarski et al., 2011).
Immigrants’ "traditional" drinking patterns tend to change over time. Exposure to different norms and regulations regarding alcohol use, low prices and easier accessibility of alcohol are some of the factors contributing to changes in immigrants patterns of consumption (Haasen et al., 2008; Rebhun, 1998; Szaflarski et al., 2011; Xueqin & Henderson, 2002). For some ethnic groups, exposure to Western culture increases the opportunity to use alcohol (Browne & Renzaho, 2010). Drinking patterns that used to be reserved for special occasions may become more frequent and problematic (Collins & McNair, 2003; Fosados et al., 2007; WHO, 2004). For other ethnic groups, traditional drinking patterns may change to become less harmful due to reduced accessibility of certain alcoholic beverages, living circumstances, lifestyles as well as stricter law enforcement, including enforcing the legal drinking age (Caetano et al., 1998; Hendershot et al., 2008).

The rates of alcohol use among immigrants seem to be directly related to length of residence in the host country. Alcohol use tends to be more prevalent and more frequent among immigrants having resided in the host country for a longer period, in particular those who arrived from a country where the average level of drinking is lower than in the host country (Szaflarski et al., 2011). McDonald (2006) found that in Canada, alcohol use among immigrant men, particularly those from Europe and the US, increased with years of residence, and reached levels of the Canadian born population after some 10-30 years. Similarly, in the US, immigrants residing in the country for 10 years or longer reported alcohol use not significantly different from that of the U.S.-born population (Brown et al., 2005).

Among immigrant women, longer duration in the new country and acculturation may be associated with higher levels of alcohol use (Collins & McNair, 2003; Fosados et al., 2007; Lopez-Gonzalez, Aravena, & Hummer, 2005). Changing gender roles bring increased drinking by young women from some minority ethnic groups. In the UK, an increase in risk drinking has been observed for Indian women, particularly those in higher income brackets (Hurcombe et al., 2010). Caetano et al. (1998) noted that US–born Mexican women had higher rates of alcohol
dependence than Mexican women born outside the United States. Adrian et al. (1995) also found that among Canadian women, the differences in alcohol use between the national average and each ethnic group was related to length of residence in Canada. However, McDonald (2006) found no significant change with years-since-migration in alcohol use for immigrant women in Canada.

Alcohol use in refugee groups has rarely been investigated. Where refugees have been studied, it was difficult to generalize the results across different groups due to small sample sizes (Johnson, 1996; D’Avanzo, 1997). Available evidence suggests that refugees are at increased risk of substance use problems due to trauma, forced relocation, multiple losses and marginalization. Alcohol is often used as a coping mechanism to deal with psychosocial stressors (D'Avanzo, , Frye & Forman, 1994; Durrant & Thakker, 2003; Johnson, 1996; Luitel et al., 2013; Sowey, 2005). Due to the small number of available studies, it is not clear to what extent patterns of substance use may be a consequence of traumatic experiences in the place of origin, adaptation problems in the host country, or a combination of these factors.

The interaction between immigrant populations and the host society influences the attitudes and behaviours of the host society. The host society’s patterns of alcohol use may also be changed by diffusion of immigrant drinking practices (Rebhun, 1998; Room, 2005). Sznitman, Baron-Epel & Boker-Keinan (2013) suggested that the mass influx of immigrants from the former Soviet Union to Israel contributed to increased drinking in Israeli veterans over time.

The patterns of alcohol use in second-generation immigrants appear to be influenced by both the parental and the host country’s drinking cultures, but are more similar to those of the host country (Hjern & Allebeck, 2003; Rao, 2006). In the UK, frequent and heavy drinking has increased in the second generation of Indian women and Chinese men (Hurcombe et al., 2010). Some studies indicate that by the third generation, traditional drinking patterns are replaced by
the usual drinking patterns of the place of destination (Adrian, 2002). Yet, differences among Americans of European origin with respect to prevalence of alcohol use, beverage preference and frequency of heavy drinking suggest that the association between ethnic origin and drinking behavior may persist even after many generations of presumed acculturation (Dawson, 1998).

### 2.3.3 Marginalization, discrimination and social exclusion

Social and economic factors are powerful determinants of alcohol and other drug use (Poznyak, 2005). Social exclusion, poverty and discrimination are identified risk factors for alcohol misuse and related problems (Room, 2004). In Western societies including the U.S., Canada, UK and Australia, minority ethnic groups, in particular racialized ones, face systemic disadvantages and inequities in terms of income level, employment status, education and access to services. For instance, in Canada, the poverty rate for racialized groups is 22%, compared to 9% for non-racialized persons (Employment & Social Development Canada, 2013).

An association between acculturative stress and increased alcohol use in immigrants has been fairly well documented in the literature. The post-migration stress related to low socio-economic status and social isolation is considered one of the main contributors to alcohol misuse in immigrants (Adrian, 2002; Brown, Council, Penne & Gfroerer, 2005; Haasen et al., 2008; Johnson, 1996; Johnson et al., 2002; Szaflarski et al., 2011). Minority ethnic groups are vulnerable to discrimination, racism and social prejudice at individual and institutional levels (Durant & Thakker, 2003; WHO Regional Office for Europe, 2010). Perceived discrimination is associated with increased alcohol use (Clifford, 2007; Hunte & Barry, 2012). Rao (2006) asserts that “both alcohol misuse and ethnicity are bound to social disadvantage” (p. 682). The chronic stress of social exclusion, discrimination and marginalization may lead to substance use as a coping strategy (Durant & Thakker, 2003 Mersinglia & Smith, 2010; Trimble et al, 1992).
Some minority ethnic groups are disproportionately affected by alcohol problems due to inequities in access to prevention and treatment programs. Evidence shows that members of minority ethnic groups have notably lower rates of participation in substance use prevention and treatment programs, and are less likely to receive needed quality care than majority groups due to systemic and service barriers which include socioeconomic disadvantages, discrimination, language and cultural factors (Bowen, 2001; CAMH 2003; Donato-Hunt et al., 2008; Ethnoracial Coalition: Access to Services, 2003; Hurcombe et al, 2009; NIAAA 2002). Prevention and treatment efforts developed for a middle-class English-speaking population may not be of use to culturally and linguistically diverse groups. Barriers to service utilization increase their vulnerability to alcohol problems contributing to further marginalization of these groups (Browne & Renzaho, 2010; Queensland Health, 1996; United Nations Office on Drugs and Crime, 2004). Trimble et al. (1992) note that the circumstances surrounding the onset of substance abuse may not be much different between majority and minority group members, but the conditions of minority life may create these conditions for more people of this group.

2.4 Limitations of existing literature

The existing literature on alcohol use in ethnic groups has been hampered by methodological and conceptual challenges including the definition and measurements of ethnicity, sampling problems, low participation rates of minority ethnic populations, and data collection issues (Asbridge et al., 2008; Caetano et al., 1998; Cheung et al., 1997; Heath, 1991; Hyman, 2001; Johnson, et al., 2002).

Exploring alcohol consumption levels and patterns in ethnic groups relies on a definition of ethnicity. Yet, there is no consensus in the academic literature regarding the definition of ethnicity (Font & Mendez, 2013; Romano, Voas & Lacey, 2010; Statistics Canada, 2010). The operational definition of ethnicity varies considerably across studies resulting in unreliable comparisons between them (Asbridge et al., 2008; Heath 1991; Lin & Kelsy, 2000; Phinney,
1996). Ethnicity is frequently used interchangeably with culture and race, and in many studies ethnicity is used as a proxy for race (Asbridge et al., 2008, Cheung, 1993a; Fernando, 1991).

Race, culture and ethnicity are different but overlapping concepts that are interrelated in complex ways depending on historical, political and social factors and are often difficult to disentangle in practical situations. Culture refers to socially shared and transmitted norms, values and beliefs (DHHS, 1999; Leininger, 2001). Race is a social construct that defines and limits people’s access to power, resources and opportunities mainly on the basis of visible physical characteristics (Bhopal, 2003; Ford & Harawa, 2010). Yet, as a biological construct race has no scientific validity. There are greater genetic variations within racial groups than between them (Bhopal, 2003; Ford & Harawa, 2010)

Ethnicity is a multifaceted concept that includes aspects such as race, culture ancestry, identity and language. It also reflects shared norms, customs and beliefs and a sense of group membership (Phinney, 1996). Ethnicity is dynamic and open to change as a result of social pressures, migration and intermarriage (Fernando, 1991; Statistics Canada, 2010). Bhopal (2003, p. 441) notes that “the characteristics that define ethnicity are not fixed or easily measured, so ethnicity is imprecise and fluid”.

Everyone has an ethnicity although in the literature ethnicity is often ascribed only to minority, non-white or non-western groups in a society. Evidence of health disparities among different ethnic groups suggests that improving understandings of ethnicity is fundamental to achieving equity in health outcomes (Ford & Harawa, 2010).

The complexities of defining ethnicity make measuring this concept difficult. The three main ways of measuring ethnicity include identity, race and ancestry (Statistics Canada, 2010). Each
Conceptualization based on ethnic identity reflects the individual’s sense of belonging and identification with the values, customs and ideologies of a particular ethnic group (Cheung, 1993a; Fernando, 1991; Phinney, 1990; Statistics Canada, 2010). A major weakness of self-identification of ethnicity is that it is based on the individual’s perception, which may change over time and generate different results depending on the time and research question being investigated (Clarke et al., 2008).

Conceptualization based on race is mainly based on genetically-imparted physical features among which skin colour is a dominant characteristic (Statistics Canada, 2010). The modern concept of race emphasizes its social origins, in particular differential access to power, resources and opportunities between the racial groups (Bhopal, 2003; Ford & Kelly, 2005; Satcher, 2001). This approach is largely used in the U.S. where research into ethnic differences in alcohol use is mainly centered on the study of five main groups, African Americans, Hispanics, Asian Americans/Pacific Islanders, and American Indians/Alaska Natives and White/Caucasian Americans. The major critique of this approach is that using these broad categories (e.g. Asian, Black or White) fail to reveal very important within-group differences (Bhopal et al., 2004; McDonald, 2006; Nakamura et al., 2011). Each broad category includes a number of different ethnic groups that vary significantly in cultural characteristics and drinking behavior. The category ‘Asian’, for example, covers a range of diverse groups including those originating from India, Afghanistan, Japan and China, some of which have very little in common with each other (Brown et al., 2005, Durrant & Thakker, 2003; Lin & Kelsy, 2000; NIAAA, 2002). When detailed ethnic categories are used to consider alcohol use within a catch-all category such as ‘Asian’, ‘White’, ‘Hispanic’ or ‘Black’, a diversity of drinking patterns and outcomes is found.

Conceptualization based on ethnic origin or ancestry refers to classification of individuals into ethnic group/s based on ancestral origins (Clarke et al., 2008; Statistics Canada, 2010). Statistics Canada (2010) considers this approach more objective as it creates well-defined ethnic groups that are representative of the population. A weakness of this approach is a likelihood that a
person’s ancestors came from multiple ethnic groups as well as a possibility that some respondents may not know their ethnic backgrounds, in particular the first ancestor who landed in North America, which is often the question raised in alcohol studies (Cheung, 1993a). Conceptualization of ethnicity based on ethnic origin has been used in various Canadian national and provincial surveys including the National Population Health Survey (NPHS), the Canadian Community Health Survey (CCHS), and the Statistics Canada Population Census (Clarke et al, 2008; Statistics Canada, 2000; Statistics Canada, 2008).

Ethnic groups are not homogeneous. There is significant diversity within ethnic groups caused by differences in education, socioeconomic status, religion, country of origin, acculturation pattern, gender and age. This heterogeneity is not acknowledged in many study samples. Failure to recognize diversity within ethnic groups results in “ethnic glosses”, meaningless categories that serve only to separate one group from another (Durrant & Thakker, 2003; Romano et al., 2010; Trimble et al., 1992).

Despite criticism of the use of broad ethnic categorizations in quantitative research, there is often a tension between avoiding heterogeneous categories and having adequate sample size for performing analysis (Bradby, 2003). The numbers of people from specific ethnic groups are often too small to stand out in large national surveys and the analysis of data is often hindered by sample-size restrictions (Trimble et al, 1992; NIAAA, 2003; Jarvis, 2009). Minority ethnic groups in Western countries tend to have below-average response rates in population surveys. Those who participate in surveys are often significantly different from the target population in a number of characteristics, which limits the generalizability of findings (Browne & Renzaho, 2010; Feskens et al., 2007; Feskens, Hox & Lensvel-Mulders, 2006).

The rates of alcohol use and related problems are mainly compiled using self-reported data. The accuracy of self-reported data is of particular significance in research with ethnic populations.
Cultural differences in readiness to report alcohol use and related problems due to high levels of social stigma or the fear of possible legal consequences such as revocation of visa, deportation and/or economic sanctions could account in part for lower rates reported by some members of minority ethnic groups (Ali, 2002; Durrant & Thakker, 2003; Jarvis, 2009; Johnson et al., 2000). Moreover, reporting personal problems may go against the norms of some cultures (Kennedy & Goren, 2007).

When multilingual research instruments are used, they are usually questionnaires developed for English speaking people that are translated into other languages. The results based on such instruments may be compromised by failure to compare questionnaire content across languages, failure to consider the cultural appropriateness of items developed for use with English speakers, and lack of standardization in terminology (Bhopal et al., 2004; Gjersing et al., 2010; Wong & Wang 2008).

As previously mentioned, some of the literature on cultural aspects of alcohol use is decades old and it is unclear to what extent the constructs being explored may have changed (Johnson, 2007). The recency of information impacts the ability to accurately identify and address alcohol use and related problems in an ethnic group. For example, the rates of alcohol use among immigrants who arrived in Canada in the 1950s and 1960s are not necessarily predictive for recent immigrants because the origins of immigrants to Canada have changed over time. Immigrants who arrived in Canada before 1971 were mostly from Europe, while the majority of immigrants who came to Canada in the last 10 years originate from Asia, Africa, the Middle East, and South and Central America (Ali, 2002; Citizenship and Immigration Canada [CIC], 2009).
2.5 Summary

Despite methodological limitations, existing studies of alcohol use in ethnic groups have provided valuable data on rates, patterns and trends in drinking, and related problems in different groups. Findings show significant differences in the prevalence of alcohol use and patterns of consumption between ethnic groups (Galvan & Caetano, 2003; Rehm et al., 2002; Rehm et al., 2003; Shield et al., 2013). A number of social and cultural factors that are important to understanding diverse drinking patterns are interrelated and difficult to disentangle. They include cultural norms, beliefs and expectancies about alcohol use, issues related to immigration and acculturation and experiences of marginalization, discrimination and social exclusion. Therefore, it is necessary to consider multiple factors to explain patterns of alcohol consumption in different ethnic groups, with some factors being more relevant than others in specific groups (Durrant & Thakker, 2003). While minority ethnic groups in Western societies may not have accurate measures of alcohol use due to missing or biased data, the concern for preventing alcohol use problems in these populations is as great as that of the majority group.
2.6 References


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Chapter 3
Theoretical frameworks

This section presents the major theories developed over the years to explain alcohol and other drug use among ethnic and cultural groups. These include early holocultural theories, socialization and acculturation theories, ethnic and cultural identification models, and theories of stress, deprivation and social disorganization.

3.1 Holocultural theories

From the 1940s through to the 1960s, early cross-cultural studies explored variations in the use of alcohol in nonwestern, tribal societies (Adrian, 2002; Marshal, 1979a; Room & Makela, 2000). They identified various relationships between levels of intoxication and organizational characteristics of society. In the first such study Horton (as cited in Mandelbaum, 1965) proposed “anxiety theory” hypothesizing that the primary functions of alcohol in societies is to reduce anxiety created by food scarcity, acculturation or war. Field (as cited in Marshall, 1979a) critiqued Horton’s methods asserting that drunkenness in primitive societies is actually caused by the loosening and destruction of social norms and the traditional social structure. Bacon et al. (as cited in Marshall, 1979a) rejected both earlier theories and proposed the “dependency-conflict theory” indicating that drinking patterns relate primarily to anxiety and conflict over dependency needs (Adrian, 2002). McClelland et al. (as cited in Room & Makela, 2000; Marshall, 1979a) proposed the “power theory” which suggests that that people in different cultures use alcohol to attain feelings of personal strength and power. Although all four theories have been challenged in later studies, they are important because they show that cultural norms, social control, and social relationships may influence drinking patterns and levels of consumption (Room & Makela, 2000).
3.2 Socialization and acculturation theories

Socialization and acculturation theories suggest that through the socialization process, individuals learn cultural norms, values and beliefs including those related to alcohol use.

3.2.1 Socialization theory

Grounded in Bandura’s social learning theory (1977), primary socialization theory proposed by Oetting, Donnermeyer, Trimble & Beauvais (1998) is based on the premise that almost all normative and deviant behaviours are learned behaviours. Social learning theory posits that people learn through imitating, modeling and observing others’ behavior, attitudes, and outcomes of those behaviors (Bandura, 1977).

Drinking is a socially learned behavior. Both alcohol consumption and related behaviours are subject to self-imposed social control. Individuals learn social norms, beliefs and practices through interactions with the primary socialization sources including the family, school, peers and community. Cultural norms related to alcohol use are transmitted as part of these interactions (Oetting et al., 1998). In most cultures, drinking is a social activity; individuals who drink in social groups generally adapt their consumption rates and frequency to others in the group (Heath, 2000; Heath, 1995). The low rates of alcohol use by Asian Americans, for example is explained in part by cultural norms prescribing controlled moderate drinking, strong family role models reinforcing moderate drinking and fewer peers who drink (Caetano et al, 1998; Durrant & Thakker, 2003).

MacAndrew & Edgerton (1969) note that “persons learn about drunkenness what their societies impart to them, and comporting themselves in consonance with these understandings, they become living confirmations of their society’s teachings” (p. 165). Socialization theory incorporates significant research findings from the acculturation studies.
3.2.2 Acculturation model

Acculturation is a gradual process that occurs when people migrate from one socio-cultural environment to another. A traditional, linear model of acculturation suggests that as immigrants become assimilated or acculturated into their new society, they adopt the beliefs and practices of the host society, so over time their patterns of substance use begin to resemble those of their host country (Adrian et al., 1995; Adrian, 2002; Caetano, 1987; Johnson, 1996). As a framework to understand patterns of alcohol use in immigrants, the acculturation model suggests that the longer an immigrant group has been in the country, the more its drinking behavior resembles that of the host society (Room, 2005).

It is now well recognized that acculturation to a new culture does not necessarily cause the loss of the traditional culture (Phinney, Horenczyk, Liebkind & Vedder, 2001). In the case of alcohol use, evidence shows many possible trajectories of alcohol use within an individual ethnic group after immigration (Gutmann 1999; Hunt., Schneider, & Comer, 2004; Room 2005).

Berry (2005) defined acculturation as the “dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (p. 698). Two fundamental aspects of acculturation are the maintenance of original cultural identity and participation in the host society (Berry, 1997; Phinney et al., 2001). Berry (2005) has identified four strategies used by immigrants in dealing with acculturation: integration, assimilation, separation, and marginalization. The integrated acculturation strategy (high affiliation with both cultures) is considered least stressful, providing access to more social resources and a wider range of coping skills, while marginalization (low affiliation with both cultures) results in the most stress (Berry, 2005; Mersinglia & Smith, 2010). Marginalization is associated with greater risk for alcohol and drug use. Based on the two-dimensional model of acculturation, individuals who retain a strong ethnic identity while identifying with a new society have a bicultural identity, which is viewed as a protection from substance use problems (Berry, 2005; Phinney, 1990).
3.3 Ethnic and cultural identification theories

Theories of ethnic and cultural identity are centered around feelings of belonging to a group and the importance of identification with one’s ethnic or cultural groups in relation to alcohol use.

3.3.1 Ethnic identification theory

Ethnic identity is a dynamic and multidimensional construct that has no universally agreed-upon definition in the literature. Broadly defined, ethnic identity refers to the subjective meaning of one’s ethnicity and the feelings that one maintains toward one’s ethnic group (Fernando, 1991; Phinney, 1990, Phinney et al., 2001). Phinney (1990) identified four main aspects of ethnic identity: ethnic self-identification; a sense of belonging and commitment to a group; a sense of shared values; and attitudes toward one’s ethnic group. Ethnic identity is often characterized as the ethnic component of social identity. Social identity theory developed by Tajfel & Turner (1979) proposes that the membership of social groups forms an important part of our self-concept. Group membership provides individuals with a sense of belonging that contributes to a positive self-concept.

Ethnic identity, in the sense of identification with one's ethnic group, can range from strong to weak. Considerable research shows a positive relationship between ethnic identity and self-esteem. Having a strong ethnic identity contributes to the individual’s psychological well-being and reduces the likelihood of using alcohol and other substances to cope with low self-esteem (Cheung, 1993b). Room (1988) asserts that “in a multicultural society an ethnic identity may be sought as a mark of distinction and adopting a particular drinking pattern may be a symbol of ethnic identification” (pg. 21). Many studies on alcohol use in ethnic groups found that a higher level of ethnic identity was strongly related to lower alcohol use (Chae et al, 2008; Pugh & Bry, 2007). Yet, some research found a higher level of ethnic identity to be positively associated with heavy substance use (Chang, 2012).
Ethnic identity is a dynamic concept that evolves and changes in response to social, psychological and contextual factors (Phinney, 2003). To understand ethnic identity within a multiethnic and multicultural society, it is necessary to consider the individual's relationship to the dominant or majority group (Phinney, 1990; Trimble & Dickson, 2005). Immigrants arrive in a new country with a strong sense of ethnic identity. Subsequent generations face differing identity issues associated with their sense of belongings to the ethnic group of their ancestors and to their country of settlement (Phinney, 1991; Phinney et al., 2001). According to Berry’s (2005), two-dimensional acculturation model, members of a minority ethnic group can have either strong or weak identifications with both their own group and the dominant, majority group. Strong identification with both groups is indicative of integration; identification with neither group suggests marginality (Berry, Trimble & Olmeda, 1986; Phinney, 1990, 2001). However, Phinney et al. (1990) note that assimilation and separation may also provide the basis for a good self-concept, if the person is comfortable with these choices and is in a supportive environment.

Some studies of generational differences in ethnic identity show a decline in ethnic group identification in later generations descended from immigrants, while others found virtually no generational difference. Other studies found ethnic identity becoming more important in third and fourth-generation descendants of immigrants, suggesting a cyclic process (Phinney, 1990).

### 3.2.2 Cultural identification theory

Oetting et al. (1998) defined cultural identification as “the extent to which a person feels involved in a culture along with their feeling that they are invested in that culture or have a stake in that culture” (p. 2088). Cultural identification is viewed as a product of social learning that is developed and maintained through participation in the perceived culture (Oeting, 1997). The influence of cultural norms on drinking patterns is determined in large part by the nature and extent of cultural identification with the group (Oetting et al., 1998).
The orthogonal cultural identification theory proposed by Oetting and Beauvais (1990) states that cultural identification with one culture does not prevent identification with another, thus indicating that one can be simultaneously identified with more than one culture (Oeting, 1997). Identification with either the majority or minority culture is viewed as a source of resiliency and potential protection from substance use problems (Mersiglia & Smith, 2010; Oeting, 1997; Oeting & Beauvais, 1990). Cultural success and failure influence cultural identification. When the person meets cultural requirements, they are successful and the culture provides rewards (e.g., status, control, further opportunities, etc.) that reinforce cultural identification. Alternatively, failure in the society reduces cultural identification. Individuals who do not receive cultural rewards must turn somewhere else to meet their needs (Oeting, 1997; Oeting et al, 1998).

According to Oeting et al (1998), ethnicity is an example of cultural identity, although the members of an ethnic group do not necessarily have common cultural experiences. Cultural identification and ethnicity interact, but are only loosely linked. While cultural identity changes over a lifetime, ethnicity is considered to be relatively stable although not invariant. Failure in the society reduces cultural identification, but does not inevitably lead to a change in ethnicity (Oeting, 1998).

Given the role that socialization plays in determining substance use, identification with the majority Anglo culture in North America does not protect ethnic minorities from alcohol use because the cultural norms of the majority culture encourages alcohol use (Oeting et al., 1998). Schwartz, Montgomery & Briones (2006) suggest that strong cultural identification with the culture of origin can help to ‘anchor’ an immigrant during cultural transition and adaptation. Individuals who are able to adapt to their new culture while retaining important elements of their native culture are less likely to use substances (Johnson, 1996; Marsiglia & Smith, 2010; Tucker, 1985).
3.4 Theories of stress and deprivation

The theories of stress and deprivation assert that poverty, social inequality and marginalization produce psychosocial stress, which leads to increased alcohol use.

3.4.1 Acculturation stress theory

The acculturative stress model suggests that acculturation alone may not be the major factor influencing alcohol use in immigrants, but rather the stressors related to the acculturation process within a hostile environments may be the cause (Adrian 2002, Gutmann, 1999; Mersinglia & Smith, 2010). Migration is a major life transition that inevitably causes stress. While some immigrants adjust to and function well in a new country fairly easily, resettlement is a very difficult and prolonged process for others. Socio-economic deprivation, racism, discrimination, disruption of traditional family structures, lack of social support and cultural conflicts within individuals and families constitute risk conditions that may cause acculturation stress. Some immigrants may resort to substance use to alleviate the tension generated by this stress (Caetano et al., 1998; Johnson, 1996; Makimoto, 1998; Mersinglia & Smith, 2010).

A related model proposed in the mental health literature is the Goal Striving Stress Model, which suggests that increased substance use among immigrants may be a result of unfulfilled expectations in the host society (Johnson, 1996). Migration is usually perceived as a source of hope and prosperity. Most immigrants come to a new country looking for a better life. The inability to sustain or improve one’s former economic and social status may lead to psychological distress and substance use. Substance abuse is a coping mechanism for dealing with sorrow. An association between unmet expectations and substance use was noted in Denmark among immigrants from the former Yugoslavia, in Spain among North Africans, as well as in other countries such as Australia (United Nations Office on Drugs and Crime, 2004).
3.4.2 Minority stress model

The minority stress model links alcohol misuse with chronically high levels of stress faced by members of stigmatized minority groups. It is based on the concept that high rates of substance use are often a result of factors that contribute to greater levels of stress, such as poverty, low literacy, low education level and limited employment opportunities (Milkman & Shaffer, 1995). These stressors are experienced to a greater extent by ethnic minority groups who feel marginalized and disempowered. In addition, stress resulting from discrimination, racism, social isolation, disempowerment, and economic instability is considered a contributing factor to alcohol consumption and related harm among minority ethnic groups (Caetano et al., 1998; Harvey, 1985; Jones-Webb et al., 1995; Trimble, Bolek, & Niemcryk, 1992). A sense of powerlessness and helplessness can be temporarily relieved through substance use. Members of an ethnic group who are vulnerable to discrimination and prejudice, and who cannot afford professional services or take vacations due to limited resources, may use alcohol to escape from stress (Durrant & Thakker, 2003; Mosley, Atkins, & Klein, 1988; NIAAA, 2003; Trimble et al, 1992;).

The idea of linking social stressors to drinking patterns is related to Durkheim’s theory of anomie and Leighton’s theory of mental illness and social disintegration (Caetano et al., 1998; Adrian, 2002). According to Durkheim’s theory, rapid cultural change causes anomie, a state of social instability or lack of common social norms and controls. Under those conditions, people lack clear behavioural guidelines, possibly resulting in self-destructive tendencies including alcohol abuse and related problems (Caetano et al., 1998). Similarly, social disintegration and lack of social cohesion cause high stress levels that can result in deviant behaviours including substance use.

3.5 Summary

Several theories explaining alcohol use in ethnic groups have been suggested over the years. Some of them, such as cultural and ethnic identification, socialization and acculturation models,
seek cultural elements including socio-cultural norms, beliefs and expectancies, to explain substance use behaviours. Others, such as the acculturation stress and minority stress models focus on stress/distress, anomie, and disempowerment (Cheung et al., 1997; Caetano et al., 1998.). Each of the theories can explain some aspects of alcohol use and problems seen in ethnic groups. However, each theory has also been shown to be inadequate in explaining all situations (Mersinglia & Smith, 2010). To understand the complexity of alcohol use among various ethnic groups, a multifactorial approach that takes into account cultural, social, economic, and historical aspects of ethnic groups is needed (Caetano et al., 1998; Durrant and Thakker, 2003; Trimble et al, 1992).
3.6 References


Chapter 4
Methodology

Given the paucity of published literature on alcohol use among ethnic groups in Canada, there is a need for both qualitative and quantitative data to understand how ethnicity affects alcohol use and problems. This thesis therefore used a mixed methods approach to address these issues. Qualitative data were obtained using focus groups. Quantitative data were derived from the CAMH Monitor, a cross-sectional addiction and mental health survey of Ontario adults.

This section describes a mixed methods approach, reflects upon the use of focus groups and cross-sectional surveys in research, discusses unique challenges and considerations in conducting research with ethnic groups and describes research methods used in this thesis.

4.1 Mixed methods research

Mixed methods research is increasingly recognized as a valuable approach that draws upon the strengths and perspectives of qualitative and quantitative methods (Johnson, Onwuegbuzie & Turner, 2007, pp. 114). Johnson & Onwuegbuzie (2004, p. 17) define mixed methods research as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study”. It offers the in-depth insight of qualitative research together with the power of quantitative research. Mixed methods research is particularly suitable when one data source may be inadequate in answering research questions, when initial findings need to be further explored, when qualitative findings need to be generalized, and when broader or deeper understanding of a research problem is required (Creswell & Piano Clark, 2007). It has been argued that using both quantitative and qualitative techniques in a larger study can generate more complete data and provide a better understanding of the research problem than either method alone (Creswell & Piano Clark, 2007; Curry, Nembhard & Bradley, 2009). Quantitative techniques generate
objective findings that can be generalized from a study sample to the larger target population, while qualitative methods provide an in-depth understanding of the phenomenon of interest from the perspective of study participants (Borkan, 2004; Keele et al., 2012).

The mixed methods researcher can give equal status to both quantitative and qualitative research, rely more on qualitative, or rely more on quantitative research (Creswell & Piano Clark, 2007; Johnson et al., 2007). Mixed methods designs may be fixed (the use of quantitative and qualitative methods is predetermined and planned at the start of the research) and/or emergent (the use of mixed methods arises due to issues that develop during the process of conducting the research). To best understand the research problem, qualitative and quantitative data can be collected simultaneously, sequentially or using multiphase combination timing (Creswell, 2003).

Based on four criteria (implementation sequence, priority method, integration stage and theoretical perspective), Creswell & Piano Clark (2007) have identified six major types of designs that a researcher might utilize. The choice of research design is guided by the research problem and questions. A sequential explanatory design is characterized by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data. Qualitative findings are used to assist the explaining and interpreting of findings of a primarily quantitative study. A sequential exploratory design is characterized by the collection and analysis of qualitative data followed by the collection and analysis of quantitative of data. Quantitative results are used to assist in the interpretation of qualitative findings. In a transformative sequential design either qualitative or quantitative methods can be used first and the results are integrated together during the interpretation phase. This type of study is guided by a theoretical perspective. In a concurrent triangulation design, quantitative data collection and qualitative data collection are concurrent. The strengths of one method are used to offset the weaknesses of the other method. The results of the two methods are usually integrated during the interpretation phase. In a concurrent nested design the quantitative and qualitative data are also collected concurrently. This type of design has a predominant method that guides the
project. A lower priority method is embedded, or nested, within the predominant method. The data collected from the two methods are mixed during the analysis phase of the project. The concurrent transformative design is guided by a specific theoretical perspective. The choice of a triangulation or a nested concurrent design is made to facilitate this perspective. The integration of data usually occur during the analysis phase, although integration during the interpretation phase is also a possible option (Creswell & Plano Clark, 2007).

This thesis research was informed by a sequential exploratory mixed methods approach (Creswell, 2003; Creswell & Plano Clark, 2011). The rationale for this approach was based on the notion that neither quantitative nor qualitative methods alone were sufficient to address the research questions (Creswell, Fetters & Ivankova, 2004). A growing body of research suggests that minority ethnic groups underreport substance use on surveys. The use of qualitative methods has been recommended to inform and better understand survey findings (Fendrich & Johnson, 2005).

The initial qualitative study used focus groups to explore cultural norms, beliefs and attitudes toward alcohol use, drinking patterns and an ethnic community’s perception of alcohol related harm (Aim 1). Eighteen focus groups were conducted with key informants and community members from these seven Ontario communities: the Polish, Portuguese, Russian, Tamil, Punjabi, Serbian and Somali communities. A quantitative study followed up on findings from qualitative data. To estimate the prevalence of alcohol consumption and risk drinking among Ontario ethnic groups (Aim 2) and to evaluate the contribution of socio-demographic factors to alcohol use and risk drinking among Ontario ethnic groups (Aim 3), we used data from the Centre for Addiction and Mental Health (CAMH) Monitor cross-sectional survey collected between January, 2005 and December, 2010.
4.1.1 Focus groups

Focus groups have been used extensively in cross-cultural health research. Focus groups are considered an excellent method for gaining insights into people’s shared beliefs, perceptions and attitudes and a particularly useful technique for exploring understandings of health problems and behaviours (Phan & Fitzgerald, 1996; Kitzinger, 1995). They are particularly useful in gaining data from marginalized and minority populations including minority ethnic groups, women, sexual minorities and socially disadvantaged groups (Nagy Hesse-Biber & Leavy, 2006). Focus groups are especially effective in obtaining culturally specific information about the attitudes, behaviors and social context of the population of interest that often remain unexploited by quantitative data collection techniques. This makes focus groups a data collection method particularly sensitive to cultural norms and values, which is why this method is so often used in cross-cultural research and work with ethnic groups (Kreuger; 1998).

Focus groups are considered a more suitable technique than individual interviews for examining how knowledge and ideas operate within a given cultural context. Some researchers note that group discussions can generate more critical comments than one-to-one interviews, especially when working with particular disempowered populations (Patton, 1987; Phan & Fitzgerald, 1996). They can encourage participants to discuss sensitive topics such as experiences of racism and discrimination (Kitzinger, 1995). Focus groups are also relatively low cost, and can decrease the time needed for data collection.

In mixed methods research, focus groups can be used to reveal key variables and cultural patterns that are later explored in a larger scale quantitative study. Exploratory discussion can precede the formulation and development of quantitative instruments to ensure that questionnaires reflect “reality” (Straus & Corbin, 1990). Focus groups are also useful for pretesting or modifying translated research instruments (Phan & Fitzgerald 1996). Focus group research can be conducted along with quantitative methods to gain insight and depth of understanding of a given research issue. Focus groups can also follow quantitative research in
order to develop better understanding of the meaning of quantitative data and possibly uncover important issues missed by quantitative research (Durrant & Thakker, 2003; Phan & Fitzgerald 1996).

Alongside the advantages of focus groups in research with minority ethnic groups, there are certain methodological challenges that need to be taken into consideration. Previous research has noted that recruiting participants from minority ethnic groups may be challenging (Culley, Hudson & Rapport, 2007; Phan and Fitzgerald, 1996). Mistrustful attitudes based on negative experiences from previous research, feelings of being used while receiving no personal benefits, a sensitive and potentially taboo research topic as well as lack of transportation or childcare and competing priorities are some of the barriers to participation (Phan and Fitzgerald, 1998; Renert, Russell-Mayhew Arthur, 2013). Moreover, data collection methods used successfully with mainstream populations are necessarily transferable across cultures. Focus group techniques may need to be culturally adapted to be more effective for specific ethnic populations (Culley et al., 2007; Wilkins Winslow, Honein & Elzubeir, 2002)). The forming of trusting relationships with community gatekeepers, flexibility in terms of timing and location and a respect for cultural and religious norms are considered key factors promoting participation from minority ethnic groups (Burns & Grove, 2005; Rooney et al., 2011; Wilkins Winslow et al., 2002).

If the participants are not fluent in English, it is recommended to conduct discussions in the first languages of the participants. However, the process of transcript translation is complex because of difficulties in translating ideas, concepts, and feelings from one language to another (Halai, 2007; Regmi, Naidoo & Pilkington, 2010). Converting ideas expressed from one language into another is particularly challenging when translating words for which there is no English equivalent (Regmi, 2010; Wilkins Winslow, Honein & Elzubeir, 2002). Most authors recommend that interviews conducted in an original language be first fully transcribed and then translated into the target language (Crabtree & Miller, 1999; Regmi et al., 2010). Another approach is to transcribe and translate only the key themes that emerge. While this approach
saves time, it also increases the risk of errors, misinterpretation of information and misrepresentation of the contextual meaning (Regmi et al., 2010). The process of translation of data should involve testing for cultural equivalence and congruent meaning. Checking and rechecking transcripts against the translated data during analysis is strongly recommended. To ensure that the translation accurately conveys the meaning of the transcript findings, it should be reviewed and validated by representatives of the population being studied (Regmi et al., 2010).

4. 1.1.1 Focus group design and analysis

The first qualitative study was conducted in partnership with eight community-based organizations: Polycultural Immigrant Services, Society for the Aid of Ceylon (Sri Lanka) Minorities - SACEM, Vasantha - A Tamil Seniors Wellness Centre, Portuguese Mental Health and Addiction Services, Toronto Western Hospital from Toronto; Punjabi Community Health Centre, Peel Region; the Multicultural Council of Windsor-Essex County and the Somali Centre for Family Services in Ottawa representing the following ethnic groups: Polish, Russian, Tamil Portuguese, Punjabi, Serbian and Somali. The community partners self-selected to participate in this project. Community consultations and needs assessments conducted in the seven ethnic communities identified alcohol use as a problem that needed to be better understood and addressed (CAMH, 2003; Ethnoracial Coalition: Access to Services, 2003). Community partners held in-depth knowledge about the needs, values and concerns of the ethnic communities they represented and played a key role in planning and implementing this research.

A research advisory committee comprised of representatives from the partnering community-based organizations was established at the beginning of the study. They provided crucial information on cultural norms, common drinking practices and alcohol related problems in the respective ethnic groups. The committee members also provided input on the focus group plan, design, discussion guide and strategies for recording and analysing the information collected during the focus groups.
This study used a phenomenological perspective to explore alcohol use in seven ethnic groups. The focus was on perceived community norms, values and beliefs related to alcohol use. Patton (1990, p.71) noted that “one can employ a general phenomenological perspective to elucidate the importance of using methods that capture people’s experience of the world without conducting a phenomenological study that focuses on the essence of shared experience”.

Participants
Participant recruitment relied largely on the partnering community-based organizations. Their understanding of the community norms and trusting relationship with the ethnic populations was crucial for efficient and effective recruitment. Community members of legal drinking age were recruited through advertisements posted in partnering community organizations. We used purposive sampling and made an effort to enhance the heterogeneity of the focus groups’ participants with respect to age, gender socio-economic status and length of residency in Canada.

Key informants were selected for their first-hand knowledge of the community norms and attitudes towards alcohol use, drinking practices and alcohol-related problems. They included community, religious and political leaders, health and social service providers (such as addiction counselors, nurses, social workers, employment counselors and program managers), teachers, local business owners and representatives of local cultural organizations who worked with the respective communities. Each focus group had a diverse mix of key informants in order to ensure a variety of perspectives and better understand underlying issues.

Participation in the focus groups was voluntary. Participants received written information about the study in their first language and consented to their participation. Participants were assured of confidentiality and informed about their right to withdraw from the study at any time.
Of the 179 participants, 52.6% were male and 47.4% female. Their age ranged from 19–68 years. 83% were first-generation immigrants with length of residency in Canada ranging from 6 months to 33 years and 17% were second-generation immigrants. The religious backgrounds of the participants included Muslim, Roman Catholic, Christian Orthodox, Sikh and Hindu. Participants included abstainers, current drinkers and those with a history of problem drinking.

Data collection
Data were collected during 18 focus groups of 8–12 participants each. Eight focus groups were conducted with key informants and ten with community members. Gender specific focus groups with community members were conducted in the Punjabi and Somali communities, as it was considered culturally appropriate and a more effective way to obtain information on sensitive and stigmatizing issues such as alcohol use.

A semi-structured focus group discussion guide was developed to ensure that discussions focused on issues relevant to the research objectives. The discussion guide contained an outlined script and the following seven open-ended questions with prompts:

- How does your community view the use of alcohol?
- What are the local drinking practices?
- What are the perceived risks and problems associated with drinking?
- How relevant to your community is information about ways to reduce the risks associated with drinking?
- What would be culturally appropriate and effective messages addressing alcohol use in your community?
- What do you think about CAMH’s Low-Risk Drinking Guidelines (LRDG) being translated into your language?
- What would be the most effective means of communicating the alcohol related messages in your community?
The focus groups were held at either the partnering organization’s premises or other locations familiar to the participants. Bilingual staff members from the partnering agency skilled in conducting focus groups facilitated each session. Sessions lasted two hours and were conducted in the first languages of the participants to ensure that perceptions of immigrants not fluent in English were included.

While audio recording has the advantage of capturing data more reliably than written notes might, this type of recording was not the preferred method of data recording with the participating ethnic communities. Even though participants were ensured that their anonymity and confidentiality would be safeguarded, majority of them expressed their discomfort at being audio recorded. Alcohol use is a sensitive issue associated with taboo and a common concern among participants was that their voices could be recognized in the community. Only focus groups with Serbian community members and key informants were audio recorded. Other discussions were recorded via note taking. To ensure that all relevant information was recorded during the focus group discussions, two people were responsible for taking notes.

Data analysis
Recorded data were transcribed fully in the original language and then translated into English. Translated transcripts were analysed using both content and thematic analysis. Special attention was paid to the cultural meanings of the information. Data analysis followed the recommendations for phenomenological and qualitative analysis set forth by Creswell (1998). We read the translated transcript several times, identified important statements and formulated them into meanings. The meanings were grouped into common themes. Finally, these themes were integrated into narrative descriptions. To validate the findings, we had the themes evaluated by the community partners and bilingual service providers. They agreed that the themes that we described accurately represented communities’ norms, views and attitudes towards the use of alcohol and related problems, as well as patterns of alcohol use.
4.1.2 Cross-sectional surveys

Survey data offer important advantages in alcohol research. Population health surveys provide important information on health behaviours, health statuses and risk factors influencing the health of individuals and groups (Statistics Canada, 2012; WHO, 2004). Cross sectional surveys are efficient at estimating the prevalence of health-related states or conditions for a specified population at a particular time, identifying associations between variables and are also considered very useful for public health planning (Rothman and Greenland, 1998). They can provide descriptive results in a very timely manner and may identify important differences between subgroups in the population. A major limitation of a cross-sectional survey is that it cannot be used to document changes in drinking patterns over time. Evidence generated through population health surveys is essential to informing health policy and program development as well as funding decisions.

The strengths and limitations of population health surveys in providing quality data on the prevalence of specific health conditions and risk factors among ethnic groups have been discussed in the literature. One of the advantages of cross sectional surveys for health research in ethnic populations is that data may be collected on health outcomes as well as health determinants (Hyman, 2001). However, collecting data from ethnic minorities may be challenging. In almost all the Western countries, ethnic minorities, in particular immigrants, have lower response rates, although there can be considerable differences between ethnic groups (Eisner and Ribeaud 2007; Feskens, Hox, Lensvelt-Mulders & Schmeets, 2006; Font & Mendez, 2013; Jarvis, 2009; Sheldon et al., 2007). Lower response rates for some ethnic groups may bias overall survey estimates (Feskens, Hox, Lensvelt-Mulders & Schmeets, 2007). A systematic literature review examining response rates across ethnic populations found the minority ethnic groups who participate in surveys are as likely to participate in research as the mainstream population. Survey mode and length, the language in which survey questions are asked and cultural sensitivity to content are some of the factors that may influence response rate for minority ethnic groups (Sykes, Walker, Ngwakongnwi, & Quan, 2010). Lack of trust in government authorities, reluctance to have their information written down, a perception that the
particular research is unimportant or that their contribution is unimportant, and/or a feeling that they have been over-researched with little resultant benefits may further contribute to low participation rates among ethnic minority groups (Font & Mendez, 2013).

Most established survey instruments were developed for and validated in the mainstream populations. In research with diverse ethnic groups, the cultural appropriateness of some measures may be an issue. Lack of culturally sensitive measures developed for ethnic minorities may reduce the validity of the findings (Martinez, Ainsworth & Elder, 2008; Trimble et al., 1992). The translation of survey questionnaires in minority languages and the provision of bilingual interviewers is likely to increase response rates among minority ethnic groups. However, the translation and cultural adaptation of the survey instrument is a complex and expensive process that significantly increases the survey cost per participant. Increasing the number of contact attempts after earlier noncontact and using a longer data collection period has been identified as an efficient strategy to increase response rates among minority ethnic groups (Feskins, Hox & Lensvelt-Mulders, 2006).

4.1.2.1 CAMH Monitor design and methods

In line with the sequential explanatory design, the quantitative study commenced after completion of the quantitative study (Creswell, 2003). In this study, quantitative data were derived from the Centre for Addiction and Mental Health (CAMH) Monitor cross-sectional survey collected between January, 2005 and December, 2010. The CAMH Monitor provides epidemiological trends in alcohol, tobacco, and other drug use, problem use, and mental health measures among Ontarians. Findings are used to inform substance use policy, prevention and treatment (Ialomiteanu & Adlaf, 2013).
The potential and usefulness of secondary data analysis has been well recognized in the literature. While the study population and measures collected may not be exactly what a researcher would have collected through primary research, the analyses of large existing datasets obtained through population health surveys enables researchers to address high impact research questions with significantly less time and resources than required for studies involving primary data collection (Smith et al., 2011; Smith, 2006). Secondary analysis of the CAMH Monitor data provided a cost-effective way of advancing knowledge on alcohol use and related problems in ethnic groups.

Design
The CAMH Monitor is a continuously-fielded cross-sectional telephone survey of Ontario adults conducted by the Centre for Addiction and Mental Health (CAMH) and administered by the Institute for Social Research (ISR) at York University. The design employs a regionally stratified, two-stage-probability sample drawn monthly through random digit dialing of listed and unlisted landline and mobile telephone numbers. Each calendar year, the monthly non-overlapping samples averaging about 200 completions each month are combined to provide a single annual dataset.

The CAMH Monitor target population is noninstitutionalized adults aged 18 or older residing in Ontario households. Excluded from selection are adults who were phoneless, institutionalized, or unable to speak English on the telephone. The survey sample is considered representative for Ontarians aged 18 and older and all data estimates are based on the weighted sample size. Response rates ranged between 53% and 67% of eligible respondents.

A complete description of the survey and discussion of potential nonresponse bias is available on the CAMH Monitor’s webpage (Ialomiteanu & Adlaf, 2006; Ialomiteanu & Adlaf, 2011).
Measures

The major outcomes of interest were drinking status, risk drinking and quantity/volume of alcohol consumed. All survey participants were asked “During the past 12 months have you had a drink?” Those who answered “No” were then asked: Did you EVER have a drink of any alcoholic beverage? Based on these questions, we defined two alcohol use (drinking status) measures:

“Lifetime drinker” (coded 1 if the respondent reported being a past 12 months drinker or a former drinker and coded 0 if the respondent reported being a lifetime abstainer [never drank]).

“Current drinker” (coded 1 if the respondent used any alcohol in the past 12 months and coded 0 if the respondent did not use alcohol in the past 12 months)

Risk drinking was defined by three indicators:

A. Exceeding the Canada’s Low Risk Drinking Guidelines (LRDG) (Butt et al., 2011) defined as a weekly consumption of 16 or more standard drinks for men or 11 or more standard drinks for women, or exceeding a daily consumption of two drinks for women and three drinks for men in any given day over the past week.

B. Consuming five or more drinks at least once a month (“binge drinking”) during the 12 months before the survey (considered an indicator of “risky single occasion drinking”).

C. Reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT screener (see appendix A for the specific questions)

All three potential risk drinking indicators refer to the past 12 months. Responses to the three indicators were recoded to create the risk drinking measure: “Risk drinking (in the past 12 months)” (binary coded yes=1, no=0). Respondents were considered risk drinkers (coded 1) if they answered “yes” to at least one of the three problem drinking indicators.

The quantity/volume of alcohol consumed is estimated based on the reported number of standard drinks consumed in the past 12 months.
The independent variables include ethnicity, gender, country of birth, age at arrival and length of residence in Canada. Participants were allocated to an ethnic group using a CAMH Monitor question about family origin, “To what ethnic or cultural group did you or your ancestors belong on first coming to this continent?” The Monitor's ancestry question allowed respondents to report one or two ancestry groups. Between 2005 and 2010, 73% of the participants reported one ethnic origin while 27% of the participants reported two ethnic origins. None of the double ancestry groups had a sufficient numbers to be included in the analysis as a separate group. Respondents who reported two ancestry groups were assigned to an ethnic group based on their first choice/primary group identified. To assure sufficient statistical power and meaningful group comparisons, the Monitor's 44 ethnic ancestry origins were collapsed into 12 main ethnic categories: Canadian, East Asian, South East Asian, South Asian, Caribbean, African, Middle Eastern, East European, South European, North European, Central West European and Others.

Country of birth refers to a country in which a person was born (Canada/Other). Foreign-born respondents were categorized according to their years of residence in Canada (<5, 5-10, 11-20, or 20+ years). Age at arrival was calculated by subtracting the year of arrival from the year of birth. Respondents were grouped into two categories: those who arrived in Canada before the age of 19 and those who arrived at 19 or older. Canadian born respondents were dummy coded to zero age at arrival and grouped with immigrants who arrived under the age of 19 for the purposes of logistic regression model 1.

Data analysis is described in Chapter 6 and 7.

4.2 Summary

A mixed methods approach to the study of ethno-cultural differences in alcohol use and risk drinking provides strengths that offset the limitations of both quantitative and qualitative approaches (Creswell & Plano Clark, 2007). Focus groups are a valuable research tool for
working with diverse ethnic, linguistic and cultural groups, providing rich and complex data (Culley, Hudson & Rapport, 2007; Phan & Fitzgerald, 1996). They allow researchers to “look beyond the facts and numbers that might be obtained via survey methodology” (Leung & Savithiri, 2009, pp. 218). Cross-sectional population surveys provide important information on health behaviors, conditions and care that are used to inform program and policy planning. In this research, the qualitative study using focus groups was conducted first, followed by the secondary analyses of the CAMH Monitor survey data. Using both techniques provided more comprehensive evidence and an opportunity to address the issue of alcohol use at different levels, exploring both “what differences exist” and “why the differences exist” between the ethnic groups.
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Chapter 5
Alcohol use in seven ethnic communities in Ontario: A qualitative investigation

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5.1 Abstract

Populations in Canada represent a diverse range of cultures with different beliefs and norms regarding alcohol use and related problems. While there is very little published research on the cultural aspects of alcohol and other substance uses in Canada, in spite of the cultural diversity of the country, there are important indications that alcohol is a serious problem in many ethnic communities. In order to arrive at a more complete understanding of the issues related to providing culturally sensitive approaches that would meet the alcohol-related health promotion needs of diverse communities, focus group discussions were conducted with the key informants and community members from seven Ontario communities: the Polish, Portuguese, Russian, Tamil, Punjabi, Serbian and Somali. The results revealed that the types and sizes of alcoholic beverages consumed in each community, drinking levels that are considered ‘normal’ or excessive’, as well as the perception of alcohol-related problems are largely shaped by their cultural norms and beliefs, which often differ from those of the dominant culture. Health messages that reflect the dominant culture are often not relevant to people from different cultural backgrounds. Socioeconomic disadvantages and barriers to service utilization heighten their vulnerability to alcohol problems. These findings have important implications for prevention and service provision, particularly to ethnic communities that may be unlikely to access services through more standard channels.
5.2 Introduction

Alcohol consumption trends and patterns, as well as consequences of alcohol use, vary markedly across various ethnic groups. Evidence suggests that the cultural background reflected in the norms of alcohol use, the migration experience, socioeconomic status, social adjustment and the level of acculturation are all important factors in understanding the attitudes towards alcohol in diverse ethnic communities (Brown, Council, Penne, & Gfroerer, 2005; Caetano, Clark, & Tam, 1998; Hjern & Allebeck, 2003; McDonald, 2006; Reid, Campbell, Beyer, & Crofts, 2001).

Immigrants, particularly the recent arrivals, generally exhibit lower rates of alcohol consumption (Ali, 2002; Brown et al., 2005; Johnson, VanGeest, & Cho, 2002; McDonald, 2006). Increased time in a new country is associated with changes in norms, beliefs and health behaviour (Johnson et al., 2002; McDonald, 2006; Reid et al., 2001). Acculturation and dissemination of old drinking customs into new contexts may cause drinking patterns that used to be weekly or reserved for special occasions to become more frequent and problematic (Collins & McNair, 2003; Fosados et al., 2007; World Health Organization [WHO], 2004). Acculturation may also interact with the traditional cultural norms in a way that its influence becomes protective for certain ethnic groups (Caetano et al., 1998; Hendershot, Dillworth, Neighbors, & George, 2008).

For most immigrant men, alcohol consumption seems to increase with years in the new country. The United States 1999–2001 National Surveys on Drug Use found that rates of substance use among immigrants were directly related to the length of time they had been in the United States. Immigrants who had been in the United States for 10 years or longer reported drug use that was not significantly different from that of the US born population (Brown et al., 2005). Similarly, alcohol consumption among immigrant men, particularly those from Europe and the US, increases with years in Canada, and reach native-born white levels after being in Canada between 10 and 20 years (Ali, 2002; McDonald, 2006). Among immigrant women, longer duration in the new country and higher level of acculturation appear to be associated with higher
levels of alcohol use (Collins & McNair, 2003; Fosados et al., 2007; Lopez-Gonzalez, Aravena & Hummer, 2005).

Migration alone may not be the primary factor shaping patterns of alcohol use, and the stress of the acculturation process within challenging or hostile environments may influence alcohol use and abuse patterns. Certain subgroups such as those who have suffered severe pre-migration trauma due to war or displacement, who lack family or social support or who experience cultural pressures, economic difficulties, prejudice and discrimination of the host society seem to be at increased risk of developing substance use problems, especially during the first few years in a new country (Brown et al., 2005; Johnson, 1996; National Institute on Drug Abuse [NIDA], 2003; Reid et al., 2001).

The patterns of alcohol use in second generation immigrants are influenced by both parental countries of origin as well as patterns in the host country (Hjern & Allebeck, 2003; Rao, 2006). Studies conducted within multicultural societies indicate that socioeconomic disadvantages associated with vulnerability to substance use problems, such as poverty, poor literacy, low education level, limited employment opportunities, racism, discrimination and barriers to service utilization disproportionately affect minority ethnic groups (Caetano et al., 1998; NIDA, 2003; Reid et al., 2001).

The proportion of ethnic groups within Canada’s population has increased dramatically over the last few decades. Data from the 2006 census reveal that 19.8% of the population is foreign born, and the number of ethnic groups has exceeded 200 (Statistics Canada, 2009). Although the level of knowledge about problems associated with alcohol use varies both within and across ethnic groups, community-based studies found generally an inadequate knowledge of the harmful effects of alcohol and other drugs among these groups (Centre for Addiction and Mental Health [CAMH], 2003; New South Wales Health Department, 1993). Evidence further shows that that
members of these communities have a much lower rate of participation in health promotion, prevention and treatment programmes, and are less likely to receive needed care than the general population due to systemic and service barriers which include language and cultural factors, discrimination, stigmatizing attitudes and mistrust of mainstream service providers (Bowen, 2000; CAMH, 2003; Ethnoracial Coalition: Access to Services, 2003; Rao, 2006).

This research was conducted as a preliminary study to inform the development of culturally appropriate interventions addressing alcohol use in seven Ontario communities. The objective of the study was to explore cultural norms, beliefs and patterns of alcohol consumption, community perceptions of the associated harm, as well as culturally appropriate and relevant messages regarding alcohol use. Ontario’s Low-Risk Drinking Guidelines (LRDG) (Bondy et al., 1999) were employed as the vehicle to test a best practices approach to community education and knowledge exchange with ethnic communities and determine whether a resource developed for the general population was appropriate for culturally diverse audiences. The LRDG were originally developed as a primary prevention tool to provide the public with simple guidelines for consuming alcohol in a manner that would minimize the likelihood of experiencing alcohol-related harms (Bondy et al., 1999).

The project was a partnership between the CAMH and eight community-based organizations that provide services to the following groups: Polish, Portuguese, Punjabi, Russian, Serbian, Somali and Tamil. The project was built on previous CAMH research initiatives and needs assessments conducted in collaboration with different ethnic communities (CAMH, 2003; Ethnoracial Coalition: Access to Services, 2003; Marshall, 2002). The community partners self-selected to participate in this project, identifying alcohol as a problem needing further investigation and health promotion approaches to address the concerns of the seven participating communities.
5.3 Methods

Because of the exploratory nature of the study, a qualitative research design using focus groups was employed. Although focus groups have their limitations, they are considered an excellent tool for gaining insights into people’s shared beliefs, cultural values or group norms. It is a particularly useful method for exploring understanding of illness and of health behaviours, and is often used in cross-cultural research and work with ethnic minorities (Phan & Fitzgerald, 1996).

The series of consultations with community partners provided crucial information on the cultural background of each community, cultural patterns of drinking, perceptions of alcohol-related problems and the best way to identify culturally relevant and sensitive alcohol-related messages. This work involved joint discussions with the project partners on the focus group plan, design, discussion guide and strategies for recording and analysing the information collected within the focus groups.

Participants

Participants were recruited by partnering with community agencies. Participation in the focus groups was voluntary. Participants were assured of confidentiality and were free to discontinue participation at any time. In order to gather a wide range of input, the organizers made an effort to enhance the heterogeneity of the focus groups’ participants with respect to age, gender socioeconomic status and length of residency in Canada.

A total of 179 people participated in the focus groups discussions. The demographic characteristics of the participants included: gender (47.4% female, 52.6% male); age (age range 19–68 years); immigration status (83% first-generation immigrants with, length of residency in Canada ranging from 6 months to 33 years; 17% second-generation immigrants). The religious backgrounds of the participants included Muslim, Roman Catholic, Christian Orthodox, Sikh and Hindu.
Key informants were selected for their knowledge and experience in the areas related to the community norms and attitudes towards alcohol use, health education and the prevention of alcohol-related problems. They included community, religious and political leaders, health professionals and service providers who have knowledge about the germane issues and work with the respective communities.

The focus groups of the community members were composed of men and women of legal drinking age (19+) who were representatives of the population of interest, identified as possible participants by the partner organizations and invited by these organizations to participate. Both drinkers and nondrinkers were included. Community members differed from key informants in that they were not required to have special knowledge of or experience with alcohol issues in the community.

Data collection
Data were collected during 18 focus groups of 8–12 participants each. Two focus groups per community were conducted; one with community members and one with key informants, with the exception of the Punjabi and Somali communities, where separate focus groups with men and women were conducted based on the recommendations provided by the community partners as it was considered culturally appropriate and a more effective way to obtain valuable information. Due to cultural norms related to alcohol use as well as the expectations regarding role of women in these communities, women may not feel conformable discussing alcohol-related issues in a mixed group.

A seven-question semi-structured focus group discussion guide was developed to assist the facilitation of both the key informants and the community member sessions. Questions were designed to elicit information related to the following issues:

- Cultural norms, beliefs and attitudes towards the use of alcohol.
• Drinking patterns, including the most common kinds of alcohol beverages consumed, the size of glasses/containers in which they are usually served, and the socially acceptable amount of alcohol consumed on one occasion.
• Differences in drinking patterns between the country of origin and Canada
• Community’s perception of the risks and problems associated with drinking.
• Perception of the LRDG.
• Culturally appropriate messages addressing alcohol use.

The focus groups were held at either the partnering organization’s premises or other locations familiar to the participants. Bilingual staff members from the partnering agency skilled in conducting focus groups facilitated each session. Sessions lasted 2 hours and were conducted in the first languages of the participants so people who are not fluent in English were heard. This segment of the population is often neglected by researchers and programme planners, and rarely given an opportunity to express their needs and concerns.

While tape recording has the advantage of capturing data more reliably than written notes might, we found that tape recording was not the preferred method of data recording with ethnic communities. Only Serbian focus groups were tape recorded. To ensure that all relevant information was recorded, two people were responsible for taking notes during the focus group discussions.

Data analysis
Recorded data were transcribed fully in the original language and then translated into English. Translated transcripts were analysed using a phenomenological approach, which included both content and thematic analysis. Special attention was paid to the cultural meanings of the information. Data analysis followed the recommendations for phenomenological and qualitative analysis set forth by Creswell (1998). We read the translated transcript several times, identified
important statements and formulated them into meanings. The meanings were grouped into common themes. Finally, these themes were integrated into narrative descriptions. To validate the findings, we had the themes evaluated by the community partners and bilingual service providers. They agreed that the themes that we described accurately represented communities’ norms, views and attitudes towards the use of alcohol and related problems, as well as patterns of alcohol use.

5.4 Results
Several main themes arose from the focus group discussions that highlighted the importance of considering cultural factors in developing alcohol prevention initiatives for ethnic communities.

Norms, attitudes and beliefs about alcohol use
The participating communities have distinct cultural and religious backgrounds. So not surprisingly, focus group findings reveal varying degrees of alcohol acceptance in the participating ethnic communities ranging from total prohibition in the Somali community to wide acceptance in the Russian, Polish and Serbian communities. ‘Alcohol is ‘‘haram’’. It is against our religion and culture’ (Somali key informant). They also show that, although some communities have religious sanctions against alcohol, drinking still takes place within certain degrees of social acceptability. For example, the Sikh religion prohibits the use of any intoxicant, but the findings reveal that alcohol use in the Punjabi community is widespread and Punjabi men are viewed as ‘heavy drinkers’. ‘Men are using alcohol excessively. Many homes have been wrecked. Many lives have been lost’ (Punjabi female group community member). On the other hand, in the Polish, Russian, Portuguese and Serbian communities, alcohol is considered a part of their cultural traditions and is evident in all aspects of their social fabric. ‘It has been part of rituals, special events and holidays throughout Russian history’ (Russian community member).
In some cultures, alcohol consumption has a special meaning and plays an important role in certain functions and ceremonies. For five communities, Polish, Russian, Portuguese, Serbian and Punjabi, offering alcohol to a guest as well as accepting a drink from a host is perceived as a ‘social norm’, a sign of hospitality and respect. ‘A host feels obligated to provide drink to a guest as this is considered a sign of respect. A guest is expected to accept his host’s offer of alcoholic beverages’ (Punjabi community member). At the reception following a funeral in the Serbian and Tamil communities, it is traditional that each person has one drink as ‘they enter in memory of the deceased’.

Undoubtedly, in all seven communities, alcohol use is viewed as a predominantly male activity. Even in communities where use of alcohol is socially acceptable for both men and women, different norms apply. Women are either not expected to drink at all, such as in the Somali, Tamil and Punjabi communities, or expected to have one to two drinks on special occasions. Women who publicly consume more than the socially acceptable amount of alcohol are usually ostracized. ‘Society has less respect for women who drink than it has for men’ (Polish community member). ‘It is assumed that a woman who drinks is a ‘‘fallen’’ woman’ (Somali community member). Women are also expected to stay sober and take care of their intoxicated husbands ‘(At social events) Men will drink and women will drive’ (Serbian key informant).

However, findings indicate that in fear of being stigmatized women often hide themselves when drinking. ‘They use coke to dilute the drink, so everybody thinks that they are drinking coke’ (Punjabi community member). Participants from the Punjabi, Somali and Tamil communities felt that female drinking is on the rise, especially among young women raised in Canada. They attributed this trend mainly to acculturation and adoption of new, ‘Canadian’ habits.

Drinking contexts
Alcohol is most frequently used for socializing and entertaining purposes. Drinking most frequently occurs at bars, social gatherings, parties or sporting events. ‘Every birthday party, wedding or picnic is associated with alcohol consumption’ (Punjabi key informant). Alcohol
seems to play an important role in male bonding. ‘Men often come back to the bar after a soccer game. There is no cheap liquor in the social (Serbian) centre but they gravitate here because of the social aspect – to socialize with other men’ (Serbian key informant). ‘Men sit by themselves and keep ‘‘bonding’’ with each other. The more they are drinking, the more ‘‘bonding’’ happens and the ‘‘sillier’’ they are behaving’ (Punjabi female group community member).

In the Portuguese, Polish, Russian and Serbian communities, alcohol use is embedded in daily life. ‘Alcohol is used during a lunch break at work, after work with colleagues, at recreational family outings, religious festivals and celebrations’ (Portuguese community member). ‘To have a beer or a shot of vodka every day is considered normal. Generally, the Russians drink more on weekends, holidays and in winter’ (Russian community member).

Alcohol is frequently used as a coping mechanism during times when people are dealing with problems. ‘There are psychological reasons to drink, such as bad news, family problems, depression and stress’ (Polish key informant). Problems at home, isolation and loneliness were identified as main factors that lead to excessive alcohol consumption.

There is also a common belief that alcohol is good for one’s health, and health reasons are frequently provided to justify consumption. ‘It decreases a risk of heart attack. It is also good to drink before meal so that we can enjoy eating food’ (Punjabi key informant). ‘We have a toast: For good health’ (Russian community member). In the Tamil community, brandy is given to women for the first few days after childbirth to help ‘relieve body pains and regain energy that is lost during childbirth’.
Types of beverages consumed

The results show differences in the alcoholic beverage preferences across the communities. In the Portuguese community, alcohol is traditionally synonymous with wine. Men in the community also commonly add whisky, brandy or ‘moonshine’ (Aguardente) to the morning coffee. Schlivovitz (plum brandy) is considered a traditional Serbian alcoholic beverage. Beer, wine and whisky were identified as the most popular beverages consumed in the Tamil community, although some people still drink ‘toddy’ and ‘arrack’, local drinks from their home country available from the local Tamil stores in Toronto. Somali key informants noted that different community subgroups prefer different beverages. ‘Most of the youth drink beer, middle age people with good income mostly drink wine, elders who had been to Russia usually drink vodka, but there are also some people who drink whatever they see’. Key informants from the Russian community indicated that people with higher education and those who are ‘settled’ usually drink wine, while those less educated, not settled and ‘under stress’ drink vodka ‘to get drunk quickly and spend less money’.

‘Normal’ or socially acceptable drinking

Focus group discussions revealed great differences in the perceptions of ‘normal’ or socially acceptable drinking levels. Descriptions varied from two beers in the Somali community to 0.5 L of vodka in the Russian community. In the Russian community, the amount of alcohol that a person consumes on one occasion ‘depends on the company, mood, food, and other circumstances, but it is commonly 0.5 liter of vodka or 0.5–0.75 liter of wine’. ‘For women it is ok to drink four glasses of wine for the evening. For men it can be as long as a host fills the glasses’ (Russian community member).

Counting and measuring drinks is not a habit in any of the participating communities. ‘People usually do not count. One can drink as long as he doesn’t bother others’ (Serbian community member). ‘The larger the drink, the more “generous” the host. The alcohol must not run out.
The host must have enough alcohol in his home. God forbid, if the host run out of drink, he would be the talk of the town’ (Punjabi key informant).

‘Excessive' or problem drinking
While ‘excessive’ drinking and alcohol intoxication is not condoned in any of the participating communities, occasional inebriation is well tolerated in the Russian, Polish, Portuguese, Serbian and Punjabi communities. In some communities, including Russian and Serbian, men are expected to drink large quantities of alcohol. The ability to drink large amounts of alcohol is directly associated with masculinity. ‘My husband can easily drink 20 oz of brandy. It’s a matter of pride that you can drink a lot. It is viewed as very unfortunate (shameful) if you cannot drink’ (Serbian community member).

In general, alcohol use is considered ‘socially unacceptable’ when it starts ‘bothering others’ or causing problems with family or social relations. In all communities, there is stigma attached to alcohol-related problems. Therefore, these are often kept secret within a family and seeking help is delayed as long as possible. ‘The society may know that the person drinks, but it keeps silent until the addict’s problems become open to the public, i.e., health, finances, loss of job, family break-down, and it is too late for repair. It stigmatizes both the person and his family. This means hesitation to marry their children or have financial transactions with them’ (Tamil key informant). To avoid stigmatization, women tend to endure their husbands’ abuse and suffer in silence.

Punjabi women stressed their unequal position in the family and their inability to influence change in their husbands’ drinking habits. Two women started crying while talking about helplessness. ‘It is a disgraceful life to live with an alcoholic’ (Punjabi female group community member).
Perceptions of the risks and problems associated with drinking

Family violence and disruption, financial problems, drinking and driving, and legal problems were identified as the most common alcohol-related problems. Drinking and driving is described as a common occurrence that needed to be addressed. Interestingly, only three communities (Tamil, Punjabi and Polish) associated health problems with alcohol use. Russian community members noted that in their community, health problems are usually not viewed as a consequence of drinking. ‘We actually drink to treat or prevent some illnesses’.

Traditional habits of alcohol use, social acceptance of drinking, the accessibility of alcohol and lack of community education about the consequences of excessive drinking are perceived as the major contributing factors to excessive drinking and alcohol-related problems. ‘I didn’t even know that heavy drinking could cause hypertension. It wasn’t until a family member became ill that this was acknowledged. I knew the liquor mustn’t be good for him after he had the high blood pressure but I never knew excessive drinking could cause it!’ (Serbian community member).

Participants from all seven communities pointed out inadequate knowledge about alcohol abuse and dependence, and requested more information about the negative effects of alcohol to be disseminated to the community members. Subgroups at risk of alcohol-related problems The findings indicate that, in general, new immigrants, single men and those who are having family or financial ‘problems’ drink more than the general community due to the stress to which they are exposed. Key informants suggested that new immigrants seem to drink less in the first few years while they are settling in Canada. Once settled, however, they may start drinking excessively. In the Serbian and Punjabi communities, seniors (men) are seen to be prone to excessive alcohol consumption due to problems at home, isolation and loneliness. By contrast, the Somali community in Ottawa was concerned that a large percentage of Somali youth was starting to drink alcohol on a daily basis. The Portuguese community also felt that youth and
younger men were more at risk of developing alcohol-related problems than older members of
the community.

Differences in drinking patterns between the country of origin and Canada
Results reveal some reported differences in drinking patterns between the participants’ home
countries and Canada due to accessibility of certain alcoholic beverages, living circumstances,
different lifestyles and stricter law enforcement, including enforcing the legal drinking age. ‘In
Russia we drink after work to relax, to warm up in cold weather and to take part in social
activities. In Canada we drink mostly because of homesickness, loneliness and depression’.
Participants pointed out that legal drinking age was not enforced in their countries of origin. ‘In
Russia teenagers can drink until they get drunk’ (Russian community member). They also noted
that alcohol in their countries was cheaper and easily available ‘since most stores that sell
groceries also sell alcohol’. Polish community representatives suggested that in Canada people
drink more often alone and on weekends, while in Poland ‘people make more social occasions to
have an excuse to use alcohol’. Somali participants stressed that in Somalia people who
consume alcohol try to hide themselves, while in Canada Somalis who drink, drink openly.

Perceptions of the Ontario LRDG
The concept of a ‘standard drink’, a conceptual cornerstone of the LRDG and a central feature in
alcohol education campaigns in English-speaking countries, was strange and confusing to the
overwhelming majority of participants mainly because of the different types of alcoholic
beverages they use, the different sized glasses or different drinking habits. For example, a large
percentage of wine consumed in the Portuguese community in Toronto is homemade or
purchased from local markets. The actual alcohol content of homemade or market bought wine
is unknown, but is generally considered to be higher than 12% alcohol content. In addition, wine
is usually not consumed from standard wine glasses. Focus group participants described the
‘standard drink’ in the Punjabi community as being equal to a drink three times the size of the
LRDG’s standard drink. ‘The size (quantity) of the drink is a problem. They tend to ‘pour’
straight from the bottle’ (Punjabi key informant). ‘Size of a drink depends on the type of alcohol. The stronger the drink, the smaller the shot’ (Somali community member).

A number of participants from different communities expressed concern that the LRDG are promoting drinking as normal and therefore encouraging alcohol use. Still, the results revealed that the guidelines are, in general, considered relevant and useful for all communities except Serbian and Somali. ‘When the message of total abstinence is no more possible, the message about low risk drinking is better than no message’ (Tamil community member). Participants from the Punjabi community noted that although alcohol use is prohibited in the Sikh religion, and the only culturally appropriate messages are those focusing on abstinence, ‘reducing the consumption may also be good for health and well-being of individuals’. Portuguese participants expressed the need for the guidelines intended for the Portuguese community to include information on homemade wine, coffee with alcohol and ‘moonshine’, as well as information about the liability issues when hosting a function. Still, the general comment was, ‘Too much information in the brochure, too wordy and confusing’.

All participants stressed the need to translate the LRDG into different languages and provided recommendations for cultural adaptation of the brochure. In the Serbian community, drinking was perceived as an established practice ‘deeply rooted in the Serbian tradition’ that is ‘almost impossible’ to change in adults. ‘Drinking and driving is the only message getting through right now’. The Somali community found the LRDG inappropriate because both their religion and culture prohibit the use of alcohol. Participants expressed concern that promoting alcohol reduction would lead some people to believe that the Somali community would tolerate alcohol consumption. They stressed that the only culturally acceptable message is the one promoting total abstinence from alcohol consumption.
Culturally relevant messages

The LRDG are a health promotion/population level communication designed for the general population. They focus on individual choice and decision making. By contrast, the participating ethnic communities seem to be more family oriented, which impacts the effectiveness of community health education strategies. Feedback from the focus group participants indicate that messages which stress the consequences of alcohol use on the family are considered most relevant and effective in promoting awareness of alcohol in their communities. ‘Family is very important and valued by Russians and messages that trigger feelings of guilt for harming the family may have a positive effect on drinking practices’ (Russian key informant).

Participants generally felt that their communities also needed to be educated as much as possible about the negative effects of excessive alcohol use in order to change their ‘drinking habits’. ‘Men in particular need to know that alcohol could cause impotence, poor sex life, heart attack, liver problems, high blood pressure, feelings of anger and financial problems’ (Punjabi community member).

All seven communities expressed the need for information on alcohol in their native tongues. ‘Not everybody in the community understands English. More people will read it if it is in Russian’. The participants recommended that the LRDG brochures be available in the places that are important for their communities, for example in doctors’ offices, local stores, churches and agencies providing services to the respective ethnic community. ‘Don’t bother handing out pamphlets at drinking establishments. However, it would be good to have a poster with a picture regarding LRDG in drinking establishments’ (Portuguese community member). Local newspapers are also considered useful communication channel. ‘Brochures could also be included in a Portuguese newspaper distribution’.
Participants also communicated that, in order to be effective, messages need to be conveyed by people respected by the community, such as religious and community leaders, counsellors and local physicians. Russian focus group participants stressed that the information about ways to avoid or reduce risks associated with alcohol will be effective only if presented as a choice and not as an order. ‘Our problem is that we lived in the country with propaganda and we are very selective to what we hear’.

Ethnic mass media, especially radio and television, is considered the most effective communication channel for health promotion/prevention programmes. Participants from the Somali community emphasized, ‘Somalis are an oral society. Therefore, the best way is to use Somali TV and Radio program’. Visual information is, in general, considered more effective for all the participating communities rather than written information. ‘People pay attention to a picture; they do not read a text’ (Russian community member).

5.4 Discussion
The findings confirm that ethnic background has a powerful influence on alcohol consumption practices and related behaviours, as well as on belief systems about alcohol. Among first-generation immigrants, patterns of alcohol use in the country of origin are strong determinants of alcohol use in their new country. In all seven communities, socio-cultural norms govern drinking levels and situations that are considered socially acceptable, preferred types of beverages and population subgroups for which drinking is considered tolerable. The results also indicate that language barriers, health messages that differ from their own beliefs and traditions, stigma associated with alcohol use problems, socioeconomic disadvantages and lack of culturally and linguistically appropriate health interventions increase vulnerability of members of ethnic groups to alcohol use problems.
Interventions and programmes that reflect the dominant culture, including public awareness
campaigns about the harmful effects of alcohol, are often not relevant to people from culturally
different backgrounds. The significant differences in the participating communities’ perceptions
of ‘normal’, ‘low-risk’ and ‘excessive’ drinking, and their attitudes towards the LRDG also
demonstrate that simply translating information developed for the general, English-speaking
population into other languages is not an effective strategy for reaching people from different
cultural backgrounds. Messages addressing alcohol use in ethnic communities need to reflect
local drinking practices, including types and sizes of alcohol beverages consumed, and alcohol-
related problems specific to the particular community. Direct translation which does not take
cultural concepts into account limits the effectiveness of health information.

Community education initiatives should use communication tools and channels identified by the
intended community as most appropriate and effective. Service providers should reduce reliance
on pamphlets and brochures and consider using posters, ethnic media, community forums and
other communication channels more often. If brochures are used to convey messages, they
should be culturally relevant and should use familiar terms in simple language that are
understandable to people at different literacy levels.

It is important to recognize that ethnic communities are not homogeneous groups. The
community subgroups differ in age, English language proficiency, education background, pre-
migration experiences, level of acculturation, family situation and other characteristics, and no
single outreach strategy will work for all members of an ethnic community. Drinking behaviour
varies within ethnic groups as well as between them. Effective alcohol prevention initiatives will
likely require multiple strategies aimed at specific community subgroups. Our findings also
highlight the need to create partnerships with community-based agencies and actively involve
community members in the conceptualization and development stages of the health messages to
ensure that both the messages and communication strategies reflect the cultural characteristics
and preferences of the intended audience.
5.5 Limitations

It is necessary to keep in mind that the drinking pattern of the entire ethnic community cannot be accurately defined based on the findings obtained in one region. Focus group participants are not a representative sample selected from a particular ethnic population, but rather a group of people who either embody the characteristics or live in circumstances relevant to the issue being investigated. Generalizations of the findings must be made with great caution since the purpose of the focus groups is not to generalize, but to gain insight and depth of understanding.

5.6 Conclusion

The number of people in culturally diverse populations is growing. While the available information does not suggest that members of ethnic or immigrant communities in Canada and elsewhere are heavier drinkers than general population, there are several factors worth further consideration. Social exclusion, discrimination and poverty disproportionately impact upon ethnic minority groups and increase their vulnerability to alcohol problems. Immigrants come from countries that may have different drinking customs and alcohol regulations; they may not understand health and safety messages due to linguistic and cultural barriers. Also, their socially acceptable drinking levels and behaviours, as well as differing perceptions of potential harms, may put them at risk.

This study reported here, therefore, clearly indicates a need to understand the special needs and challenges of ethnic groups in considering alcohol issues. Effective targeted programming focused on the prevention of alcohol-related problems requires thorough research into the realities and concerns of the diverse populations involved. The development of a strong understanding of and respect for the diversity of traditions, beliefs and practices is essential in developing effective programmes to reduce and prevent health and social consequences of alcohol use in culturally diverse communities.
5.7 References


Chapter 6
Gender differences in alcohol use and risk drinking in Ontario ethnic groups

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6.1 Abstract
This paper examines prevalence and gender differences of alcohol use and risk drinking in a representative sample of Ontario adults. Data were drawn from the Centre for Addiction and Mental Health (CAMH) Monitor survey of Ontario adults aged 18 and older collected between January 2005 and December 2010. The prevalence of self-reported lifetime, current and high risk drinking were all higher among the Canadian and the European-origin groups compared with other ethnic groups. Within-group gender differences were evident for all ethnic groups. The narrowest gender gap was observed within the North European group and the widest in the South Asian group. The non-European ethnic groups had higher rates of abstinence and lower alcohol consumption rates; nevertheless, a considerable proportion of people from these groups may be at risk of alcohol-related harm due to risky and harmful alcohol consumption patterns. Future research should continue to investigate alcohol use in these groups, identify subgroups at risk and factors that increase or decrease their vulnerability to risky and problem drinking.

6.2 Introduction
Alcohol is the most commonly used psychoactive substance in Canada. Although the majority of Canadians drink in moderation, alcohol misuse in Canada continues to be substantial. In 2011, 18\% of Ontario drinkers reported exceeding recommended low-risk drinking guidelines,
7.4% reported weekly binge drinking and an estimated 1,152,700 Ontarians (14.4%) drank in a harmful and hazardous way (Ialomiteanu et al., 2012).

Canada is one of the world's most ethnically diverse countries. The number of reported ethnic groups has exceeded 200. Eleven ethnic origins have passed the 1-million mark in resident population (Statistics Canada, 2009). Given the significant ethnic diversity of Canada's population, understanding the prevalence and patterns of alcohol use and distribution of problem drinking across ethnic groups is particularly important for identifying at-risk populations and planning effective prevention and treatment interventions (Trimble et al, 1992; National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2002; Durrant and Thakker, 2003; Collins & McNair, 2003). The importance of this knowledge is underscored by the findings of disproportionate consequences from alcohol use among certain groups (Donato-Hunt, Sonali & Copeland, 2009; Browne & Renzaho, 2010).

While the findings generally show higher rates of alcohol use among White/European groups, and lower rates of alcohol use among non-European ethnic groups, there are strong indications that in some non-European ethnic groups heavy drinking and related problems are occurring at higher rates than the available data suggest (NIAAA, 2002; Galvan & Caetano, 2003; Rao, 2006; Browne & Renzaho, 2010; Hurcombe et al., 2010). In the US, the prevalence of alcohol related health problems among Americans of Hispanic origin, has doubled over the past 10 years (Galvan & Caetano, 2003; Rao, 2006). Hispanics are also approximately twice as likely as White Americans to die from cirrhosis of the liver, despite a lower prevalence of drinking and heavy drinking. Hidden drinking seems to be an emerging problem among some of the minority ethnic groups in the UK, in particular among young women and older men from the groups with strong religious or cultural norms that prohibit or condemn alcohol use (Thom et al, 2010; Rao, 2006). High rates of heavy drinking were observed among Sikh men and alcohol-related deaths were higher among Indian men compared to the general UK population (Hurcombe et al., 2010).
Even though research suggests important ethnic and cultural differences in drinking and drinking problems, relatively little epidemiological evidence on this topic is available for Canada. This is a very important gap in the literature in view of the ethnic diversity of the country (Statistics Canada, 2009). Thus, important information for understanding alcohol problems and the need for services in the Ontario and Canadian population is not available. However, the findings from qualitative studies exploring substance use issues in Ontario ethnic groups indicate that alcohol use is a problem in several groups, and these problems have been largely underestimated and poorly understood (Cheung, 1997; Ethnoracial Coalition: Access to Services 2001, 2003; CAMH, 2002; Agic, Mann & Kobus-Mathews, 2010).

Drinking patterns differ significantly between men and women. In general, men are more likely than women to consume more alcohol and drink in harmful and hazardous ways (Thomas, 2012; Centre for Addiction and Mental Health [CAMH], 2012). The gender gap is evident in all ethnic groups, but the size of gender differences varies greatly from one group to the other (Heath, 2000; Wilsnack et al., 2000; Bloomfield et al., 2005). For example, in the US, the widest gender gap was observed among Hispanics and narrowest among the African Americans (Johnson et al. 1998; NIAAA 2009). In the past few decades there has been increased concern about gender convergence in drinking patterns, in particular the rise in alcohol consumption among young women. An increase in female alcohol consumption has been observed in some ethnic groups with traditional norms against drinking by women. Research exploring drinking patterns among minority ethnic groups in the UK found increased frequency of drinking among Sikh girls and increase in heavy drinking among Indian women (Hurcombe, Bayley & Goodman, 2010). However, gender differences in alcohol use across ethnic groups in Canada have not yet been investigated.

Utilizing the data derived from the Centre for Addiction and Mental Health (CAMH) Monitor cross-sectional survey conducted between January 2005 and December 2010 we sought to better understand the epidemiology of alcohol consumption and risk drinking in ethnic groups in
Ontario, Canada, and how gender may affect these measures. In this article, we describe 1) prevalence of alcohol consumption and risk drinking among Ontario ethnic groups and 2) gender differences across alcohol measures among these ethnic groups.

6.3 Methods

Survey design

Data for the study were obtained from the CAMH Monitor survey data collected between January 2005 and December 2010. The CAMH Monitor is a continuously-fielded cross-sectional telephone survey of Ontario adults aged 18 or older conducted by the Centre for Addiction and Mental Health (CAMH) and administered by the Institute for Social Research (ISR) at York University. Excluded from selection were adults who were phoneless, institutionalized, or unable to speak English. The design employed a regionally stratified, two-stage-probability sample drawn monthly through random digit dialing of listed and unlisted landline and mobile telephone numbers. Each calendar year, the monthly non-overlapping samples (averaging about 200 completions each month) are combined to provide a single annual dataset. The CAMH Monitor survey is designed to serve as the primary vehicle for monitoring substance use and mental health problems among Ontario adults. The survey sample is considered representative for Ontarians aged 18 and older and all data estimates are based on the weighted sample size. Response rates ranged between 53% and 67% of eligible respondents.

A complete description of the survey and discussion of potential nonresponse bias is available on the CAMH Monitor’s webpage (Ialomiteanu & Adlaf, 2006; Ialomiteanu & Adlaf, 2011). The study was approved by the Research Ethics Committees of CAMH, York University and the University of Toronto.
Measures

Independent variables
The independent variables to be examined in this article include ethnicity and gender. The participants were assigned to an ethnic group on the basis of their family origins using a CAMH Monitor question on ancestry, “To what ethnic or cultural group did you or your ancestors belong on first coming to this continent?” The Monitor's ancestry question allowed respondents to report one or two ancestry groups. Between 2005 and 2010, 73% of the participants reported one ethnic origin while 27% of the participants reported two ethnic origins. None of the double ancestry groups had a sufficient numbers to be included in the analysis as a separate group. Respondents who reported two ancestry groups were assigned to an ethnic group based on their first choice/primary group identified.

To assure sufficient statistical power and meaningful group comparisons, the Monitor's 44 ethnic ancestry origins were collapsed into 12 main ethnic categories: Canadian, East Asian, South East Asian, South Asian, Caribbean, African, Middle Eastern, East European, South European, North European, Central West European and Others.

Dependent variables
The major outcomes of interest were drinking status and risk drinking based on the Canada’s Low Risk Drinking Guidelines (LDRG) (Butt et al., 2011). All survey participants were asked “During the past 12 months have you had a drink?” Those who answered “No” were then asked: Did you EVER have a drink of any alcoholic beverage? Based on these questions, we defined two alcohol use measures:
“Lifetime drinker” (coded 1 if the respondent reported being a past 12 months drinker or a former drinker and coded 0 if the respondent reported being a lifetime abstainer [never drank]).
“Current drinker” (coded 1 if the respondent used any alcohol in the past 12 months and coded 0 if the respondent did not use alcohol in the past 12 months)
Risk drinking was defined by three indicators:

A. Exceeding the Canada’s Low Risk Drinking Guidelines (LRDG) (Butt et al., 2011) defined as a weekly consumption of 16 or more standard drinks for men or 11 or more standard drinks for women, or exceeding a daily consumption of two drinks for women and three drinks for men in any given day over the past week.

B. Consuming five or more drinks at least once a month (“binge drinking”) during the 12 months before the survey (considered an indicator of “risky single occasion drinking”).

C. Reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT screener.

All three potential risk drinking indicators refer to the past 12 months. Responses to the three indicators were recoded to create the risk drinking measure: “Risk drinking (in the past 12 months)” (binary coded yes=1, no=0). Respondents were considered risk drinkers (coded 1) if they answered “yes” to at least one of the three problem drinking indicators.

In 2010, the questions that constitute the measure for exceeding the LRDGs were not asked.

6.4 Data analysis

Descriptive statistics were used to estimate prevalence of alcohol use, and risk drinking in Ontario ethnic groups. Simple prevalence estimates for each of the outcomes of interest (proportion of each group that are lifetime and current drinkers, and the proportions reporting risk), were calculated. Subsequently, Chi Square analysis was used to examine the association between each of the independent variables (ethnicity and gender) and alcohol measures. Logistic regression models were developed to examine the interaction effect of ethnicity and gender on alcohol measures. Based on calculations of the sample size per group needed to detect an Odds Ratio of 2.0 and above, only groups with weighted sample sizes of 131 and above were included in these analyses. Therefore groups whose weighted sample size was less than 131 (African and Middle Eastern) were not included beyond descriptive analysis. The “Others” group included
individuals from very diverse origins, most of which had no common characteristics and for that reason this group was also not included in the logistic regression analyses.

6.5 Results

The sample included 13,557 Ontarians aged 18 and older (5783 men and 7774 women). Overall, about nine out of 10 people surveyed (92.3%) reported they had drank at some point in their lives, eight out of 10 (79.1%) were current drinkers and about one in three (31.2%) were risk drinkers. Table 1 provides data on self-reported lifetime, current and risk drinking among Ontario ethnic groups.

Disaggregating these results by ethnicity shows important differences. Relative to other ethnic groups, the prevalence of self-reported lifetime, current and risk drinking was higher among the Canadian and the four European origin groups.

While the proportion of lifetime drinkers from the Canadian (95.9%) and the European origin groups (North European 97.5%, Central-West European 96.4%, East European 96.3% and South European 95.5%) is similar to the overall sample proportion of lifetime drinkers, the proportions of South Asians (58.1%) and South East Asians (67.4%) reporting lifetime drinking appear lower. The Middle Eastern (37.5%) and East European (37.1%) groups had the highest proportion of risk drinkers while the South Asian group (10.9%) had the lowest proportion of respondents who are considered risk drinkers. In the Canadian group, 31.5% of the respondents fall in the risk drinker category.

Gender

Across ethnic groups, men appeared more likely than women to report lifetime, current and risk drinking (see Table1). Among the female respondents, prevalence of self-reported alcohol use
and risk drinking was higher among women who indicated their ethnic origin as European or Canadian. The gender difference in alcohol use was generally smaller among the respondents from the four European and the Canadian groups. While among the respondents of East European origin, the prevalence of self-reported risk drinking for males was less than twice the prevalence for females (49.2% vs. 26.3%), in the South Asian group the prevalence of risk drinking among males was more than four times the prevalence for females (16.7% vs. 3.2%).

Logistic regression analyses
In the logistic regression analyses, we found ethnicity to be a significant predictor of lifetime, current and risk drinking (see Table 2). Relative to the Canadian group, the odds of lifetime drinking were significantly lower for the East Asian (OR=0.270, 95% CI 0.147-0.496), South East Asian (OR=0.063, 95% CI 0.033-0.119), and South Asian (OR=0.036, 95% CI 0.021-0.060) groups. Similarly, the odds of risk drinking were significantly lower for the East Asian (OR=0.575, 95% CI 0.370-0.893), South East Asian (OR=0.234, 95% CI 0.097-0.565) and South Asian (OR=0.098, 95% CI 0.048-0.199), groups, when compared to their Canadian counterparts.

Gender was significantly related only to risk drinking. Being male significantly increased the odds of being a risk drinker (OR=1.958, 95% CI 1.456-2.633). We observed significant interactions between gender and ethnicity for lifetime and current drinking, and this interaction also approached significance (p=.071) for risk drinking, suggesting that there is important variation across ethnic groups in gender differences in these measures. For the lifetime drinking measure, gender differences among South Asians were significantly larger (OR=2.49, 95% CI 1.17-5.30) compared to the Canadian group. For the measure of current drinking, gender differences were significantly larger for the East Asian (OR=2.09, CI=1.23-3.56), South East Asian (OR=3.71, CI=1.66-8.27), South Asian (OR=2.25, CI=1.40-3.61), and South European (OR=1.67, CI=1.07-2.60) groups compared to the Canadian group. For the measure of risk drinking, gender differences were significantly higher for the South Asian (OR=3.22, CI=1.46-
Discussion

The results of this research show important differences in the prevalence of alcohol use and risk drinking among Ontario ethnic groups. In agreement with other studies, higher rates of lifetime and current alcohol use and problem drinking were observed in the European and Canadian origin groups compared to the non-European ethnic groups. The results also indicate that, while the non-European ethnic groups have higher rates of abstinence and lower prevalence of alcohol consumption, the proportion of risk drinkers in these groups may be higher than expected. For example, about one in four respondents from the East Asian and one in three respondents from the Caribbean group may show a risk drinking pattern.

Within-group gender differences were evident for all ethnic groups. The results reported here confirm that across ethnic groups, men were more likely to be drinkers and risk drinkers than women, but the size of the gender difference varies substantially from one ethnic group to the other. The gender difference was lowest in the Canadian and the European groups, with the smallest gender difference in potential problem drinking observed in the North European group. The widest gender gap was observed among South Asians. The prevalence of alcohol use among women from the Asian groups, in particular the South Asian group, was significantly lower compared to other ethnic groups. Similarly, worldwide, the smallest gender differences in alcohol consumption were found in Europe, in particular northern European countries, followed by western and central European countries, while the largest gender variations were found in developing countries (Bloomfield, Gmel & Wilsnack, 2006).

The findings suggest that some ethnic groups are at higher risk of alcohol-related harm due to higher rates of risk drinking. Alcohol use should be further explored in ethnic groups in which
drinking is proscribed. Broad ethnic categories, such as 'South Asian' may fail to uncover important differences among various groups included within the same broad ethnic category. For example, the category ‘South Asian’ covers a range of diverse groups including those originating from India, Pakistan, Sri Lanka, and Bangladesh with different religious and social norms towards alcohol use. Findings from qualitative studies suggest that problem drinking is an important but unrecognized problem within subgroups of some of these broader groups (Agic, Mann & Kobus-Mathews, 2010), but due to the small sample size of some of these groups, the data could not be disaggregated further. In addition, questions about drinking 'standard drinks' of alcohol can lead to underestimates of alcohol consumptions. The types and sizes of alcoholic beverages consumed by respondents from some non-Western ethnic groups may differ in size and strength from a 'standard drink' used to calculate quantity and frequency of alcohol use in western societies, which may lead to miscalculating and underreporting actual alcohol consumption (Agic et al., 2010).

Assumptions that alcohol use is not a problem in non-Western ethnic groups leads to drinking problems in these groups being neglected. This has significant consequences for those who are already marginalized and less likely to use mainstream programs and services. The results reported here highlight the importance of examining the prevalence alcohol use and risk drinking in ethnic groups, regardless of whether prevalence rates are higher or lower than national rates, in order to identify hidden problems and effectively address them (NIAAA, 2002; Brown et al., 2005).

This study has several limitations. The CAMH Monitor is a telephone survey, and telephone surveys tend to over-represent those with higher education and under-represent those with lower education (Trewin & Lee, 1988 as cited in Ialomiteanu, et al, 2009). The interviews are conducted in English only, which excluded individuals not fluent in the official language.
The findings are based on self-reported behaviour, and therefore the data may be affected by associated forms of bias. While the response rate of the CAMH Monitor is considered good, non-response and other forms of bias may be affecting the study results. For example, it is possible that respondents from ethnic groups with high stigma associated with alcohol consumption underreported alcohol use or heavy drinking; differential stigma for drinking by gender could theoretically increase apparent gender differences in some cultures.

The use of broad ethnic categories has been criticized for concealing important within group differences. Participation rates of respondents from non-Western ethnic groups in population surveys may be low and non-users may be more willing to participate in research than users (Trimble et al, 1992; NIAAA, 2003; Bradby, 2003; Jarvis, 2009).

Some potentially important variables were not controlled for in the multivariate analyses due to the limited sample size of some groups. More generally, due to the small sample size of some ethnic groups, the study findings should be treated with caution.

Nevertheless, the present study provides important information about the prevalence of alcohol consumption and risk drinking in Ontario ethnic groups. While the findings show that respondents from the Canadian and the European-origin groups were more likely to consume alcohol and be at risk for alcohol-related problems, the results also indicate the importance of further exploring alcohol use in non-European ethnic groups to identify subgroups at risk as well as factors that increase or decrease their vulnerability to risky and problem drinking. The results also show important gender differences in alcohol use and risk drinking, and that these differences vary across ethnic groups. The issue of representatives is a common weakness of cross-cultural alcohol research (Trimble et al., 1992; Durrant & Thakker, 2003). The analysis of epidemiological data is often hampered by small numbers of participants from non-Western ethnic groups, and an important strength of this study is the ability to examine larger samples of
members of ethnic groups by aggregating over years. These results indicate that a more comprehensive understanding of ethnic differences in alcohol use and risk drinking that identifies the differences within broad ethnic categories is required.
6.7 References


<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Sample (total N=13557)*</th>
<th>Lifetime Drinkers¶</th>
<th>Current Drinkers¶</th>
<th>Risk Drinking¶</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unweighted n (Weighted n)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td>31.5</td>
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<td>395 (402)</td>
<td>96.0 (82.3)</td>
<td>38.9 (4.79)</td>
</tr>
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<td>508 (443)</td>
<td>95.7 (79.0)</td>
<td>24.6 (4.03)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Total</td>
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<td>88.4 (65.8)</td>
<td>21.3</td>
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<td>25.9 (5.64)</td>
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<td>86.0 (70.4)</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>90 (141)</td>
<td>67.4 (49.6)</td>
<td>12.4</td>
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<tr>
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<td>58.5 (34.9)</td>
<td>7.5 (5.77)</td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>374 (658)</td>
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<td>10.9</td>
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<td>201 (375)</td>
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<td>Females</td>
<td>173 (283)</td>
<td>44.3 (30.5)</td>
<td>3.2 (2.06)</td>
</tr>
<tr>
<td>Caribbean</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>111 (159)</td>
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<td>31.5 (10.66)</td>
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<td></td>
<td>Females</td>
<td>62 (82)</td>
<td>95.1 (73.2)</td>
<td>16.5 (8.19)</td>
</tr>
<tr>
<td>East European</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>844 (874)</td>
<td>96.3 (84.7)</td>
<td>37.1</td>
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<tr>
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<td>364 (405)</td>
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<td>49.2 (4.91)</td>
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<td>26.3 (4.07)</td>
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<td>Central-West European</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7013 (6417)</td>
<td>96.4 (84.0)</td>
<td>34.2</td>
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<td>2976 (3120)</td>
<td>97.6 (86.7)</td>
<td>45.9 (1.76)</td>
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<tr>
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<td>4037 (3297)</td>
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<td>23.1 (1.45)</td>
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<td>South European</td>
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<td></td>
</tr>
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<td>95.5 (84.4)</td>
<td>33.1</td>
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<td>Males</td>
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<td>97.5 (89.3)</td>
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<tr>
<td>North European</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>217 (164)</td>
<td>97.5 (90.9)</td>
<td>35.4</td>
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<td>Males</td>
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<td>97.3 (93.2)</td>
<td>44.4 (11.48)</td>
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<tr>
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<td>Females</td>
<td>129 (90)</td>
<td>96.7 (90.0)</td>
<td>27.0 (9.22)</td>
</tr>
</tbody>
</table>

Note:* Estimates based on unweighted sample. ‡ Estimates based on weighted sample; Statistical significance (X²): * p<0.05, ** p<0.01, *** p<0.001; N.S. = not significant

Def: Lifetime drinking (percent reporting drinking alcohol in their lifetime); Current drinking (percent reporting drinking alcohol at least once in the past 12 months); Risk drinking [percent that reported one or more of the following 1) exceeding low-risk drinking guidelines defined as a weekly consumption of 15 drinks or more for men or 10 or more drinks for women, or exceeding a daily consumption of two drinks for women or three drinks for men OR 3) five or more drinks on a single occasion at least once a month in the past 12 months OR 4) reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT screener]
Table 2: Logistic Regression Models for Lifetime Drinking, Current Drinking and Risk Drinking

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lifetime Drinking (OR 95%)</th>
<th>Current Drinking (OR 95%)</th>
<th>Risk Drinking (OR 95%)</th>
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<td>Ethnicity</td>
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<td>1.000</td>
<td>1.000</td>
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<tr>
<td>Asian East</td>
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<td>0.314.0.219-0.450***</td>
<td>0.575.0.370-0.893*</td>
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<td>Asian South East</td>
<td>0.063.0.033-0.119***</td>
<td>0.141.0.085-0.234***</td>
<td>0.234.0.097-0.565**</td>
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<td>Asian South</td>
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<td>0.116.0.083-0.164***</td>
<td>0.098.0.048-0.199***</td>
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<td>Caribbean</td>
<td>0.832.0.280-2.474</td>
<td>0.737.0.428-1.267</td>
<td>0.606.0.322-1.139</td>
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<td>East European</td>
<td>0.796.0.431-1.469</td>
<td>1.086.0.786-1.499</td>
<td>1.094.0.809-1.480</td>
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<td>Central-West European</td>
<td>0.920.0.564-1.499</td>
<td>1.165.0.912-1.488</td>
<td>0.919.0.728-1.158</td>
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<td>South European</td>
<td>0.677.0.397-1.154</td>
<td>1.069.0.807-1.415</td>
<td>0.858.0.656-1.122</td>
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<td>North European</td>
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<td>2.276.1.115-4.647</td>
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<tr>
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<td>N.S.</td>
<td>N.S.</td>
<td>***</td>
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<tr>
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<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Male</td>
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<td>1.237.0.877-1.745</td>
<td>1.958.1.456-2.633***</td>
</tr>
<tr>
<td>Interaction</td>
<td>*</td>
<td>***</td>
<td>N.S.*</td>
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<tr>
<td>Canadian X Gender</td>
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<td>1.000</td>
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<tr>
<td>Asian East X Gender</td>
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<td>2.092.1.230-3.559**</td>
<td>0.960.0.545-1.691</td>
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<td>3.707.1.663-8.261***</td>
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<td>North European X Gender</td>
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<td>1.090.0.530-2.243</td>
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<tr>
<td>Constant</td>
<td>22.463***</td>
<td>3.775***</td>
<td>0.327***</td>
</tr>
<tr>
<td>X²</td>
<td>1009.709***</td>
<td>792.500***</td>
<td>851.536***</td>
</tr>
<tr>
<td>Df</td>
<td>17</td>
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</tbody>
</table>

X² or Wald test: *p<0.05 **p<0.01 ***p<0.001; a – p = .071

Note:* Estimates based on unweighted sample; Statistical significance (X²):* p<0.05, ** p<0.01, *** p<0.001; N.S. = not significant;

Def: Lifetime drinking (percent reporting drinking alcohol in their lifetime); Current drinking (percent reporting drinking alcohol at least once in the past 12 months); Risk drinking (percent that reported one or more of the following 1) exceeding low-risk drinking guidelines defined as a weekly consumption of 15 drinks or more for men or 10 or more drinks for women, or exceeding a daily consumption of two drinks for women or three drinks for men OR 3) five or more drinks on a single occasion at least once a month in the past 12 months OR 4) reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT screener]
Chapter 7
Alcohol use among immigrants in Ontario, Canada

Authors: Branka Agic¹², Robert E. Mann¹², Andrew Tuck², Anca Ialomiteanu², Susan Bondy¹², Laura Simich¹

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7.1 Abstract
This study examined prevalence of alcohol consumption among immigrants and the Canadian-born populations of Ontario by ethnic origin, and the association between ethnicity, country of birth, age at arrival, length of residence in Canada and drinking measures. Data were derived from the CAMH Monitor, a cross-sectional survey of Ontario adults, and were collected between January 2005 and December 2010 (N=13,557). The prevalence of alcohol consumption and risk drinking was generally lower among foreign-born than Canadian-born respondents, but significant variations across ethnic groups were found. In general, foreign born respondents from the European groups reported higher rates of alcohol use and risk drinking than foreign born respondents from other ethnic groups. We also observed that ethnicity effects varied by whether or not respondents were born in Canada, and in the age at which they arrived in Canada. While previous studies generally found an increase in immigrants’ alcohol consumption with years in Canada, our data suggest that longer duration of residence may have either positive or negative effects on immigrants' alcohol use, depending on the country of origin/traditional drinking pattern. More research is needed to explore determinants of alcohol use and risk drinking among immigrants and identify at risk groups.

7.2 Introduction
Although immigrants represent over 20% of Canada's population, there is little data on the epidemiology of alcohol use among specific immigrant groups. The available data are limited and no recent data are available. The origins of Canada's immigrants have changed considerably
over the past few decades, shifting away from Europe and the United States and towards other regions. Since 2001 almost 80% of new immigrants arrived from Asia, Africa, the Middle East, and South and Central America (citizenship and Immigration Canada [CIC], 2009). Furthermore, while the United Kingdom, Italy, Germany, the Netherlands and Portugal were the major source countries of European immigrants in the past, since 1990s, the number of newcomers from Eastern European countries has increased steadily, surpassing the number of newcomers born in the UK (CIC, 2009; 2013).

While immigrants to Western countries, particularly recent arrivals, generally report lower rates of alcohol consumption and related problems than the host population, substantial variations exist in alcohol use according to ethnic group and country of origin (Agic et al., 2011; Ali, 2002; Brown et al., 2005; Donato-Hunt et al., 2012; Hjern & Allebeck, 2004; Johnson, VanGeest & Cho, 2002; McDonald, 2006; Selten et al., 2007). For example, findings from the UK show that immigrants born in parts of Asia, Africa, the West Indies and the Middle East had lower alcohol consumption and alcohol-related mortality than the British-born population, while alcohol-related mortality was particularly high in men born in Ireland, Scotland and India (Amundsen, 2012; Hurcombe et al., 2010; Pannu et al., 2009). Immigrants from Islamic countries to Germany and Norway reported lower level of alcohol use than the native population. Yet, other groups such as Albanian immigrants to Italy and Hispanic immigrants to Spain reported more drinking or drinking levels similar to that of the host population (Allamani et al., 2009; Tortajada at al., 2010). US data reveals that immigrants from Asian countries reported the lowest rates of alcohol abuse, followed closely by immigrants of African origin (Brown et al., 2005; Szafalarski, Cubbins & Ying, 2011). Rates of alcohol misuse among foreign born Puerto Ricans, Cubans and South Americas were similar to the US-born population. In Canada, immigrants from non-European, non-English speaking countries reported lower rates of alcohol use, while self-reported rates among European immigrants from non-English speaking countries were similar to that of white Canadian-born men (McDonald, 2006).
Immigrants’ drinking patterns tend to change over time. Length of residence in the host country plays an important role in shaping immigrants' patterns of alcohol use (Blake et al., 2001; Li & Wen, 2013; Szafarski, Cubbin & Ying, 2011). There is a general expectation that immigrants ‘migrate’ in their health-related behaviours toward the mean in the host country. Past research using the 2000-01 and 2002-03 Canadian Community Health Survey (CCHS) data found that alcohol use among immigrant men increased with years of residence and for those from Europe and the US, reached the levels of the Canadian born population after having been in Canada 10-20 years. For immigrants from other regions, including long-term immigrants, the incidence of alcohol consumption appeared to remain low (McDonald, 2006; Ali, McDermott & Gravel, 2004). In the UK, the observed rates of problem drinking in Sikh immigrants were higher than the rates found in the Sikh population in South Asia. Similar patterns have been observed among Hispanic immigrants in the US, whose prevalence of alcohol related health problems has more than doubled over the past 10 years (Chartier & Caetano, 2010; Rao, 2006).

The role of age at arrival to host country in predicting health risks has been examined in a number of studies of chronic disease in immigrants (e.g. Harding, 2004; Kimbro, 2009; Roshania et al., 2008; Wilkinson et al., 2005). Findings generally show that younger age at migration predicted higher risks of alcohol use and risk drinking as adults (Borges et al., 2012; Jirapramukpitak et al., 2008; Li & Wen, 2013).

The host society’s patterns of alcohol use may also be changed by diffusion of immigrant drinking practices (Room, 2005). Sznitman, Baron-Epel & Boker-Keinan (2013) indicated that the mass influx of immigrants from the former Soviet Union to Israel contributed to increases in Israeli veterans’ moderate drinking over time.

It has been recognized that the reported rates of alcohol use and related problems among immigrants may represent an underestimation of the real figures. Immigrants, in particular
recent arrivals not fluent in the official language are often missed in population surveys (Bowen, 2001; Wong & Wang, 2008). In addition, immigrants may be hesitant to report alcohol misuse due to social stigma or fear of revocation of visa and deportation (Ali, 2002; Szaflarski, Cubbins & Ying, 2011).

Reaching a better understanding of drinking patterns in different immigrant groups and how they change over time is important for the development of effective alcohol polices and prevention and treatment programs. Evidence suggests that alcohol-related prevention and treatment efforts are more effective when based on an understanding of the ethnic and social context (Szaflarski, Cubbins & Ying, 2011).

This study aimed to enhance understanding of alcohol use among immigrants to Ontario, Canada. Using data from the Centre for Addiction and Mental Health (CAMH) Monitor cross-sectional survey collected between January, 2005 and December, 2010, we examined 1) the prevalence of alcohol use and risk drinking in the foreign-born and the Canadian-born populations by ethnic origin, 2) average self-reported volume of alcohol consumed per year by different ethnic groups and 3) the associations among ethnicity, country of birth, length of residence and drinking measures.

7.3 Methods
Survey design
This study is based on data derived from the CAMH Monitor, a regionally stratified telephone-based survey of Ontario adults (18 years and older) conducted between January 2005 and December 2010. The CAMH Monitor is a cross-sectional survey designed to serve as the primary vehicle for monitoring substance use and mental health problems among Ontario adults. The Monitor is conducted by CAMH and administered by the Institute of Social Research (ISR) at York University using Computer Assisted Telephone Interview (CATI) procedures with a
response rate ranging between 53% and 67%. The survey (or frame) population is based on adult telephone subscribers residing in Ontario who were capable of completing the interview in English. The CAMH Monitor sample is representative for Ontarians aged 18 and older and data estimates are based on the weighted sample size (See Ialomiteanu & Adlaf, 2005; Ialomiteanu & Adlaf, 2009 for sampling design details).

Measures
The major outcomes of interest were drinking status, risk drinking and quantity/volume of alcohol consumed. Drinking status was derived from two questions: During the past 12 months have you had a drink? Those who answered “No” were then asked: Did you EVER have a drink of any alcoholic beverage? Based on these questions, we defined two alcohol use measures:

1. “Lifetime drinker” (coded 1 if the respondent reported being a past 12 months drinker or a former drinker and coded 0 if the respondent reported being a lifetime abstainer [never drank]).

2. “Current drinker” (coded 1 if the respondent used any alcohol in the past 12 months and coded 0 if the respondent did not use alcohol in the past 12 months)

Risk drinking was defined by three indicators:
A. Exceeding the Canada’s Low Risk Drinking Guidelines (LRDG) (Butt et al., 2011) defined as a weekly consumption of 16 or more standard drinks\(^1\) for men or 11 or more standard drinks for women, or exceeding a daily consumption of two drinks for women and three drinks for men in any given day over the past week.

B. Consuming five or more drinks at least once a month (“binge drinking”) during the 12 months before the survey (considered an indicator of “risky single occasion drinking”).

\(^1\)According to the Canada’s Low Risk Drinking Guidelines (LRDG), a standard drink is the equivalent to 341 ml (12 oz.) bottle of 5% alcohol beer, cider or cooler, 142 ml (5 oz.) glass of 12% alcohol wine or 43 ml (1.5 oz.) serving of 40% distilled alcohol.
C. Reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT\textsuperscript{2} screener.

All risk drinking indicators refer to the past 12 months. Responses to the above indicators were recoded to create a third measure:

3. “Risk drinking (in the past 12 months)” (binary coded yes=1, no=0). Respondents were considered risk drinkers (coded 1) if they answered “yes” to at least one of the three problem drinking indicators.

4. The quantity/volume of alcohol consumed is estimated based on a reported number of standard drinks consumed in the past 12 months.

The independent variables include ethnicity, country of birth, age at arrival and length of residence in Canada. Participants were allocated to an ethnic group using a CAMH Monitor question about family origin, “To what ethnic or cultural group did you or your ancestors belong on first coming to this continent?” Country of birth refers to a country in which a person was born (Canada/Other). The question “In what country were you born?” distinguished the first generation immigrants and Canadian born respondents within each ethnic group. Foreign-born respondents were categorized according to their years of residence in Canada (<5, 5-10, 11-20, or 20+ years) based on their response to the question “In what year did you first come to Canada to live?” Age at arrival was calculated by subtracting the year of arrival from the year of birth. Respondents were grouped into two categories: those who arrived in Canada before the age of 19 and those who arrived after the age of 19. Canadian born respondents were dummy coded to zero age at arrival and grouped with immigrants who arrived under the age of 19 for the purposes of logistic regression model 1.

\textsuperscript{2}The 10 AUDIT items focus on drinking frequency, volume, heavy consumption and frequency of various disruptive experiences due to alcohol to assess hazardous and harmful drinking. A score of 8 or more on the AUDIT is generally accepted as an indication of problem drinking (Reinert and Allen, 2002; Carey et al., 2003).
7.4 Data analysis

Sample characteristics

A total of 13,557 respondents were included in the sample considered in the study; 26.8% of the weighted sample were immigrants and 73.2% of them were born in Canada. The Monitor's ancestry question allowed respondents to report one or two ancestry groups. Between 2005 and 2009, 73% of the participants reported one ethnic origin while 27% of the participants reported two ethnic origins. None of the double ancestry groups had a sufficient number to be included in the analysis as a separate group. Respondents who reported two ancestry groups were assigned to an ethnic group based on their first choice/primary group identified.

To assure sufficient statistical power and meaningful group comparisons, the Monitor's 44 ethnic ancestry origins were collapsed into 12 main ethnic categories: Canadian, East Asian, South East Asian, South Asian, Caribbean, African, Middle Eastern, East European, South European, North European, Central West European and Others\(^3\). Based on \textit{a priori} calculations of the sample size per group needed to detect an Odds Ratio of 2.0 and above in a logistic regression, only groups with weighted sample sizes of 131 and above were included in these analyses. Therefore groups whose weighted sample size was less than 131 (African and Middle Eastern) were not included in these analyses. The “Others” group included small groups of individuals from very diverse origins (e.g. Australian, El Salvadorian and Jewish), most of which had no common characteristics and for that reason this group was also not included in the analyses.

Descriptive statistics were used to estimate prevalence of alcohol use and risk drinking in foreign-born and Canadian-born respondents by ethnic group. Simple prevalence estimates for each of the outcomes of interest (proportion of each group that are lifetime, current and risk

\(^3\)Aboriginal peoples were not included in this study. Indigenous peoples are recognized as having unique social, cultural, economic and political characteristics and historical continuity with pre-colonial and/or pre-settler societies. According to a common definition, they are “the descendants of those who inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived” (UN Office of the High Commissioner for Human Rights, 1997).
drinkers), were calculated. Subsequently, effects of ethnicity (with the sole origin Canadian group serving as the referent group), place of birth, and age at arrival in Canada on alcohol measures were assessed using logistic regression analyses. Four logistic regression models were run. Model 1 tested whether ethnicity was a significant predictor of lifetime, current and risk drinking, controlling for place of birth and age at arrival. Model 2 included only Canadian born respondents to test the ethnicity effect on alcohol use measures. Models 3 and 4 examined the effects of age at migration and ethnicity on alcohol use measures among foreign born respondents. Models 2-4 were included to assess whether the nature of ethnicity effects differed depending on whether respondents were born in Canada, arrived at Canada under 19 years of age, or arrived at Canada at age 19 or older.

To assess overall consumption among different ethnic groups, average volume of alcohol consumed per year in the ethnic groups was examined with Analysis of Variance (ANOVA). Finally, we explored whether ethnocultural drinking patterns affected the nature of change in drinking measures over time in Canada. To do this, we collapsed ethnic groups into high and low consuming groups based on their average total alcohol consumed per year and used Chi-square tests to examine the association between length of residence in Canada and drinking measures.

7.5 Results
Rates of self-reported alcohol use differed between immigrants and Canadian-born respondents, and among immigrants from different ethnic groups by age at arrival to Canada (before or after the age of 19. Place of birth (Canada/Other) was significantly associated with self-reported lifetime, current and risk drinking for all but two ethnic groups, East Asian and North European.

The prevalence of all alcohol use and risk drinking was generally lower among foreign-born than Canadian-born respondents, with variations across ethnic groups. This difference was larger
among the respondents from the Asian and Caribbean ethnic groups. The largest, more than fourfold difference between the foreign-born and Canadian-born respondents was observed in the rate of self-reported risk drinking in the Caribbean (12.1% vs. 51.1%) followed by the South East Asian (8.1% vs. 30.8%) group.

Relative to other groups, reported prevalence of lifetime, past year and risk drinking was higher among the foreign born respondents from the Canadian and four European groups. The East European group had the highest proportion of foreign-born respondents who reported risk drinking (28.6%), while the South East Asian group had the lowest (8.1%).

For immigrants, the rates of lifetime, current and risk drinking were generally higher among immigrants who arrived to Canada before the age of 19, with the exception of the Canadian and Caribbean group (Table 1). The largest, almost twentyfold difference in the rate of self-reported risk drinking was observed among the foreign born South East Asians (26.1% vs. 1.3%).

Among foreign born respondents who identified themselves as Canadian, the rate of lifetime, current and risk drinking was higher for those who came here after the age of 19 (82.4% vs. 83.3%, 56.9% vs. 70.4% and 15.1% vs. 10%). In the Caribbean group, those who arrived to Canada after the age of 19 reported higher rates of lifetime (82.9% vs. 88.5%) and risk drinking (11.9% vs. 15.5%).

In the logistic regression analyses (Table 2), after controlling for place of birth and age at arrival to Canada, we found ethnicity to be a significant predictor of lifetime, current and risk drinking. Model 1 show that relative to the Canadian group, the odds of lifetime drinking were significantly lower for the East Asian (OR=0.61, 95% CI 0.38-0.99), South East Asian (OR=0.15, 95% CI 0.09-0.26, and South Asian (OR=0.12, 95% CI 0.08-0.17) groups. The odds
of current drinking were significantly lower for the East Asian (OR=0.68, 95% CI 0.52-0.90), South East Asian (OR=0.38, 95% CI 0.26-0.57) and South Asian (OR=0.29, 95% CI 0.23-0.37) groups and significantly higher for the East European (OR=1.48, 95% CI 1.15-1.92), Central West European (OR=1.29 95% CI 1.08-1.55), South European (OR=1.33, 95% CI 1.08-1.66) and North European (OR=2.55, 95% CI=1.45-4.48) groups. The odds of risk drinking were significantly lower for the South East Asian (OR=0.51, 95% CI 0.29-0.90) group, and significantly higher for the Caribbean (OR=2.03, 95% CI 1.12-3.67) and East European (OR=1.34, 95% CI 1.07-1.68) groups when compared to their Canadian counterparts.

Model 2 shows that among Canadian-born respondents, the odds of lifetime drinking were significantly lower among South Asians (OR=0.08, 95% CI 0.04-0.15) South East Asians (OR=0.13, CI 95% 0.04-0.45) and East Asians (OR=0.33, CI 95% 0.13-0.83) compared to those who identified as Canadians. South Asians (OR=0.50, CI 95% 0.31-0.82) were significantly less likely to be risk drinkers while Caribbeans (OR=2.03 CI 95% 1.12-3.67) were significantly more likely to be risk drinkers when compared to the Canadian group.

Model 3 indicates that among immigrants who arrived in Canada under the age of 19, East Asians (OR=3.18, CI 95% 1.13-8.96), East Europeans (OR=4.89 CI95% 1.75-13.62), Central West Europeans (OR=3.62, CI 95% 1.36-9.68), South Europeans (OR=4.02, CI 95 1.47-10.99) and North Europeans (OR=4.83 CI 95% 1.21-19.30) had significantly higher odds of risk drinking relative to the Canadian group. Model 4 shows that among immigrants who arrived after the age of 19, the odds of risk drinking were significantly lower for the South East Asians (OR=0.09, CI 95% 0.01-0.62) and South Asians (OR=0.41, CI 95% 0.17-0.96), relative to those who self-identified as Canadians.

The estimated average volume of alcohol consumed for the entire sample was 174.89 standard drinks per year. As seen in Table 3, the observed average volume of alcohol consumed was
significantly different across ethnic groups ($F(8,11231) = 28.53$, $p<.001$). Post hoc analyses show that between groups the average volume of alcohol was significantly lower for the respondents from the East Asian ($M=65.89$, 95% CI [52.88, 78.90]), South East Asian ($M=32.11$, 95% CI [18.68, 45.54]), South Asian ($M=44.75$, 95% CI [35.30, 54.20]) and Caribbean groups ($M=78.47$, 95% CI [49.51, 107.43]) compared to Canadians ($M=210.44$, 95% CI [184.18, 236.71]) (see Figure 4), East Europeans ($M=183.71$, 95% CI [159.46, 207.97]), Central-West Europeans ($M=203.85$, 95% CI [194.89, 212.81]), South Europeans ($M=174.73$, 95% CI [158.66, 190.81]) and North Europeans ($M=211.57$, 95% CI [152.27, 270.86]). There were no significant differences in average volume of consumption between the Canadian and the four European groups. These results suggested that these nine ethnic groups could be grouped into two homogenous subsets based on the average volume of alcohol consumed in a year: 1) High Consumption Ethnic Groups (HCEG: Canadian, East European, Central-West European, North European & South European) and 2) Low Consumption Ethnic Groups (LCEG: Asian East, Asian South East, Asian South & Caribbean).

We observed significant associations in the percentage of foreign born respondents reporting lifetime, current and risk drinking to length of residency in Canada (<5 years, 5-10 years, 11-20 years and >20 years; Table 4). Among foreign-born respondents in the HCEG, the percentage of respondents who reported lifetime, current and risk drinking was highest amongst recent immigrants (<5 years in Canada) and tended to decrease among immigrants who have lived in Canada for longer periods of time. The proportion of lifetime and current drinkers tended to increase again among those here more than 20 years, but was still lower that among recent immigrants. The proportion of risk drinkers appeared to rise among respondents who have lived in Canada 11-20 years (29.7%) but then fell again among immigrants who have lived in Canada over 20 years (see Figures 5-7).

In the LCEG, the proportion of foreign born respondents who reported lifetime and current drinking increased as length of residence in Canada increased, with the highest proportion
observed among immigrants who have lived in Canada 20+ years. The proportion of respondents reporting risk drinking also increased as length of residence increased, with the greatest percentage observed among those who have lived in Canada 11-20 years. The proportion of respondents reporting risk drinking among those who have lived in Canada 11-20 years (17%) was almost twice the proportion of respondents who have lived in Canada less than five years (8.7%). The proportion of respondents who reported risk drinking among those who have lived in Canada 20+ years dropped to 12.8% (compared to 17%). Figure 7 presents the proportions of HCEG and LCEG respondents reporting risk drinking by years in Canada. The figure shows the converging trends between the two groups, with HCEG respondents showing reductions in risk drinking with increased years in Canada and LCEG showing increased risk drinking with increasing years in Canada. Those in the two groups who have been here less than 5 years diverge quite substantially in risk drinking rates, by the time they have been here more than 20 years their risk drinking rates are much more similar.

7.6 Discussion

This study utilized data from the CAMH Monitor, an ongoing survey that provides epidemiological information on substance use and problems among Ontarians aged 18 and older. Combining the 2005-2010 data sets provided a larger dataset that allowed for a more robust analysis by ethnic group not afforded in the majority of previous studies.

Consistent with previous research, we found that across ethnic groups, immigrants report lower rates of alcohol use than the Canadian born population. The results also show significant variation in alcohol consumption and risk use among immigrants from different ethnic groups. In general, immigrants from the European groups and those who identified as Canadian reported higher rates of alcohol use including lifetime, past year and risk drinking, than foreign born respondents from other ethnic groups. Foreign-born South East Asians reported the lowest rates of alcohol use and risk use. The findings indicate that the pattern of alcohol use in the country of origin is an important predictor of immigrants’ consumption pattern in Canada. For example,
Western and Eastern European countries have some of the world’s highest consumption rates while abstention rates are high in South Asian countries with large Muslim populations (WHO, 2004; 2011).

Our results also suggest that among immigrants, prevalence of alcohol consumption and risk drinking varies by age at arrival and length of residence in Canada. We found that in general immigrants who arrived in Canada under the age of 19 were more likely to report risk drinking than those who arrived at later ages adults (≥19 years of age). This is consistent with other studies suggesting that migrating at younger age increases risks of alcohol use and risk drinking (Borges et al., 2012; Jirapramukpitak et al., 2008; Li & Wen, 2013).

While previous studies generally found an increase in alcohol consumption with years in Canada, our data suggest that longer duration of residence may have either positive or negative effects on immigrants' alcohol use, depending on their country of origin or traditional drinking pattern. We found that for immigrants who come from low consumption countries, alcohol use and risk drinking tend to increase with longer residence in Canada. However, for immigrants arriving from high-consumption, mainly European countries, rates of alcohol use and risk drinking may not change or even decrease as the length of residence in Canada increased.

The results suggest that the degree of change in drinking measures between being born in Canada versus being born outside of Canada varies significantly with self-reported ethnicity. In comparison to those who identify their ethnicity as Canadian, the differences in alcohol measures for being born in Canada compared to being born outside of Canada were significantly less, on at least one measure, for every ethnic group. These results highlight the importance of recognizing that the effect on drinking measures of being born inside versus outside Canada cannot be assumed to be the same among all ethnic groups. Additionally, they also suggest that it may be useful to examine more carefully the group that identify their ethnic group as Canadian and
report being born outside of Canada, since this group seems to have contributed strongly to these effects (see Figure 3). One possibility is that while the drinking practices of self-identified Canadians who report being born in Canada more closely resemble those from the heavier consuming European countries, the drinking practices of self-reported Canadians who report being born outside of Canada more closely resemble those from the lighter consuming Asian and Caribbean regions. Further research might usefully identify the counties of origin of those self-identified Canadians who report being born outside of Canada.

There are several factors that may influence post-migration changes in alcohol consumption. Based on the acculturation model, health behaviors of immigrants change over time as a result of interaction with the host culture (Berry, 2005). For immigrants arriving from countries where the average volume of drinking is lower than in the host country, exposure to more liberal alcohol norms and increased opportunity to use alcohol may contribute to increased alcohol consumption. Drinking patterns that used to be reserved for special occasions may become more frequent and problematic (Collins & McNair, 2003; Fosados et al., 2007; WHO, 2004; Browne & Renzaho, 2010). For immigrants arriving from countries where the average volume of drinking is higher than in the host country, traditional drinking patterns may change overtime to become less harmful due to exposure to different norms and expectations about alcohol use as well as stricter law enforcement (Caetano et al., 1998; Hendershot et al., 2008).

The minority stress model and the social stress model suggest that stress resulting from discrimination, racism, social isolation and economic deprivation is a contributing factor to alcohol consumption among minority ethnic groups (Harvey, 1985; Jones-Webb et al., 1997; Caetano et al., 1998; Trimble et al, 1992; Meyer, 2003). The life course perspective to immigrant health takes into consideration age, relationships, life transitions, and social factors that shape their alcohol use patterns over the life course (Gong et al., 2011; Li & Wen, 2013; WHO, 2000). Childhood and adolescence are sensitive developmental stages when social skills, coping strategies, attitudes, norms and values are more easily acquired than at later ages.
Immigrants who come to Canada before adulthood may be more likely to be influenced by the Canadian norms of alcohol use and at higher risks of risk drinking as adults. It is also possible that individuals who migrate at younger age experience a higher level of acculturation stress which has been linked to higher risk of substance use (Li & Wen, 2013). On the other hand, older individuals tend to display positive health behavior change due to their higher vulnerability to health problems, which might contribute to lower rates of risk drinking among long term immigrants (20+) (Zanjani et al., 2006).

The results seen here suggest that change in alcohol consumption and risk drinking with acculturation cannot be assumed to be unidirectional. Instead these data suggest that drinking habits of new Canadians will change, over time, in the direction of the host (Canadian) culture, as predicted by acculturation theory. Nevertheless, it is still possible that new Canadians may be drinking to cope with stress resulting from discrimination, racism, social isolation and economic deprivation. Our data suggest the possibility that recent immigrants from heavier using cultures who already have well developed patterns of alcohol use may be at particularly high risk of alcohol-related problems, since it may be possible that drinking to cope with post-migration stress may be much more likely in these groups than those from lighter drinking cultures. While the results of this research are of substantial interest, the limitations of the research must be kept in mind. The study findings are based on cross-sectional data which cannot identify causal relationships. Another concern is potential sample selection bias due to the sampling procedures that excluded individuals with limited English or French language skills. Because the results are based on self-report, the possibility of underreporting or over-reporting cannot be excluded. In the 2010 CAMH Monitor, questions constituting the measure for exceeding the Low Risk Drinking Guidelines were not asked. Therefore, risk drinkers are only included in 2010 if they consumed five drinks at one time monthly, or scored eight or more on the AUDIT. Our estimates for risk drinking in the data from 2010 may therefore be reduced by this change. Aggregation of some ethnic groups due to limited cell sizes may mask important heterogeneity within the large groups. Finally, because of the small sample size in some groups, the data should in general be treated with caution.
7.7 Conclusion

Keeping these limitations in mind, this study advances prior research by providing new insights into the dynamics of alcohol use in diverse groups of immigrants to Canada. In addition, our data reflect more recent immigration trends than previous research. Future research is needed to investigate factors that influence alcohol use by immigrants from particular ethnic groups and to examine intra-group variability. While immigrants report lower rates of alcohol use than the Canadian-born population, the prevalence of drinking and risk use varies by country of origin, ethnicity, age at migration and length of residence in Canada. As the proportion of Canada’s foreign-born population will continue to increase significantly, more understanding of the prevalence and patterns of alcohol use in various ethnic groups and how they change over the time is needed to shed more light on the nature and severity of alcohol use and related problems in Canada. This knowledge will help identify high risk groups and determine the need to develop targeted prevention initiatives.
7.8 References


immigrant population from Latin America in Valencia Region (Spain). *Substance Use Misuse, 45*(14), 2567-2578.


Table 1: Alcohol use and drinking measures by ethnicity and Country of Birth (Canada/Other who arrived before 19 yrs old/Other who arrive 19 yrs old and older), Ontarians aged 18 and older, CAMH Monitor

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Sample (total N=13557)*</th>
<th>Lifetime Drinkers</th>
<th>Current Drinkers</th>
<th>Risk Drinkers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unweighted N (Weighted N)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
</tr>
<tr>
<td>Canadian</td>
<td>899 (842) Total</td>
<td>95.9</td>
<td>80.6</td>
<td>31.5</td>
</tr>
<tr>
<td></td>
<td>806 (738) Born in Canada</td>
<td>97.7 (±1.08)</td>
<td>82.9 (±2.72)</td>
<td>34.2 (±3.44)</td>
</tr>
<tr>
<td></td>
<td>48 (50) Age at arrival &lt;19</td>
<td>82.4 (±10.45)</td>
<td>56.9 (±13.59)</td>
<td>10 (±8.32)</td>
</tr>
<tr>
<td></td>
<td>45 (34) Age at arrival ≥19</td>
<td>83.3 (±9.95)</td>
<td>70.4 (±12.18)</td>
<td>15.1 (±9.64)</td>
</tr>
<tr>
<td></td>
<td>X² significance</td>
<td>**</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Asian East</td>
<td>273 (424) Total</td>
<td>88.4</td>
<td>65.8</td>
<td>21.3</td>
</tr>
<tr>
<td></td>
<td>64 (101) Born in Canada</td>
<td>93.1 (±4.94)</td>
<td>72.3 (±8.73)</td>
<td>27.7 (±8.73)</td>
</tr>
<tr>
<td></td>
<td>72 (133) Age at arrival &lt;19</td>
<td>93.2 (±4.28)</td>
<td>73.9 (±7.44)</td>
<td>24.4 (±7.35)</td>
</tr>
<tr>
<td></td>
<td>137 (190) Age at arrival ≥19</td>
<td>83.7 (±5.25)</td>
<td>59.5 (±6.98)</td>
<td>17 (±5.46)</td>
</tr>
<tr>
<td></td>
<td>X² significance</td>
<td>**</td>
<td>N.S.</td>
<td>***</td>
</tr>
<tr>
<td>Asian South East</td>
<td>85 (132) Total</td>
<td>67.4</td>
<td>49.6</td>
<td>12.4</td>
</tr>
<tr>
<td></td>
<td>14 (26) Born in Canada</td>
<td>84.6 (±13.87)</td>
<td>76.9 (±16.20)</td>
<td>30.8 (±17.75)</td>
</tr>
<tr>
<td></td>
<td>12 (26) Age at arrival &lt;19</td>
<td>64 (±18.82)</td>
<td>57.7 (±18.99)</td>
<td>26.1 (±17.95)</td>
</tr>
<tr>
<td></td>
<td>59 (80) Age at arrival ≥19</td>
<td>60 (±10.74)</td>
<td>42.5 (±10.85)</td>
<td>1.3 (±2.51)</td>
</tr>
<tr>
<td></td>
<td>X² significance</td>
<td>**</td>
<td>N.S.</td>
<td>***</td>
</tr>
<tr>
<td>Asian South</td>
<td>352 (616) Total</td>
<td>58.1</td>
<td>44.5</td>
<td>10.9</td>
</tr>
<tr>
<td></td>
<td>58 (112) Born in Canada</td>
<td>76.8 (±7.82)</td>
<td>66.1 (±8.77)</td>
<td>20.7 (±7.54)</td>
</tr>
<tr>
<td></td>
<td>77 (151) Age at arrival &lt;19 old</td>
<td>52.3 (±7.97)</td>
<td>42.8 (±7.87)</td>
<td>15.4 (±5.80)</td>
</tr>
<tr>
<td></td>
<td>217 (353) Age at arrival ≥19</td>
<td>57.3 (±5.16)</td>
<td>39.9 (±5.11)</td>
<td>6.7 (±2.65)</td>
</tr>
<tr>
<td></td>
<td>X² significance</td>
<td>**</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Caribbean</td>
<td>98 (140) Total</td>
<td>91.2</td>
<td>73.0</td>
<td>23.7</td>
</tr>
<tr>
<td></td>
<td>28 (46) Born in Canada</td>
<td>100.0 (±0.00)</td>
<td>91.5 (±7.97)</td>
<td>51.1 (±14.29)</td>
</tr>
<tr>
<td></td>
<td>29 (42) Age at arrival &lt;19</td>
<td>82.9 (±11.52)</td>
<td>73.9 (±13.30)</td>
<td>11.9 (±9.79)</td>
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<td></td>
<td>41 (32) Age at arrival ≥19</td>
<td>88.5 (±8.67)</td>
<td>62.3 (±13.05)</td>
<td>15.6 (±10.60)</td>
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<td></td>
<td>X² significance</td>
<td>***</td>
<td>**</td>
<td>N.S.</td>
</tr>
<tr>
<td>East European</td>
<td>834 (863) Total</td>
<td>96.3</td>
<td>84.7</td>
<td>37.1</td>
</tr>
<tr>
<td></td>
<td>593 (596) Born in Canada</td>
<td>97.8 (±1.18)</td>
<td>87.8 (±2.63)</td>
<td>41.0 (±3.99)</td>
</tr>
<tr>
<td></td>
<td>114 (135) Age at arrival &lt;19</td>
<td>98.5 (±2.05)</td>
<td>84.4 (±6.12)</td>
<td>33.6 (±8.09)</td>
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<tr>
<td></td>
<td>127 (132) Age at arrival ≥19</td>
<td>89.4 (±5.25)</td>
<td>71.8 (±7.71)</td>
<td>23.8 (±7.44)</td>
</tr>
<tr>
<td></td>
<td>X² significance</td>
<td>**</td>
<td>***</td>
<td>**</td>
</tr>
<tr>
<td>Central-West European</td>
<td>6977 (6387) Total</td>
<td>96.4</td>
<td>84.0</td>
<td>34.2</td>
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<tr>
<td></td>
<td>6057 (5543) Born in Canada</td>
<td>96.6 (±0.48)</td>
<td>84.5 (±0.95)</td>
<td>35.9 (±1.27)</td>
</tr>
<tr>
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<td>533 (403) Age at arrival &lt;19</td>
<td>96.5 (±1.80)</td>
<td>83.9 (±3.59)</td>
<td>27.1 (±4.36)</td>
</tr>
<tr>
<td></td>
<td>498 (441) Age at arrival ≥19</td>
<td>94.3 (±2.17)</td>
<td>80.3 (±3.71)</td>
<td>19.5 (±3.74)</td>
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<tr>
<td></td>
<td>X² significance</td>
<td>N.S.</td>
<td>**</td>
<td>***</td>
</tr>
<tr>
<td>South European</td>
<td>1791 (1692) Total</td>
<td>95.5</td>
<td>84.4</td>
<td>33.1</td>
</tr>
<tr>
<td></td>
<td>1503 (1369) Born in Canada</td>
<td>96.6 (±0.96)</td>
<td>85.9 (±1.85)</td>
<td>35.1 (±2.55)</td>
</tr>
<tr>
<td></td>
<td>173 (201) Age at arrival &lt;19 old</td>
<td>94 (±3.29)</td>
<td>81.5 (±5.38)</td>
<td>29.1 (±6.36)</td>
</tr>
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<td></td>
<td>115 (122) Age at arrival ≥19 old</td>
<td>85.2 (±6.30)</td>
<td>71.9 (±8.01)</td>
<td>16.5 (±6.78)</td>
</tr>
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<td></td>
<td>X² significance</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>North European</td>
<td>216 (162) Total</td>
<td>97.5</td>
<td>90.9</td>
<td>35.4</td>
</tr>
<tr>
<td></td>
<td>174 (130) Born in Canada</td>
<td>97.7 (±2.57)</td>
<td>90.8 (±4.97)</td>
<td>38.5 (±8.36)</td>
</tr>
<tr>
<td></td>
<td>21 (17) Age at arrival &lt;19</td>
<td>88.9 (±14.51)</td>
<td>88.2 (±15.34)</td>
<td>33.3 (±21.77)</td>
</tr>
<tr>
<td></td>
<td>21 (15) Age at arrival ≥19</td>
<td>100 (±0.00)</td>
<td>100 (±0.00)</td>
<td>7.1 (±13.45)</td>
</tr>
<tr>
<td></td>
<td>X² significance</td>
<td>N.S.</td>
<td>N.S.</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Note: * Estimates based on unweighted sample; † Estimates based on weighted sample; Statistical significance (Χ²): *p<0.05, ** p<0.01, *** p<0.001; N.S. = not significant; Def: Lifetime drinking (percent reporting drinking alcohol in their lifetime); Current drinking (percent reporting...
drinking alcohol at least once in the past 12 months); Risk drinking (percent that reported one or more of the following 1) Exceeding the Canada’s Low Risk Drinking Guidelines (LRDG) defined as a weekly consumption of 16 or more standard drinks for men or 11 or more standard drinks for women, or exceeding a daily consumption of two drinks for women and three drinks for men in any given day over the past week; 2) Consuming five or more drinks at least once a month (“binge drinking”) during the 12 months before the survey (considered an indicator of “risky single occasion drinking”); 3) Reporting hazardous or harmful drinking as indicated by a score of 8 or more out of 40 on the AUDIT screener.

Figure 1: Percentage of Ethnic Groups that reported Lifetime drinking by Immigration Status (Canadian Born, Immigrant arrived in Canada when 18 years old or younger, Immigrant arrived in Canada age 19 or older)

![Percentage Lifetime Drinkers graph]

- Born in Canada
- Arrived in Canada <19 yrs old
- Arrived in Canada >=19 yrs old

*** p<0.001; ** p<0.01; * p<0.05
**Figure 2**: Percentage of Ethnic Groups that reported Current drinking by Immigration Status (Canadian Born, Immigrant arrived in Canada when 18 years old or younger, Immigrant arrived in Canada age 19 or older)

![Percentage Current Drinkers](image)

- Born in Canada
- Arrived in Canada <19 yrs old
- Arrived in Canada >=19 yrs old

*** p<0.001; ** p<0.01; * p<0.05

**Figure 3**: Percentage of Ethnic Groups that reported Risk drinking by Immigration Status (Canadian Born, Immigrant arrived in Canada when 18 years old or younger, Immigrant arrived in Canada age 19 or older)

![Percentage Risk Drinkers](image)

- Born in Canada
- Arrived in Canada <19 yrs old
- Arrived in Canada >=19 yrs old

*** p<0.001; ** p<0.01; * p<0.05
Table 2: Logistic Regression Models for Lifetime Drinking, Current Drinking and Risk Drinking

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lifetime Drinking (OR 95%)</th>
<th>Current Drinking (OR 95%)</th>
<th>Risk Drinking (OR 95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Asian East</td>
<td>0.61 (0.38-0.99)*</td>
<td>0.68 (0.52-0.90)**</td>
<td>0.96 (0.72-1.27)</td>
</tr>
<tr>
<td>Asian South East</td>
<td>0.15 (0.09-0.26)***</td>
<td>0.38 (0.26-0.57)***</td>
<td>0.51 (0.29-0.90)*</td>
</tr>
<tr>
<td>Asian South</td>
<td>0.12 (0.08-0.17)***</td>
<td>0.29 (0.23-0.37)***</td>
<td>0.48 (0.35-0.65)***</td>
</tr>
<tr>
<td>Caribbean</td>
<td>0.65 (0.34-1.28)</td>
<td>1.00 (0.65-1.54)</td>
<td>1.15 (0.76-1.75)</td>
</tr>
<tr>
<td>East European</td>
<td>1.51 (0.91-2.51)</td>
<td>1.48 (1.15-1.92)**</td>
<td>1.46 (1.18-1.79)**</td>
</tr>
<tr>
<td>Central-West European</td>
<td>1.19 (0.82-1.71)</td>
<td>1.29 (1.08-1.55)**</td>
<td>1.14 (0.98-1.34)</td>
</tr>
<tr>
<td>South European</td>
<td>0.97 (0.64-1.46)</td>
<td>1.33 (1.08-1.66)**</td>
<td>1.11 (0.93-1.33)</td>
</tr>
<tr>
<td>North European</td>
<td>1.65 (0.61-4.49)</td>
<td>2.55 (1.45-4.48)**</td>
<td>1.23 (0.86-1.76)</td>
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<td>Birthplace</td>
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<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Outside Canada</td>
<td>0.49 (0.39-0.63)***</td>
<td>0.75 (0.64-0.87)***</td>
<td>0.66 (0.57-0.77)***</td>
</tr>
<tr>
<td>Age at Arrival in Canada</td>
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<tr>
<td>0-18</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>19+</td>
<td>0.76 (0.59-0.96)*</td>
<td>0.70 (0.59-0.84)***</td>
<td>0.57 (0.50-0.70)***</td>
</tr>
<tr>
<td>Constant</td>
<td><strong>26.99</strong>*</td>
<td><strong>4.43</strong>*</td>
<td><strong>0.49</strong>*</td>
</tr>
<tr>
<td>$X^2$</td>
<td><strong>903.94</strong>*</td>
<td><strong>641.86</strong>*</td>
<td><strong>317.30</strong>*</td>
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<td><strong>10</strong></td>
<td><strong>10</strong></td>
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<tr>
<td><strong>Model 2 (Canadian Born Only)</strong></td>
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<tr>
<td>Ethnicity</td>
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<td></td>
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<tr>
<td>Canadian</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Asian East</td>
<td>0.33 (0.13-0.83)*</td>
<td>0.55 (0.34-0.88)*</td>
<td>0.75 (0.47-1.19)</td>
</tr>
<tr>
<td>Asian South East</td>
<td>0.13 (0.04-0.45)**</td>
<td>0.64 (0.26-1.59)</td>
<td>0.86 (0.37-2.00)</td>
</tr>
<tr>
<td>Asian South</td>
<td>0.08 (0.04-0.15)***</td>
<td>0.40 (0.26-0.61)***</td>
<td>0.50 (0.31-0.82)**</td>
</tr>
<tr>
<td>Caribbean</td>
<td>§</td>
<td>2.32 (0.80-6.76)</td>
<td>2.03 (1.12-3.67)*</td>
</tr>
<tr>
<td>East European</td>
<td>1.06 (0.51-2.19)</td>
<td>1.48 (1.08-2.02)*</td>
<td>1.34 (1.07-1.68)*</td>
</tr>
<tr>
<td>Central-West European</td>
<td>0.69 (0.41-1.13)</td>
<td>1.12 (0.92-1.38)</td>
<td>1.08 (0.92-1.27)</td>
</tr>
<tr>
<td>South European</td>
<td>0.68 (0.39-1.19)</td>
<td>1.25 (0.98-1.60)</td>
<td>1.05 (0.87-1.26)</td>
</tr>
<tr>
<td>North European</td>
<td>1.08 (0.30-3.88)</td>
<td>1.96 (1.06-3.63)*</td>
<td>1.20 (0.82-1.77)</td>
</tr>
<tr>
<td>Constant</td>
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<td><strong>4.86</strong>*</td>
<td><strong>0.518</strong>*</td>
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<tr>
<td>$X^2$</td>
<td><strong>76.91</strong>*</td>
<td><strong>49.07</strong>*</td>
<td><strong>27.93</strong>*</td>
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<tr>
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<td><strong>Model 3 (Immigrants &lt;19 at arrival)</strong></td>
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<tr>
<td>Canadian</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Asian East</td>
<td>2.91 (1.07-7.97)*</td>
<td>2.16 (1.09-4.26)*</td>
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<tr>
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<td>3.58 (0.95-13.56)</td>
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<tr>
<td>Asian South</td>
<td>0.23 (0.10-0.50)***</td>
<td>0.56 (0.30-1.07)</td>
<td>1.82 (0.63-5.22)</td>
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<tr>
<td>Caribbean</td>
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<td>2.23 (0.91-5.43)</td>
<td>1.39 (0.37-5.24)</td>
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<tr>
<td>East European</td>
<td>16.61 (3.02-91.51)**</td>
<td>4.12 (1.99-8.54)***</td>
<td>4.89 (1.75-13.62)**</td>
</tr>
<tr>
<td>Central-West European</td>
<td>5.55 (2.24-13.72)***</td>
<td>3.92 (2.11-7.27)***</td>
<td>3.62 (1.36-9.68)**</td>
</tr>
<tr>
<td>South European</td>
<td>3.17 (1.24-8.10)***</td>
<td>3.35 (1.73-6.51)***</td>
<td>4.02 (1.47-10.99)**</td>
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<tr>
<td>North European</td>
<td>1.90 (0.33-10.98)</td>
<td>5.01 (1.12-6.51)*</td>
<td>4.83 (1.21-19.30)*</td>
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<tr>
<td>Constant</td>
<td><strong>4.89</strong>*</td>
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<tr>
<td>$X^2$</td>
<td><strong>199.74</strong>*</td>
<td><strong>114.33</strong>*</td>
<td><strong>27.52</strong>*</td>
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<tr>
<td>Variables</td>
<td>Lifetime Drinking (OR 95%)</td>
<td>Current Drinking (OR 95%)</td>
<td>Risk Drinking (OR 95%)</td>
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<tr>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Asian East</td>
<td>1.03 (0.46-2.32)</td>
<td>0.62 (0.32-1.19)</td>
<td>1.15 (0.49-2.66)</td>
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<tr>
<td>Asian South East</td>
<td>0.31 (0.13-0.72)**</td>
<td>0.31 (0.15-0.64)**</td>
<td>0.09 (0.01-0.62)*</td>
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<tr>
<td>Asian South</td>
<td>0.27 (0.13-0.57)**</td>
<td>0.29 (0.15-0.53)**</td>
<td>0.41 (0.17-0.96)*</td>
</tr>
<tr>
<td>Caribbean</td>
<td>1.47 (0.49-4.40)</td>
<td>0.71 (0.32-1.61)</td>
<td>1.08 (0.37-3.21)</td>
</tr>
<tr>
<td>East European</td>
<td>1.69 (0.68-4.18)</td>
<td>1.08 (0.54-2.16)</td>
<td>1.75 (0.75-4.11)</td>
</tr>
<tr>
<td>Central-West European</td>
<td>3.29 (1.45-7.48)**</td>
<td>1.73 (0.92-3.25)</td>
<td>1.36 (0.62-2.98)</td>
</tr>
<tr>
<td>South European</td>
<td>1.19 (0.50-2.86)</td>
<td>1.08 (0.53-2.18)</td>
<td>1.14 (0.46-2.78)</td>
</tr>
<tr>
<td>North European</td>
<td>§</td>
<td>§</td>
<td>0.48 (0.06-3.77)</td>
</tr>
<tr>
<td>Constant</td>
<td>4.95***</td>
<td>2.35**</td>
<td>0.18***</td>
</tr>
<tr>
<td>X²</td>
<td>203.84***</td>
<td>177.46***</td>
<td>54.03***</td>
</tr>
<tr>
<td>df</td>
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</tr>
</tbody>
</table>

X² or Wald test: *p<0.05 **p<0.01 ***p<0.001

Note: All estimates are based on weighted sample; Statistical significance (X²):* p<0.05, ** p<0.01, *** p<0.001; § = suppressed data; N.S. = not significant

Table 3: Average alcohol volume consumed per year (ANOVA)

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Alcohol Volume</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian</td>
<td>210.44</td>
<td>385.26</td>
</tr>
<tr>
<td>Asian East</td>
<td>65.89</td>
<td>136.97</td>
</tr>
<tr>
<td>Asian South East</td>
<td>32.11</td>
<td>78.43</td>
</tr>
<tr>
<td>Asian South</td>
<td>44.75</td>
<td>123.04</td>
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<tr>
<td>Caribbean</td>
<td>78.47</td>
<td>183.93</td>
</tr>
<tr>
<td>East European</td>
<td>183.71</td>
<td>362.11</td>
</tr>
<tr>
<td>Central-West European</td>
<td>203.85</td>
<td>364.13</td>
</tr>
<tr>
<td>South European</td>
<td>174.73</td>
<td>335.68</td>
</tr>
<tr>
<td>North European</td>
<td>211.57</td>
<td>382.85</td>
</tr>
</tbody>
</table>

F (8,11,231) =28.525 p<0.001
Figure 4: Ethnic Group Average yearly alcohol consumption with 95% C.I.

![Graph showing average yearly alcohol consumption by ethnic group with 95% confidence intervals.]

Table 4: Alcohol use and drinking patterns by High and Low Volume Consumption Ethnic Groups and Length of Residency in Canada, Ontarians aged 18 and older, CAMH Monitor

<table>
<thead>
<tr>
<th>Alcohol Measure</th>
<th>Length of Residency in Canada</th>
<th>High Consumption Ethnic Groups</th>
<th>Low Consumption Ethnic Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;5 years</td>
<td>5-10 years</td>
<td>11-20 years</td>
</tr>
<tr>
<td></td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
</tr>
<tr>
<td>Lifetime Drinking**</td>
<td>Yes</td>
<td>96.1 (4.35)</td>
<td>85.7 (7.19)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3.9 (4.35)</td>
<td>14.3 (7.19)</td>
</tr>
<tr>
<td>Current Drinking*</td>
<td>Yes</td>
<td>84.2 (8.20)</td>
<td>68.5 (9.49)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>15.8 (8.20)</td>
<td>31.5 (9.49)</td>
</tr>
<tr>
<td>Risk Drinkers***</td>
<td>Yes</td>
<td>43.4 (11.14)</td>
<td>24.4 (8.87)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>56.6 (11.14)</td>
<td>75.6 (8.87)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime Drinking***</td>
<td>Yes</td>
<td>60.4 (6.83)</td>
<td>62.6 (6.61)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>39.6 (6.83)</td>
<td>37.4 (6.61)</td>
</tr>
<tr>
<td>Current Drinking*</td>
<td>Yes</td>
<td>43.1 (6.92)</td>
<td>46.1 (6.81)</td>
</tr>
<tr>
<td></td>
<td>No</td>
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<tr>
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<td>Yes</td>
<td>8.7 (4.07)</td>
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<tr>
<td></td>
<td>No</td>
<td>91.3 (4.07)</td>
<td>87.9 (4.53)</td>
</tr>
</tbody>
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Note: All estimates are based on weighted sample; Statistical significance (X²): * p<0.05, ** p<0.01, *** p<0.001; N.S. = not significant
**Figure 5:** Lifetime drinking use by High and Low volume Consumption Ethnic Groups and Length of Residence in Canada

**Figure 6:** Current drinking use by High and Low volume Consumption Ethnic Groups and Length of Residence in Canada
Figure 7: Risk drinking use by High and Low volume Consumption Ethnic Groups and Length of Residence in Canada
Chapter 8
Discussion

To better understand alcohol consumption among ethnic groups in Ontario and factors influencing their vulnerability to risk drinking, this research used a mixed methods approach. The integration of qualitative and quantitative methods provided insights and understanding that could have been overlooked if only a single approach was used (Johnson & Onwuegbuzie, 2004). Focus group discussions with community members and key informants from seven Ontario ethnic groups generated rich data which provided a deeper understanding of cultural norms, beliefs and patterns of alcohol consumption that could not be obtained from purely quantitative methods. The reanalysis of the existing CAMH Monitor survey data with new research questions provided innovative and important information on the prevalence of alcohol use and risk drinking in Ontario ethnic groups, and associated socio-demographic determinants. Combining the 2005-2010 data sets provided a large sample that allowed a robust analysis by ethnic group not afforded in the vast majority of previous studies.

The results of the three studies revealed significant differences in the prevalence and patterns of alcohol use both between and within ethnic groups. While the European and the Canadian groups reported higher rates of lifetime, current and risk drinking compared to other ethnic groups, the findings also suggest that the proportion of risk drinkers in non-Western ethnic groups may be higher than previously reported. Due to the limited sample size of some groups, the survey data could not be disaggregated further into more discrete ethnic groups.

Focus group data complemented the survey findings. The results indicate that risk drinking is a significant but unrecognized problem in some minority ethnic groups including the Punjabi and the Russian communities. Though overall abstinence rates are higher in ethnic groups with
strong religious norms against alcohol such as Punjabi and Somali, drinking still takes place within certain degrees of social acceptability.

Echoing findings in the literature, focus group discussions highlighted the complex and dynamic role of cultural norms and expectancies in shaping alcohol use in ethnic groups. In some ethnic groups, including the Russian, Polish and Serbian groups, alcohol consumption was viewed as a normative part of their culture that is difficult to change. Alcohol is used to celebrate special occasions, to numb the pain of grief, to treat or prevent some health problems, and to cope with stress. Although Sikhism and Islam prohibit the use of alcohol and Hinduism generally disapproves of it, drinking is not a rare occurrence in the Punjabi, Somali and Tamil communities. In the Punjabi community alcohol use is widespread and Sikh men are viewed as ‘heavy drinkers’.

For most groups, alcohol is an important part of social life. Drinking usually takes place in social settings such as bars, parties and sporting events. However, solitary drinking even on a daily basis appears to be acceptable in the Russian community. In the Portuguese community alcohol is used daily with meals, in the morning before going to work or after work with friends. Heavy drinking on weekends or holidays is a common practice in the Russian community.

The perceptions of ‘normal’ or socially acceptable drinking varied from two beers in the Somali community to 0.5 L of vodka in the Russian community. While alcohol intoxication is generally not condoned, heavy social drinking and occasional inebriation was well tolerated in the Russian, Polish, Portuguese, Serbian and Punjabi communities. Respondents from these groups noted that consuming more than five drinks at a time is a common practice. In the Serbian and Russian communities, men are expected to drink large amounts of alcohol without becoming drunk. One's capacity for alcohol consumption is directly related to masculinity.
The notion of a ‘standard drink’ was an unfamiliar concept for the vast majority of participants from all seven ethnic groups because of the different types of alcoholic beverages they use, the different sized glasses or different drinking practices. For example, a large percentage of wine consumed in the Toronto’s Portuguese community is homemade or purchased from local markets. The actual alcohol content of this wine is considered to be higher than 12% alcohol content. In the Tamil community, some people still drink ‘toddy’ and ‘arrack’, local drinks from their home country available from the local Tamil stores in Toronto. Moreover, counting and measuring drinks is not a custom in any of the communities that participated in the focus groups. This suggests a possibility that survey respondents from some groups might have miscalculated the number of standard drinks reported.

Within-group differences were observed by gender, place of birth, age of arrival and length of residence in Canada. Consistent with other studies (e.g. Brown et al., 2005; Heath, 1995; Li & Wen, 2013; NIH, 2008; Obot & Room, 2005), across ethnic groups, men were more likely than women to be lifetime drinkers, current drinkers and risk drinkers. The gender difference was smaller in the Canadian and the European groups relative to other ethnic groups. This is consistent with the reports of diminishing gender differences in Europe and North America (Bloomfield et al., 2003; Keyes, Schulenberg, O’Malley, 2012).

Alcohol use is strongly influenced by gender norms. The qualitative data confirmed that across ethnic groups alcohol use is generally viewed as a predominantly male activity. Gender differences in alcohol consumption appear to be more prominent in ethnic groups with well-defined traditional gender attitudes that negatively view alcohol use in females. Nevertheless, even in communities with very tolerant attitudes toward alcohol consumption, women’s drinking is more socially restricted than men’s. At social occasions women are expected to drink modestly. Women who drink more than modest amounts of alcohol are socially shunned. Compliance with traditional gender norms may change over time. Female drinking seem to be on the rise in ethnic groups with proscriptions against women drinking, such as Punjabi, Somali
and Tamil groups, especially among young women raised in Canada. For fear of being stigmatized, women often hide their drinking.

While across ethnic groups, immigrants reported lower rates of alcohol use than the Canadian born population, the prevalence of alcohol use and risk drinking varied greatly by country/region of origin, age at arrival and length of residence in Canada. Foreign born respondents from the European groups and those who identified as Canadian reported higher rates of lifetime, past year and risk drinking, than foreign born respondents from other ethnic groups. Recent immigrants to Canada are likely to continue the country-of-origin alcohol use patterns. In general, immigrants who arrived in Canada under the age of 19 reported higher rates of risk drinking than those who arrived as adults. Similar to other studies (e.g. Li & Wen, 2013; Szaflarski et al., 2011), we found that immigrants’ drinking patterns tend to change over time shifting to the patterns and practices of the host society. Importantly, length of residency in Canada may have either positive or negative effects on immigrants' alcohol use, depending on their country of origin. We observed that for immigrants who come from low consumption countries or regions such as South and South East Asia, alcohol use and risk drinking tend to increase with longer residence in Canada. However, for immigrants arriving from high-consumption, European countries, rates of alcohol use and risk drinking may not change or may even decrease over time.

Focus groups also identified new immigrants as a group at increased risk of alcohol related harm. Alcohol is often used as a coping mechanism against stress, financial problems and loneliness. Recent immigrants from high-consumption countries cultures who already have well developed patterns of alcohol use may be at increased risk of responding to the post-migration stress with hazardous drinking. Participants from ethnic groups with strict religious norms against alcohol raised concerns about excessive drinking among young people growing up in Canada. In some ethnic groups older people are seen to be prone to excessive alcohol consumption due social isolation.
Stigma surrounding alcohol-related problems emerged as a prominent issue in all focus groups. Stigma goes beyond individuals' experiences and affects the whole family. In some communities, it even harm the marriage prospects of the close family members. Because of stigma, problems are usually kept secret within a family and help seeking is delayed as long as possible. The discussions pointed out inadequate knowledge about the recommended drinking limits and alcohol-related harm, barriers in access to information the need for culturally and linguistically relevant programs and services.

Several factors must be considered in explaining our findings. Culture plays an important role in setting norms and expectancies around drinking (Durrant & Thakker, 2003; Grønkjær et al., 2011; Heath, 1995, 2000). Traditional norms that encourage drinking above the recommended limits may put the members of those groups at increased risk of alcohol related problems while conservative alcohol related norms may have a protective value (Marsiglia, & Smith, 2010; Marsiglia et al., 2012). However, not all members of an ethnic group have the same level of identification with their ethnic group and the level of conformance to traditional alcohol norms varies between and within the groups.

Alcohol consumption patterns also change over time. Immigrants' drinking habits change during the acculturation process as a result of interaction with the new culture (Berry, 2005). For immigrants arriving from countries where the average volume of drinking is lower than in Canada, exposure to more generous alcohol norms and increased opportunity to use alcohol may contribute to increased alcohol consumption. For immigrants arriving from countries where the average volume of drinking is higher than in Canada, traditional drinking patterns may change overtime to become less harmful due to exposure to different regulations and expectations about alcohol use as well as stricter law enforcement (Caetano et al., 1998; Hendershot, Dillworth, Neighbors & George, 2008). Individuals who immigrate to Canada at younger ages may be more likely to adopt the drinking norms of the host country. They also may be exposed to a
higher level of acculturation stress that has been linked to a higher risk of substance use (Li & Wen, 2013). Social and economic factors are powerful determinants of substance use. Chronic stress resulting from discrimination, racism, low socio-economic status and social exclusion are contributing factors to risk drinking among minority ethnic groups (Caetano et al., 1998; Meyer, 2003; Rao, 2006; Trimble et al, 1992). Drinking may become a means of coping with stress, adversity and unfulfilled expectations. Stigma surrounding alcohol use problems and disparities in access to prevention and treatment programs increase the vulnerability of minority ethnic groups to alcohol related harm.

8.1 Limitations
There are several limitations to this research. Focus groups allow researchers to “learn or confirm the meaning behind the facts”, but findings are not generalizable to the entire ethnic population (Leung & Savithiri, 2009). Cross-sectional data cannot describe changes in drinking over time or identify causal relationships. In the 2010 CAMH Monitor, questions constituting the measure for exceeding the Low Risk Drinking Guidelines were not asked. Therefore, risk drinkers are only included in the 2010 data if they consumed five drinks at one time monthly, or scored eight or more on the AUDIT. Our estimates for risk drinking in the 2010 data may therefore be reduced by this change. There is a potential selection bias due to the exclusion of individuals with limited English language skills. Telephone surveys tend to over-represent those with higher education and under-represent those with lower education (Trewin & Lee, 1988). The study findings are based on self-reported behaviour, and therefore the data may be affected by associated forms of bias. While the response rate of the CAMH Monitor is considered good, non-response and other forms of bias may be affecting the study results. More generally, due to the small sample size of some ethnic groups, the study findings should be treated with caution.
8.1 Implications and further research recommendations

Canada’s population has become increasingly ethnically diverse. Addressing disparities in alcohol use among population groups requires evidence about risk and protective factors and the distribution of risk drinking across and within ethnic groups to guide program and service planning. The results from this study revealed important information on alcohol consumption and risk drinking in Ontario ethnic groups. Consistent with previous studies (e.g. Amundsen, 2012; Hjern & Allebeck, 2003; Hurcombe et al., 2010), increased prevalence of alcohol use and risk drinking was found in the European-origin ethnic groups and the Canadian-born population. However, our data suggest that alcohol use should be further explored in ethnic groups in which alcohol use is strictly sanctioned or prohibited, and in recent immigrants from heavier using cultures. Better understanding of drinking patterns, the prevalence of risk drinking in minority ethnic groups and how they change over time is important to identify and address both hidden and overt problems.

More granular ethnicity data could reveal important differences among various ethnic subgroups included within the same broad ethnic category. Though ethnic subgroups within broad ethnic categories such as the South Asian have many similarities, there are also important differences in religious affiliation, immigration histories and pre and post-migration experiences that may contribute to variations in alcohol consumption. Potential strategies for addressing data limitations include purposefully augmenting existing survey samples with individuals from minority ethnic groups and oversampling from specific ethnic groups. Increasing the response rates among ethnic minorities in survey research is necessary to reduce nonresponse bias (Feskens, Hox & Lensvelt-Mulders, 2006). Greater effort should be put to encourage minority ethnic groups' participation in survey research. This includes collaborating with community-based organizations, promoting the upcoming survey in a more tailored way and ensuring tangible benefits for minority ethnic groups.
The comprehensive findings of this study can inform the development and targeting of interventions to reduce avoidable differences in alcohol related problems between ethnic groups. The need to provide equitable services that are responsive to the needs of diverse ethnic groups has been well recognized (Mental Health Commission of Canada, 2012). This requires cultural competence at all levels of service delivery and more attention to social determinants of health. Cultural norms, beliefs and expectancies concerning alcohol, as well as other intersecting social factors such as gender, age, immigration or social status must be considered and incorporated into health promotion, prevention and treatment initiatives and strategies. This is particularly important for minority ethnic groups that are less likely to access mainstream services due to systemic and service barriers.

The findings from the first qualitative study "Alcohol use in seven ethnic communities in Ontario: A qualitative investigation" have led to cultural adaptation and translation of the Ontario Low Risk Drinking Guidelines (LRDG) and the development of two new culturally appropriate public education materials addressing alcohol use in respective communities. The final outcome of the project is a guide to best practices for developing health promotion initiatives addressing substance use and mental health issues in ethnic communities titled Culture Counts: A Roadmap to Health Promotion (Kobus-Matthews, Agic & Tate, 2012).
8.2 References


Appendix A: AUDIT derived variables

Harmful and Hazardous Drinking – based on WHO’s Alcohol Use Disorders Identification Test (AUDIT)

The World Health Organization sponsored development of a screening instrument – the Alcohol Use Disorders Identification Test (AUDIT) – designed to detect problem drinkers at the less severe end of the spectrum of alcohol problems (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001; Saunders, Aasland, Babor, De la Fuente, & Grant, 1993). The AUDIT assesses hazardous and harmful drinking. Hazardous drinking refers to an established pattern of drinking that increases the likelihood of future physical and mental health problems (e.g., liver disease), whereas harmful drinking refers to a pattern of drinking that is already causing (or having caused) damage to health (e.g., alcohol-related injuries; depression). A score of 8 or more is the validated threshold or cut score used to classify individuals who drink at hazardous or harmful levels.

Derived AUDIT variables (AUDIT, AUDIT8) are derived from the following items:

Alcohol Intake

1. How often did you drink alcoholic beverages during the past 12 months?
   0. Never
   1. Monthly or less
   2. 2-4 times/month
   3. 2-3 times/week
   4. 4+ times/week

2. On those days when you drink, how many drinks do you usually have?
   0. None/ or One
   1. Two to Three
   2. Four
3. About how often during the past 12 months would you say that you had five or more drinks at the same sitting or occasion?
   0. Never
   1. Less than monthly
   2. Monthly
   3. Weekly
   4. Daily or almost daily

**Dependence Indicators**

4. How often during the last year have you found that you were not able to stop drinking once you had started?
   0. Never
   1. Less than monthly
   2. Monthly
   3. Weekly
   4. Daily or almost daily

5. How often during the last year have you failed to do what was normally expected from you because of drinking?
   0. Never
   1. Less than monthly
   2. Monthly
   3. Weekly
   4. Daily or almost daily

6. How often during the last year have you needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session?
Adverse Consequences

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
   0. Never
   1. Less than monthly
   2. Monthly
   3. Weekly
   4. Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
   0. Never
   1. Less than monthly
   2. Monthly
   3. Weekly
   4. Daily or almost daily

9. Have you or someone else ever been injured as a result of your drinking?
   0. No
   2. Yes, but not last year
   4. Yes, during last year

10. Has a relative or friend or a doctor or other health worker ever been concerned about your drinking or suggested that you cut down?
    0. No
2. Yes, but not last year
4. Yes, during last year