Mental health and contact with police in Canada, 2012

by Jillian Boyce, Cristine Rotenberg and Maisie Karam
Canadian Centre for Justice Statistics

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- `p` revised
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Mental health and contact with police in Canada, 2012: highlights

- According to the 2012 Canadian Community Health Survey—Mental Health (CCHS—MH), about 5 million, or approximately one in five (18.4%), Canadians aged 15 and older reported coming into contact with police in the 12 months prior to the survey. Of those 5 million Canadians who came into contact with police, 18.8% also met the criteria for having a mental or substance use disorder.

- In 2012, 1 in 10, or approximately 2.8 million Canadians aged 15 and older, met the criteria for at least one of the following mental or substance use disorders: depression, bipolar disorder, generalized anxiety disorder, alcohol abuse or dependence, cannabis abuse or dependence, or other drug abuse or dependence.

- Overall, the proportion of persons with a mental disorder only (5.5%) was higher than the proportion of persons with a substance use disorder only (3.4%), while 1.0% of Canadians had both a mental and a substance use disorder.

- Compared to other age groups, rates of disorders were highest among younger Canadians, with almost one in five (18.5%) Canadians between the ages of 15 and 24 meeting the criteria for at least one of the mental or substance use disorders measured by the survey. This was partly influenced by substance use disorders, which were significantly higher among this age group.

- Overall, Canadians with a disorder had higher rates of childhood maltreatment (66.5%), as measured by the 2012 CCHS—MH, than those without a disorder (44.9%). Differences in the types of childhood maltreatment tended to be most pronounced for what could be considered the most serious forms of maltreatment. For instance, the proportion of those having been physically attacked was almost three times higher for those with a disorder (22.9%) than those without a disorder (8.4%).

- Among Canadians who came into contact with police, those with a mental or substance use disorder, compared to those without a disorder, were more likely to come into contact with police for problems with their emotions, mental health or substance use (18.7%), as well as for being arrested (12.5%).

- While the majority of people who came into contact with police did so for only one reason, a higher proportion of Canadians with a mental or substance use disorder (30.6%) reported more than one reason for contact compared to those without a disorder (12.2%).

- The presence of a mental or substance use disorder was associated with increased odds of coming into contact with police, even after controlling for related demographic and socioeconomic factors. Furthermore, those who perceived a need for help with their emotions, mental health or substance use also had greater odds of contact with police, regardless of whether those needs had been met.
Mental health and contact with police in Canada, 2012

by Jillian Boyce, Cristine Rotenberg and Maisie Karam

Canadians can come into contact with the police for a variety of reasons, not all of which are criminal in nature. Previous research has indicated that most people with a mental health disorder do not commit criminal acts; however, contact with police is common among this population (Brink et al. 2011; Coleman and Cotton 2014). Furthermore, the frequency of such interactions has been said to be on the rise in recent decades given policy and legislative changes (Canadian Mental Health Association BC Division 2005; Vancouver Police Department 2013; Lurigio and Watson 2010). For instance, while the process of deinstitutionalization shifted the treatment of mental health disorders from a hospital setting to a community setting, it has been argued that community based supports may not have expanded at the same capacity to make up for the loss of institutional services, which can leave police as the first responders in crisis situations or after regular health facility hours (Coleman and Cotton 2014; Canadian Mental Health Association BC Division 2005).

Information on police interactions with people who have a mental health disorder is a priority for various reasons. Firstly, they can be among the most unpredictable and dangerous situations to which officers must respond, and can be equally, if not more, dangerous for the person with the disorder (Chappell 2008; Kerr et al. 2010; Coleman and Cotton 2014; Canadian Mental Health Association BC Division 2005). Secondly, while the majority of such interactions are handled without harm to the officer or the person with a disorder, these interactions can be quite time-consuming, often utilizing a large portion of resources not only from police services, but from the health and social sectors as well (Lurigio and Watson 2010).

Currently in Canada there is no standardized framework or guidelines for collecting data on police interactions with people who have a mental health disorder. While some police services independently publish figures on this subject, much of it is not comparable across the various jurisdictions due to differences in definitions, as well as differences in the methods used to collect the information.

In the absence of nationally representative data relating to individuals with a mental health disorder and their contact with police, the 2012 Canadian Community Health Survey—Mental Health (CCHS—MH) provides a starting point for filling this gap (see Text Box 1). The 2012 CCHS—MH represents the fourth CCHS cycle with a specialized focus (Statistics Canada 2013). While there was a previous focused cycle in 2002 on the mental health and well-being of Canadians, most disorders measured in the 2012 CCHS—MH are not comparable to the disorders measured by the survey in 2002 (Pearson et al. 2013). In addition, questions about respondents’ contact with police were not asked in 2002.

This Juristat article utilizes data from the 2012 CCHS—MH to report on the prevalence of mental and/or substance use disorders in Canada in 2012, along with characteristics common among those with a mental or substance use disorder. In addition, it examines in detail the type and frequency of contact that those with a disorder have with police, and how that contact differs from those without a disorder.
What you need to know about this study

The 2012 Canadian Community Health Survey—Mental Health (CCHS—MH) collected data from people 15 years of age and older, living in the 10 provinces.

The 2012 CCHS—MH asked respondents about both mental and substance use disorders. More specifically, the survey measured six disorders: depression, bipolar disorder, generalized anxiety disorder, alcohol abuse or dependence, cannabis abuse or dependence, and other drug abuse or dependence. Respondents were not asked to self-identify disorders, but rather the survey administered specific modules from the World Health Organization—Composite International Diagnostic Interview, which is a standardized instrument for the assessment of mental disorders and conditions according to the Diagnostic and Statistical Manual, Fourth Edition (DSM-IV). Respondents were asked a series of questions about symptoms experienced, as well as the types of behaviours they engaged in. Based on their responses, respondents were classified in terms of whether they met the criteria for a specific mental or substance use disorder. All disorders discussed in this article are based on respondents who met the criteria for a disorder in the 12 months prior to the survey.

The purpose of the 2012 CCHS—MH was to collect information about the mental health status of Canadians, as well as their access to, and their perceived need for, professional and informal mental health services and supports. In addition, the survey also asked Canadians about their contact with police, which included both criminal and non-criminal reasons.

While Canadians can come into contact with police for a variety of reasons, this analysis focuses on the following reasons for contact with police: traffic violations, being a victim of a crime, being a witness to a crime, being arrested, personal problems with emotions/mental health/substance use, or a family member’s problems with emotions/mental health/substance use. While the survey also collected information about respondents’ contact with police as a result of public information sessions, work-related reasons, accidents, and ‘other’ reasons, these were excluded from the current analysis. Reasons for exclusion were based on ambiguity of the category, or because it was believed that the contact was related more to police outreach than for reasons specific to the individual. Similar to the information on mental and substance use disorders, the information pertaining to contact with police is based on occurrences in the 12 months preceding the survey.

Of note, there are some important data limitations to the current analysis. The 2012 CCHS—MH did not collect data from persons living on reserves or other Aboriginal settlements, full-time members of the Canadian Forces, and the institutionalized population. These populations are estimated to represent about 3% of the target population (Statistics Canada 2013). In addition, since the survey collected data from persons residing in the 10 provinces, Canadians living in the territories were out of scope for the survey. Reasons for excluding the territories in data collection were related to small sample sizes which may not have been able to provide releasable estimates, as well as remaining as comparable as possible to the 2002 CCHS on Mental Health, which also did not collect data from the territories. Further, since this was a household survey, the homeless population was also out of scope.

In addition, when referring to mental or substance use disorders, as well as contact with police, it is important to highlight the fact that the rates provided may underestimate the extent of these issues in Canada, since only selected disorders and selected types of contact with police were measured. Furthermore, certain disorders which have been found to be important contributors to people’s interaction with police, such as antisocial personality disorder and fetal alcohol syndrome (MacPhail and Verdun-Jones 2013; Stewart and Glowatski 2014), were not captured by this survey.

Approximately one in five contacts with police involved someone with a mental or substance use disorder

In 2012, 1 in 10, or approximately 2.8 million, Canadians aged 15 and older met the criteria for at least one of the six selected mental or substance use disorders measured by the 2012 CCHS—MH in the 12 months prior to the survey (Table 1). Overall, there was a larger proportion of individuals with a mental disorder only (5.5%) than with a substance use disorder only (3.4%). Further, 1.0% of the population reported symptoms consistent with both a mental and a substance use disorder.

Of the disorders measured by the survey, depression was the most common disorder among the Canadian population aged 15 and older at 4.7% (Table 1). Among those who met the criteria for a disorder, just under one-third (29.7%) reported symptoms consistent with more than one disorder.
According to the 2012 CCHS—MH, 18.4%, or approximately 5 million Canadians, reported coming into contact with police in the previous 12 months (Table 2). Of those 5 million Canadians who came into contact with police, approximately one in five (18.8%) met the criteria for a mental or substance use disorder.

Given that approximately one in five of the individuals who reported contact with police also had a mental or substance use disorder, it is important to have a better understanding of this population. If there is an awareness of the demographic characteristics that may be linked to mental or substance use disorders, as well as the experiences which may be more common among this population, this can lead to a better understanding of the needs of this unique population. Understanding this population better may help in the development of improved policing and mental health services.

### Mental disorders more common among females, substance use disorders more common among males

While the overall proportion of disorders among males and females was quite similar (10.6% and 9.6%, respectively), differences existed when looking at mental disorders only or substance use disorders only (Table 1, Chart 1). More specifically, females (6.9%) were more likely to meet the criteria for a mental disorder compared with males (4.1%). Females reported higher proportions of depression (5.8%), as well as of generalized anxiety disorder (3.2%) than their male counterparts (3.6% and 2.0%, respectively). In contrast, males (5.2%) were more likely to meet the criteria for a substance use disorder than females (1.6%), with males reporting higher proportions than females for all three types of substance use disorders – alcohol abuse or dependence, cannabis abuse or dependence, and other drug abuse or dependence (Table 1). These findings are consistent with previous research, which found higher rates of mental disorders for females (Fleury et al. 2011; Nguyen et al. 2005) and higher rates of substance use disorders for males (Seedat et al. 2009).
Disorders highest among younger Canadians

When taking age into consideration, disorders were most common among younger Canadians and then declined as age increased (Table 3, Chart 2). Among Canadians aged 15 to 24 years old, 18.5% had a mental or substance use disorder, compared to 11.4% of adults aged 25 to 44, 8.3% of adults aged 45 to 64, and 3.2% of adults aged 65 and older.

Chart 2
Mental or substance use disorders, past 12 months, by age group, Canada, 2012

The differences in the overall rates of disorders by age, however, were partly attributable to substance use disorders. Specifically, individuals aged 15 to 24 were more likely than any other age group to have a substance use disorder (9.3%). This result was influenced by 15 to 24 year old males, who reported a significantly higher proportion of substance use disorders than their female counterparts (12.8% versus 5.5%). In comparison to other age groups, the rate for having both a mental and a substance use disorder was also highest among Canadians aged 15 to 24 (2.8%).

In contrast, the proportion of people with a mental disorder was about equal for all age groups, with the exception of those aged 65 and older. Lower rates of disorders among those aged 65 and older is similar to findings in other research, which suggest that mental (mood and anxiety disorders), and particularly substance use disorders, are lowest among older cohorts (Kessler et al. 2005).

Disorders more prevalent among low-income Canadians

Low socioeconomic status has often been associated with higher rates of mental and substance use disorders (Canadian Mental Health Association, Ontario 2007; Caron and Liu 2011; World Health Organization 2012) (see Text box 2). Coinciding with previous research, results from the 2012 CCHS—MH found that a larger proportion of those with an annual household income under $20,000 had a mental or substance use disorder compared to all other income groups. It is important to note, however, that while results from the 2012 CCHS—MH found a link between income and disorders, causation cannot be made, meaning that one does not necessarily cause the other.
In 2012, 17.4% of Canadians with an annual household income of less than $20,000 met the criteria for a disorder, while for all other income groups, the proportion of those with a disorder ranged from 8.4% to 10.9% (Table 3, Chart 3). It is important to note, however, that the link between income and disorders is mainly apparent for mental disorders only, which are significantly higher among those with an annual household income under $20,000 than all other income groups; this trend was not as clear-cut for substance use disorders, where the proportion of people with a substance use disorder only was about equal for the lowest income group and the highest income group (4.2% each).

Chart 3
Mental or substance use disorders, past 12 months, by annual household income, Canada, 2012

Low income status is also associated with reliance on social assistance. Those who relied on social benefits as their main source of income were nearly three times more likely to have a mental or substance use disorder than Canadians who relied on employment as their main income source (Table 3). Overall, about 3 in 10 (29.4%) Canadians who declared social benefits as their main source of income had a disorder, compared to 1 in 10 (10.2%) Canadians who relied primarily on employment. Said otherwise, among Canadians with a disorder, 9.3% reported social assistance as their main source of income, compared with 2.5% of those without a disorder.

Lower income has also been linked to lower levels of education (Zeman et al. 2010; Canadian Mental Health Association, Ontario 2007). Given that disorders were highest among those reporting an annual household income less than $20,000, it might be assumed that disorders would be highest among those with the least education – this, however, was not the case. In 2012, the prevalence of disorders was highest among those who had attained some post-secondary education (Table 3), a finding that held true even when excluding those aged 15 to 24 from the analysis.
Homelessness, mental health and contact with police

Since the 2012 Canadian Community Health Survey—Mental Health (CCHS—MH) was designed to collect data from households in the 10 provinces, the homeless population was not included in this survey. Information on the homeless population can be difficult to obtain for various reasons. For instance, definitions of homelessness often vary from one study to another, as well as the homeless population can be mobile and, in many cases, hidden (Gaetz et al. 2013; Canadian Institute for Health Information 2007). Attempting to collect information on homeless individuals who also have mental health issues and/or contact with police, therefore, can be even more difficult.

While there is limited data which clearly captures the homeless population, it is currently estimated that at least 200,000 Canadians access homeless emergency shelters or sleep outside in a given year, with at least 30,000 Canadians experiencing homelessness on any given night (Gaetz et al. 2013). Due to a lack of agreed upon ways to capture the prevalence of mental disorders among homeless individuals, it is difficult to estimate the number of homeless individuals who also have mental health disorders (Hwang 2001). Some studies, however, have found that mental health issues are higher among the homeless population than among the general population (Canadian Institute for Health Information 2007). It is important to note that while homelessness and mental health disorders are often linked, one does not necessarily cause the other (Echenberg and Jensen 2009; Canadian Institute for Health Information 2007).

Homeless individuals who have a mental health disorder have been found to have increased contact with police (Canadian Mental Health Association BC Division 2005). This contact with police may not necessarily be violent in nature, and may be more likely related to minor offences that may be perceived as inappropriate, disruptive or potentially dangerous by members of the public (Fischer et al. 2008). In addition, those who are homeless and also have a mental health disorder may be in contact with police due to personal safety risks, or as a result of being a victim of a crime, since previous research has found that these individuals tend to be more vulnerable to victimization (Markowitz 2011).

Aboriginal population at greater risk of substance use disorders

The overall rates of mental or substance use disorders among Canadians who self-identified as Aboriginal was higher than those who self-identified as non-Aboriginal (15.2% versus 11.2%) (Table 3, Chart 4).
When looking at substance use disorders only, a significantly higher proportion of Aboriginal persons had a substance use disorder than non-Aboriginal persons (6.3% and 3.9%, respectively).\textsuperscript{14} While mental disorders were slightly higher among the Aboriginal population (7.1\%) in comparison with the non-Aboriginal population (5.9\%), these differences were not found to be significant.

As already noted, disorders were higher among those who were younger, and those who had a lower annual household income. Previous research has found that the Canadian Aboriginal population tends to be younger and their annual household income lower compared with non-Aboriginal Canadians (Gionet and Roshanafshar 2013; Statistics Canada 2011). Therefore, it could be assumed that these two factors may help to explain the higher prevalence of disorders among the Aboriginal population compared with the non-Aboriginal population.

However, even when taking this into consideration and standardizing the age and income of the Aboriginal population to the non-Aboriginal population, differences in the overall prevalence of disorders continued to exist. It is important to remember, however, that CCHS―MH data on Aboriginal persons excludes those living in the territories, on reserves, or other Aboriginal settlements, as the survey did not collect data from these locations.

**Single Canadians have higher prevalence of disorders**

In general, those who reported being single (never married) had higher rates of disorders than those who were married or living common-law, as well as those who were separated, divorced, or widowed. In 2012, 17.3\% of Canadians who were single (never married) had a mental or substance use disorder, compared with 9.9\% of those who identified as being separated/divorced/widowed, and 6.9\% of those who were married or common-law (Table 3, Chart 5). When considering mental disorders only, however, the prevalence remained lowest for those who were separated, divorced or married (4.3\%), yet was about equal for those who were single (never married) and those who were separated, divorced or widowed (7.2\% and 7.6\%, respectively).
While a higher prevalence of overall disorders among Canadians who were single (never married) could be influenced by the fact that disorders were also higher among those aged 15 to 24 – a population that is less likely to be married, living common-law, divorced, separated or widowed – this occurrence remained even when those aged 15 to 24 were excluded from the analysis.

**Individuals with a disorder more likely to have a family member with a mental health problem, or to have a weaker sense of belonging to their community**

In addition to the various demographic characteristics which are associated with disorders, there are also certain social factors which are more common among the population with mental or substance use disorders. For instance, results from the 2012 CCHS—MH found that weak community relationships or having a family member with a mental health problem were more common among those with a disorder than those without.

A weak sense of belonging to one’s community has previously been identified as a contributor to disorders, in the sense that when someone feels alienated from his or her community, symptoms of disorders may be exacerbated (Fone et al. 2007). Based on results from the 2012 CCHS—MH, more than half (51.9%) of Canadians with a disorder reported a weak sense of belonging to their community, compared with just over one-third (35.3%) of Canadians without a disorder (Chart 6).
Previous research has also found links between a family history of mental health and the likelihood of having some type of mental health problem (Olino et al. 2008; Steinhausen et al. 2009; Rapee 2012). Overall, a higher proportion of Canadians with a disorder reported having a family member who had problems with their emotions, mental health or substance use compared to Canadians without a disorder (56.3% and 36.6%, respectively) (Chart 6).

Experiences of childhood maltreatment higher among those with a disorder

Maltreatment or abuse experienced during childhood has also been linked with poor mental health outcomes (Afifi et al. 2014; Canadian Institute for Health Information 2008; Reichert and Flannery-Schroeder 2014). Consistent with other research, in 2012, the CCHS—MH found that experiences of childhood maltreatment were higher among those with a disorder than those without. More specifically, 66.5% of Canadians aged 18 and older with a disorder had experienced at least one form of childhood maltreatment, at least once, before the age of 16, which was significantly higher than those Canadians aged 18 and older without a disorder (44.9%) (Chart 6).

Regardless of the form of childhood maltreatment, Canadians, aged 18 and older, with a disorder, were proportionately more likely to have experienced maltreatment, particularly in cases of what might be considered the most serious forms of maltreatment (Chart 7). For example, the percentage of those having been physically attacked (e.g., kicked, bit, punched, choked or burned) or forced into unwanted sexual activity was almost three times higher for those with a disorder (22.9% and 14.5%, respectively) than those without a disorder (8.4% and 5.0%, respectively).
Furthermore, individuals with a disorder were proportionately more likely, relative to those without a disorder, to have been the victims of maltreatment on multiple occasions. In addition, among those who had experienced maltreatment before the age of 16, those with a disorder were three times more likely than those without a disorder to have experienced all six forms of maltreatment.

Suicidal thoughts higher among those with a disorder

A higher rate of suicidal thoughts among those with a disorder may be expected given that some of the criteria required to meet a mental diagnosis involve suicidal intent (American Psychiatric Association 2013). That said, Canadians with a disorder were almost 10 times proportionately more likely to have thought about suicide in the 12 months prior to the survey than those without a disorder (19.2% and 1.6%, respectively) (Chart 6). Furthermore, of those Canadians that had thought about suicide in the past 12 months, those with a disorder were about twice as likely to report having made a plan for suicide than those without a disorder.

When considering the utilization of selected health services, the 2012 CCHS—MH found that 35.8% of those with a disorder reported taking medication for problems with their emotions, mental health or substance use in the 12 months prior to the survey. A smaller proportion of Canadians with a disorder reported being hospitalized overnight or longer in the 12 months prior to the survey for problems with emotions, mental health or substance use (4.1%).

One in three Canadians with a disorder reported having contact with police

The majority of people with a mental health disorder do not commit criminal acts and many do not come into contact with police; however, previous studies suggest that contact with police is relatively more common among this population (Brink et al. 2011). Reasons for contact are not necessarily criminal in nature and can be complex, often resulting from social and systemic factors, such as homelessness and poverty, weak social ties, or a lack of community-based health services (Brink et al. 2011).
According to the 2012 CCHS—MH, about 950,000 or 34.4% of Canadians with a mental or substance use disorder reported coming into contact with police for at least one reason. Overall, this was double the proportion than for those without a disorder, for whom 16.7% had at least one reason for contact with police.

Alternatively, from a policing perspective, results from the 2012 CCHS—MH found that among those 5 million Canadians who reported having contact with police, about one in five (18.8%), or 950,000 individuals, also met the criteria for one of the six mental or substance use disorders measured by the survey. While the 2012 CCHS—MH only looked at selected reasons for contact, as well as selected disorders, it is of interest to note that this is similar to estimates provided by the Vancouver Police Department (Text box 3). These types of contacts are of importance to police, as the needs of those with a mental health disorder may be unique and require officers to employ different tactics than they would in a typical emergency situation. In fact, it has been suggested that employing traditional response measures when coming into contact with someone who has a mental health issue may potentially escalate the situation to a point of risking injury or death for the police officer, the public, or often, the person in crisis (Canadian Mental Health Association BC Division 2005).

**Text box 3**

Measuring the scope of police interaction with people who have mental health issues in studies by selected police services

In 2014, a report published by the House of Commons on the Economics of Policing reported that the majority of calls for service received by police are not related to crime, and that there has been an increasing number of calls related to mental health (Standing Committee on Public Safety and National Security 2014). Determining the exact percentage of calls for service that are related to mental health, however, remains a challenge given the lack of uniform statistics on mental health and contact with police.

While there is no standardized national framework or guidelines for reporting police contacts that involve persons with mental health issues, some police services have begun to publish figures for their jurisdictions on this specific subject. Much of these data is not comparable across police services given the different data capturing methodologies that each service applies. However, studies by police services suggest that contacts with people who have mental health issues are on the rise.

Based on data from 25 police services in Ontario, one study found that the rate of mental health related calls for service increased from 287 per 100,000 population in 2003 to 397 per 100,000 population in 2007 (Durbin et al. 2010). Another study found that in 2013, for the Toronto Police Service, more than 1 in every 50 calls for which an officer was dispatched involved a person in crisis, while approximately 1 in every 100 calls resulted in an apprehension under the Mental Health Act (Iacobucci 2014). In Guelph, calls for service whose primary call type was related to a mental health issue increased by 39% for the Guelph Police Service between 2012 and 2013, while the overall calls for service volume decreased by 6% over the same period (Guelph Police Service 2013).

The Vancouver Police Department reported that persons with mental health issues accounted for 21% of all incidents handled by police officers, and that between 2010 and 2012, apprehensions made under the Mental Health Act increased by 16% (Vancouver Police Department 2013). London Police found that persons with mental health issues experienced three to five times more contacts with police per year than persons without a mental health issue. Costs associated with mental health contacts appear to be similarly increasing – London Police reported a 134% increase in costs related to police contacts with persons with mental health issues between 2000 and 2011 (Heslop et al. 2011).

These findings from selected Canadian police services highlight the need for more unified reporting measures to track the increasing demand on police as first-responders to people with mental health issues. Many police services across the country have implemented unique initiatives to respond to calls related to mental health. For instance, some services employ teams of health care professionals and police officers to respond to calls pertaining to a mental health crisis situation (Vancouver Police Department 2013; Hamilton Police Service 2013). In addition, certain police services bring together both health and social service agencies to discuss situations pertaining to mental health care and mental health services (Waterloo Regional Police Service 2014; Vancouver Police Department 2013).

**Arrests higher among those with a disorder than those without a disorder**

Considering that results from the 2012 CCHS—MH found that approximately one in five (18.8%) of the Canadians who reported at least one reason for contact with police also had a mental or substance use disorder, it is important to understand how these contacts differ from contacts where the person does not have a disorder.

Among those who came into contact with police, the largest difference in the reason for contact between those with a disorder and those without a disorder was, perhaps not surprisingly, directly related to mental health and substance use.
About one in five (18.7%) individuals with a disorder who came into contact with police did so as a result of personal problems with their emotions, mental health, or substance use—a substantially higher proportion than for those without a disorder (1.9%) (Chart 8).

Chart 8
Reasons for contact with police, by disorder and no disorder, past 12 months, Canada, 2012

Among those Canadians in contact with police, those with a disorder were more likely to have contact as a result of being arrested. More specifically, those with a disorder were about four times more likely to report being arrested than those without a disorder (12.5% and 2.8%, respectively). Previous research has found that people with mental health issues who are suspected of committing less serious crimes are more likely to be arrested (Canadian Mental Health Association BC Division 2003; Heslop et al. 2011).

Previous literature has highlighted that people with a disorder are more likely to be victimized than those without a disorder (Vancouver Police Department 2013; Gur 2010; Teplin et al. 2005). While results from the 2012 CCHS—MH did find that a higher proportion of people in contact with police who also had a disorder were victimized (24.0%) than those without a disorder (20.5%), these differences were not found to be statistically significant. Part of this may be explained by the fact that certain populations that have been found to have higher rates of victimization, such as the homeless, were not captured by this survey.

Considering that a higher proportion of individuals with a disorder had a family member with a mental health problem, it is of interest to note that of those who had contact with police, there was virtually no difference among those with a disorder and those without who came into contact with police as a result of a family member’s problem with emotions, mental health or substance use (11.1% and 11.2%, respectively).

Overall, of those Canadians who came into contact with police, the majority did so as a result of a traffic violation, regardless of whether or not they had a disorder.
While the majority of Canadians who came into contact with police did so only for one reason (84.3%), 15.7% reported more than one reason for contact. When considering those that had contact, a significantly higher proportion of those with a disorder reported more than one reason for contact with police than those without a disorder (30.6% versus 12.2%).

Text box 4
Persons accused of homicide and suspected of mental or developmental disorders

Data from the 2012 CCHS—MH provide a starting point on the topic of mental health and police contact. However, since this was the first time the survey asked about Canadians' contact with police, it cannot determine any trend over time (see Text box 3), nor can it provide information on the role of mental or substance use disorders in certain types of offences.

Since 1961, Statistics Canada has been collecting police-reported information on homicide incidents, victims and accused persons through the Homicide Survey. Beginning in 1997, the survey began collecting information on the suspected presence of mental or developmental disorders among persons accused of homicide. It should be noted that this information is based on the perception of the investigating officer and does not necessarily reflect a medical or clinical diagnosis.

In 2013, police suspected that 75 persons accused of homicide that year had a mental or developmental disorder,17 accounting for about one in five (19.1%) accused persons.18 While the number of homicides has generally been decreasing since peaking in the 1990s, homicides involving an accused with a suspected mental or developmental disorder have become more frequent. Overall, the number and proportion of those accused of homicide with a suspected mental or developmental disorder have increased over each five-year period since 1999 (Chart 9).

Chart 9
Percent of persons accused of homicide with a suspected mental or developmental disorder, Canada, 1999 to 2013

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</tr>
<tr>
<td>2009-2013</td>
<td></td>
</tr>
</tbody>
</table>

Note: Excludes persons accused of homicide for which information on suspected mental or developmental disorder was unknown. This information is based on the perception of the investigating officer and does not necessarily reflect a medical or clinical diagnosis. Suspected mental or developmental disorders can include disorders such as: schizophrenia, depression, fetal alcohol syndrome, dementia, psychotic and neurotic illnesses, or sociopathic tendencies.

Source: Statistics Canada, Canadian Centre for Justice Statistics, Homicide Survey.

Like homicide accused in general, the majority of those accused of homicide with a suspected mental or developmental disorder in 2013 were male (82.7%). A notable difference between those accused of a homicide with and without a suspected mental or development disorder, however, was the age of the accused. Overall, those accused of homicide, and crime in general, tend to be relatively young (Cotter 2014; Brennan 2012). However, among persons accused of homicide with a suspected mental or development disorder, the age group with the highest percentage of persons with a suspected mental or developmental disorder was those accused aged 65 and older (40.0%).19
About 6 in 10 Canadians with a disorder perceived a need for care

Given the proportion of people with a disorder who came into contact with police, it is relevant to know whether or not these individuals received the health services they felt they needed in order to manage their mental or substance use disorder.

Based on results from the 2012 CCHS—MH, about 6 in 10 (61.7%) of those who had a disorder, and came into contact with police, perceived a need for help with problems related to their emotions, mental health or substance use. Of those with a disorder who perceived a need for help, and came into contact with police, 6 in 10 (59.7%) felt that their need had been met, while the remainder felt that their need had only been partially met (29.8%) or not met at all (10.5%). When comparing these findings with those who had a disorder and a perceived need for help, but did not come into contact with police, few differences existed.

Chart 10
Status of perceived need for care among those with a disorder and a perceived need, by contact with police and no contact with police, past 12 months, Canada, 2012

Overall, among those with a disorder who perceived a need for help, and came into contact with police, just over three-quarters (76.9%) had accessed professional services in the 12 months prior to the survey (Table 4). Even though someone had a perceived need for help and accessed professional services, it does not necessarily mean that their need had been fully met.

When looking at the types of professional services used among those with a disorder and a perceived need for care, few differences existed between those who had contact with police and those who did not (Table 4). One exception, however, was that a significantly higher percentage of those with a disorder and a perceived need for care, who also came into contact with police, reported being hospitalized for problems with emotions, mental health or substance use in the 12 months prior to the survey. Part of this may be explained by the fact that under some provincial Mental Health Acts, police are able to admit someone to the hospital if they feel they are a danger to themselves or society. It is important to note, however, that it is unknown from the survey whether the hospitalization or the contact with police came first.
Individuals with a mental or substance use disorder, or who perceived a need for help, had increased odds of contact with police, even when controlling for other factors

While results from the 2012 CCHS—MH found that a higher proportion of those with a disorder came into contact with police than those without a disorder, this does not necessarily mean that the disorder caused the contact with police. A number of other factors may help explain the police contact. For instance, disorders were found to be more common among those who were younger and those who were single – factors that are also commonly associated with coming into contact with police.

To help further disentangle the relationship between police contact and disorders, the study carried out more detailed analysis controlling for several demographic and socioeconomic factors. This extended analysis found that the presence of a mental or substance use disorder was associated with an increased odds of coming into contact with police, even when controlling for sex, age, Aboriginal status, education, household income and marital status (see Appendix Table A for results).

Furthermore, those who perceived a need for help for problems with their emotions, mental health or substance use also had greater odds of contact with police, regardless of whether those needs were met (not shown, AOR = 1.3, 95% CI: 1.1-1.6) or partially met/unmet (not shown, AOR = 1.4, 95% CI: 1.1-1.8). This association between a perceived need for care and increased odds of contact with police was present when controlling for a mental or substance use disorder, and other selected demographic and socioeconomic characteristics.

Summary

In total, mental or substance use disorders affected 1 in 10, or approximately 2.8 million, Canadians aged 15 and older in 2012. While mental or substance use disorders can impact all Canadians, there were certain sectors of the population in which disorders were more prevalent. For instance, higher proportions of disorders were found among Canadians who were younger, who recorded a lower income, who were Aboriginal, and who were single and had never been married.

Furthermore, experiences of childhood maltreatment – both in frequency and severity – tended to be higher among those with a disorder than for those without. People with a disorder were also more likely to have a weak sense of belonging to his or her community, to have a family member with a mental health issue, and to have suicidal thoughts compared to people without a disorder.

This population of Canadians with mental or substance use disorder is of particular interest to police services, as one in five Canadians who reported coming into contact with police in the 12 months prior to the survey also met the criteria for a mental or substance use disorder. Those with a disorder were more likely to report reasons for contact with police related to personal problems with emotions, mental health or substance use, as well as arrest than those without a disorder. Furthermore, the proportion of people reporting multiple reasons for contact with police was higher among those with a disorder than those without.

Survey Description

2012 Canadian Community Health Survey – Mental Health (CCHS—MH)

The cross-sectional 2012 CCHS—MH provides national estimates of major mental and substance use disorders. The survey sample consisted of the household population aged 15 or older in the 10 provinces. Excluded from the sample were persons living on reserves and other Aboriginal settlements, full-time members of the Canadian Forces and the institutionalized population. The response rate was 68.9%, yielding a sample of 25,113 that represented 28.3 million Canadians.

For more information on the 2012 CCHS—MH, please visit: http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5015

Homicide Survey

The Homicide Survey collects police-reported data on the characteristics of all homicide incidents, victims and accused persons in Canada. The Homicide Survey began collecting information on all murders in 1961 and was expanded in 1974 to include all incidents of manslaughter and infanticide. Although details on these incidents are not available prior to 1974, counts are available from the Uniform Crime Reporting Survey and are included in the historical aggregate totals.
Whenever a homicide becomes known to police, the investigating police service completes the survey questionnaires, which are then sent to Statistics Canada. There are cases where homicides become known to police months or years after they occurred. These incidents are counted in the year in which they become known to police. Information on persons accused of homicide are only available for solved incidents (i.e. where at least one accused has been identified). Accused characteristics are updated as homicide cases are solved and new information is submitted to the Homicide Survey. Information collected through the victim and incident questionnaires are also accordingly updated as a result of a case being solved.

References


Canadian Institute for Health Information. 2007. Improving the Health of Canadians: Mental Health and Homelessness. Ottawa, Ontario.


**Notes**

1. For more information on the feasibility of collecting data on the involvement of adults and youth with mental health issues in the criminal justice system, see Sinha 2009.

2. Other drug abuse or dependence can include all other types of drugs, excluding cannabis, that are listed under the *Controlled Drugs and Substances Act*, as well as legal drugs that are used illicitly, and legal drugs in which the respondent felt that he/she could not stop using.

3. For information on the mental health of the Canadian Armed Forces, see Pearson et al. 2014.

4. Mental or substance use disorders were determined by an algorithm based on responses using the Composite International Diagnostic Interview (CIDI) and is not a clinical diagnosis. The six selected disorders include: depression,
bipolar disorder, generalize anxiety disorder, alcohol abuse or dependence, cannabis abuse or dependence, and other drug abuse or dependence.

5. Throughout the Juristat, the term ‘mental or substance use disorder’ represents the overall proportion of Canadians that had either a mental disorder and/or a substance use disorder. The term ‘mental or substance use disorder’ will be used interchangeably with the term ‘disorder’ throughout the article.

6. The mental disorder category excludes respondents who met the criteria for both a mental and a substance use disorder.

7. The substance use disorder category excludes respondents who met the criteria for both a substance use and a mental disorder.

8. Contact with police includes the following reasons for contact: traffic violation, victim of a crime, witness to a crime, arrest, personal problems with emotions/mental health/substance use, or a family member’s problems with emotions/mental health/substance use. Contact with police excludes the following reasons for contact: public information session, work-related, accident and "other" reason.

9. No significant differences in rates of bipolar disorder were found between males and females.

10. Excludes comparisons with those aged 65 years and older, as the numbers for this age group were too unreliable to be published.

11. Household incomes have not been adjusted for household size, or for geographic location.

12. Social benefits include: employment insurance, worker’s compensation, or provincial/municipal social assistance or welfare.

13. Numbers reflect age and income standardization. The age and income of the Aboriginal population have been standardized to the non-Aboriginal population.


15. Having a family member with a mental health problem could include: a spouse or partner, children, parents, parents-in-law, grandparents, brothers and sisters, cousins, aunts, uncles, nieces, nephews.

16. Based on respondents aged 18 and older. Childhood maltreatment, as measured by the survey, included experiencing at least one of the following at least once before the age of 16: Seeing or hearing a parent hit another adult in your home; being slapped, hit or spanked by an adult; being pushed, grabbed or shoved by an adult; being physically attacked (e.g., kicked, bit, punched, choked, burned) by an adult; being touched by an adult against your will; being forced into unwanted sexual activity by an adult.

17. Suspected mental or developmental disorders can include disorders such as: schizophrenia, depression, fetal alcohol syndrome, dementia, psychotic and neurotic illnesses, or sociopathic tendencies.

18. Excludes accused persons for which information on suspected mental or developmental disorder was unknown. In 2013, information on suspected mental or development disorder was unknown for 13.3% (or 60 accused) of persons accused of homicide.

19. Excludes accused under 12 who cannot be held criminally responsible in Canada, as well as accused persons for which information on suspected mental or developmental disorder was unknown.

20. Perceived need for care is based on four types of help: 1) Information about problems, treatments or available services; 2) Medication; 3) Counseling, therapy or help for problems with personal relationships; 4) “Other” types of help.

21. For more information on the perceived need for mental health care in Canada, see Sunderland and Findlay 2013.

22. Accessing professional services includes seeing at least one of the following for problems with emotions, mental health, or substance use in the 12 months preceding the survey: family doctor or general practitioner, social worker or counsellor, psychiatrist, psychologist, or nurse. Professional services could have also included hospitalization or the use of online therapy.
Table 1  
Mental or substance use disorders, past 12 months, by sex, Canada, 2012  

<table>
<thead>
<tr>
<th>Type of disorder</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number (thousands)</td>
<td>percent</td>
<td>number (thousands)</td>
</tr>
<tr>
<td>Mental disorder only†</td>
<td>547</td>
<td>4.1</td>
<td>960</td>
</tr>
<tr>
<td>Depression</td>
<td>503</td>
<td>3.6</td>
<td>827</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>220</td>
<td>1.6</td>
<td>205</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>270</td>
<td>2.0</td>
<td>451</td>
</tr>
<tr>
<td>Substance use disorder only†</td>
<td>701</td>
<td>5.2</td>
<td>222</td>
</tr>
<tr>
<td>Alcohol abuse or dependence</td>
<td>644</td>
<td>4.7</td>
<td>242</td>
</tr>
<tr>
<td>Cannabis abuse or dependence</td>
<td>268</td>
<td>1.9</td>
<td>101</td>
</tr>
<tr>
<td>Other drug abuse or dependence</td>
<td>117</td>
<td>0.9</td>
<td>77</td>
</tr>
<tr>
<td><strong>Total, mental or substance use</strong></td>
<td><strong>1,435</strong></td>
<td><strong>10.6</strong></td>
<td><strong>1,329</strong></td>
</tr>
</tbody>
</table>

† reference category  
* significantly different from reference category (p < 0.05)  
1. Mental disorders include depression, bipolar disorder or generalized anxiety disorder. However, these three disorders cannot be added to create the prevalence of 'mental disorders only' because these three categories are not mutually exclusive, meaning that people may have a profile consistent with one or more of these disorders. The mental disorder category excludes respondents who met the criteria for both a mental and a substance use disorder.  
2. Substance use disorders include alcohol abuse or dependence, cannabis abuse or dependence, or other drug abuse or dependence. These three disorders cannot be added to create the prevalence of 'substance use disorders only' because these three categories are not mutually exclusive, meaning that people may have a profile consistent with one or more of these disorders. The substance use disorder category excludes respondents who met the criteria for both a substance use and a mental disorder.  
3. 'Total, mental or substance use disorder' is comprised of mental disorders or substance use disorders, and includes respondents who met the criteria for both a mental and a substance use disorder. Individual disorders cannot be added to create 'Total, mental or substance use disorder' since categories are not mutually exclusive, meaning that people may have a profile consistent with one or more disorder.  


Table 2  
Reasons for contact with police, past 12 months, Canada, 2012  

<table>
<thead>
<tr>
<th>Reason for contact with police</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic violation</td>
<td>3,101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victim of a crime</td>
<td>1,103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Witness to a crime</td>
<td>965</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family member's emotions/mental health/substance use</td>
<td>579</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal emotions/mental health/substance use</td>
<td>257</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrest</td>
<td>239</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total, contact with police</strong>†</td>
<td><strong>5,199</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† reference category  
1. Individual reasons for contact cannot be added to create 'Total, contact with police' since categories are not mutually exclusive, meaning that respondents may have had more than one reason for contact. In total, of those who came into contact with police, 15.7% reported more than one reason for contact. Excludes the following type of contacts with police: public information session, work-related, accident, and 'other' reasons.  

Table 3
Total mental or substance use disorder, past 12 months, by selected demographic characteristics, Canada, 2012

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Canadian population with a disorder, aged 15 and older</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number (thousands)</td>
<td>percent</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years†</td>
<td>806</td>
<td>18.5</td>
</tr>
<tr>
<td>25 to 44 years</td>
<td>1,033</td>
<td>11.4*</td>
</tr>
<tr>
<td>45 to 64 years</td>
<td>775</td>
<td>8.3*</td>
</tr>
<tr>
<td>65 years and older</td>
<td>150</td>
<td>3.2*</td>
</tr>
<tr>
<td><strong>Annual household income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$0 to $19,999†</td>
<td>387</td>
<td>17.4</td>
</tr>
<tr>
<td>$20,000 to $39,999</td>
<td>531</td>
<td>10.9*</td>
</tr>
<tr>
<td>$40,000 to $59,999</td>
<td>518</td>
<td>10.5*</td>
</tr>
<tr>
<td>$60,000 to $79,999</td>
<td>360</td>
<td>8.4*</td>
</tr>
<tr>
<td>$80,000 to $99,999</td>
<td>271</td>
<td>8.6*</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>697</td>
<td>8.8*</td>
</tr>
<tr>
<td><strong>Main source of household income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>2,073</td>
<td>10.2*</td>
</tr>
<tr>
<td>Social benefits†</td>
<td>249</td>
<td>29.4</td>
</tr>
<tr>
<td>Senior benefits</td>
<td>253</td>
<td>5.9*</td>
</tr>
<tr>
<td>Other sources</td>
<td>119</td>
<td>11.1*</td>
</tr>
<tr>
<td><strong>Highest level of education attained</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than secondary school</td>
<td>516</td>
<td>10.6*</td>
</tr>
<tr>
<td>Secondary school</td>
<td>486</td>
<td>11.2*</td>
</tr>
<tr>
<td>Some post-secondary school†</td>
<td>295</td>
<td>15.1</td>
</tr>
<tr>
<td>Post-secondary school</td>
<td>1,454</td>
<td>9.0*</td>
</tr>
<tr>
<td><strong>Aboriginal population</strong>²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal population³†</td>
<td>173</td>
<td>15.2</td>
</tr>
<tr>
<td>Non-Aboriginal population</td>
<td>2,192</td>
<td>11.2*</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married or common-law</td>
<td>1,127</td>
<td>6.9*</td>
</tr>
<tr>
<td>Separated, divorced or widowed</td>
<td>347</td>
<td>9.9*</td>
</tr>
<tr>
<td>Single, never married†</td>
<td>1,286</td>
<td>17.3</td>
</tr>
</tbody>
</table>

† reference category
* significantly different from reference category (p < 0.05)
1. Household incomes have not been adjusted for household size, or for geographic location.
2. Estimates for the Aboriginal population have been age and income standardized to the non-Aboriginal population.
3. Aboriginal population includes respondents reporting as First Nations (Status and Non-Status), Métis or Inuit. Excludes Aboriginal people living in the territories, on reserves or other Aboriginal settlements.
Note: Having a disorder includes having met the criteria for at least one of the following in the 12 months preceding the survey: depression, bipolar disorder, generalized anxiety disorder, alcohol abuse or dependence, cannabis abuse or dependence, or other drug abuse or dependence.

Table 4
Selected types of professional services accessed among those with a disorder that perceived a need for care, by contact with police and no contact with police, past 12 months, Canada, 2012

<table>
<thead>
<tr>
<th>Types of professional services accessed</th>
<th>Contact with police†</th>
<th>No contact with police</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>percent</td>
<td></td>
</tr>
<tr>
<td>Family doctor or general practitioner</td>
<td>48.9</td>
<td>52.4</td>
</tr>
<tr>
<td>Social worker or counsellor</td>
<td>28.7</td>
<td>25.3</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>22.4</td>
<td>22.2</td>
</tr>
<tr>
<td>Psychologist</td>
<td>22.2</td>
<td>19.8</td>
</tr>
<tr>
<td>Hospitalized</td>
<td>11.2*</td>
<td>3.5*</td>
</tr>
<tr>
<td>Nurse</td>
<td>9.3†</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>Total, professional services accessed†</strong></td>
<td>76.9</td>
<td>72.0</td>
</tr>
</tbody>
</table>

† use with caution (these data have a coefficient of variation from 16.6% to 33.3%)
†† reference category
* significantly different from reference category (p < 0.05)
1. Includes a small proportion of respondents who reported using online therapy (e.g., e-therapy, online counselling) for help. Individual types of professional services cannot be added to create "Total, professional services accessed" since categories are not mutually exclusive, meaning respondents may have utilized more than one type of professional service.
## Appendix Table A

Adjusted odds ratios relating contact with police to mental or substance use disorders, and other selected demographic or socioeconomic characteristics, Canada, 2012

<table>
<thead>
<tr>
<th>Demographic or socioeconomic characteristics</th>
<th>Adjusted odds ratio</th>
<th>95% confidence interval from</th>
<th>to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental or substance use disorder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Yes</td>
<td>2.10*</td>
<td>1.80</td>
<td>2.46</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Female</td>
<td>0.60*</td>
<td>0.53</td>
<td>0.68</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>25 to 44 years</td>
<td>1.15</td>
<td>0.92</td>
<td>1.43</td>
</tr>
<tr>
<td>45 to 64 years</td>
<td>0.68*</td>
<td>0.54</td>
<td>0.86</td>
</tr>
<tr>
<td>65 years and older</td>
<td>0.30*</td>
<td>0.22</td>
<td>0.41</td>
</tr>
<tr>
<td>Aboriginal population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal population†</td>
<td>1.34*</td>
<td>1.05</td>
<td>1.71</td>
</tr>
<tr>
<td>Non-Aboriginal population†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Highest level of education attained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than secondary school</td>
<td>0.73*</td>
<td>0.60</td>
<td>0.88</td>
</tr>
<tr>
<td>Secondary school</td>
<td>0.75*</td>
<td>0.63</td>
<td>0.90</td>
</tr>
<tr>
<td>Some post-secondary school</td>
<td>1.12</td>
<td>0.85</td>
<td>1.47</td>
</tr>
<tr>
<td>Post-secondary school†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Annual household income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$0 to $19,999†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>$20,000 to $39,999</td>
<td>0.96</td>
<td>0.75</td>
<td>1.22</td>
</tr>
<tr>
<td>$40,000 to $59,999</td>
<td>1.01</td>
<td>0.79</td>
<td>1.29</td>
</tr>
<tr>
<td>$60,000 to $79,999</td>
<td>0.90</td>
<td>0.70</td>
<td>1.16</td>
</tr>
<tr>
<td>$80,000 to $99,999</td>
<td>0.81</td>
<td>0.60</td>
<td>1.09</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>1.12</td>
<td>0.86</td>
<td>1.45</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married or common-law</td>
<td>0.96</td>
<td>0.79</td>
<td>1.17</td>
</tr>
<tr>
<td>Separated, divorced or widowed</td>
<td>1.55*</td>
<td>1.18</td>
<td>2.04</td>
</tr>
<tr>
<td>Single, never married†</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

... not applicable
† reference category
* significantly different from reference category (p < 0.05)

1. Aboriginal population includes respondents reporting as First Nations (Status and Non-Status), Métis or Inuit. Excludes Aboriginal people living in the territories, on reserves or other Aboriginal settlements.