Prince Edward Island
CANADA
Health and Wellness

Suicide and Mental Health in Prince Edward Island

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2002-2011

Acknowledgements

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We also want to acknowledge all Islanders that have been touched by suicide deaths in their homes, schools, workplaces and communities and hope that suicide deaths in Prince Edward Island become a thing of the past.

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Key Findings

In September 2011 at the Annual General Meeting of the Prince Edward Island (PEI) Medical Society, a resolution was passed asking for a retrospective epidemiological review of suicides in PEI. It was suggested that the rate of suicide was increasing and required review so that the province could develop a prevention strategy.

Suicide

- Between January 1, 2002 and December 31, 2011 there were 157 suicides on PEI (ranging between 10 to 21 cases per year).
- Males are significantly more likely to die by suicide than females (5 times as likely in 2011).
- Overall the PEI rate of suicide is similar to the Canadian rate, although there are slight sex specific differences.
- Middle age individuals (40-59 years) are most likely to die by suicide.
- Men use more violent means to die by suicide (i.e. hanging) whereas women are most likely to use a means whereby the opportunities for rescue are greater (i.e. overdose).
- Mental health issues are the number one risk factor for suicide with depression as the most common diagnosis.
- Substance use was another noted risk factor.
- Over half of all suicides had at least one hospital inpatient stay in the previous five years prior to their death. Of these, 81.5% had been admitted at least once for mental health related reasons.
- Those with mental health admissions took their lives significantly faster following hospital discharge than those with non-mental health admissions.

Mental Health

- In 2010, over 20,000 Islanders were treated for a mental disorder, of which 57% were females.
- The proportion of Islanders being treated for mental disorders has increased in the last 4 years, from 13.0% in 2006 to 15.1% in 2010. Females consistently have a higher proportion of treated mental disorders compared to males.
- The age groups with the highest proportion affected are the 80-84 age group with 24.1% and 85+ age group with 29.4% affected.
- The prevalence of treated mood and anxiety disorder which includes depression has slowly increased since 2006 from 9% to 10.3% of which almost two-thirds are women.
- The rate for those seeking treatment for alcohol abuse has remained relatively constant in the 10 year period (2001-2010). This is in contrast to the rate for those seeking treatment for drug abuse which has slowly increased.

Even though treated mental health disorders have increased, this has not been reflected in an increased trend in suicidality despite it being a major risk factor.

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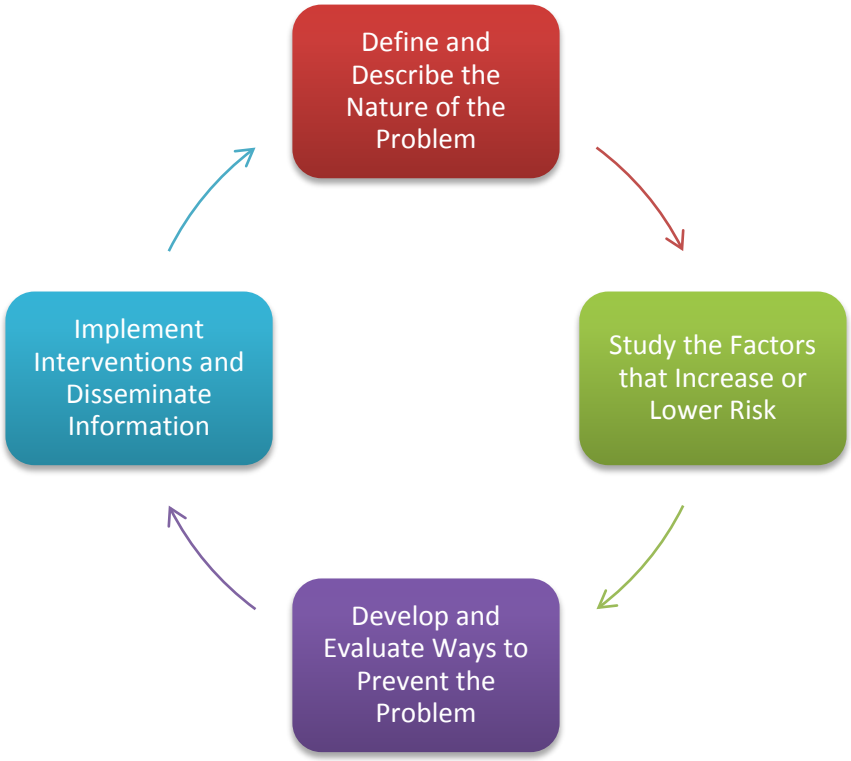
Suicide

Introduction and Methodology

In September 2011 at the Annual General Meeting of the Prince Edward Island (PEI) Medical Society, a resolution was passed asking for a retrospective epidemiological review of suicides in PEI. It was suggested that the rate of suicide was increasing and required review so that the province could develop a prevention strategy.

Several media articles appeared following the Medical Society Resolution such as: *Doctor's call for probe into PEI's high suicide rate* (http://www.canada.com/health/Doctors+call+probe+into+high+suicide+rate/5390467/story.html) and *PEI needs suicide study, mental health group says*: (http://www.cbc.ca/news/canada/prince-edward-island/story/2011/09/10/pei-world-suicide-prevention-day.html).

The public health approach is recommended by Krug et al. (2002) as a way of understanding and addressing self-directed violence (including suicide). The components of this approach include:[1]



The current report reflects the first two steps of this cycle: defining and describing the nature of the problem and studying the factors that increase or lower risk. A limited discussion on step 3 (prevention) is included to enhance the discussion and next steps. However, this retrospective epidemiological study is only descriptive in nature and was not designed to be a research study to fully investigate causal factors involved in suicide.

The project included a literature review, project proposal, research ethics approval, Attorney General's approval, data collection, analysis and a summary report. The number of Islanders who died by suicide between 2002 and 2011 is relatively small and this presents challenges in accurately analyzing and reporting information while protecting privacy and data accuracy. For the purposes of this report, information about the Islanders who died by suicide between 2002 and 2011 are presented in aggregate form. The Department of Health and Wellness (DHW) is sensitive to the privacy of the individuals and families that we serve and proceeds with caution when reporting case review findings. In general, statistical results are based on a small number of cases and should be interpreted with caution. Data was suppressed in instances where counts were less than 5.

Data was abstracted initially from the Chief Coroner's Reports into an excel-based database. Variables which had been noted in the literature to be important in suicide research were sought from the reports (Appendix 1). The Chief Coroner's Office is part of the Department of Environment, Labour and Justice and Attorney General, and is responsible for the administration of The Coroner's Act which gives authority to investigate deaths.[2] Reports from Pathology at the Queen Elizabeth Hospital were then abstracted to collect additional information that may not have been found in the Coroner's Reports. Once the complete list of suicides (based on Coroner's data) was collected, the personal health numbers for each case were used to link with the administrative health system data (hospitalization records and physician billing records) to gather the health care utilization data for each of the suicide victims if available.

The data was combined and analyzed using both SAS v.9.1.3 (SAS Institute, Cary NC) and Stata v.12 (Stata Corp, College Station, TX). Descriptive statistics and more advanced analyses were conducted to look for trends and important significant findings identified in the literature.

One suicide occurred in a non-resident of Prince Edward Island. Their data was included in the suicide counts, rates, and description surrounding the event, but was not included in the health care utilization sections as there was no health information in the PEI administrative datasets.

Other Atlantic provinces have conducted similar suicide review projects. A pilot study conducted in Nova Scotia (NS) used a mixed methods approach to investigate the contents of the Nova Scotia Medical Examiner Service (NSMES) records to determine whether the information could be used for surveillance and prevention efforts.[3] Seguin, Lesage, Turecki, Daigle, and Guy (2005) reported various methods employed by their research team in New Brunswick (NB) to identify the personal and social circumstances that led to a suicide to inform strategies for improving mental health services.[4] Another retrospective review of suicides was conducted in Newfoundland and Labrador (NL) to describe their suicides and compare the data that was collected from the Chief Medical Examiner's Office with that of Vital Statistics.[5]

Suicide Definition

The Concise Canadian Oxford Dictionary defines suicide as "the intentional killing of oneself".[6] The National Center for Injury Prevention and Control in the United States defines suicide as "death caused by self-directed injurious behavior with an intent to die as a result of the behavior".[7]

Burden Of Suicide

According to the World Health Organization (WHO), in 1998 suicides were responsible for 2.3% of the total burden of disease worldwide in high-income countries, roughly twice the burden of diabetes.[8] Given the substantial underestimate of suicide attempts that are not seen in the health system nor recognized at all, the societal burden of suicides are substantially underestimated.[9] Corso et al. (2007) used health data to estimate the economic burden of violence-related injuries (including suicide) in the United States for 2000.[10] It was estimated that the loss was over $70 billion dollars, with the majority of the cost being associated with lost productivity.[10]

It is not possible to measure the psychological and social impact of suicide on family and society.[8] It has been estimated that a single suicide impacts at least 6 other people intimately and that if it occurs in a school or workplace, it may impact hundreds.[8]

Suicide in Canada

Self-directed violence (which includes suicide) is an important cause of morbidity and mortality worldwide.[7] Based on 2007 data, it was estimated that 10 people a day die from suicide in Canada.[11] According to Statistics Canada in 2009, suicide was the 9th leading cause of death and accounted for 100,000 years of potential life lost.[12] In Canadians aged 15-34 years, suicide followed accidents as the 2nd leading cause of death.

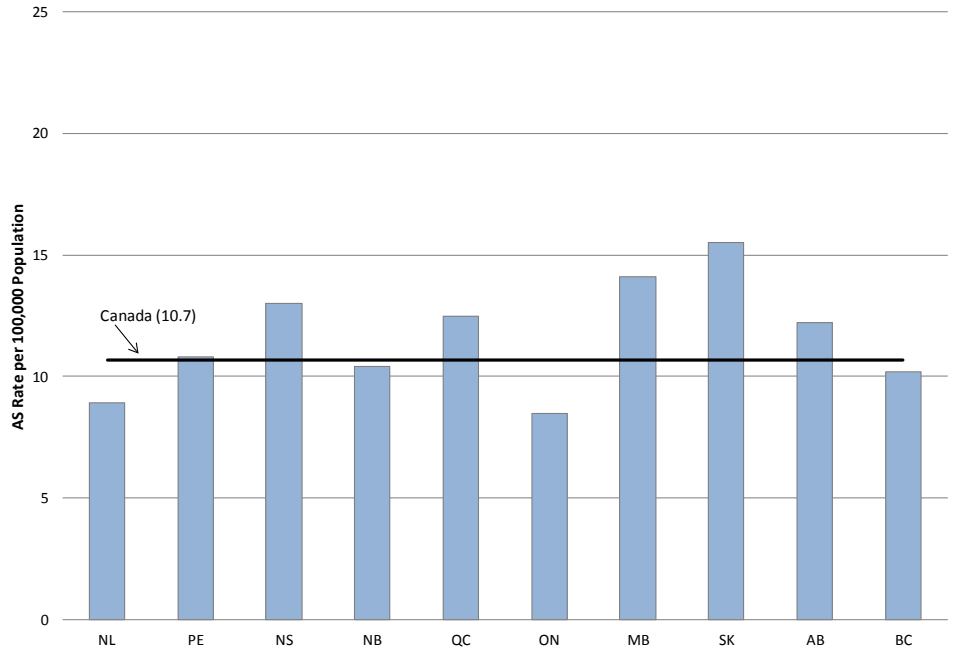
Several countries in the world have adopted national suicide prevention strategies[11]; at this time Canada does not have a strategy, although several Canadian provinces and territories have developed their own strategies. Finland, Australia and Scotland have realized benefits of their national prevention programs by measuring an actual reduction of suicides or related indicators.[11]

On December 14, 2012, Bill C-300: the *Federal Framework for Suicide Prevention Act* received Royal Assent in the House of Parliament in Ottawa.[13] The purpose of this Act is to develop a federal framework for suicide prevention which will include: health promotion, knowledge exchange, best practice formulation, research promotion, prevention guidelines, suicide statistics and dissemination of prevention information.

Rates in Canadian Provinces and Territories

In 2009, the age-standardized suicide rate was 10.7 per 100,000 Canadian population.[14] The age-standardized rate of suicide varies across the country with the highest rates found in the North (particularly Nunavut) and lower rates in the East.

Age-standardized Suicide Rate, Canada and Provinces, 2009



*Rates for territories: YK 5.1; NT 14.9; NU 57.1

Data from CANSIM Table 102-0552, Statistics Canada[14]

Risk Factors

Many risk factors have been described for suicide[8] including:

- Males are more likely to die by suicide than females
- Middle age is the most common in Canada
- People who are not in a current relationship
- Veterinarians, pharmacists, dentists, farmers and doctors
- Unemployed
- Remote communities
- Immigrants
- Chronic physical illness (somatic)[8]
- Mental health disorders, in particular depression
- Substance Use
- Aboriginal
- Sexuality (ie. homosexual, transgender etc.)

Mental Health

Mental illness is considered by most to be the most important risk factor for suicide with 90% having some form of mental illness or addiction disorder.[12] Depression as a form of mood and anxiety disorder is the most common mental illness cited in relation to suicides.[12,15–17] Concurrent disorders are also common, most often alcoholism and depression.[8]

Mental Health Strategy of Canada

The Mental Health Strategy of Canada (2012) summarized and developed 6 key Strategic Directions in need of focus for action.[18] Below is their summary of these strategies as presented on page 11 of the report:

We know what needs to be done. Drawing on the best available evidence and on input from thousands of people across Canada, *Changing Directions, Changing Lives* translates this vision into recommendations for action. The scope of the *Strategy* is broad and its recommendations are grouped into six key Strategic Directions. Each Strategic Direction focuses on one critical dimension and together they combine to provide a comprehensive blueprint for change. The six Strategic Directions are as follows:

1. **Promote mental health across the lifespan in homes, schools, and workplaces, and prevent mental illness and suicide wherever possible.** Reducing the impact of mental health problems and illnesses and improving the mental health of the population require promotion and prevention efforts in everyday settings where the potential impact is greatest.

2. **Foster recovery and well-being for people of all ages living with mental health problems and illnesses, and uphold their rights.** The key to recovery is helping people to find the right combination of services, treatments and supports and eliminating discrimination by removing barriers to full participation in work, education and community life.

3. **Provide access to the right combination of services, treatments and supports, when and where people need them.** A full range of services, treatments and supports includes primary health care, community-based and specialized mental health services, peer support, and supported housing, education and employment.

4. **Reduce disparities in risk factors and access to mental health services, and strengthen the response to the needs of diverse communities and Northerners.** Mental health should be taken into account when acting to improve overall living conditions and addressing the specific needs of groups such as new Canadians and people in northern and remote communities.

5. **Work with First Nations, Inuit, and Métis to address their mental health needs, acknowledging their distinct circumstances, rights and cultures.** By calling for access to a full continuum of culturally safe mental health services, the *Mental Health Strategy for Canada* can contribute to truth, reconciliation, and healing from intergenerational trauma.

6. **Mobilize leadership, improve knowledge, and foster collaboration at all levels.** Change will not be possible without a whole-of-government approach to mental health policy, without fostering the leadership roles of people living with mental health problems and illnesses, and their families, and without building strong infrastructure to support data collection, research, and human resource development.

These strategies cover many components of wellness and the health system for all ages, sex, culture and ethnicity. Within each strategic direction, there are many recommendations for action.

Initiatives in PEI

The Canadian Mental Health Association (CMHA)/PEI Division coordinate a variety of suicide prevention, intervention and postvention strategies in an effort to reduce the suicide rate and lessen the impacts of suicide on PEI. Beyond their core suicide prevention programming ('Signals of Suicide' in Grade 9 classrooms, ASIST Workshops for community caregivers, and resources/ supports for families bereaved by suicide), they also coordinate events and activities for the WHO's Annual World Suicide Prevention Day and maintain an extensive website of resources including the "Stick to Life" sticker campaign which targets males suffering from depression (http://pei.cmha.ca/programs-and-services/suicide-prevention).

A more detailed description of CMHA's Suicide Prevention Program is available in Appendix 2.

The Canadian Association for Suicide Prevention maintains a website of resources, including provincial/local crisis lines and survivor supports. (http://www.suicideprevention.ca)

Various mental health services offered by Health PEI related directly to suicide assessment and intervention including:

- Suicide screening is embedded as part of our community intake screening process and any hospital admission process
- In community settings, it is a required field in the electronic intake screening form
- Intake triage criteria have been updated to reflect clinical and behavioral risk factors as more urgent priorities for access
- Increased access to specialist mental health care in Primary Care, including open access and rapid access to appointments for crisis mitigation
- Increased training for screening for mental health conditions and suicidal ideation by Primary Care clinicians
- Plans to offer the *Late Life Suicide Prevention Toolkit* from Canadian Coalition for Seniors Mental Health

Suicide in PEI

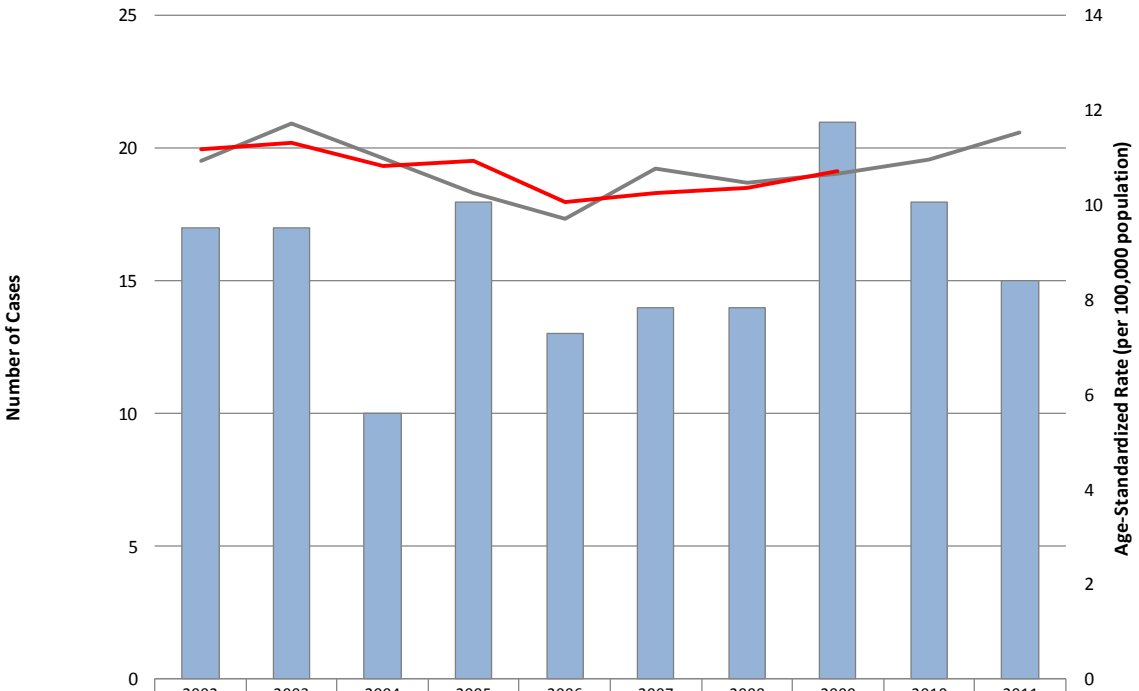
Demographic information

Between January 1, 2002 and December 31, 2011 there were 157 suicides in PEI. The majority (82%) were males. The trend of suicides from 2002 to 2011 including the count (PEI only) and age-standardized rate (PEI and Canada) per 100,000 population are shown below. Both the PEI and Canadian rates appear to be similar and relatively stable over time. When the average rate from the first 5 year period (2002-2006) is compared with the average rate of the second 5 year period (2007-2011), there is a slight increase, however this is borderline significant p=0.067. As there is no "gold standard" for the determination of a suicide, the real rates are largely unknown.[19]

Completed suicide rates reflect only a small portion of total suicidal behavior. Many more individuals are hospitalized, treated in an ambulatory setting or do not seek treatment as a result of their non-fatal suicidal behavior.[9]

In Prince Edward Island, suicide was the 10th leading cause of death in 2009 (http://www5.statcan.gc.ca/cansim/a47) based on data provided by vital statistics. Using vital statistics data for suicide counts and rates has been a topic of debate due to the tendency for under-reporting. In NL, examining suicide records from the Chief Medical Examiner's office identified 38 additional suicide cases over a period of 5 years compared to examining the Vital Statistics Database.[5]

Suicides by count and rate, PEI and Canada, 2002-2011

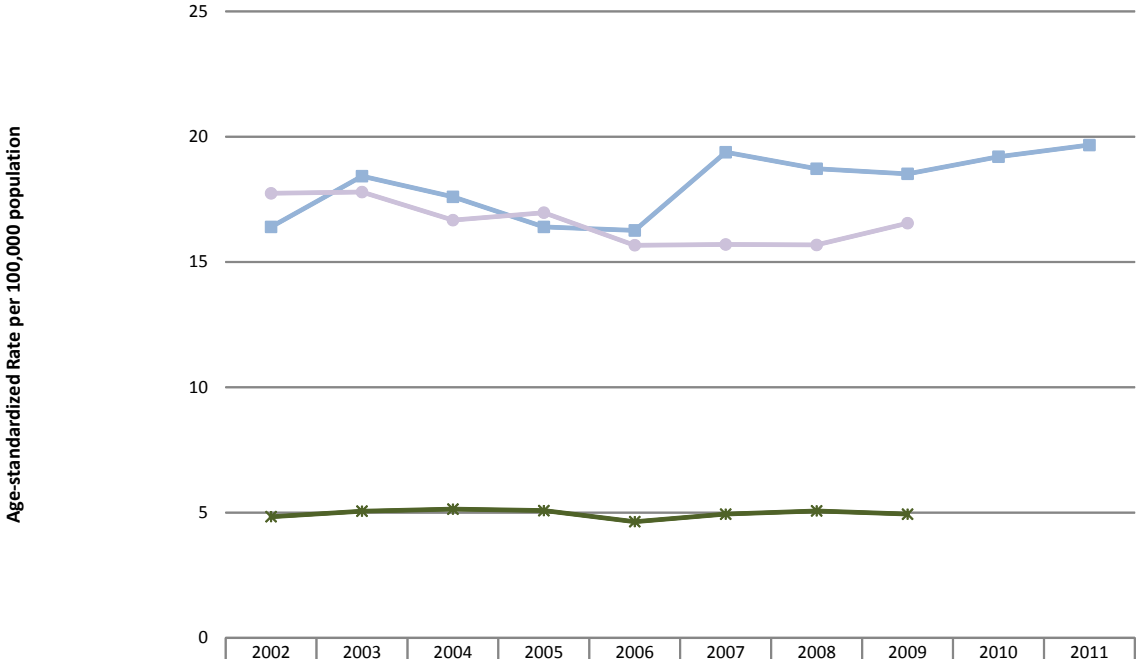


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
PEI case count	17	17	10	18	13	14	14	21	18	15
PEI Rate*	10.9	11.7	11.0	10.3	9.7	10.8	10.5	10.7	11.0	11.5
Canadian Rate	11.2	11.3	10.8	11.0	10.1	10.3	10.4	10.7		

*5 year rolling average

The suicide rates between males and females are very different as males are significantly more likely to complete suicide than females. In Canada overall, the age-standardized rates of suicides for males is decreasing and females is not changing over time. In PEI, the age-standardized rate of suicide in males is higher in the past five years compared to 2002-2006, however it appears to have stabilized in the last five years. The female rate of suicide in PEI from 2002-2011 is not presented due to small numbers and to ensure that privacy is protected.

Suicide rates by sex, PEI and Canada, 2002-2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
PEI Male Rate	16.4	18.4	17.6	16.4	16.3	19.4	18.7	18.5	19.2	19.7
PEI Female Rate	^	^	^	^	^	^	^	^	^	^
Canadian Male Rate	17.7	17.8	16.7	17.0	15.7	15.7	15.7	16.6		
Canadian Female Rate	4.8	5.1	5.1	5.1	4.6	4.9	5.1	4.9		

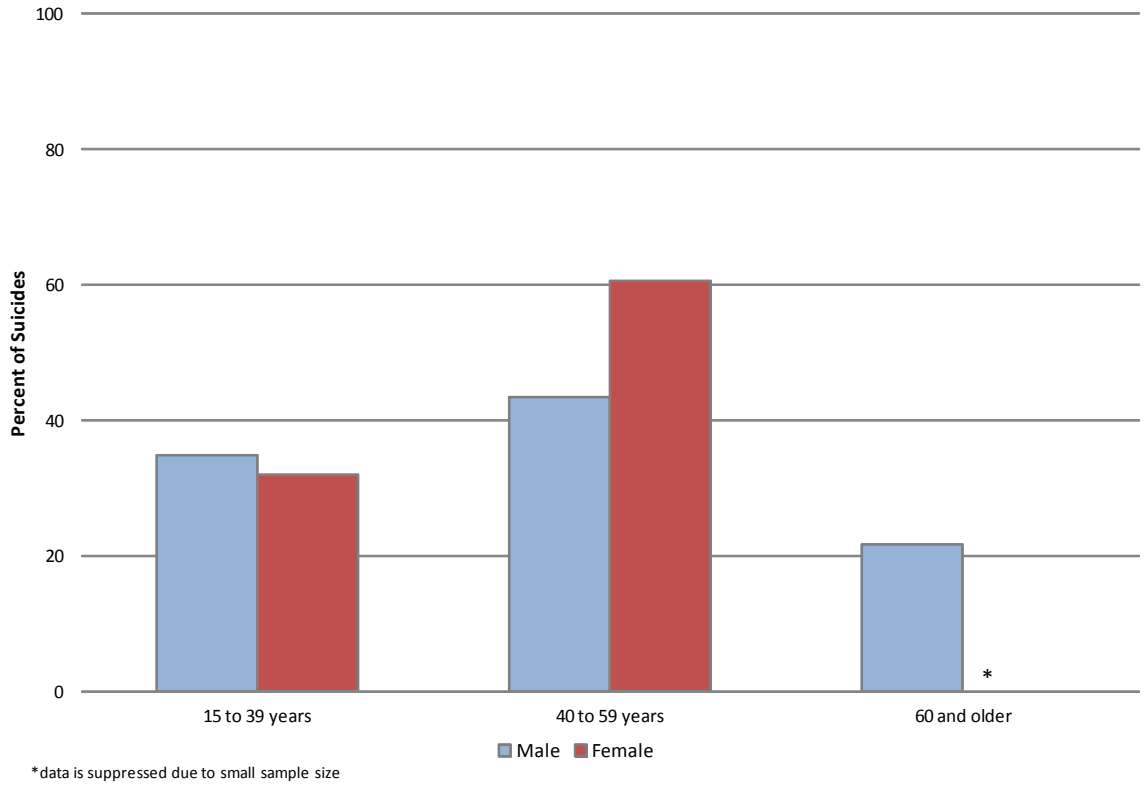
*5 year rolling average
^data was suppressed

It is well established that males have higher rates of suicides than females.[12,15] However, it is also widely known that females have a higher rate of suicide attempts than their male counterparts.[15]

Age

The average age of those who died by suicide between 2002-2011 was 47 years and this ranged from 15 to 85 years. The average age increased significantly from 2002 to 2011 from 41 to 50 years of age, respectively. In Canada, individuals in their mid-life (40 to 59 years) are the most likely to die by suicide for both sexes.[5,12]

Suicides by sex and age group, PEI 2002-2011



*data is suppressed due to small sample size

Other Demographic Information

There was an almost even distribution between urban (52%) and rural (48%) Islanders in terms of permanent residence and this has not changed over time.

In regards to the relationship status of the cases, data was missing for 62% of suicides. However, of the known cases, 47% were either married or living with a partner.

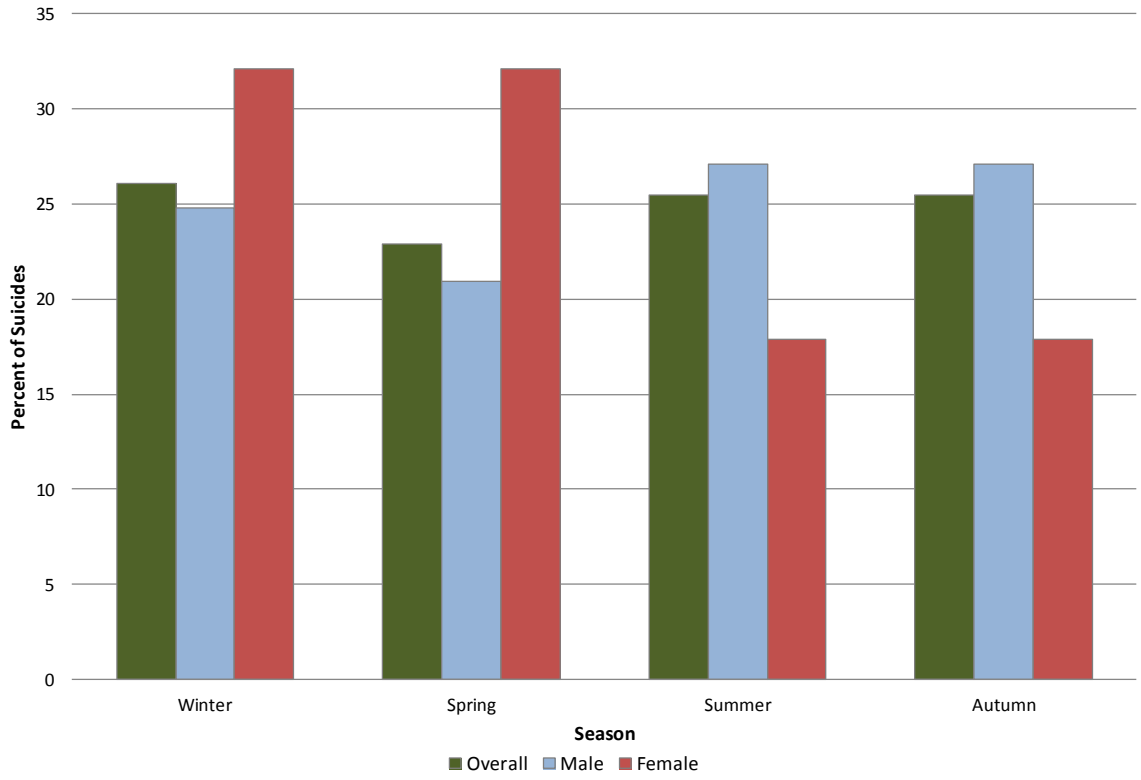
There was limited information available concerning the employment status, education, religion or ethnicity that could be abstracted from the coroner's reports, administrative health data or autopsy reports. Therefore no interpretations of these demographics are possible in the current report.

The NS review of 2006 found similar gaps in data where some socio-demographic variables such as marital status and employment status were inconsistently recorded.[3]

Details of Death

There was no obvious trend for suicides occurring on specific days of the week although the most common day was Saturday (18%). There were also no monthly nor seasonal trends associated with date of death. It appears that women die by suicide more often in the winter and spring, however due to small numbers this is not possible to assess. In a similar NL study, spring was the most common season for suicide deaths (28%) and winter was the least (20%).[5]

Suicides by Season, PEI 2002-2011



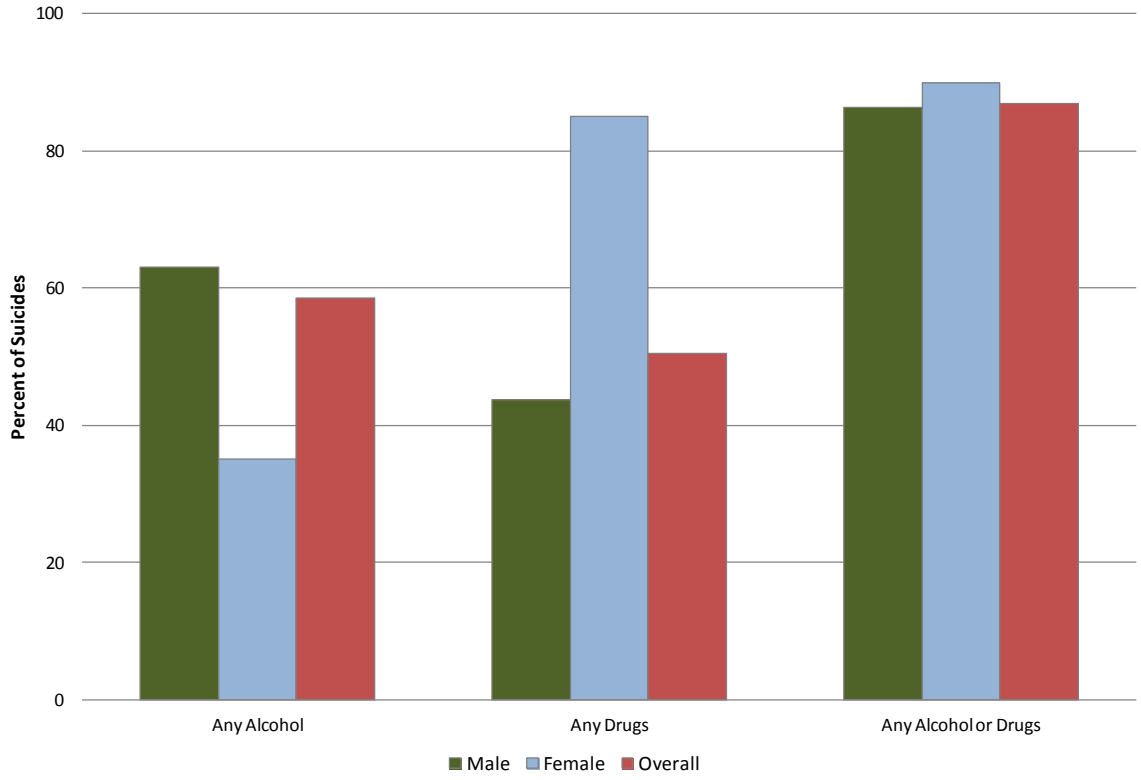
The majority of people (95%) were found on the day of or within 1 day of death and of those with a known location, 71% were found in their homes. This reflects that 76% of known cases were found in a private versus public location. In 64% of the cases, it was not recorded as to who found the deceased. Of those which noted this, 65% were found by another family member.

Method of Suicide

Men use more violent methods to die by suicide than women.[8,12] Violent methods may include: hanging, strangulation and firearms; whereas, non-violent methods include: self-poisoning (overdose), suffocation and drowning. In PEI the primary methods used to complete suicide were significantly different between men and women. Men were most likely to choose hanging (43%), firearms (18%) or overdose (16%) whereas women most commonly chose overdose (50%) or hanging (21%). These numbers are consistent with Canadian data that found men choose hanging (46%) and firearms (20%) most often compared with self-poisoning for women (42%).[12] As men use more lethal methods to attempt suicide, they have a higher overall completion rate.[15]

Women were significantly less likely than men to have had alcohol in their system at time of death and significantly more likely to have had drugs in their system.

Toxicology Results by Sex, PEI 2002-2011



Health Care

Mental Health

Diagnosis

A large percentage of females who completed suicide had a mental health diagnosis (82.1%) and this was significantly higher than men (57.4%). The most common grouping of mental health diseases was "mood or anxiety disorders" for both sexes with the most likely disorder being depression (both sexes), followed by anxiety for women and bipolar disorder for men. The table below explains the broad groupings with specific disorder breakdown. Women were significantly more likely than men to have a diagnosis of depression (50.0% versus 27.9%). There was also a similar trend for anxiety disorders.

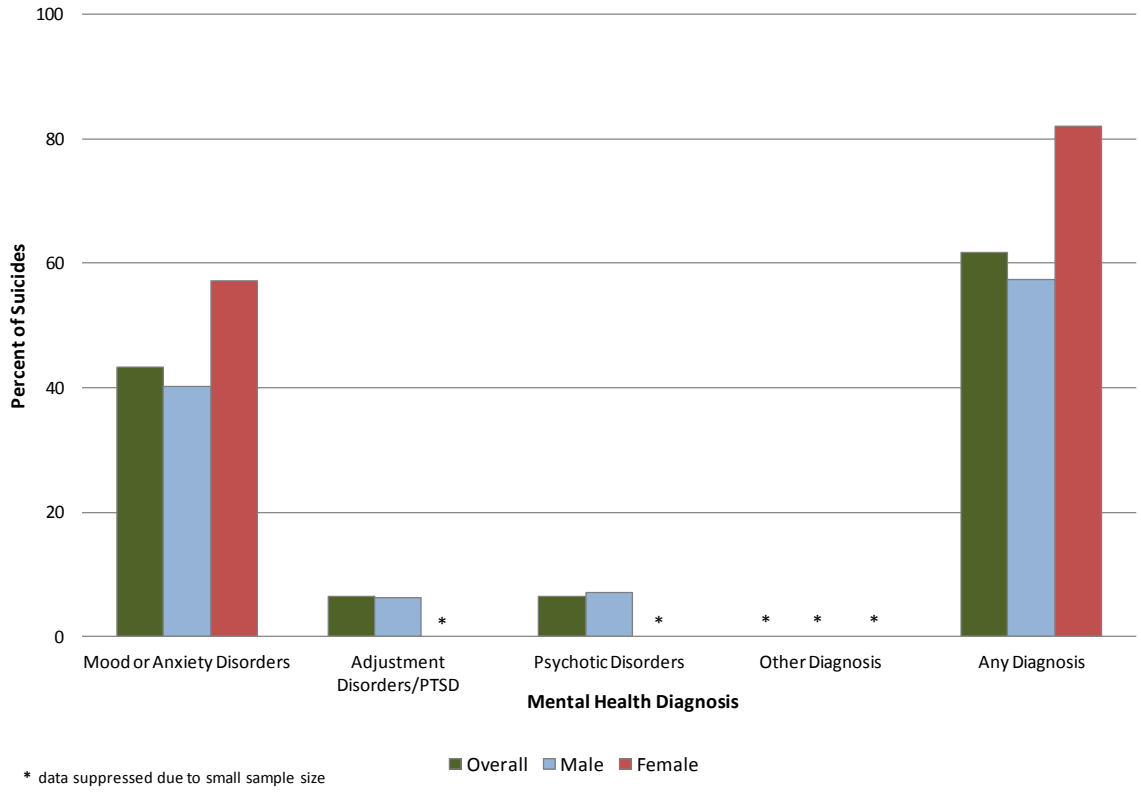
Based on global evidence, mood disorders and in particular depression, are the most common mental disorder associated with suicide.[17] A case review of specific psychiatric diagnoses of people who died from suicide found that over 50% suffered from depression.[17]

Mental Health Diagnoses: Categories and Disorders

Mood & Anxiety Disorders	Anxiety disorder Bipolar disorder Depression Mood affective disorder
Adjustment Disorders	Adjustment disorder Post traumatic stress disorder
Other Mental Health Disorders	Eating disorder Personality disorder
Psychotic Disorders	Psychosis Schizophrenia Delusional disorder Schizo affective disorder

An accumulation of mental health and addiction problems were revealed, with drug abuse and dependence (61%) and mood disorders (70%) most prevalent in a NB review.[4] A NL review found that two thirds of the investigated suicide deaths had a mood disorder and that mood disorders were more prevalent in women who died by suicide.[5]

Mental Health Diagnosis by Sex, PEI 2002-2011



Treatment

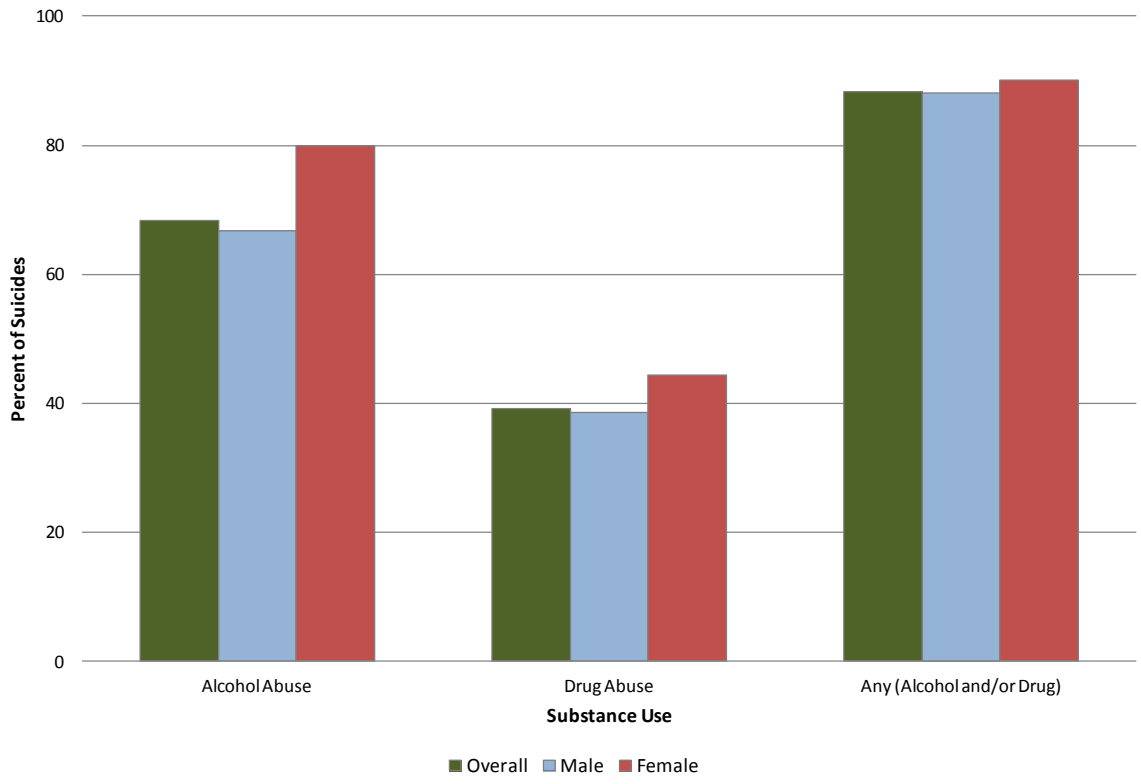
Of the 72 people who died by suicide that had an existing Mental Health Diagnosis, 40.3% were undergoing treatment with medications at the time of their death. An additional 12.5% had received treatment in the past but not currently. The remaining 47.2% had no indication of receiving treatment for their diagnosis. Interestingly, a very small number of cases that did not have a documented mental health diagnosis were either actively receiving medications for a mental disorder or had in the past. A slightly larger proportion of women were currently receiving medication compared with a larger proportion of men that had been treated in the past.

Appropriate therapy which may include medications, psychosocial, cognitive or psychiatric have all been demonstrated as effective in the prevention of suicide.[11]

Substance Use

Substance use variables were compiled using information from the coroner's reports, administrative health data and post-mortem records with indications of substance use. There were still a large number of cases where the substance use could not be determined (n=72). For those in which potential substance use could be determined, 88.2% of Islanders who completed suicide had at least one substance use issue and this did not vary by sex. Alcohol was the most common type of substance use with 80% of women and 66.7% of men affected. Drug use was less common but still impacting 39.2% of cases. Within the drug use category the most commonly used drugs were illicit/illegal (50%), followed by over-the-counter (30%) and prescription (20%). This did not differ by sex.

Substance Use by Sex, PEI 2002-2011



Addictions

Of those with documented substance use issues, almost half (45.3%) had an addiction diagnosis or addiction treatment either current or past. Of all suicide deaths, 24.8% were classified with addictions and this did not differ across sexes. Just over one third (35.9%) of those with addictions were receiving or had received treatment in the past.

Concurrent Disorder Status

Of those records where data was available, 62.9% of suicide victims had concurrent disorders, meaning they had both a mental health disorder and either an addiction diagnosis or substance use indicated. Women had a higher rate than men (81.8% and 60.3%), however this was not statistically different. Individuals with concurrent disorders may face the biggest challenges in getting appropriate services, treatments and supports as they often face multiple forms of stigma and general lack of understanding.[18]

Medical History

Medications

Prescription medication history was charted in 26% of suicide deaths. Of those with information, 70.7% were listed as taking one medication and the remaining 29.3% were taking 2 or more medications at the time of their death.

The most common medications used were antidepressants (53.7%), anti-anxiety (41.5%), pain medications (12.2%), and other (22%). There were significantly more females on antidepressants at the time of their death than males. The other medication categories did not differ across sex.

Ensuring that appropriate pharmacological therapy is used has been shown to be effective in reducing future suicide attempts.[11]

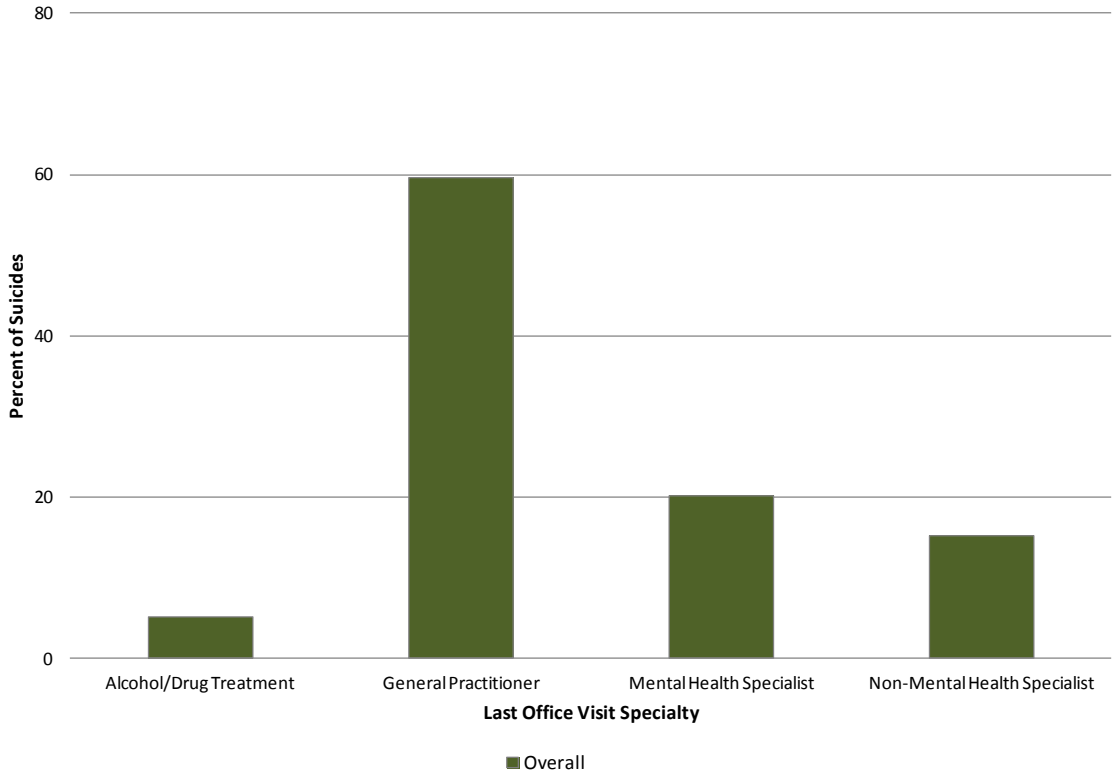
Physician Office/Clinic Visit

Based on administrative data, 65% of Islanders who died by suicide visited their family physician at least once in the six months prior to their death and this did not differ by sex (62% males, 78% females). One review that was conducted that found approximately 3 of 4 patients had contact with their primary care provider within a year of their suicide.[20] In addition, almost half of patients had contact within 30 days of their death.[20]

Of those who had a visit, 38% were documented to be there for mental health concerns. Mental health diagnoses were more prevalent in those who had appointments with their family physician in the week prior to their death.

Visits to walk-in clinics or specialists occurred in 14.1% of suicide victims in the 6 months prior to their death. These individuals were not the same ones that visited their family physician suggesting they had previously been referred to a specialist or, in the case of a walk-in clinic they did not have a family physician, chose not to see their family physician or were not able to make an appointment with their family physician.

Last Office Visit Speciality (within past 6 months), PEI 2002-2011



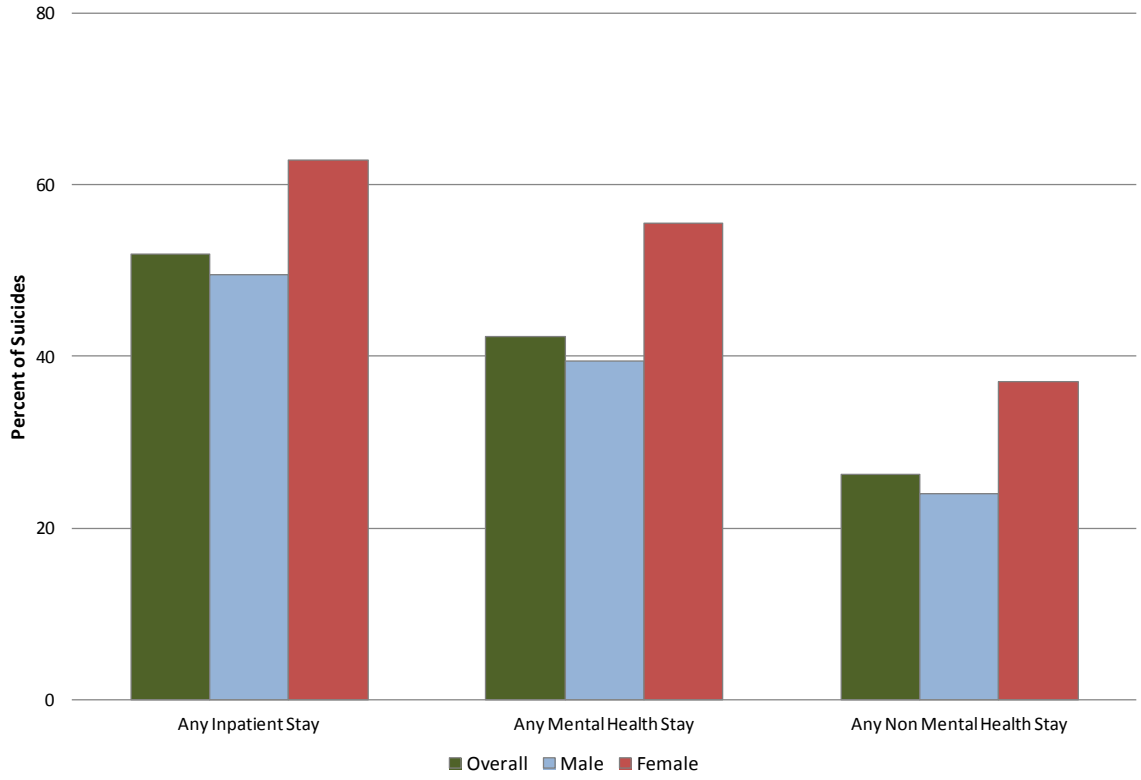
Inpatient

Over half of all Islanders who died by suicide (51.9%) had at least one inpatient stay in the previous five years prior to their deaths and this did not differ by sex. Most had two or three hospitalizations during that time period (see figure below).

While the median time between discharge from hospital and date of death was substantial (n=225 days), this ranged from 0 to 1717 days. In total, six individuals died by suicide the same day that they were discharged from hospital. Patients are at high risk of suicide when they have been recently discharged from acute psychiatric inpatient settings.[11]

Of those who had any history of hospitalization in the previous five years, 81.5% had been admitted at least once for mental health related reasons and this did not differ by sex. The average number of mental health admissions during the previous five years was 2.4, but this ranged from 1 to 19. Those with mental health admissions took their lives significantly faster after they were discharged than those with non-mental health admissions. A study from Ontario reported that one-third of patients who had been hospitalized for depression did not receive the recommended out-patient follow-up care.[21] Serious consequences occur for individuals with mental health illness and their families if they do not get the needed services and supports upon discharge from the hospital.[18] Improving community linkages after discharge is an effective way to prevent suicides.[11]

Inpatient Stay History in the Past Five Years by Sex, PEI 2002-2011



Emergency room visits

In total, 42% of Islanders who died by suicide visited the emergency room during the previous 6 months prior to their death. Of these, 35% were mental-health or addictions related. There were no sex-related differences. The median time between emergency visits and date of death was 39 days. Approximately 11% of suicides took their lives within 2 weeks of their ER visit and less than half of these are listed as mental-health/addiction related. Therefore it is possible that at-risk people are presenting at ER for other reasons when they are actually seeking help for their mental health issue.[22]

Health Encounters

Just over 10% (11.5%) of Islanders who died by suicide between 2002 and 2011 did not have any encounters with our PEI health care system based on the administrative data. The vast majority had at minimum at least one encounter, and some had many more. It is too complex to determine the extent of health encounters that were mental health/addiction related to hypothesize how many opportunities there were to provide support, referrals, counseling and/or medications. Studies have demonstrated that rapid follow-up and intervention following hospital or emergency department discharge significantly reduced suicide reattempts when compared with usual care.[23]

Different Types of Health System Encounters for Islanders Who Died by Suicide

Health system encounters: Inpatient (previous 5 years), Emergency Room Visit (previous 6 months), Family Physician Visit (previous 6 months), Specialty Visit (previous 6 months) or Walk-in Clinics(previous 6 months)	
None	11.5
Only One of above	31.4
Only Two of the above	29.5
Three or more of above	27.6

* This only includes 1 of each of the above health care encounter categories and does not include multiple hospital stays, physician visits, etc.

The coordination and continuity between specialized mental health and addiction services was highlighted as an integral component for prevention in the NB review.[4] Training to identify, treat, manage, follow-up, and refer may be necessary for practitioners, as well as knowledge of best practice for dealing with comorbidities for mental health and addiction specialists.[4]

Life Issues

Major life stressors and/or interpersonal issues were identified in 34.4% of suicide deaths and while there was no significant difference across sexes, men were identified more often (37.2%) compared with women (21.4%). Precipitating events illustrated a clear association between a significant loss or worsening situation and suicide completion in NB.[4]

Interpersonal

Interpersonal issues impacted 12.7% of Islanders who completed suicide and included: death of a friend or family member, intimate partner issues, non-intimate relationships issues, and perpetrators of violence. Of all noted interpersonal issues, intimate partner issues were most commonly noted and accounted for 70% of all interpersonal issues.

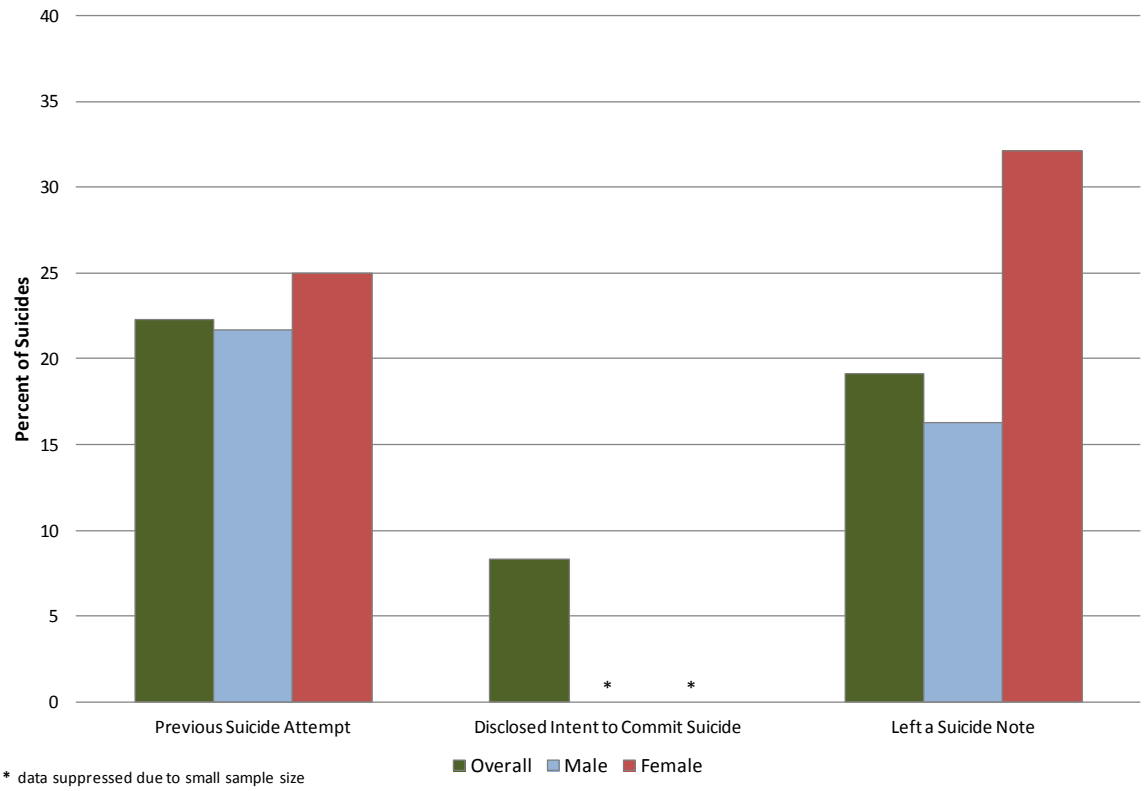
Life Stressors

Life stressors impacted 26.8% of suicide cases. The most common stressor was physical health and chronic pain (somatic illness) which accounted for 64.3% of life stressors. Somatic illness is an important risk factor for suicide.[8] Other examples included: financial issues, employment issues, or a recent crisis.

Suicide History

In total, 58.6% of Islanders who completed suicide had no known previous suicide attempts, did not disclose their intent to die by suicide and did not leave a suicide note. However, of those who did these things, 18.5% indicated in 2 or more ways. The figure below describes suicide history with 22.3% attempting suicide at least once before, 8.3% disclosing their intent to die by suicide and 19.1% leaving a suicide note. There was a trend for women to be more likely to leave a suicide note than men. A NL review demonstrated that 30% of completed suicides between 1997 and 2001 had at least one previous attempt.[5]

Suicide History by Sex, PEI 2002-2011



* data suppressed due to small sample size

Mental Health

Mental Health in PEI from Administrative Data

Approximately 62% of Islanders who completed suicide had a previous mental health diagnosis. The most prominent mental health issue was a mood and anxiety disorder with 43% of suicide victims having this diagnosis. Having a mood and anxiety disorder is a major risk factor for suicide. In particular, depression is the most common mood and anxiety disorder identified in people who have died by suicide. [24]

In addition to mental health disorders, substance use was common in Islanders who died by suicide. For those cases in which the use or not use of substances could be determined, the most common substance was alcohol followed by drug use.

Understanding the levels of these conditions in Islanders is essential in our ability to provide services for prevention and treatment of these illnesses as well as suicide.

Methodology & Data Sources

Information for this section of the report is based on methodology used by the Canadian Chronic Disease Surveillance System[25] (CCDSS), coordinated by the Public Health Agency of Canada. Physicians billing data from the PEI health insurance registry database was linked with PEI hospitalization data. For an Islander to be considered a case of treated mental disorder within this surveillance system, a person would have to have had one hospitalization with the most responsible diagnosis of a mental disorder or have had at least one physician visit with a diagnosis of a mental disorder each year. This is the general mental health disorder or Omnibus definition. The codes used to describe mental disorders in the combined database were codes 290 through 319 (ICD-9 codes) and F00 through F99 (ICD-10 codes). These codes represent the mental disorders as described in the previous table (p. 14) and also psychosexual disorders and substance use disorders including both dependent and nondependent use of alcohol and drugs. In addition, people with intellectual impairment and dementias which include all Alzheimer's disease codes except ICD-9 331.0 and ICD-10 G10 are included.

Mood and anxiety disorders are the dominant mental disorder experienced by people who die by suicide. These disorders were identified within the dataset using codes 296 and 311 (ICD-9) and F30 through F39 (ICD-10) for mood disorders and 300 (ICD-9) and F40 through F48 plus F68 (ICD-10) for anxiety disorders. For an Islander to be considered a case of treated mood and/or anxiety disorder within this surveillance system, a person would have to have had one hospitalization with the most responsible diagnosis of a mood and/or anxiety disorder or have had at least one physician visit with a diagnosis of a mood and/or anxiety disorder each year. Because anxiety and mood disorders are frequently comorbid conditions, mood and anxiety are grouped together to improve the validity of the definition.[26,27] In addition, the prevalence of those seeking treatment for depression is not examined by itself because it is difficult to identify this condition correctly in the administrative data.[28]

Substance use is also a risk factor for suicide. The cases of substance use were counted in Islanders greater than or equal to 12 years of age using similar techniques as for mental disorders. The ICD-9

codes and their equivalent ICD-10 codes used to identify treated substance use are in the following table.

Administrative data diagnostic codes for substance use and abuse[29]

Substance type	ICD-9 codes	ICD-10 codes
Alcohol	291, 303, 305.0	F10
Any drug	292, 304, 305.2-305.9	F11-F16, F18, F19
Opioids	304.0, 305.5, 304.7	F11

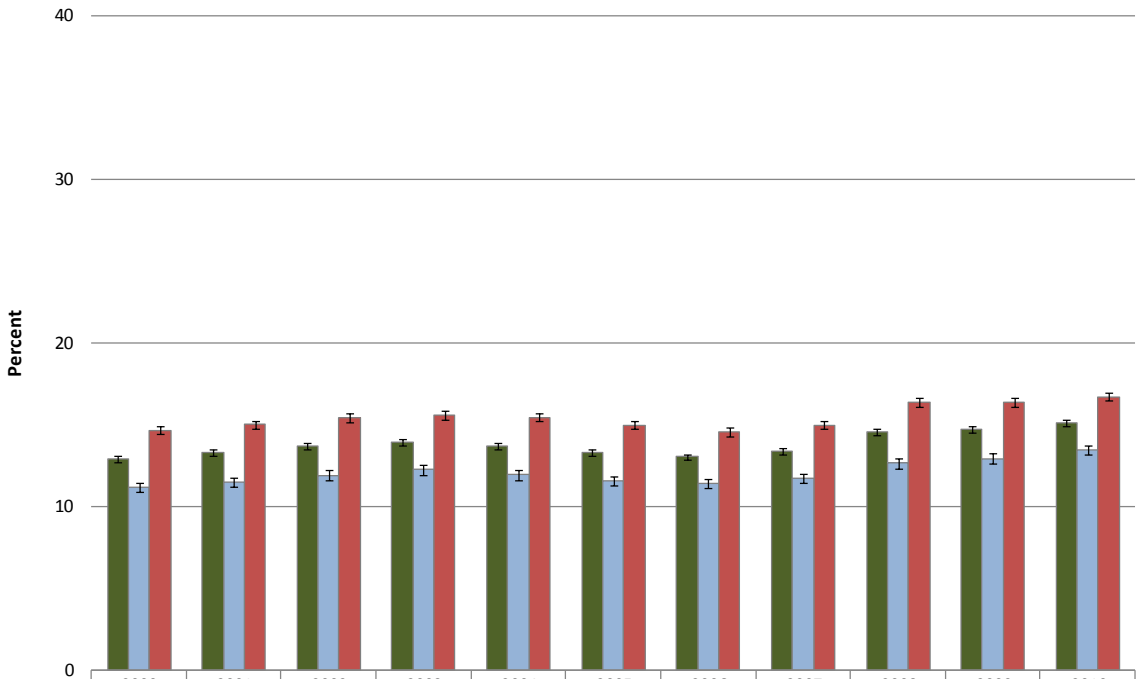
There are limitations[26,30] to the data collected from administrative databases. For instance, the databases only capture those people with mental disorders or substance abuse that are diagnosed by a physician in PEI. They do not account for someone being treated by an individual such as a psychologist with a private practice or in Community Mental Health Clinics. They also do not count individuals who are suffering with mental health issues and/or substance use who do not seek treatment. Because it is not possible to know how many individuals are not seeking treatment, the results from the administrative databases are likely an underestimation of the true number of Islanders suffering from mental disorders and/or substance abuse. Another potential source of underestimation is that all of the data from those patients in psychiatric hospitals may not be included in the administrative databases.

Mental Health Conditions

Omnibus

The prevalence of people with treated mental health issues is presented below. In 2010, over 20,000 Islanders were treated for a mental disorder, of which 57% were females. The proportion of Islanders being treated for mental disorders has increased in the last 4 years, from 13.0% in 2006 to 15.1% in 2010. Females consistently have a higher proportion of treated mental disorders compared to males. Some of the increased prevalence of treated mental illness can be explained by women having more interaction with the health care system for reproductive health care and possibly more often bringing their children to the physician compared to men.[31] This higher prevalence has also been explained by hormonal changes experienced by women[32] (pregnancy, menstrual cycle, and menopause) and different experiences with stress and family/personal responsibilities.[33]

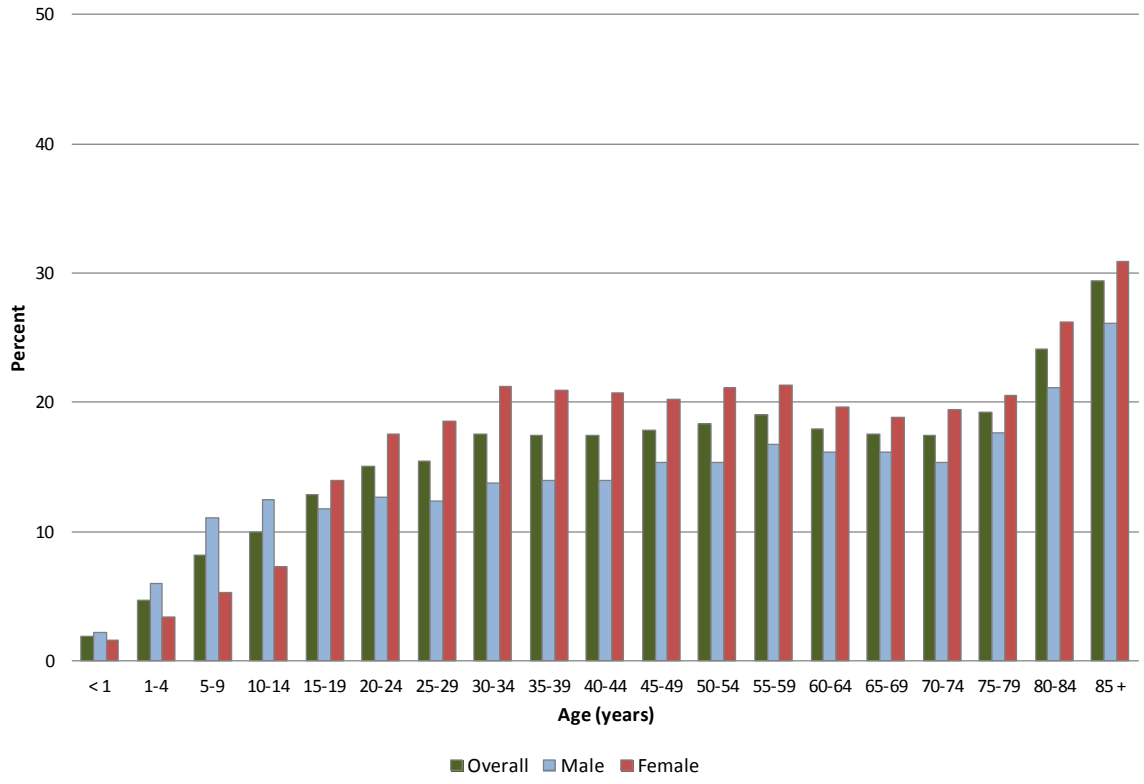
Mental Illness Prevalence, Age-Standardized, PEI 2000-2010



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Overall	12.9	13.3	13.7	13.9	13.7	13.3	13.0	13.4	14.5	14.7	15.1
Male	11.2	11.5	11.9	12.2	11.9	11.5	11.4	11.7	12.6	12.9	13.4
Female	14.6	15.0	15.4	15.5	15.4	15.0	14.5	15.0	16.3	16.3	16.7

The proportion of people treated for mental illness increases as people age. In the early years of life, males have a higher proportion affected relative to females which has been attributed to a higher level of behavioral disorders in young males.[34] After 15 years of age, females have a higher proportion relative to males. This difference between females and males is greatest during the age group 25-44 years. In addition to the reasons mentioned previously for women seeking help more often than men, young men are less likely to seek help for mental illness unless they are suffering severe anguish.[35] This fact is consistent with the higher rate of suicide in Island men compared to women. The age groups with the highest proportion affected are the 80-84 years age group with 24.1% and 85+ age group with 29.4% affected. The most common mental disorders in people of this age group are dementia, depression and delirium (acute confusion).[36]

Age-Specific Mental Illness Prevalence by Sex, PEI 2010

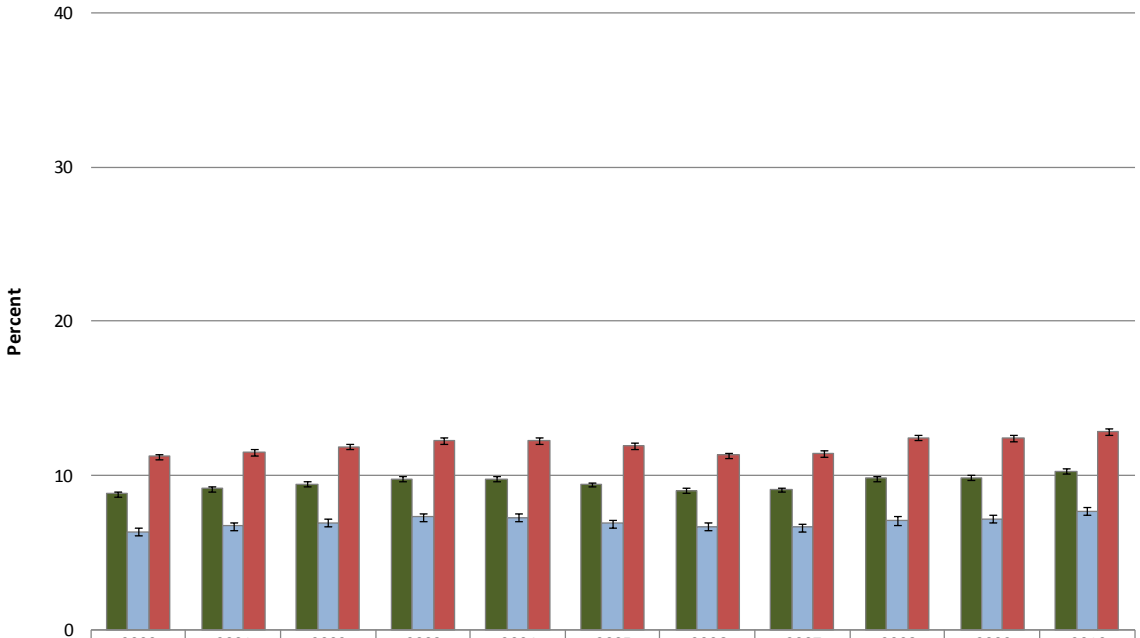


Mood and Anxiety

Mood and Anxiety disorders were the most common mental disorder in the Islanders who died by suicide. Of these suicide deaths, depression was the most common illness in both men and women followed by anxiety disorder in women and bipolar disorder in men.

The prevalence of treated mood and anxiety disorder has slowly increased since 2006 from 9% to 10.3%. A higher proportion of females have treated mood and anxiety disorders compared to males for reasons described previously.

Mood and Anxiety Disorder Prevalence, Age-Standardized, PEI 2000-2010

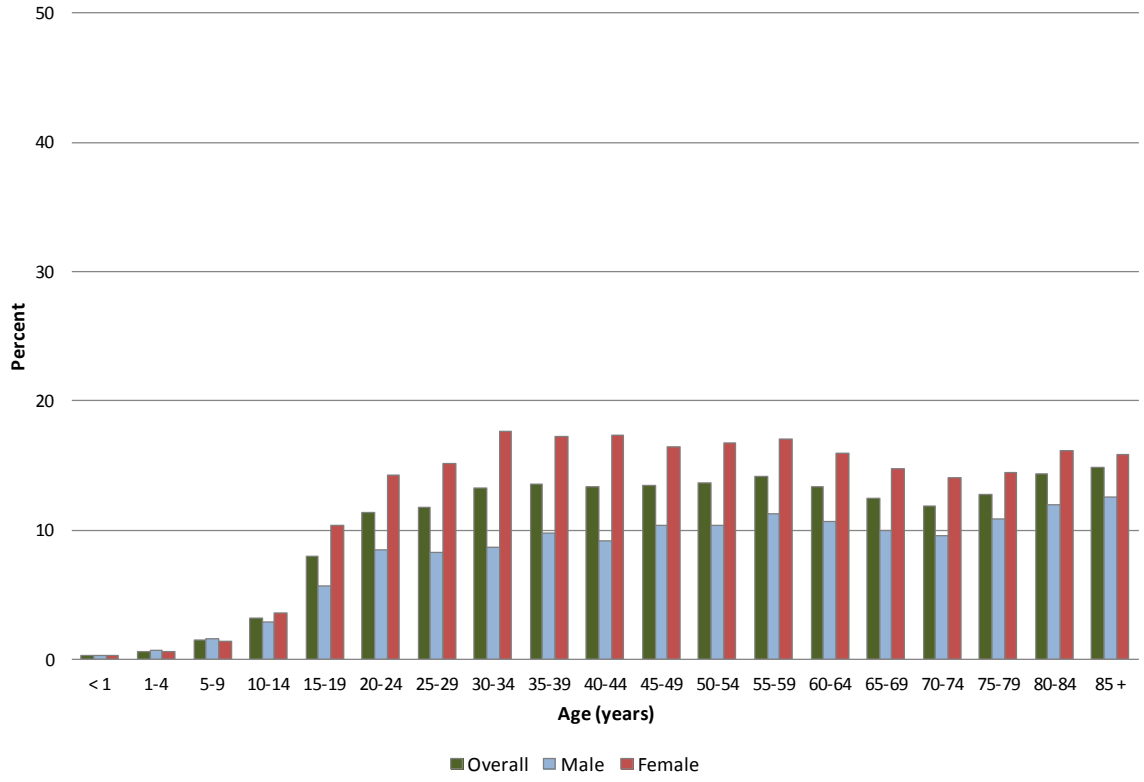


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Overall	8.8	9.1	9.4	9.8	9.8	9.4	9.0	9.1	9.8	9.8	10.3
Male	6.3	6.7	6.9	7.3	7.3	6.9	6.7	6.6	7.1	7.2	7.7
Female	11.2	11.5	11.9	12.2	12.2	11.9	11.3	11.4	12.5	12.4	12.8

This increased prevalence in females is present in all age groups except those under 10 year of age. Females have their highest prevalence during their middle age and again after 80 years of age. Males have their highest prevalence after 80 years of age. The rates of females and males are similar in the age groups under 10 years of age.

The overall rate in both men and women increases rapidly in young adults and remains high through the working years. One reason for the increase in mood and anxiety disorders as well as mental health disorders in general is the potential stress of the workplace. [18,33]

Age-Specific Mood and Anxiety Prevalence by Sex, 2010, PEI

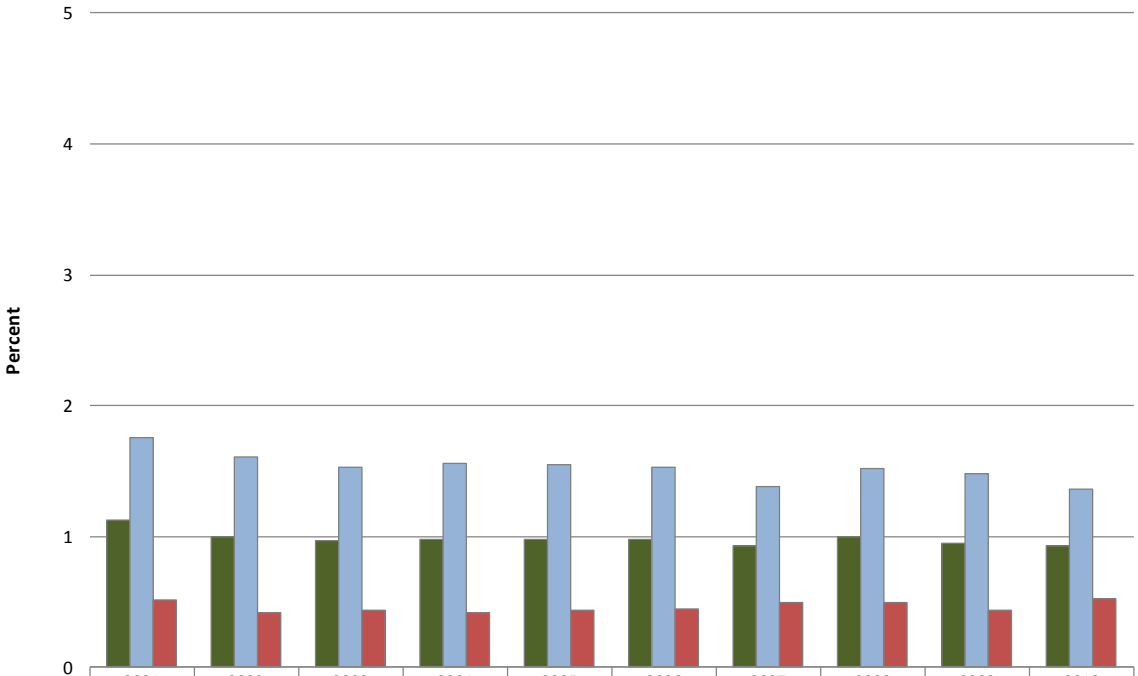


Substance Use

Issues with alcohol was the most common substance use in Islanders with a history of substance use issues who died by suicide. This was followed by illicit drug use, over-the-counter medication abuse, and prescription drug abuse, in this order.

Alcohol misuse is a problem in PEI. The rate of heavy drinking is consistently higher in Islanders 12 years and older compared to the Canadian rate.[37] The rate for those seeking treatment for alcohol abuse has remained relatively constant in the 10 year period. From the 2010 PEI health care data, the prevalence of males 12 years and older who seek treatment is 1.4% indicating that 14 in 1000 males has sought treatment for some aspect of alcohol use. The prevalence is consistently less in females with 5 in 1000 females having sought treatment in 2010.

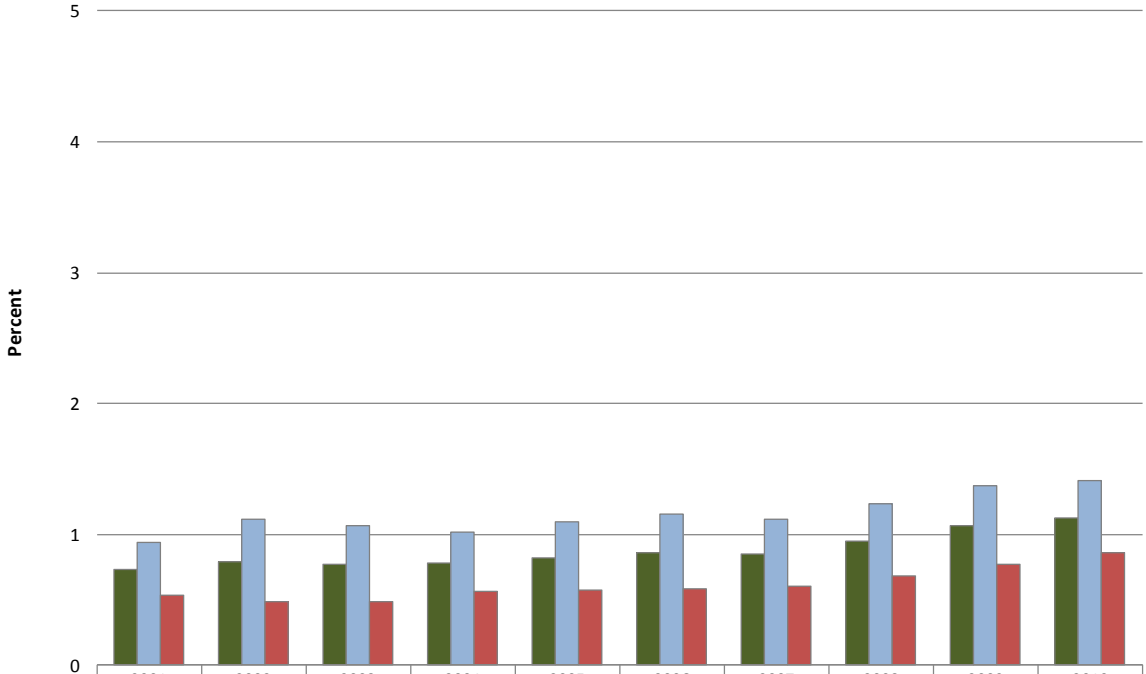
Persons Seeking Treatment for Alcohol, by Sex, Age 12+, PEI, 2001-2010



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Overall	1.12	0.99	0.97	0.97	0.98	0.97	0.93	0.99	0.95	0.93
Male	1.76	1.60	1.53	1.56	1.55	1.53	1.38	1.51	1.48	1.36
Female	0.51	0.42	0.44	0.41	0.44	0.44	0.50	0.49	0.44	0.52

The prevalence of Islanders seeking treatment for drug use has slowly increased since 2001. The prevalence has increased to surpass the prevalence of Islanders seeking treatment for alcohol abuse in 2009. Males consistently seek help at a higher proportion than females; however, the rate ratio of males to females (%males/%females) is higher for alcohol use treatment than for drug abuse treatment indicating that females are sharing more of the burden in treated drug use compared to treated alcohol use.

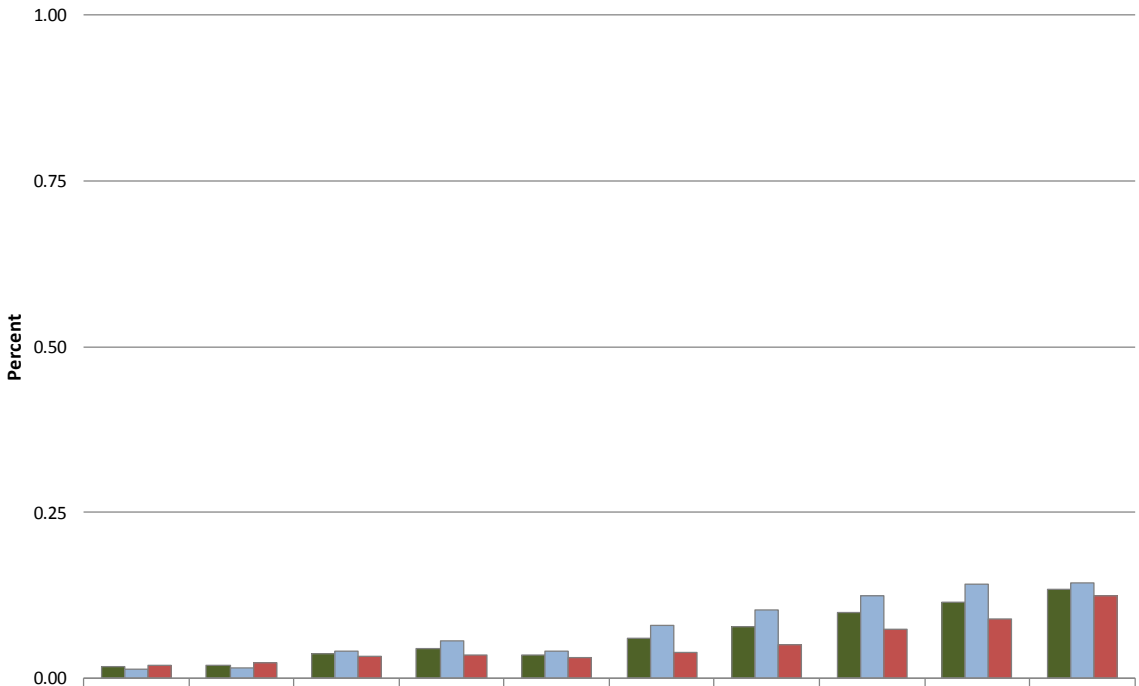
Persons Seeking Treatment for Drugs, by Sex, Age 12+, PEI 2001-2010



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Overall	0.73	0.79	0.77	0.78	0.82	0.86	0.85	0.95	1.06	1.13
Male	0.94	1.11	1.06	1.02	1.09	1.15	1.12	1.24	1.37	1.41
Female	0.54	0.49	0.49	0.56	0.57	0.58	0.60	0.68	0.77	0.86

Sometimes the drug for which people are seeking treatment is not identified by name in the administrative data. Some reasons for the lack of identification include having no specific code for that drug, there were multiple drugs for which they were seeking treatment, or that the drug was not specified in the records. Of those people that did have a drug identified in the data, opioid abuse was the most rapidly increasing issue. In 2010, almost the same proportion of males and females sought treatment for opioid abuse. The prevalence of Islanders seeking treatment for opioid abuse is likely higher than those presented in the figure, but many of these people did not have their drug identified in the data.

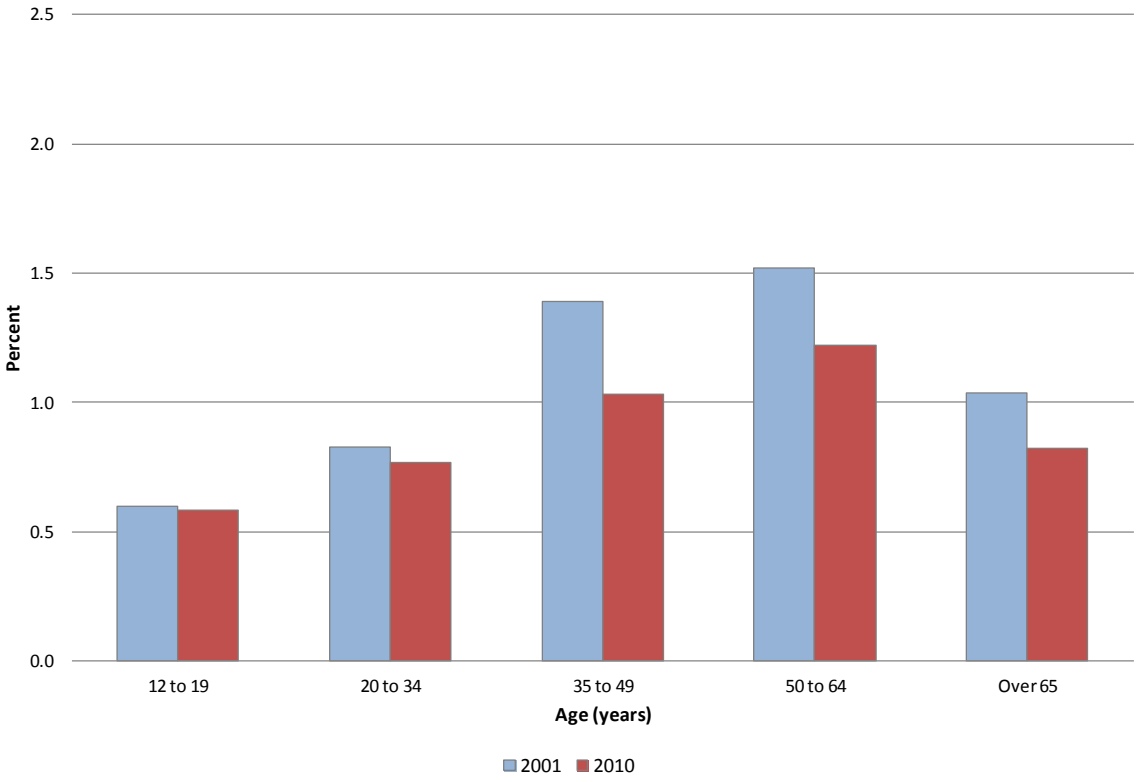
Persons Seeking Treatment for Opioids, by Sex, Age 12+, PEI, 2001-2010



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Overall	0.02	0.02	0.04	0.05	0.04	0.06	0.08	0.10	0.11	0.13
Male	0.01	0.02	0.04	0.06	0.04	0.08	0.10	0.12	0.14	0.14
Female	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.07	0.09	0.12

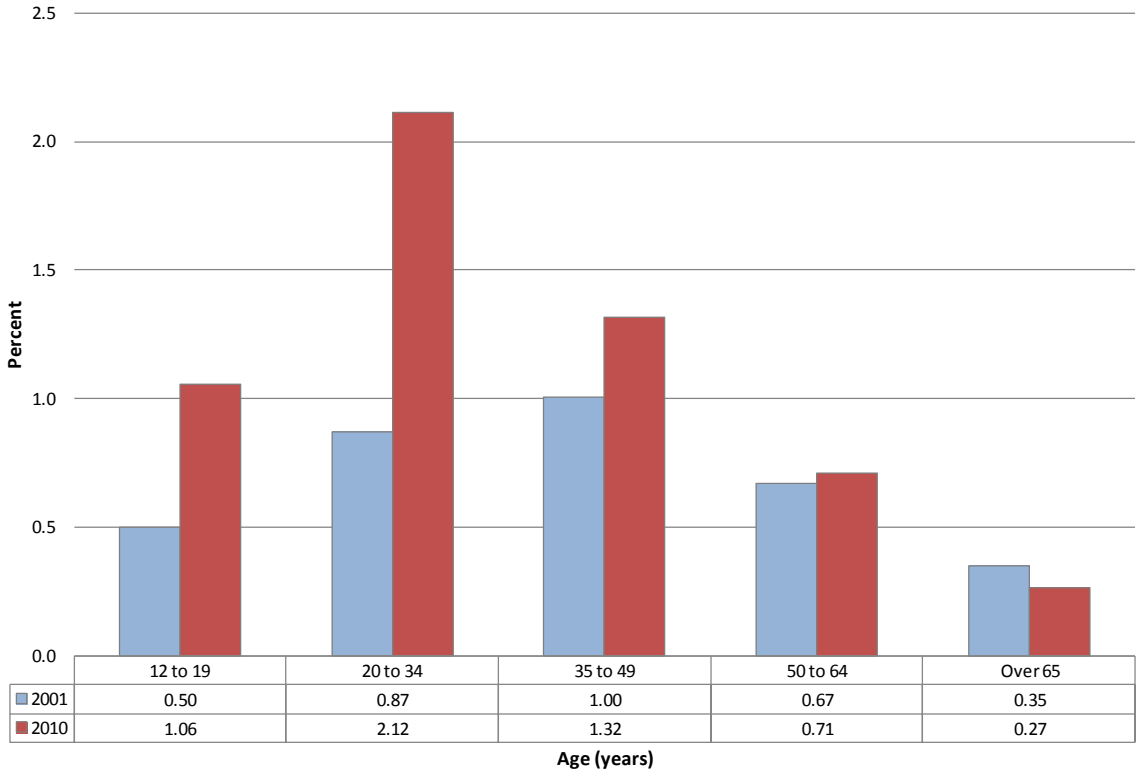
The age in which people seek treatment for substance use is different depending on the substance. The majority of people in PEI who seek treatment for alcohol abuse are 35 years and older. This is a similar pattern in both 2001 and 2010. This is a different pattern than for those seeking treatment for drug abuse.

Persons Seeking Treatment for Alcohol by Age, PEI 2001 and 2010



In 2001, the 35-49 year old age grouping had the highest prevalence of treated drug abuse. However, nine years later, there was a huge increase in the 20-34 year old age group indicating that this age group is most affected by drug abuse.

Persons Seeking Treatment for Drugs by Age, PEI 2001 and 2010

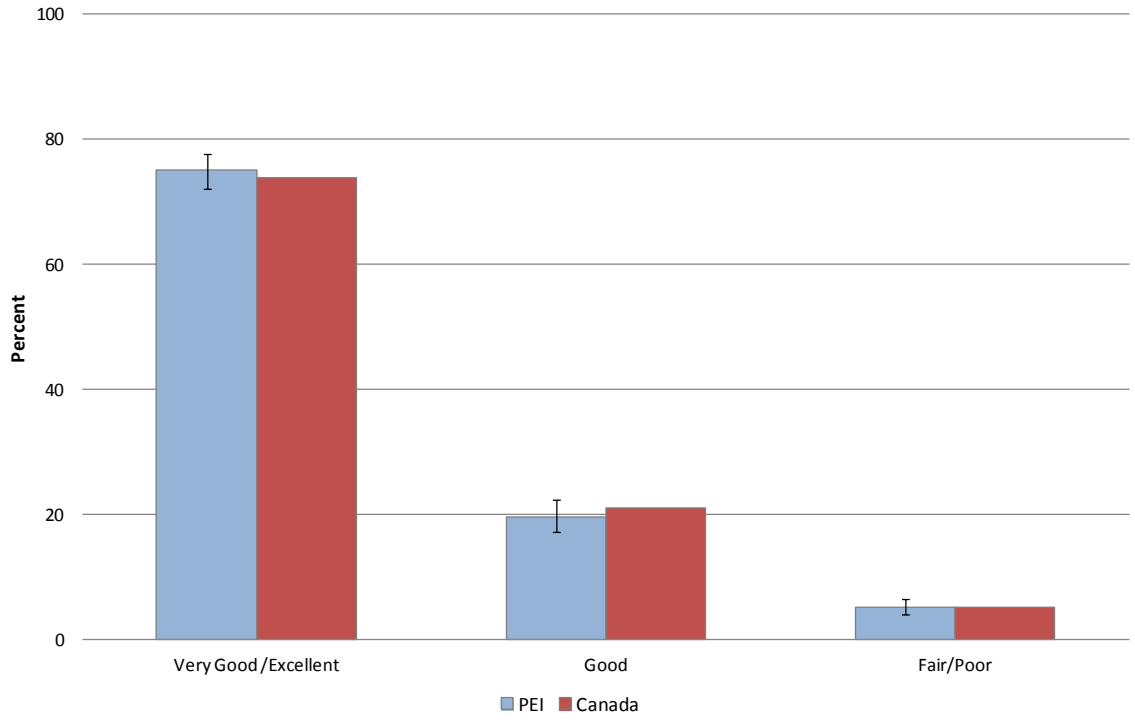


	12 to 19	20 to 34	35 to 49	50 to 64	Over 65
2001	0.50	0.87	1.00	0.67	0.35
2010	1.06	2.12	1.32	0.71	0.27

Self-Reported Mental Health

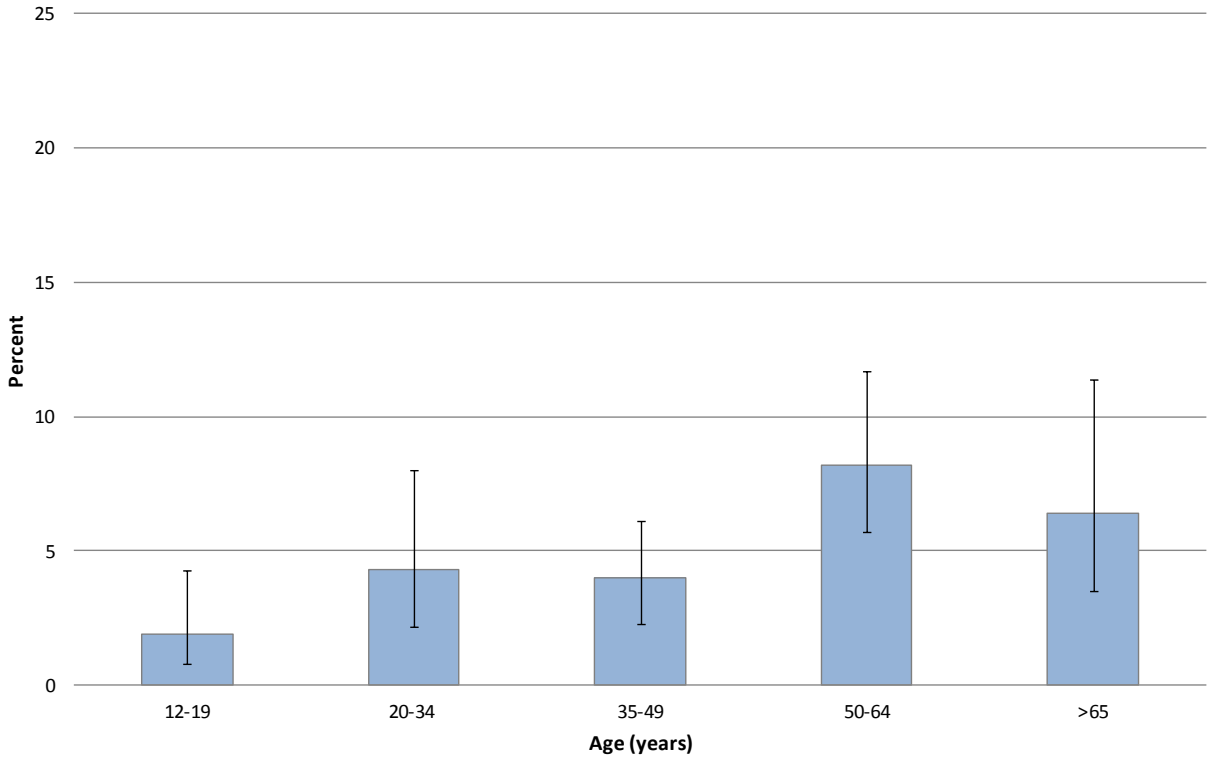
Based on the 2009-10 assessment of mental health, approximately 75% of Islanders reported their perceived mental health as excellent or very good which was similar to the Canadian rate and the same as reported for the 2007/08 survey.[37] There were 5.2% of Islanders who reported their mental health to be only fair or poor in 2009-10.

Self-Reported Mental Health, PEI and Canada, Aged 12+, 2009-10



Fair or poor self-reported mental health was highest in the older adults (50-64 years old) and second highest in seniors (65+ years old) which corresponds to the overall (combined male and female) prevalence for treated mental illness in the older age groups.

Self-Reported Fair or Poor Mental Health by Age, PEI 2009-10



Discussion and Next Steps

Discussion

Data issues: Coroner's data is challenging for use in epidemiological reviews as it is collected during the course of an investigation and not for research purposes. Issues in consistency and standardization are inherent in the data.[7] In Canada there is no standardized suicide surveillance system in place. Without consistent data it is very challenging to describe the problems, demographics and risk factors. It is also not possible to evaluate specific prevention programs and policies with rigor.[7]

Similar to our review, NS uncovered inconsistencies in the types and amounts of data both within and across files. Basic information such as age, sex, residential address, place where the body was found, and cause of death were complete and consistent. However, other socio-demographic variables such as marital status and employment status were inconsistent. Details about substance use and/or chronic physical health problems were variably recorded. Important socio-economic conditions such as housing situation, income level, criminal history, education level, social isolation, significant life events or losses were not consistently available in all files.[3]

Suicide findings: Between January 1, 2002 and December 31, 2011 there were 157 suicides deaths on PEI. Overall the PEI rate of suicide is similar to the Canadian rate and other Atlantic provinces, although there are slight sex specific differences.

Males were significantly more likely to die by suicide than females. Middle age individuals (40-59 years) are most likely to die by suicide. Men use more fatal means to die by suicide (i.e. hanging) whereas women are most likely to use a means by which there are more opportunities for rescue (i.e. overdose). Mental health issues are the number one risk factor for suicide with depression as the most common diagnosis. Substance use was another noted risk factor.

Over half of all suicides had at least one inpatient stay in the previous five years prior to their death. Of these, 81.5% had been admitted at least once for mental health related reasons. Those with mental health admissions took their lives significantly faster following hospital discharge than those with non-mental health admissions.

Mental health findings: In 2010, over 20,000 Islanders were treated for a mental disorder, of which 57% were females. The proportion of Islanders being treated for mental disorders has increased in the last 4 years, from 13.0% in 2006 to 15.1% in 2010. Females consistently have a higher proportion of treated mental disorders compared to males. The age groups with the highest proportion affected are the 80-84 age group with 24.1% and 85+ age group with 29.4% affected. The prevalence of treated mood and anxiety disorder which includes depression has slowly increased since 2006 from 9% to 10.3% of which almost two-thirds are women. Even though treated mental health disorders have increased, this has not been reflected in an increased trend in suicidality despite it being a major risk factor.

The rate for those seeking treatment for alcohol abuse has remained relatively constant in the 10 year period (2001-2010). This is in contrast to the rate for those seeking treatment for drug abuse which has

slowly increased. Although only a proportion of abused drugs, the rate of those seeking treatment for opioid abuse has increased rapidly.

Strategies: Recently the House of Parliament passed Bill C-300: the *Federal Framework for Suicide Prevention Act*. The purpose of this Act is to develop a federal framework for suicide prevention which will include: health promotion, knowledge exchange, best practice formulation, research promotion, prevention guidelines, suicide statistics and dissemination of prevention information. A report on the progress and activities of this work is mandatory after 4 years, with follow-up reports every 2 years thereafter.[13]

This work will hopefully provide the foundations for a national suicide strategy in Canada. Some provinces have their own suicide strategies in place. What components should a strategy include?[11]

Suicide prevention needs to be multi-faceted with particular attention to mental health.[16] Strategies should be developed that could target modifiable risk factors.[38] Whole-system approaches to both mental health and suicide including all levels or government, voluntary and private sectors are needed to truly address these public health issues.[18] Focusing on wellness, which includes all the social determinants of health such as poverty and education, needs to be prioritized despite the inevitable focus on "health care".

Limiting access to lethal means is another promising means to reducing suicide.[20] Examples of this may include legislation to reduce firearm access or restricting access to prescription medications.[11]

Physician education in terms of recognition of depression and other risk behavior is also very important for suicide prevention.[16] Based on a Canadian Youth Mental Health Survey, primary care physicians were the first choice to seek help during times of distress, therefore they are instrumental to the prevention of suicides and suicidal behavior.[39]

Next Steps

PEI should standardize the terminology and data collection tools used in the Coroner's Office which would allow for more consistency in data captured and provide a richer data source. Recommendations for the dataset are found in Appendix 3 and were taken from the "Self-Directed Violence Surveillance – Uniform Definitions and Recommended Data Elements".[7] This standardization would aid greatly in continuing to monitor completed suicides in PEI and study risk factors.

The remainder of this section explores in a preliminary means some prevention and intervention strategies. These are mentioned as a means to start the conversation, but in no means was the intent of this report to recommend these next steps. It was to study existing data and serve as a catalyst for discussion. That said, the following points are included.

PEI should be an active participant during the work involved in the development of the Federal Framework for Suicide Prevention.

Suicide prevention was a theme in the 2012 Mental Health Strategy of Canada as it is recognized that both mental health problems and illness and suicide share many of the same risk factors.[18]

Below are the prevention recommendations from page 17 of the Canadian Mental Health Strategy:

Suicide Prevention in *The Mental Health Strategy for Canada*

Suicide has a devastating impact on individuals, families and communities in Canada. Suicide and mental health problems and illnesses need to be addressed together. Of the 4,000 Canadians who die every year as a result of suicide, most were confronting a mental health problem or illness.[9] Suicide and mental health problems and illnesses also share many common risk and protective factors.

Changing Directions, Changing Lives includes many recommendations that, when implemented, will significantly advance suicide prevention in Canada. These recommendations are also well aligned with the 2009 Canadian Association for Suicide Prevention National Suicide Prevention Strategy, as well as provincial and territorial initiatives such as the Nunavut Suicide Prevention Strategy.[10,11] These recommendations include:

- increasing the capacity of families, schools, workplaces and those involved with seniors to promote good mental health, reduce stigma, and prevent mental illness and suicide wherever possible; improving public awareness of how to recognize mental health problems and illnesses and seek help (mental health literacy); training front-line service providers in mental illness and suicide prevention (Strategic Direction 1);
- supporting families to address their own needs, including grief and loss from suicide; drawing on direct knowledge of suicide, suicide attempts, and suicide risk by actively involving individuals and families in decision making (Strategic Direction 2);
- improving access to mental health services, treatment and supports, including screening for mental health problems and suicide risk in primary health care (Strategic Direction 3);
- addressing common underlying risk factors, such as poverty and trauma; strengthening the response to the mental health needs of population groups with high overall suicide rates, such as older men, First Nations and Inuit youth, and lesbian, gay, bisexual, and transgendered youth (Strategic Directions 4 and 5); and
- establishing whole-of-government and pan-Canadian mechanisms to oversee mental health-related policies; strengthening data, research, knowledge exchange, standards and human resources related to mental health, mental illness and suicide prevention (Strategic Direction 6).

A review of all recommendations from the Mental Health Strategy of Canada to determine what PEI is currently doing and where the gaps exist would be a great starting point for discussion. A broad task group with experience in this area should be brought together to ensure that next steps are achievable, measurable, and based on the evidence. If it is determined that PEI should produce its own suicide prevention strategy, then it needs to be evaluated on a regular basis to ensure that the interventions are implemented and information disseminated in order to complete the public health approach cycle.[1]

PEI should ensure that mental health and promotion are included in a comprehensive wellness strategy.

From a clinical perspective, family physicians and primary care sites should be targeted to enhance suicide assessment skills, toolkits and knowledge exchange of known risk factors. Emergency departments also need enhanced assessment skills and training in interviewing the patient appropriately. Hospital discharge planning should ensure a rapid response linkage to community services for clients who have been identified as suicidal. In-patient staff should have enhanced assessment skills and be able to instill hope in clients that treatment is available and recovery possible. All health professionals should be knowledgeable in connecting patients to community services with positive planning. Families should be involved in care planning at all stages and after a completed suicide.

Appendices

Appendix 1

Variables collected

Socio-Demographic Variables:

- Age
- Sex
- Date of birth
- Location of permanent residence/address
- Relationship status
- Employment status
- Level of education
- Religion
- Ethnicity
- Veteran status
- Other: timing of major life events (potential triggers)

Details of Death:

- Date of death & day of the week
- Date found dead
- Location/place of death
- Manner/cause of death
- Visibility – who found the deceased/how

Health Care Details:

- Hospital Utilization: Number of inpatient stays, reason for stay, and timing prior to death
- Emergency Visits: Number of trips to emergency department and reason for visit
- Mental Health Contact & Diagnostic Details
- Addiction Information and Treatment
- Frequency of Physician Office Visits
- Medication History

Data Sources

Inpatient Stays

- CIHI-Discharge Abstract Database (DAD) for inpatient stays at acute care hospitals
- CIHI- Hospital Mental Health Database (HMHDB) for inpatient stays at Hillsborough Hospital prior to 2009-10

Emergency Department Visits

- Cerner FirstNET system for emergency department visits after 2009
- Emergency Department Information System (EDIS) for QEH; CIHI National Ambulatory Care Reporting System (NACRS) for PCH prior to FirstNET

Outpatient Clinics, Provincial Addiction Treatment Facility Services

- ISM

Coroner Reports

- Statistics Canada Canadian Coroner and Medical Examiner Database (CCMED)

Office Visits

- Medical Billing System (fee code indicates type of visit)

Appendix 2

Overview of CMHA's Suicide Prevention Program

CMHA's Suicide Prevention Program, under the direction of its' Suicide Prevention (Management) Committee, works to reduce the suicide rate and lessen the impacts of completed suicide on PEI through a variety of prevention, intervention and post-vention strategies. They include, but are not limited to:

Prevention Efforts

- Each year, the school-based **Signals of Suicide (SOS) Program** is delivered to all Grade 9 classrooms in the province (French and English Schools). The program provides young people with information about warning signs for suicide, how to respond and where to get help for those in distress or suicidal crisis.
- Regular update and distribution of the **PEI Helping Tree** (a flowchart of helping resources and community supports that are available throughout PEI). The aim of this resource is to encourage those in distress, to reach out for help before a crisis ensues, therefore enhancing resiliency in our Island Communities.
- Facilitate **Suicide Awareness** presentations for various community groups (ex. Foster Parents, Church Groups, School Staff).
- Coordinate special events for the **Annual World Suicide Prevention Day** on September 10th (Panel Presentations, Public Awareness Campaigns, Guest Speakers, Survivor's Memorial Balloon Launch). We have also been involved in short-term, crisis response type initiatives like the West Prince Communities in Crisis Group in 2005 and the Post-vention Group of 2011).
- Develop and distribute targeted information that may help to prevent further distress and/or suicidal crisis, like our brochure **"After a Suicide Attempt…What Next?? Information for Family and Friends"**. This brochure was distributed to School Counsellors, Hospitals and Community Mental Health Service Sites throughout PEI.
- Coordinate capacity-building, training opportunities relating to suicide and suicidal behaviors, such as the **"Self-Harm Workshop"** with Jerry Dooley or our '**Loss and Traumatic Loss' Conference** with Dr. Jack Jordan.

Intervention Strategies

- CMHA regularly hosts **Applied Suicide Intervention Skills Training (ASIST) Workshops**; a 2-day workshop that prepares caregivers to be ready, willing and able to respond to a person-at-risk of suicide. We also offer annual **ASIST Tune-Up** refreshers.
- Develop innovative and practical ways of providing information and support to those in distress or crisis and those who care for them (ex. '**Stick to Life' Campaign and Website).**
- Provide informal phone support and information to families, school personnel, employers, etc. regarding the various support options available to those at risk of suicide and those impacted by suicidal behavior and/or completed suicide. Respond to crisis calls, as needed.

Post-vention Supports

- Provide information and support for those left behind after suicide, and facilitate access to helpful resources, like the **'Grief After Suicide' brochure** and **Survivor of Suicide Information Kits**.
- Develop and distribute resources, such as **"Child Survivors of Suicide Information Kits"** to School Counselors, Community Mental Health and related supporting agencies, so that they may better assist children and youth impacted by suicide.
- Support the establishment and maintenance of local **Survivors of Suicide Self-Help Groups.**
- Source and maintain multi-media resources (books & DVD's) relating to suicide and suicide grief, available for loan through CMHA's local Resource Libraries.

Research and Liaison Activities

- Gather, compile and analyze data from PEI's **Annual Coroner's Reports** and the **Island Helpline** to monitor trends in suicide so that we may better target our efforts.
- Monitor current research, informed practices, trends and relevant legislation relating to suicide.
- Serve as the Senior Staff Resource to CMHA's Suicide Prevention Committee/Program.
- Act as a liaison to the **Canadian Association of Suicide Prevention**, a National Group that serves to unite those with an interest in Suicide Prevention from across Canada.
- Co-chair the newly established **Canadian Suicide Prevention Coordinators Network,** an on-line knowledge exchange platform with P/T/regional/local representation from across Canada.

Resources

- One Full-time Suicide Prevention Coordinator
- Support of one Prince County Staff (approx. 15 days annually to assist with SOS in Prince County and to co-facilitate ASIST Workshops and Tune-Ups)
- Volunteer Management Committee (8-10 members)

Appendix 3

Recommended Data Elements for Coroners' Reports- adapted from National Center for Injury Prevention and Control, CDC[7]

Identifying Information

1 Case ID
2 Data Source

Individual Sociodemograhics

3 Sex
4 Age, Birth Date of person
5 Race
6 Ethnicity
7 Marital status
8 Person's Residence (City, Province)

Socioeconomic Status

9 Education
10 Occupation
11 Economic activity

Event Information

12 Manner of Injury
13 Place of occurrence
14 Date and Time of injury
15 Nature of injury
16 Mechanism (firearm, cutting/piercing, etc)
17 Activity
18 Alcohol use
19 Drug use
20 Injury severity
21 Disposition
22 Medical care
23 Self-directed violence category
24 Suicidal thought at time of injury
25 Risk-Rescue rating

Individual and family history

Previous medical history

26 Somatic
27 Psychiatric history
28 Previous suicidal behaviour
29 Previous suicidal thoughts

30 Family medical/psychiatric history
31 Sexual orientation
32 Military service

Associated factors

33 Proximal factors (include precipitating events such as recent history of personal crisis)
34 Protective factors
35 Incident summary

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