Overdose Deaths in Manitoba

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Objectives

- To understand the demographic profiles of people dying by overdose in Manitoba
- To learn of the substances involved in overdoses, both pharmaceutical and other
- To explore options for means restriction in the prevention of overdose deaths
Drug Overdose Deaths in Canada

- Men considerably outnumber women
- Peak ages 25-55

Source(s): Canadian Vital Statistics: Death Database
Suicide in Canada: Key Statistics

DEATHS AND HOSPITALIZATIONS

Approx. 11 people die by suicide each day.

Approx. 4,000 deaths by suicide per year.

1/3 of deaths by suicide are among people 45–59 years.

Suicide is the second leading cause of death among youth and young adults (15–34 years).

Suicide rates are approx. 3x higher among men compared to women.

Public Health Agency of Canada
Agence de la santé publique du Canada
Method of Suicide in Canada, by Sex 2000-2009
CME Chart Review

- All deaths by overdose in Manitoba 2007-2017
- 1607 cases
- CME charts reviewed using a data extraction tool
Overdose Deaths by Sex
Manitoba 2007-2017

Female: 55
Male: 45
Drug Overdose Deaths in Canada

- Men considerably outnumber women
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Source(s): Canadian Vital Statistics: Death Database
Suicide by Sex, Manitoba vs Canada

Figure 2.44: Suicide Rates among Adults by Age and Sex, 2010/11-2014/15
Adjusted; per 100,000 adults aged 18+ who died by suicide in five-year time period

Cause of Death

Total Death n=1607

- Accidental: 1057
- Suicide: 314
- Undetermined: 235

Accidental
Suicide
Undetermined
Are most overdoses actually suicides?

A study in the UK examined coroner verdicts with a blinded research team

- 50% of accidental deaths were recoded as suicides
<table>
<thead>
<tr>
<th>Relationship Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>22%</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>10%</td>
</tr>
<tr>
<td>Widowed</td>
<td>3%</td>
</tr>
<tr>
<td>Single</td>
<td>21%</td>
</tr>
<tr>
<td>Unknown</td>
<td>33%</td>
</tr>
</tbody>
</table>

33% in a relationship

34% Single

33% Unknown
Stressors Prior to Overdose

- Recent relationship argument/conflict: 6%
- Intimate relationship breakup: 4%
- Bereavement in past year: 2%
- Employment/financial stress: 2%
- Interpersonal conflict: 8%
- Childhood/adolescent trauma: 12%
- Recent medical/health stressor: 10%
- Police/legal stressor: 10%
- Offense: 0%
- Immigration stressors: 0%
Correlates of Overdose Deaths
Mental Disorders

Personality Disorder
Psychosis
Alcohol Disorder
Drug Disorder
Depression
Bipolar
Anxiety

0 5 10 15 20 25 30 35 40 45 50

%
Polysubstance Use

- Single substance ingestions 46%
- Mixed overdoses 54%
Top Substances Present on Toxicology

- Alcohol
- Acetaminophen
- Codeine
- Morphine
- Cocaine
- Diazepam
- Temazepam
- Oxycodone

%
Most Common Substances Deemed Lethal

- Alcohol
- Cocaine
- Codeine
- Oxycodone
- Amitriptyline
- Morphine
- Venlafaxine
- Fentanyl
- Diphenhydramine
- Methadone

%
Figure 2 Substances causing death in suicides by overdose in Toronto from 1998 to 2007 by percentage of all overdose suicides.

Mark Sinyor, MD, MSc¹; Andrew Howlett, MD¹; Amy H Cheung, MD, MSc, FRCPC²; Ayal Schaffer, MD, FRCPC³
Common medication classes dispensed to decedents

- Antidepressants
- Antipsychotics
- Benzodiazepines
- Opiates
Early refills

- Refills more than 10 days early
  - 19%
- More than 50 days early
  - 5%
Multiple Prescribers and Pharmacies

Number of Prescribers

- 1 prescriber: 40%
- 2 prescribers: 30%
- 3 prescribers: 20%
- 4 or more prescribers: 10%

Number of Pharmacies

- 1 pharmacy: 80%
- 2 pharmacies: 20%
- 3 pharmacies: 0%
- 4 or more pharmacies: 0%
Summary
Profile of Overdose Decedents

- Ages 20-60
- Significant psychiatric comorbidity
- Alcohol and illicit drugs are major contributors
Prescription Medication Correlates

- Combinations of Antidepressants, Opiates, Benzodiazepines
- 1/5 of cases sought early refills
- Venlafaxine and amitriptyline
Psychotropic medication use before and after suicidal presentations to the emergency department: A longitudinal analysis

Cara Katz\textsuperscript{a,*}, Jason R. Randall\textsuperscript{b}, Christine Leong\textsuperscript{d}, Jitender Sareen\textsuperscript{a,c,e}, James M. Bolton\textsuperscript{a,c,e,f}

Fig. 1. Percentage of new antidepressant prescriptions dispensed pre- and post-emergency department visit.
Thank you