

A 2011 review of fatality overdose data by the BC Coroners Service suggested that a significant number of these deaths were related to prescription opiates.

The statistics below represent the first findings from the examination of the data. We stress that these represent preliminary findings only and that further efforts are being undertaken to analyze the information. As physicians and pharmacists would benefit from this information, the BCCS has been engaging with partners in the public health community to investigate and gain a better understanding of the issue.

Over the past two decades an increase in prescription drug related deaths has also been noted worldwide. In 2012, the US Centers for Disease Control and Prevention (CDC) described prescription drug overdoses as “a US epidemic,” and abuse of prescription drugs as “the fastest growing drug problem in the United States.” The CDC noted that the growth of this problem “has been driven by increased use of a class of prescription drugs called opioid analgesics.” Many possible factors have been put forward as possible contributors to this trend, including the increased overall use of narcotics and the prescription of multiple types of drugs in individuals with chronic pain.

The BC Coroners Service has been engaging with partners in the public health community to investigate this issue from a provincial perspective. The statistics below represent the first findings from the examination of the data. We stress that these represent preliminary findings only and that much more work needs to be done to refine and analyze the information.

Our preliminary analysis was based on the identification of prescription opiate-related overdose deaths reported to the BC Coroners Service between 2005 and 2010 with a classification of accidental, suicide, or undetermined. Cases were included if the investigating coroner determined that any of the following drug types were relevant to the death:

- Codeine
- Fentanyl
- Hydrocodone
- Hydromorphone
- Meperidine
- Morphine
- Oxycodone

The data includes cases where a single drug was involved and cases where multiple drugs were taken in combination. However, it excludes cases involving the illicit use of prescription opiates (i.e. the prescription drugs were taken by an individual for whom they were not prescribed).

It should be noted that although in some cases, a single drug was found to be responsible for the death, in many others the ultimate cause of death was a mixed drug toxicity, which could involve more than one opioid drug or, more commonly, an opioid combined with other medications such as benzodiazepines or anti-depressants, or with alcohol.

The preliminary analysis of our data reveals regional variation in the pattern of these deaths in BC with a significantly increased rate in the Interior region of the province. Based on this information, the Medical Health Officers of the Interior Health Authority (IHA) issued a bulletin to the physicians and pharmacists in that region in 2012 (attached). The detailed analysis of the IHA specific data is ongoing. A copy of the IHA bulletin is attached, along with the preliminary findings from the coroners' data.

We continue to work with partners in the health system and research community to identify underlying factors that may inform strategies for prevention. This is a complex area of research and we look forward to a coordinated effort to bring together the multiple sources of available data and appropriate analytic approaches to support this work.

Other key findings include:

- Mortality rates related to prescription opioids are stable over the past five years
- No significant difference in gender distribution of deaths
- The most common age of death is of persons between 45 and 60

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## ALERT FOR PHYSICIANS/PHARMACISTS

# interior health

From your Medical Health Officers

**October 9th  
2012**

In this Issue:

- PRESCRIPTION OPIOID  
OVERDOSE DEATHS**

To view previous  
MHO UPDATES, go to:  
Interior Health [Website](http://www.interiorhealth.ca)  
[www.interiorhealth.ca](http://www.interiorhealth.ca)

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1-866-457-5648**

### PRESCRIPTION OPIOID OVERDOSE DEATHS OF PERSONS WITH CHRONIC PAIN IN THE INTERIOR HEALTH REGION.

It has recently come to our attention that the rate of non-illicit, non-methadone, prescription opioid overdose deaths in the Interior Health (IH) region each year is almost twice that of the rest of British Columbia (2.7/100,000 persons versus 1.7/100,000 persons,  $p < 0.05$ )<sup>1</sup>. That is about 21 prescription opioid overdose deaths per year, or 2 per month. The rate is similar to that of BC residents killed in motor vehicle accidents involving alcohol in any given year (between 2-3/100,000 persons).<sup>2</sup>

By reviewing coroner files from 2006 through 2011, we have created a profile of those persons at greatest risk:

- MOST are accidental versus suicide (86%), most occur in persons under the age of 60 (87%), most have a documented source of chronic pain (82%), and almost half have a documented co-morbid mental health diagnosis (45%).
- ALMOST ALL are taking at least one other non-opioid class of medications with neurological effects/side effects in combination with an opioid (93%), and many two or more (70%). These classes included antidepressants, benzodiazepines, antipsychotics, anticonvulsants, antiemetics, or antispasmodics.
- MANY are taking more than one medication within a given non-opioid class (30%).
- Most are NOT taking a high dose of prescription opioid >200mg oral morphine equivalent.
- Multi-doctoring is NOT a identified risk factor: almost all are taking medications prescribed by a single doctor or clinic.
- The overdose death rate is NOT significantly different between HSDAs (TCS, Okanagan, Kootenay Boundary, East Kootenay) or population density (urban, rural, remote).

Our current hypothesis is that in some individuals, adjuvant medications (particularly those with sedative effects) may contribute to respiratory depression at the time of death. We do not yet know why the rate is higher in IH than the rest of the province.

Based on the information available to us at this time, and in consultation with the CPSBC and the CPBC, we are recommending the following to all Interior Health region providers who prescribe and/or dispense opioid medication:

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Interior Health

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for your whole life

- Complete a chart review of your chronic pain patients who take opioid medications (relevant fee codes: GPSC MH or CDM for physicians, RX– MR/PC/S/F pharmacists).
- Avoid opioid and sedative combinations where possible, lower the number of drugs within a class where appropriate, continue to follow the low dose opioid guidelines for non-cancer chronic pain<sup>3</sup>.
- Support your patients to self-manage their prescriptions appropriately and carefully by providing education and helpful tools (eg. pamphlet below, bubble-pack).
- Consider participating with your patient in BCCDC’s Take Home Naloxone (THN) Program, which is available for both illicit and non-illicit opioid users. [towardtheheart.com/naloxone](http://towardtheheart.com/naloxone)

We are continuing to look at the data available to us in more detail, and will be completing a more in-depth review of Pharmanet records for all identified cases. Our office will keep you abreast of any new and/or updated findings. More detailed information is available at the Interior Health MHO Update Website.

References:

- The British Columbia Coroners Service: a perspective on prescription opioids, Pederson et al., Canadian Society of Addiction Medicine (CSAM), 2011.
- BC Coroner's Service Motor Vehicle Incident Deaths 2002-2011, Ministry of Justice, Province of British Columbia, 2012.
- Canadian Guidelines for the Safe and Effective Use of Opioids for Chronic Non-Cancer Pain, National Opioid Use Guidelines Group (NOUGG), 2010. Website: [nationalpaincentre.mcmaster.ca/opioid/](http://nationalpaincentre.mcmaster.ca/opioid/)



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**Interior Health FOR PATIENTS: MEDICAL HEALTH OFFICER ALERT**  
**Persons with chronic pain taking opioid prescriptions**  
**may be at risk of accidental overdose.**

Persons taking opioid prescriptions may be at risk for accidental overdose with serious consequences, including death.

***Does this affect me?***

This can affect persons with chronic pain taking BOTH:

1. OPIOIDS including: Morphine, Oxycodone, Hydromorphone, Fentanyl, Codeine
2. OTHER medications including: Anti-depressants, Sedatives (including benzodiazepines and sleep aids), Anti-psychotics, Anti-nausea drugs, Anti-seizure drugs, Muscle relaxants.

Not all pain medications carry the same risk. Your doctor will determine the best combination for you.

***What should I do?***

1. NEVER modify the dosing of any medication without seeking advice of your doctor.
  2. DO NOT stop taking your medications unless advised by your doctor.
  3. Read the information given with your medication carefully and if you don’t understand, ask questions to your doctor or pharmacist.
  4. You may wish to make an appointment with your doctor or visit your pharmacist to review your medication if you are taking opioids and other medications.
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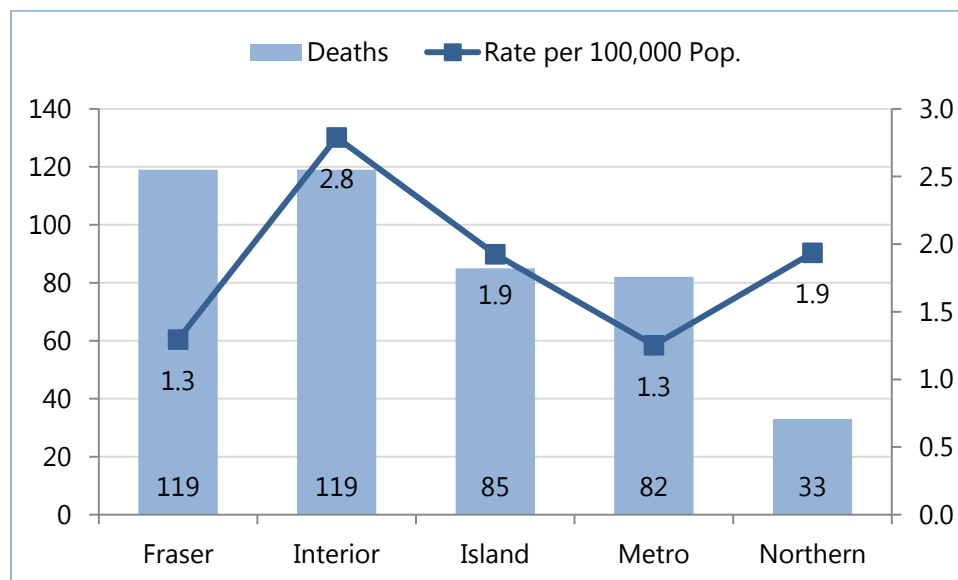
This report summarises prescription opiate-related overdose deaths reported to the BC Coroners Service between 2005 and 2010 with a classification of accidental, suicide, or undetermined. Cases were included if the investigating coroner determined that any of the following drug types were relevant to the death: codeine, fentanyl, hydrocodone, hydromorphone, meperidine, morphine, or oxycodone. The data includes cases where a single drug was used and cases where multiple drugs were taken in combination, but excludes cases involving the illicit use of prescription opiates.

The BCCS operates in a live database environment. The data are considered preliminary until all investigations have been completed. Data are subject to change, and are not directly comparable to published counts from previous years.

## Summary

- 61% of deaths were accidental overdoses, and 33.6% were suicide deaths
- 51.1% of decedents were male, and 48.9% were female
- 58.4% of decedents were between 40 and 59 years of age
- The Interior region appears to have the highest rate of prescription opiate-related overdose deaths for 2005-2010, with 2.8 deaths per 100,000. The death rate was 1.9 for both the Island and Northern regions, and 1.3 for both the Fraser and Metro regions.
- The Coroners Service and Interior Health Authority are currently engaged in a further analysis of the Interior data.

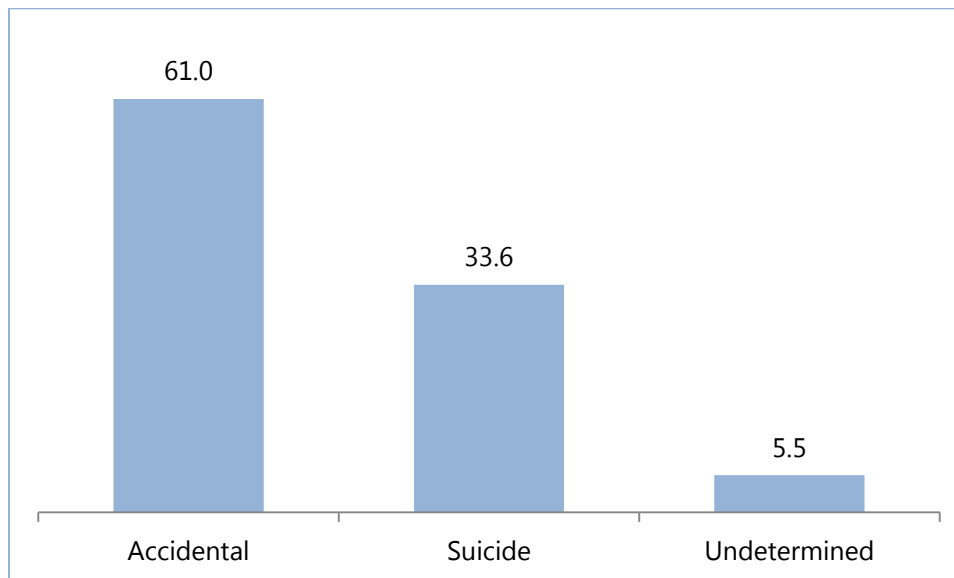
Prescription Opiate-Related Deaths by Region							
Region	2005	2006	2007	2008	2009	2010	%
Fraser	18	21	19	23	20	18	27.2
Interior	14	23	17	21	22	22	27.2
Island	9	12	19	21	10	14	19.4
Metro	19	11	11	8	18	15	18.7
Northern	7	8	5	6	4	3	7.5
<b>Total</b>	<b>67</b>	<b>75</b>	<b>71</b>	<b>79</b>	<b>74</b>	<b>72</b>	<b>100</b>



Prescription Opiate-Related Overdose Deaths and Death Rate by Region, 2005-2010

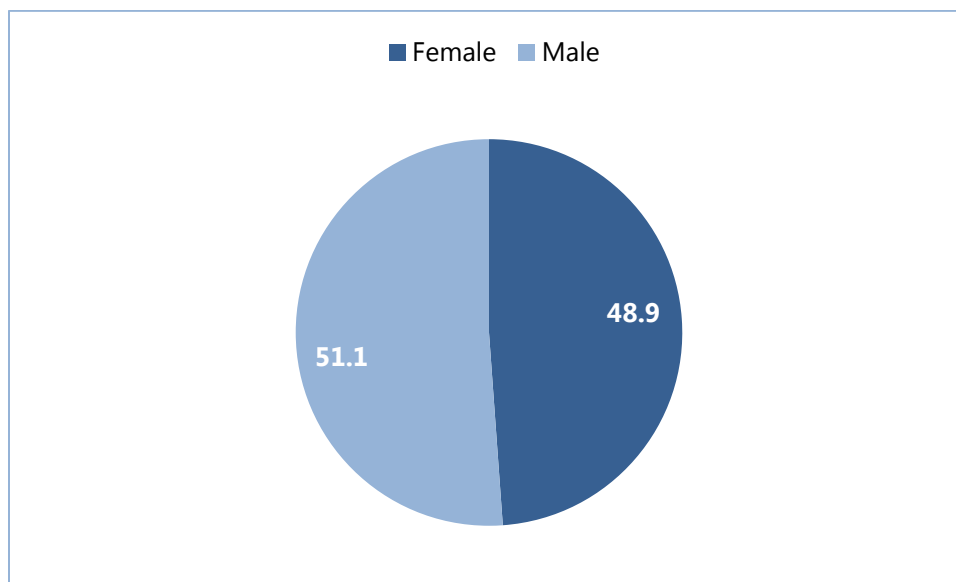
**Prescription Opiate-Related Deaths by Classification**

Classification	2005	2006	2007	2008	2009	2010
Accidental	32	44	45	51	50	45
Suicide	32	26	25	26	20	18
Undetermined	3	5	1	2	4	9
<b>Total</b>	<b>67</b>	<b>75</b>	<b>71</b>	<b>79</b>	<b>74</b>	<b>72</b>



Percentage of Prescription Opiate-Related Deaths by Classification, 2005-2010

Prescription Opiate-Related Deaths by Gender						
Gender	2005	2006	2007	2008	2009	2010
Female	29	43	34	40	37	31
Male	38	32	37	39	37	41
<b>Total</b>	<b>67</b>	<b>75</b>	<b>71</b>	<b>79</b>	<b>74</b>	<b>72</b>

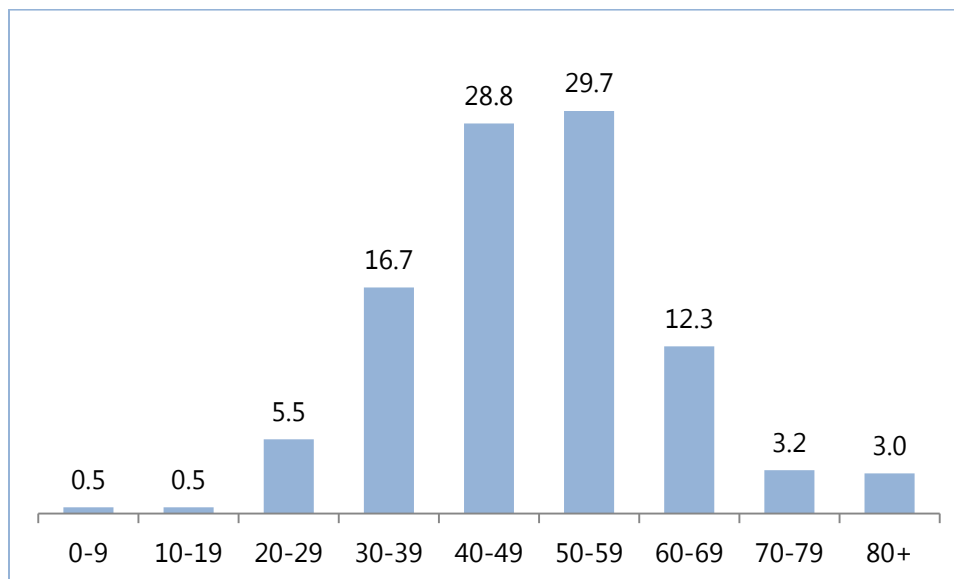


Percentage of Prescription Opiate-Related Deaths by Gender, 2005-2010

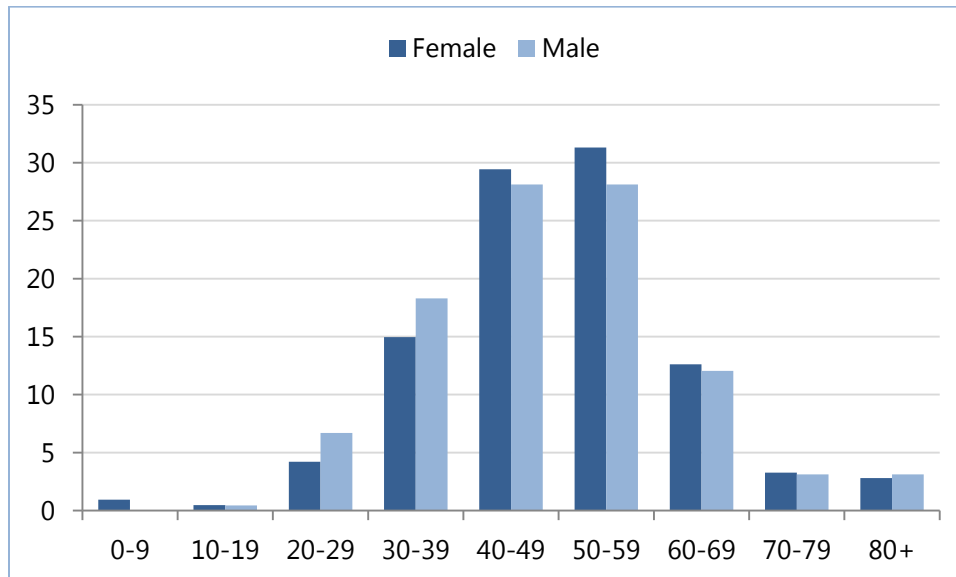


**Prescription Opiate-Related Deaths by Age Group**

Age Group	2005	2006	2007	2008	2009	2010
0-9	-	1	1	-	-	-
10-19	1	-	-	1	-	-
20-29	5	2	8	2	4	3
30-39	10	15	11	10	15	12
40-49	26	25	12	25	23	15
50-59	17	19	26	23	22	23
60-69	5	8	10	11	8	12
70-79	1	2	2	5	-	4
80+	2	3	1	2	2	3
<b>Total</b>	<b>67</b>	<b>75</b>	<b>71</b>	<b>79</b>	<b>74</b>	<b>72</b>



Percentage of Prescription Opiate-Related Deaths by Age Group, 2005-2010



Percentage of Prescription Opiate-Related Deaths by Gender and Age Group, 2005-2010