Mass Casualty Secondary to Opioids: Overdose Planning Events

How are we as a system and community going to respond to toxicological emergencies?

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What can we do? We can Prepare

OBJECTIVES:

• Discuss and determine the roles and responsibilities including the lead agency in preparing for, responding to, and recovering from a mass casualty event secondary to illicit opioids

• Discuss and determine the priority actions required during a mass casualty event secondary to illicit opioids

• Discuss and determine the resources, communication structures, and training needed to respond to an event
Figure 1: Trends in Opioid-Related Deaths by Year and Age Groups in Ontario, 1991 to 2015

- Number of Opioid-Related Deaths
- Rate of Opioid-Related Deaths (per million population)

Year:
- 1991 to 2015

Age Groups:
- 0 to 14
- 15-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- Unknown
Figure 2: Trend in Opioid-Related Deaths in Ontario by Type of Opioid Involved, 1991 to 2015

Note: 20 deaths from 2015 where details on specific opioid involvement was unavailable are not reported in this figure.
Figure 4: Percentage of Deaths by Manner among Men and Women in 2015

Which drugs?

From 2006-2015:
Oxycodone involvement in opioid-related deaths peaked in 2010 before decreasing 24% by 2015.

Involvement of other opioids continued to increase:
Fentanyl by 548%, Hydromorphone by 232%, and Heroin by 975%.
4 in 5 of all opioid-related deaths were accidental.

60% of accidental deaths occurred among youth and younger adults (15-44 years),

while 80% of suicide deaths occurred among older adults (45+ years).
Context

Many communities across North America are experiencing a public health emergency related to increases in drug related overdose deaths especially associated with opioids such as fentanyl. There are reports of multiple drugs being contaminated with fentanyl and analogues with significant morbidity and mortality in Ontario.

Recently, there are case reports of mass opioid overdose events in North America.
The Workshop-Multi Disciplinary

• Brief introduction
• Orientation to Opioids and Illicit Fentanyl, Naloxone
• Three table top exercises-urban, rural, system wide
• Summary and Conclusion
• Write up a draft response plan for review and feedback
• Final report
Overdose cases spike in Louisville: 52 calls in 32 hours

By Ralph Ellis and Keith Allen, CNN

Updated 6:12 AM ET, Mon February 13, 2017
14 fatal overdoses in Cuyahoga County over the weekend

BY: Tara Molina, Tracy Carloss, News 5 Staff
POSTED: 11:36 AM, Feb 5, 2017
UPDATED: 9:48 PM, Feb 6, 2017
‘This is unprecedented’: 174 heroin overdoses in 6 days in Cincinnati

By Katie Mettler  August 29, 2016  

The original numbers were startling enough — 30 heroin overdoses across Cincinnati in a single weekend.

Then they just kept climbing.

Seventy-eight more overdoses and at least three deaths were reported during a 48-hour period Tuesday and Wednesday.

And at the end of last week, after a six-day stretch of emergency-room visits that exhausted first responders and their medical supplies, the overdose tally soared to a number health officials are calling “unprecedented”: 174.
Fentanyl suspected in sudden spike in Vancouver overdoses

Vancouver — The Canadian Press
Published Monday, Aug. 10, 2016 1:14PM EDT
Last updated Tuesday, Apr. 05, 2016 2:35PM EDT

A total of 16 drug overdoses, including six in a single hour, have been reported in Vancouver and fentanyl is the suspected culprit.

Police in the city say they handled six overdoses between 7:30 and 8:30 p.m. Sunday.

In a release, Sgt. Randy Fincham says local service providers advised police of a further 10 overdoses handled the same day, but no fatalities are reported.

Surrey health officials warn public after 36 drug overdoses in one weekend

Published on: July 18, 2016 | Last Updated: July 18, 2016 7:11 AM PST
B.C. records 128 overdose deaths in November as coroner warns of 'increasingly toxic' drug supply

IAN BAILEY
VANCOUVER — The Globe and Mail
Published Monday, Dec. 19, 2016 12:33PM EST
Last updated Tuesday, Dec. 20, 2016 12:48PM EST

London declares 'health emergency' over rise in HIV and hepatitis C

'There is an urgent need to do more outreach to both understand and manage this complex problem'
By Derek Spalding, CBC News  Posted: Jun 14, 2016 2:17 PM ET  |  Last Updated: Jun 14, 2016 7:05 PM ET

The Middlesex London Health Unit is asking for more resources to combat an alarming increase in HIV and hepatitis C infections, a situation it calls "a public health emergency."

Injection drug use is a major cause for the skyrocketing rates, according to a statement from health officials issued Tuesday.
Fentanyl 'definitely' in Kingston: physician

By Steph Crosier, Kingston Whig-Standard

Sunday, August 23, 2015 5:36:33 EDT PM
New stats on HIV and Hepatitis C among drug users backs calls for safe injection sites in city

By Jonathan Sher, Patrick Maloney, The London Free Press
Tuesday, June 14, 2016 9:17:05 EDT PM
Ottawa police are currently investigating two fatal drug overdoses by teenagers in the west end.

District criminal investigation units probe all sudden deaths in the city, except homicides. West district, which investigates these deaths in Kanata, is currently reviewing two caused by overdoses — that of 14-year-old Chloe Kotval, whose death has sent shockwaves throughout her school community and prompted a city-wide discussion on teen opioid use, and that of an 18-year-old woman.

Staff Sgt. Sean Barrett said west district works closely with the coroner to determine cause of death and, if there is no criminal activity involved, no charges will be laid.

The Ottawa police drug unit, which investigates drug trafficking and distribution, is also trying to determine where the drugs that Kotval used came from.
Officials warn of rising deaths in Ottawa from counterfeit drugs

BY BRUCE DEACHMAN
FIRST POSTED: FRIDAY, FEBRUARY 17, 2017 05:31 PM EST | UPDATED: FRIDAY, FEBRUARY 17, 2017 05:35 PM EST

The arrests on Thursday of a dozen people in Ottawa believed to be involved in the trafficking of illicit opioids, coupled with the spike in recent years of drug overdose deaths in this city, underscores the need for greater public awareness, says Ottawa Public Health’s manager of clinical programs.

“We follow what’s happening across Canada — in Vancouver and Alberta — where they’re seeing large increases in people dying from opioid overdoses,” said Andrew Hendriks.

In Ottawa in 2015, there were 48 deaths from unintentional drug overdoses, a jump of 32 per cent over the previous year (the rest of Ontario saw just a six per cent increase in the same period). Of the 48 Ottawa deaths, 29 were the result of opioid use, of which 14 were attributable to fentanyl.
This is a clear risk to our communities—Probable and High Impact

Mission
To provide a coordinated response to a mass opioid overdose event in our local community.
To minimize opioid overdose mortality and morbidity.
Why are we here? Ontario Narcotics Atlas

Opioid use in Ontario, 2014/15

1.96 million Ontarians were dispensed an opioid [56% had a single dispense] → Totaling 9 million dispenses

Percent of Ontarians dispensed an opioid, by LHIN

55% of recipients were female
41% of recipients had a mental health condition

Nearly 2 out of every 1,000 Ontarians visited the emergency department within 7 days of being dispensed an opioid

The top prescribers of opioids were
- Family physicians – 38% [mainly oxycodone, codeine, and hydromorphone]
- Dentists – 17% [mainly oxycodone]

Treatment for addiction to prescription or illegal opioids may include: methadone maintenance treatment (MMT) or Suboxone

4% 2013/14 to 2014/15

42,000 Ontarians were dispensed MMT [11.4 million dispenses]

29% 2013/14 to 2014/15

11,000 Ontarians were dispensed Suboxone [almost 1 million dispenses]

45% of recipients of MMT or Suboxone were males under 45

MMT and Suboxone were mainly prescribed by family physicians and psychiatrists
The rate of individuals dispensed an opioid per 10,000 population is presented by census subdivision (CSD). Analysis at the CSD level allows for geographic comparisons at a more granular level than LHINs. In this analysis, opioids include those listed in Table 1.2 (page 4).

The per population rate of individuals dispensed an opioid varies widely across the province. In 2014/15, Toronto Central and Champlain LHINs had the lowest rates, while Elgin St. Clair LHIN had the highest (1,864 per 10,000 population).

Six of the 10 LHINs with the highest rates are located in North East LHIN, and half of these have populations of fewer than 250 people.

1 Includes methadone maintenance treatment and Suboxone and generics.

Deflating the Addiction Balloon-SLOWLY To AVOID Unintended Negative Consequences

Canadian Guideline for Safe and Effective Use of Opioids for CNCP
Figure 6. The Four-Pillar Approach to Drug Problems

- Prevention
- Treatment
- Surveillance & Enforcement
- Harm Reduction
We do have a risk in our communities
What can we do? We can Prepare

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Format

• Table-top exercise with three scenarios.
• Each scenario has a series of inputs to describe the evolution of events.
• For each input, participants will answer the following questions:
  • What are the key response actions to be taken?
  • Whose role or responsibility are those actions?
  • What resources or services are required to respond?
• Questions may be posed by moderators to stimulate discussion.
• Scenario one: seating by response sector
• Scenario two and three: seating is multi-sector by region
Ground Rules

• Play your role in each scenario
• Play within the details set out by the prompts
• Stay within your own discussion group for each scenario
• Be open to discussion in a low risk, low consequence environment
• Elect a note taker at each table to document the discussion at the table and any consensus decisions made
• Fill out the question sheets provided for each prompt
• Elect a speaker at each table to speak on behalf of the group
• Fill out debrief sheet at the end of each scenario
“High-use” refers to areas/streets where used drug equipment is frequently found - that is, equipment that has been left behind in the community and not disposed of in a safe manner.

Caveats: some areas display high variability over the years and seasons (e.g. used drug equipment found depends on one or two people living in the area – the problem goes away when they move); in some low socioeconomic areas drug equipment in general is easily found throughout the area.
Scenario 3: Regional
February 27\textsuperscript{th}, 2017
15:00h

- Paramedic services within HPE, KFLA, and LGL regions are experiencing an increased service demand for suspected overdoses.
Surveillance data show increased number of emergency department presentations with suspected opioid overdoses across all hospitals in the HPE, KFLA, and LGL regions.

There are 27 opioid overdose presentations to emergency rooms in the past 8 hours split across the 3 regions.

Baseline regional data shows that hospitals in HPE, KFLA, and LGL combined receive less than 20 suspected opioid overdoses a month
Additional 35 patients with suspected opioid overdoses have presented to various hospitals in the past 18 hours.

Paramedic duty supervisors are being notified by CACC of code red status (no paramedic services available for response) multiple times per day.
March 1st, 2017
12:00h

- 43 more suspected opioid overdoses have presented to emergency rooms across the regions in the past 24 hours.
- Increasing CACC code red (no paramedic available for response) for all regions.
- Fire services have been responding to multiple tiered response calls for unconscious patients.
- Naloxone up to 2.4mg IV [0.4mg/vial] are needed for some cases.
March 1\textsuperscript{st}, 2017
14:00h

• An investigation of the 105 suspected opioid overdose cases reveals that the majority of individuals were using heroin.

• Rumours from community partners reveal their clients have heard some form of “strong fentanyl” is circulating around.
March 2\textsuperscript{nd} 2017
12:00h
• 30 more suspected opioid overdose cases are seen in hospitals across the 3 regions.
• Local harm reduction programs are noting an increase demand for naloxone kits

March 3\textsuperscript{rd}, 2017
12:00h
• Another 25 suspected opioid overdose cases are seen across the 3 regions.

March 4\textsuperscript{th}, 2017
12:00h
• 14 more suspected opioid overdoses cases are seen across the 3 regions.

March 5\textsuperscript{th}-12\textsuperscript{th}, 2017
• Numbers of suspected opioid overdoses are back at baseline numbers
Opioid Overdose Surge Response
Health System Notification
Surge in Baseline Overdoses

Partners (EMS, ED's, Frontline community partners) detect surge in baseline opioid overdoses using case definition for suspected opioid overdose syndrome*

- Follow normal communication protocol AND
- Notify KFL&A Public Health on-call

MOH notifies regional task force

Urgent teleconference to share information across region and partners

- ED and Primary care LHIN leads communicate back to their respective groups
- Regional task force members communicate back to their respective sectors

Regional taskforce declares spokesperson for communication lead to public

*Raise special alert if overdose is secondary to counterfeit product in an opioid naive population. Low tolerance of these victims creates potential to succumb to overdose more quickly.
Opioid overdose events detected by regional surveillance partners

Report of any event of potential public health concern, including those of unknown causes or sources, to the local public health unit.

Is the public health impact of the event serious?

Yes

Is the event unusual or unexpected?

Yes

Is there significant risk of regional spread or significant risk of overwhelming community resources?

Yes

Not activated at this stage. Reassess when more information becomes available.

No

Not activated at this stage. Reassess when more information becomes available.

No

Is there significant risk of regional spread or significant risk of overwhelming community resources?

Yes

No

Is the event unusual or unexpected?

Yes

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CONSIDER ACTIVATION OF MUNICIPAL/COMMUNITY CONTROL GROUP

Public Health

Incident Management Team

Incident Command

- Communications Officer
- Safety Officer
- Liaison Officer

Planning
- Situational Awareness
- Surveillance
- Illicit Opioid Overdose Surge Response

Operations
- Communications Team
- Distribution Team (PHN/PHI)
  - Naloxone

Logistics
- Human Resources
- Supplies
- Transportation

Finance/Administration
- Support
- Costs
- Purchasing
- Reporting
Opioid Overdose Surge Response

Confirm Diagnosis as per Case Definition

Fatal or non-fatal unintentional overdose from a suspected opioid AND
Patient demonstrates clinically compatible signs and symptoms of opioid overdose syndrome:
- pinpoint pupils
- decreased respiratory rate
- obtundation
- cyanosis AND
Positive response to naloxone if provided.
Confirmed case would include laboratory positive results.

Operationalize Surge Response

Public Health Nurses, Medical Officer of Health, Surveillance, Public Health Inspectors, Communications Team.

Implement Control Measures

Prevention: Mass communication.
Harm Reduction: Increase access and availability of treatment and counselling, needle exchange, safe disposal, supervised consumption sites, and naloxone kits.

Increase Surveillance

Active: Case and contact investigations, increased street health monitoring.

Generate Hypothesis

Disseminate information of where opioid overdose surge is occurring.
Incident Management Framework

- Confirm Diagnosis as per Case Definition
- Operational Surge Response
- Implement Control Measures
- Surveillance
- Generate Hypothesis

Ongoing Communication
ED OPIOID OVERDOSE SURGE RESPONSE

Please consider the use of this opioid overdose surge response process using the following case definition for opioid overdose syndrome:

Unintentional overdose from a suspected opioid or contaminated/counterfeit substance AND
Patient demonstrates clinically compatible signs and symptoms of opioid overdose syndrome:
- pinpoint pupils
- decreased respiratory rate
- obtundation
- cyanosis
AND
Positive response to naloxone if provided.

In the event of an increase in suspected opioid overdose syndrome from baseline involving a serious unexpected rise in morbidity or mortality AND a risk of regional spread or overwhelming of community resources, please contact the KFL&A MOH office on-call.

KFL&A MOH ON-CALL: 613-549-1232
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