

Rapid Implementation of Enhanced Opioid Overdose Surveillance in Emergency Departments in British Columbia

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Disclosure Statement

- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

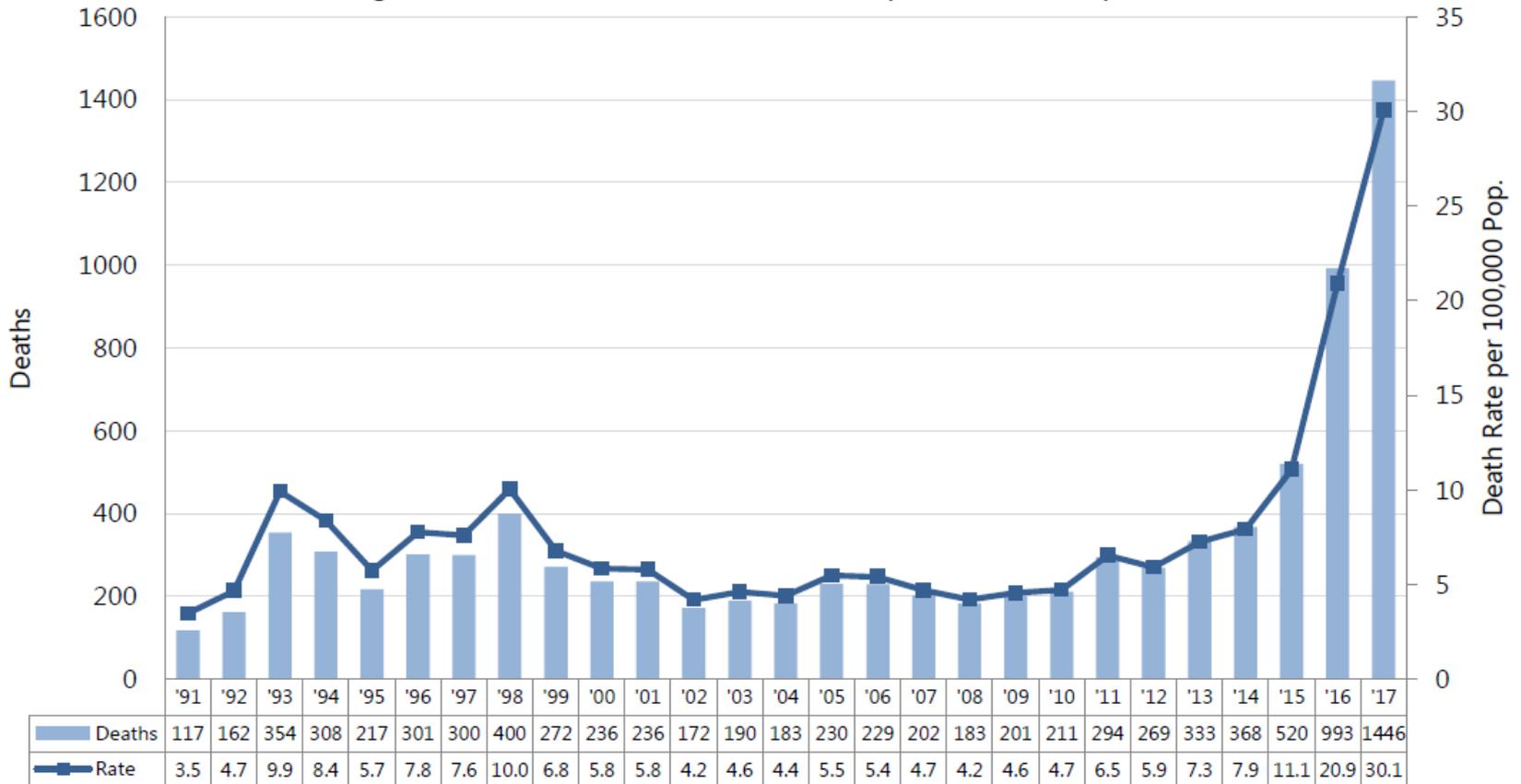
Overdose Public Health Emergency

BACKGROUND



Overdose Deaths

Illicit Drug Overdose Deaths and Death Rate per 100,000 Population ^[2,5]

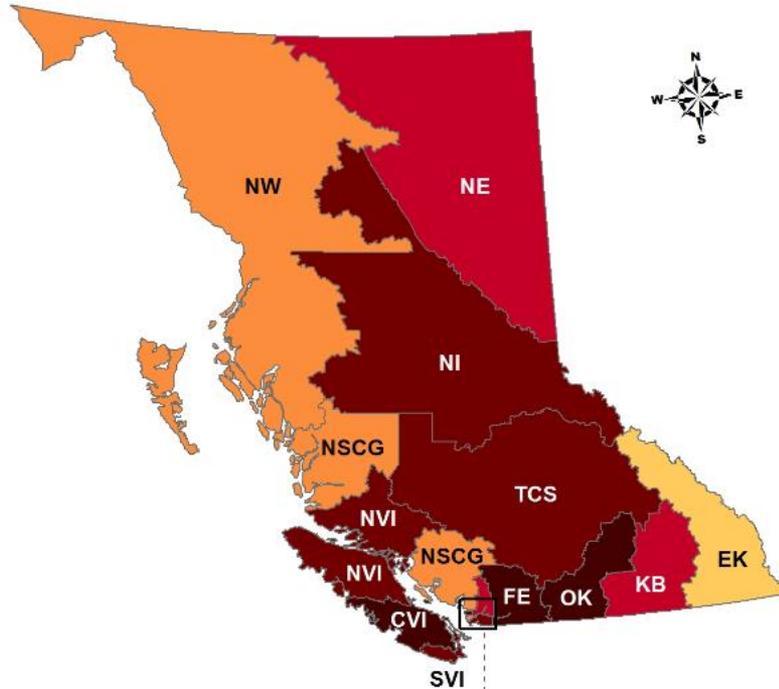


BC Coroners Service. Illicit Drug Overdose Deaths in BC, January 1, 2007 – February 28, 2018.

Data are preliminary and subject to change.

Geographic Distribution

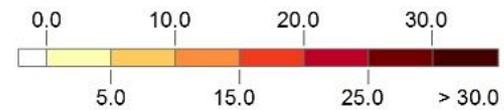
Cumulative 12 Months: February 2017 to January 2018



Greater Vancouver Inset



Annualized rate per 100,000 population by HSDA



Public Health Emergency Declared

April 14, 2016

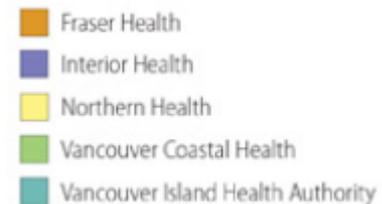
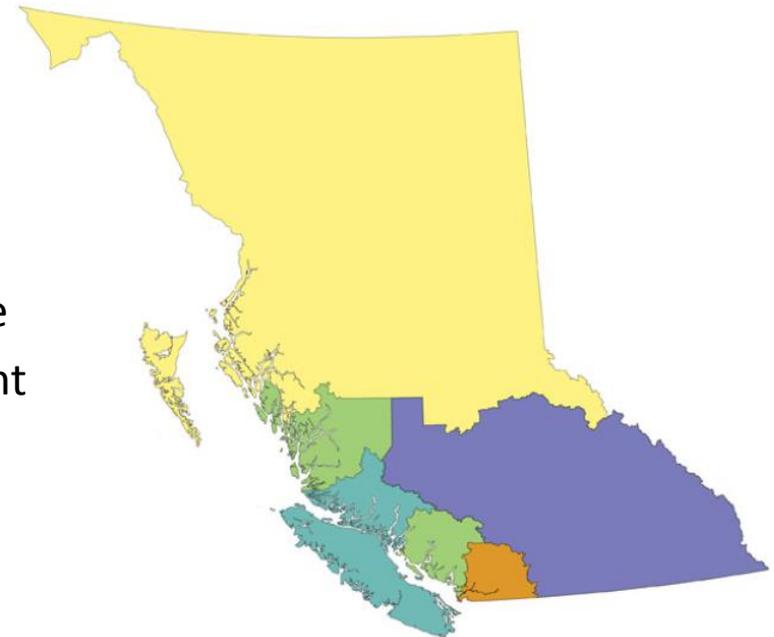
Medical Health
Officer **Order** to
emergency
departments to
report patient
visits for opioid
overdoses



Source: Government of BC

Status of Emergency Department Surveillance in BC

- 5 geographic health authorities
 - Vancouver Coastal & Fraser Health
 - Well-established syndromic surveillance
 - ICD discharge codes and Chief Complaint
 - Interior, Island & Northern Health
 - Limited or no existing ED surveillance
 - ICD discharge codes unavailable
 - Presenting Complaint only (CEDIS*)
 - **New case-based reporting system required**



*Canadian Emergency Department Information Systems (CEDIS) – standardized list

Design and Implementation of a New Surveillance System

ENHANCED SURVEILLANCE OF OPIOID OVERDOSES



Purpose

To better understand the incidence, distribution, demographic characteristics & circumstances of opioid overdose patients who present to emergency departments (EDs) in 3 regional health authorities



Source: iStock/Getty Images

Data Elements

- Identifiers & demographics (incl. employment status)
- Circumstances of overdose
- Drugs/substances used & modes of administration
- Interventions (naloxone)
- Provision of naloxone kit & referral

Case Report Form

DRAFT - Emergency Department Opioid Overdose Enhanced Surveillance Form



Purpose for enhanced surveillance:

The aim of this enhanced surveillance program is to improve services, naloxone access, supervised injection service

Instructions for completion:

1. Effective <date>, please complete this form for all
2. Please complete this form in black ink and print it
3. Please fax this form to the Public Health Epidemic

Opioid or suspected opioid overdose case definition

A physiological event induced by the suspected introduction of an opioid into the body of a person that results in a life-threatening situation and that a reasonable person would believe requires emergency medical assistance.



RJH - Known or suspected Opioid

Opioid or suspected opioid overdose case

A physiological event induced by the suspected introduction of an opioid into the body of a person that results in a life-threatening situation and that a reasonable person would believe requires emergency medical assistance.

1. If no patient address is given, please provide a life-threatening situation and that a reasonable person would believe requires emergency medical assistance.
 - Patient has no fixed address
 - Other
2. Location of drug use/ overdose:
 - Public Space
 - Other
3. Was the patient using alone at time of overdose?
4. Overdose intention:
 - Unintentional
 - Intentional
 - Unknown
5. Was the drug something other than an opioid?
6. History of drug use in the last 6 months

7. Substance(s) used as reported by patient

- Heroin → Swallow Smoke Inject
- Fentanyl → Swallow Smoke Inject
- GHB → Swallow Smoke Inject
- Opioid → Swallow Smoke Inject (prescribed to the patient)
- Opioid → Swallow Smoke Inject (NOT prescribed to the patient)
- Alcohol



Emergency Department Opioid Overdose Enhanced Surveillance Form

(Affix Patient Label Here)

Instructions for completion:

1. Please complete this form for all opioid or suspected opioid overdoses.
2. If completing form by hand, use blue or black ink (no red).
3. Fax this form to the Medical Health Officer (MHO) at 250-549-6310 within 48 hours of patient presentation to the Emergency Department.

Opioid or suspected opioid overdose case definition:

A physiological event induced by the suspected introduction of an opioid into the body of a person that results in a life-threatening situation and that a reasonable person would believe requires emergency medical assistance.

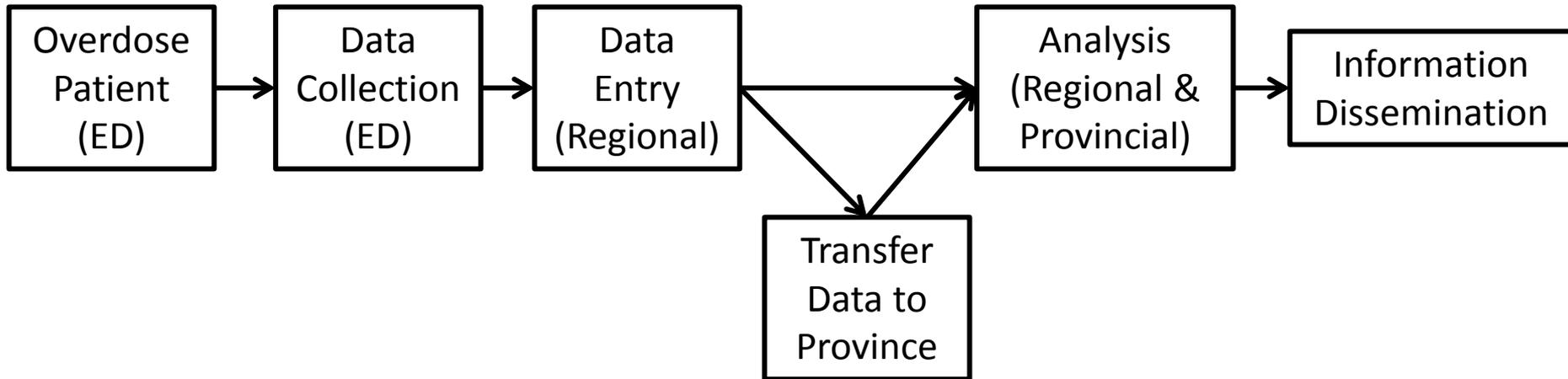
Today's date: DD/MM/YYYY	Com
ED Reporting:	
<input type="checkbox"/> Fraser Lake HC	<input type="checkbox"/> Atlin HC
<input type="checkbox"/> Lakes District	<input type="checkbox"/> FSJ General
<input type="checkbox"/> QCI General	<input type="checkbox"/> Mackenzie
<input type="checkbox"/> UHNBC	<input type="checkbox"/> St. John
	<input type="checkbox"/> McB
	<input type="checkbox"/> St. John
	<input type="checkbox"/> Stev
	<input type="checkbox"/> Valemount HC
	<input type="checkbox"/> Wir
IF NO THERE ARE	
There are <u>NO</u> overdoses to report at the ab	
Affix Patient Label Here	
Street address:	
Postal Code:	City:
Employment status: <input type="checkbox"/> Employed <input type="checkbox"/> Self-employed	
Is this patient a transient worker? <input type="checkbox"/> Yes <input type="checkbox"/> No	

PATIENT INFORMATION AND CIRCUMSTANCES OF OVERDOSE	
<input type="checkbox"/> Patient has no fixed address <input type="checkbox"/> Patient's address is unknown	
Employment status	<input type="checkbox"/> Employed <input type="checkbox"/> Unemployed <input type="checkbox"/> Student <input type="checkbox"/> Unknown
Location of drug use/ overdose	<input type="checkbox"/> Public space/street <input type="checkbox"/> Private residence <input type="checkbox"/> Night club/bar/concert/festival
	<input type="checkbox"/> Hotel <input type="checkbox"/> Community agency <input type="checkbox"/> Shelter <input type="checkbox"/> Other
Was the patient using alone at time of overdose?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Overdose intention	<input type="checkbox"/> Unintentional <input type="checkbox"/> Intentional (e.g., suicide, homicide) <input type="checkbox"/> Unknown
History of drug use in past 6 months	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Occasional/Infrequent <input type="checkbox"/> Unknown

DRUGS OR SUBSTANCES USED	
Substance(s) used as reported by patient (check all that apply)	Route(s) of administration (check all that apply)
<input type="checkbox"/> Opioid prescribed to the patient	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Opioid NOT prescribed to the patient	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Heroin	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Fentanyl	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> GHB (gamma-Hydroxybutyric acid)	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Other illicit/illegal opioid	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Methadone	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Benzodiazepines	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Illicit stimulants (e.g., crack, cocaine, methamphetamines, ecstasy/MDMA/MDA)	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Alcohol	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
<input type="checkbox"/> Other (please specify):	<input type="checkbox"/> Swallowed <input type="checkbox"/> Smoked <input type="checkbox"/> Injected <input type="checkbox"/> Other
Description of the drug (colour, texture, design, dose, anything else distinctive about the drug(s) and/or packaging):	

INTERVENTIONS	
Naloxone given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Number of Naloxone doses given by community member (Take Home Naloxone)	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3+ <input type="checkbox"/> Unknown
Number of Naloxone doses given by Emergency Health Services	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3+ <input type="checkbox"/> Unknown

Flow of Information

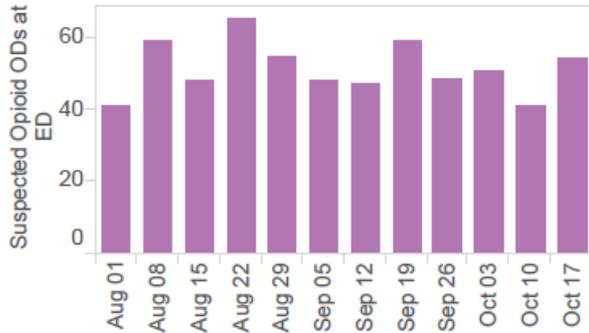


Weekly Dashboard

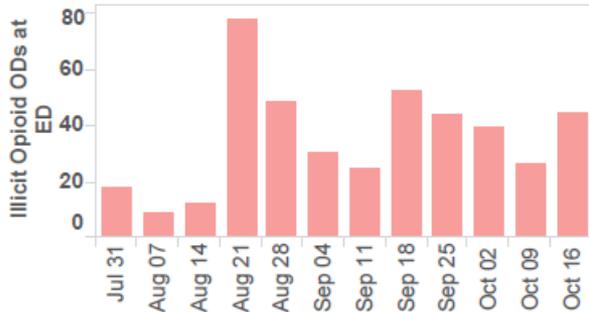
Electronic ED Surveillance

Dates indicate the start of the week
(Fraser=Monday, Vancouver Coastal=Sunday)

Fraser

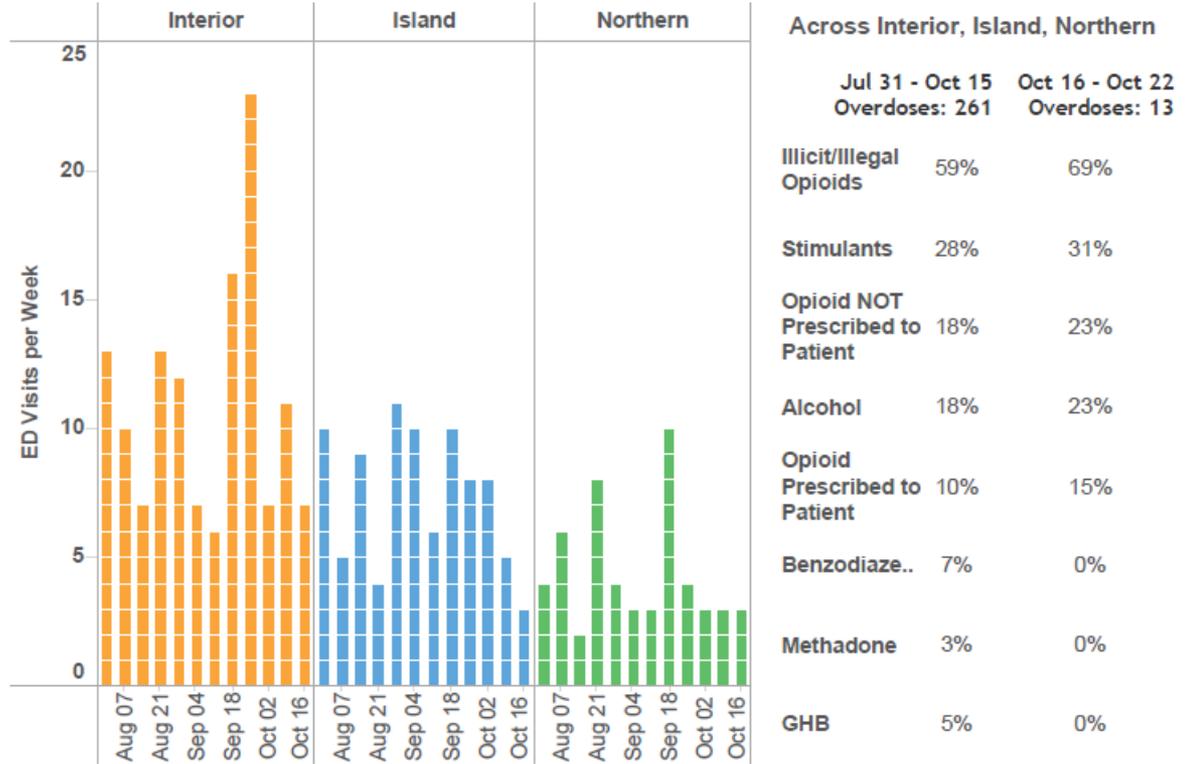


Vancouver Coastal



Enhanced ED Surveillance Form

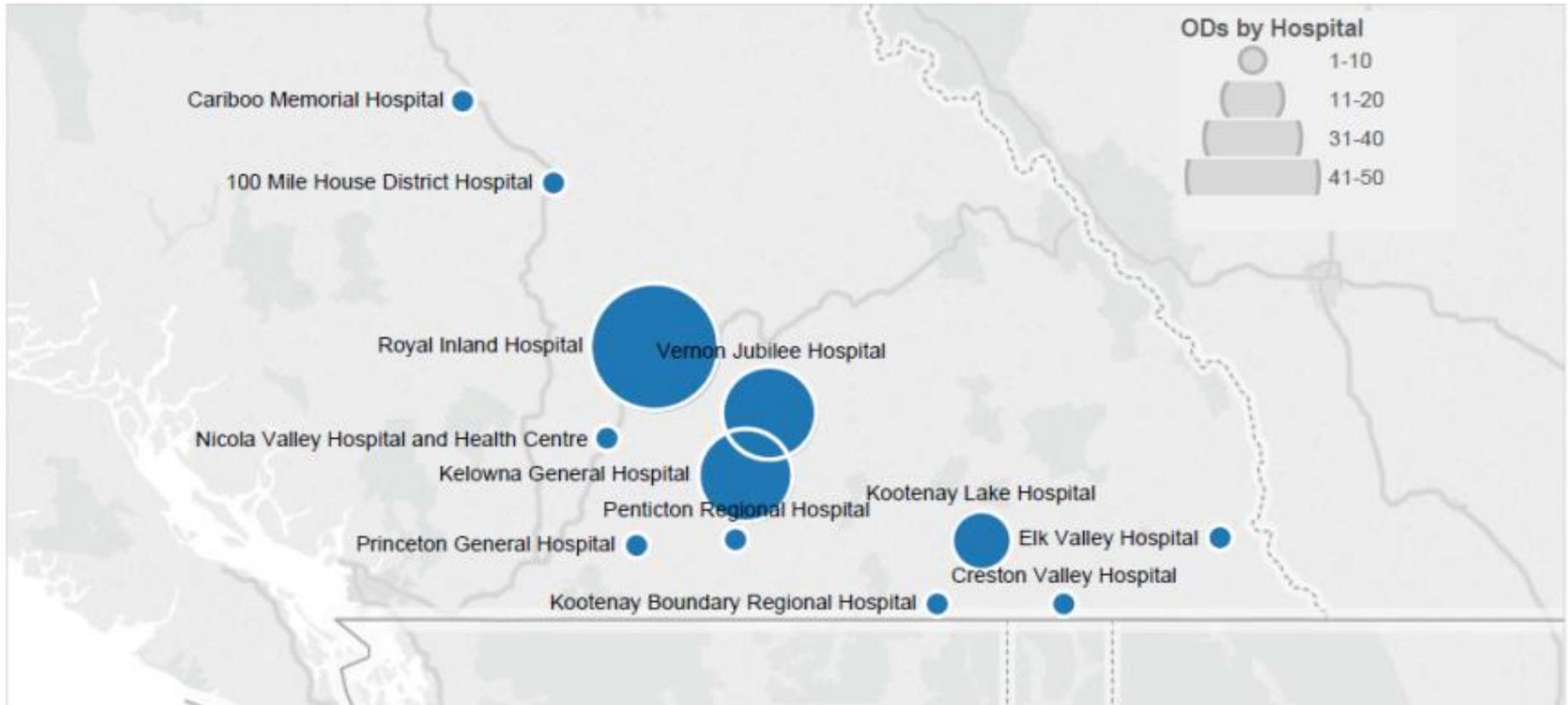
Dates indicate the start of the week (Sunday)



Source: BC Centre for Disease Control

Regional Maps

Suspected opioid overdoses reported by Emergency Department, June 1-October 3, 2016 (n=176)



Source: Interior Health

Surveillance is...

DATA FOR ACTION



Public Health Implications

- Quickly demonstrated broad geographic distribution & community-specific impact
- Powerful data for myth busting!
- Highlighted the need for supervised consumption & informed planning & location of services
- Enabled increased client referral / follow-up from EDs



Source: Kelowna Capital News/Douglas David Farrow



Source: Interior Health

LESSONS LEARNED & FUTURE DIRECTIONS



Challenges

- No baseline & challenges with interpretation
- Based on self-report by EDs & difficult to estimate completeness of reporting
- Poor system for cluster detection
- Very resource-intensive without defined endpoint
- No additional resources to support active surveillance

Where Are We Now?

- Scaled back case reporting in September 2017
- Modified syndromic surveillance (region-specific)
- Greater availability & reliance on other data sources (e.g., ambulance, coroner)
- Considering more sustainable options for collection of contextual data (e.g., sentinel or periodic reporting, involvement of peers)

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THANK YOU!

