Since 2011, after a spike of heroin-related deaths was reported in the Vancouver region, Vancouver Coastal Health Authority (VCH) started weekly monitoring of overdoses at emergency departments (ED) and Insite, Vancouver’s supervised injection site to support local and provincial harm reduction activities.

On April 14, 2016, BC’s Provincial Health Officer, Dr. Perry Kendall declared a public health emergency under the Public Health Act due to a significant increase in drug-related overdoses and deaths in British Columbia. In response to the declaration, a series of harm reduction activities were implemented in the VCH region, including the deployment of the Mobile Medical Unit (MMU), creation of Overdose Prevention Sites (OPSs) and Downtown Eastside Connections (Connections) in highly affected areas. Enhanced epidemiology and surveillance programs were implemented at VCH to monitor and evaluate the additional harm reduction interventions including the development of additional surveillance programs for the MMU, OPSs and Connections.

This update summarizes overdose visits in 9 EDs within the VCH region (including all urban EDs and 3 rural EDs), injections resulting in an overdose at Insite, and overdose events at the OPSs. MMU services are being transitioned to community and permanent sites. Overdoses are being transported to EDs, DTES Connections and Community Clinics.

*Please note these numbers only reflect the suspected overdoses identified by the surveillance systems and may not represent the actual overdoses in each site. All data are considered preliminary and may change as more data are received.*

If you have any technical comments and queries please forward them to Tim Chu (tim.chu@vch.ca) or Public Health Surveillance Unit (phsu@vch.ca).
Synopsis:

**ED & Connections Volumes (Figure 1)**
- 141 overdoses involving illicit drugs/unknown substances were identified by the surveillance system in Week 40.
- Among the 141 visits, all presented at EDs and none presented at Connections.
- Compared to historical data, the number of overdoses was higher than the historical average and below the upper band of 95% confidence limits.
- Compared to the previous week, the combined overdoses at ED and Connections decreased.

**Insite & OPS Volumes (Figure 2)**
- 79 overdose events were recorded at Insite and OPSs in Week 40.
- Among the 79 events, 25 (32%) presented at Insite and 54 (68%) presented at an OPS.
- Compared to historical data, the number of overdoses was above the historical average and the upper band of 95% confidence limits.
- Compared to the previous week, the combined overdoses at Insite and OPSs remained relatively stable.

**ER Overdose Rate (Figure 3)**
- The rate of overdoses involving illicit drugs/unknown substances was above the historical average and the upper band of 95% confidence limits in Week 40.
- Compared to the previous week, the rate of overdoses decreased.

**Insite Overdose Rate (Figure 4)**
- The rate of overdose events among those using injection rooms was above the historical average and the upper band of 95% confidence limits in Week 40.
- Compared to the previous week, the rate of overdoses increased.
Figure 1. Number of ED visits related to illicit drug/unknown substance overdose* by type of sites and epidemiological week
Vancouver Coastal Health, 2021 compared to historical average and 95% confidence limits†

*Overdose related visits are monitored through ICD-9/10 codes and keywords search where the substance-specific terms are indicated in presenting complaint, discharge diagnosis, nature of injury and mechanism of injury.
†Includes data since 2008.
Source: PHSU Emergency Department Visits Database from CareCast System (Richmond Hospital, UBC Hospital, Vancouver General Hospital), Eclipsys System (Mount Saint Joseph Hospital, St. Paul's Hospital) and McKesson System (Lions Gate Hospital, Pemberton Health Centre, Squamish General Hospital, Whistler Health Care Centre), and DTES Connection Overdose Visiting Dataset.
Prepared by: Vancouver Coastal Health, Public Health Surveillance Unit.
Figure 2. Number of overdose events at Insite and overdose prevention sites* by epidemiological week.
Vancouver Coastal Health, 2021 compared to historical average and 95% confidence limits†

Source: Insite, Vancouver Coastal Health, HIV/AIDS & Harm Reduction Programs and VCH OPS Program.
Prepared by: Vancouver Coastal Health, Public Health Surveillance Unit.
Figure 3. Illicit drug/unknown substance related overdose rates per 1000 ED visits* by epidemiological week. Vancouver Coastal Health, 2021 compared to historical average and 95% confidence limits†

*Overdose related visits are monitored through ICD-9/10 codes and keywords search where the substance-specific terms are indicated in presenting complaint, discharge diagnosis, nature of injury and mechanism of injury.
†Includes data since 2008.
Source: PHSU Emergency Department Visits Database from CareCast System (Richmond Hospital, UBC Hospital, Vancouver General Hospital), Eclipsys System (Mount Saint Joseph Hospital, St. Paul's Hospital) and McKesson System (Lions Gate Hospital, Pemberton Health Centre, Squamish General Hospital, Whistler Health Care Centre).
Prepared by: Vancouver Coastal Health, Public Health Surveillance Unit.

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Figure 4. Overdose rates per 1000 Injection Room visits at Insite* by epidemiological week. Vancouver Coastal Health, 2021 compared to historical average and 95% confidence limits†

*Supervised injection site. †Historical data includes data since 2005.

Data source: Insite, Vancouver Coastal Health, HIV/AIDS & Harm Reduction Programs.