

Tri-County Opioid Syndromic Surveillance Situational Awareness

October 3, 2017

What is Syndromic Surveillance?

- Surveillance in Oregon (called Oregon ESSENCE - Electronic Surveillance System for the Early Notification of Community-Based Epidemics) provides real-time data to monitor what is happening in emergency departments and participating urgent care clinics in the Tri-County area. The queries include visits among Clackamas, Multnomah, and Washington County residents to an emergency department or urgent care clinic. Note that the facilities can be outside of the Tri-County area. There is a 24-hour reporting delay. For weekly reports, we report on the week prior to the report's release to ensure we have complete data.
- Using ESSENCE data will allow us to monitor opioid overdoses that are severe enough to be seen in emergency departments and urgent care settings. We will use these data to monitor trends and to detect geographic and temporal clusters rather than conduct individual case finding.

How to read these charts

- Visit counts for each week are color-coded in the charts below. Blue dots indicate normal visit counts, and yellow or red dots mean the counts for that day are higher than expected. We are looking for sudden or sustained increases in visits.
- Syndrome queries are based on patient ICD-10 codes, that is the diagnosis at discharge. It is important to note that counts may be unstable and that a warning or alert does not necessarily indicate an event of public health significance. Depending on the query, some of the visits may be false positives, meaning that the visits were not related to opioid overdoses.

Discharge Diagnosis codes include:

Poisoning by and adverse effect of: opium, heroin, other opioids, methadone, synthetic narcotics, or other/unspecified narcotics. ICD-10 codes: T40.0
T40.1, T40.2X (excluding T40.2X6)
T40.3, T40.4 (excluding T40.0X6), T40.6 (excluding T40.606 and T40.696)

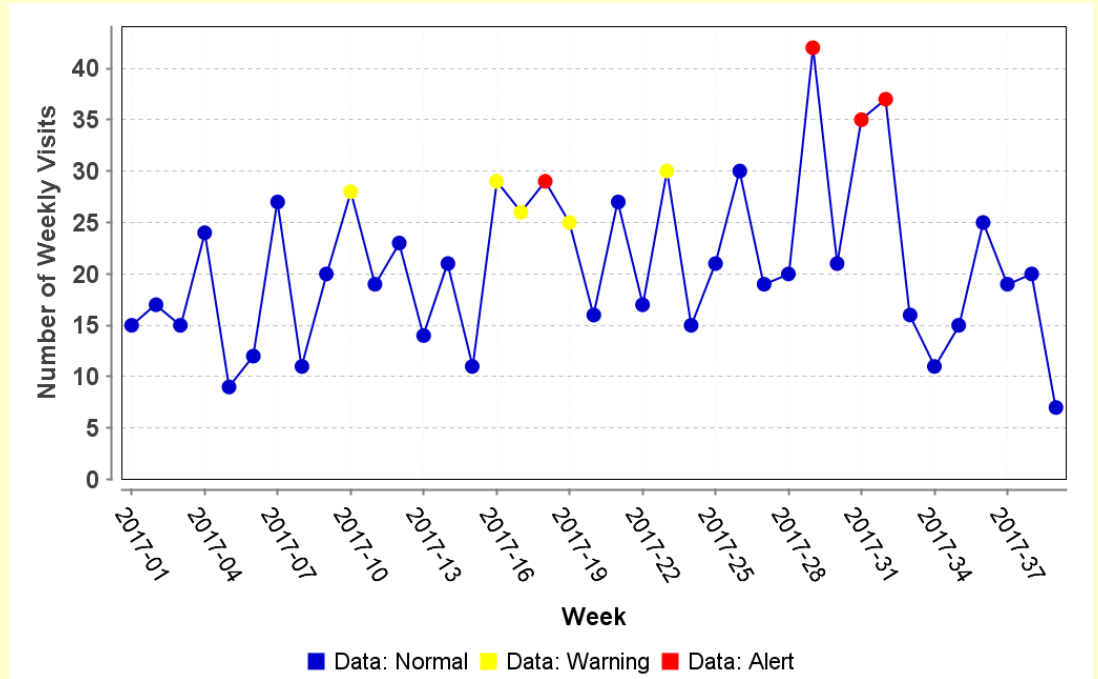
Findings: Between January 1, 2017 – September 30, 2017, the opioid-related visits ranged from 9-40 visits per week (0.06%-0.3% of all visits), with an average of 21 opioid visits per week. The peaks occurred in mid-July and early August.

Discharge Diagnosis codes include:

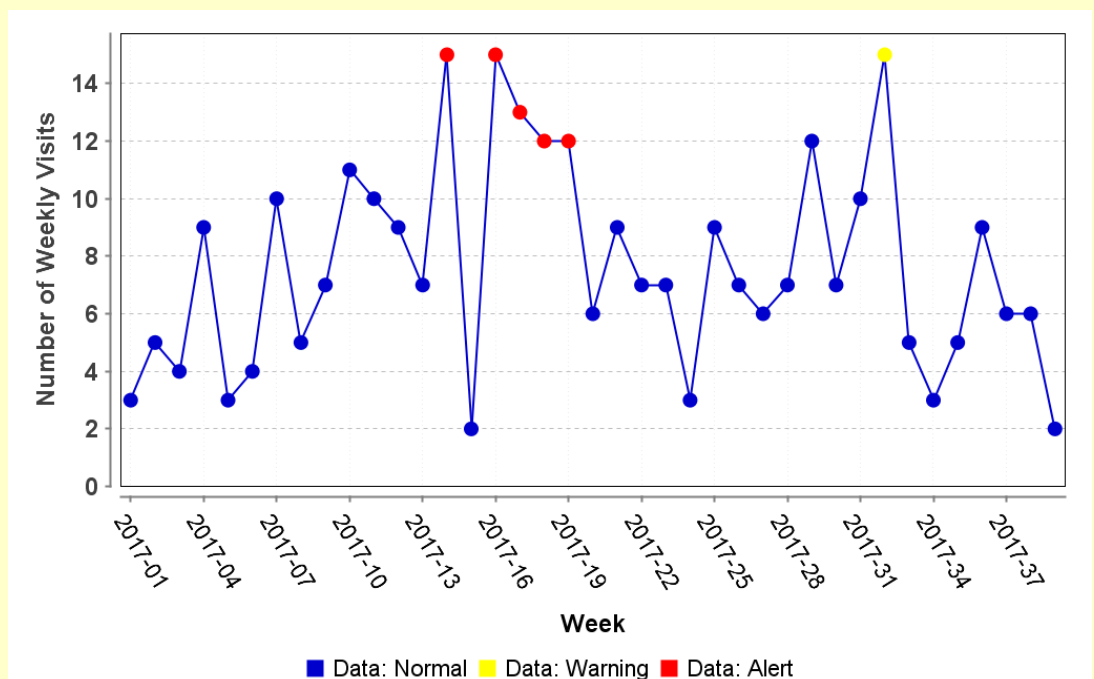
Poisoning by and adverse effect of: heroin. ICD-10 code: T40.1

Findings: Between January 1, 2017 – September 30, 2017, the heroin overdose visits peaked in April, 2017, with an average of 8 heroin visits per week.

Number of Weekly Opioid Overdose Visits among Tri-County Residents: January 1, 2017 – September 30, 2017



Number of Weekly Heroin Overdose Visits among Tri-County Residents: January 1, 2017 – September 30, 2017

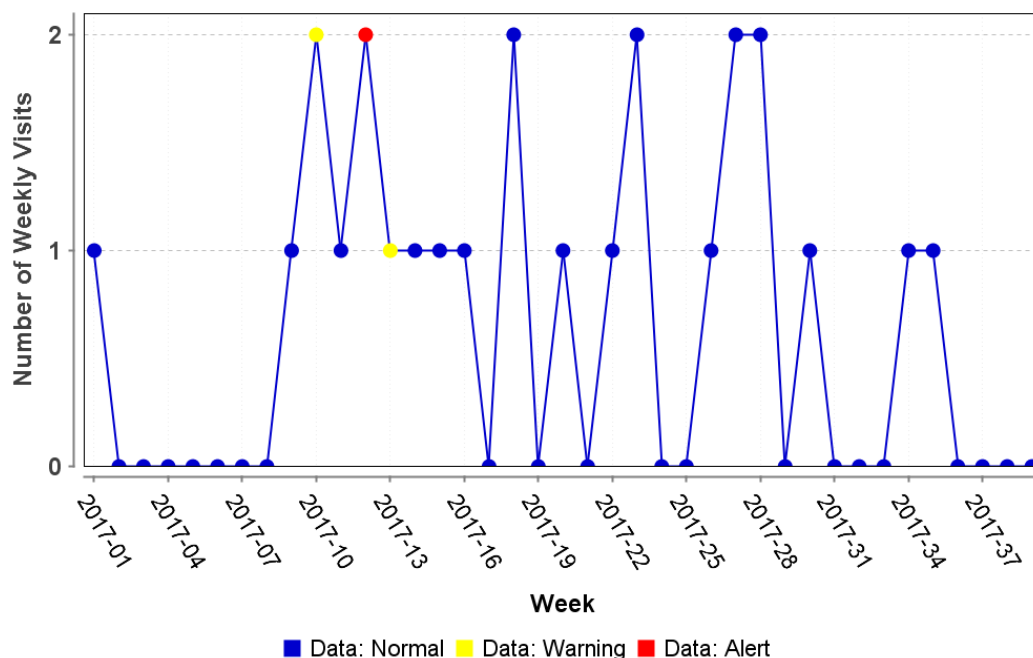


Number of Weekly Synthetic Opioid Overdose Visits among Tri-County Residents: January 1, 2017 – September 30, 2017

Discharge Diagnosis codes include:

Poisoning by and adverse effect of: synthetic narcotics.
ICD-10 code: T40.4
(excluding T40.0X6)

Findings: Synthetic opioid visits remain relatively rare, with 0-2 visits per week, with an average of less than 1 synthetic opioid visit per week.



Limitations

Syndromic surveillance uses existing clinical data for the purposes of near real-time surveillance. The primary use of emergency department and urgent care clinic visit information is for clinical care and not for surveillance purposes. This secondary use is subject to limitations that should be considered when interpreting these data.

Although the opioid and heroin queries have high positive predictive values (85% and 98%, respectively), the positive predictive value for the fentanyl query is lower at 68%, which means that approximately 32% of the visits identified as being fentanyl overdose are actually false positives – and the patient was seen for reasons other than for a fentanyl overdose.