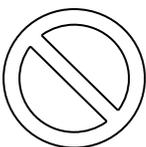# Opioid Overdose Data Sources: Suspected vs. Confirmed

There are many data sources with information on opioid overdoses. Traditionally, nonfatal opioid overdoses are examined through hospitalizations. If the hospital confirms opioids as the overdose cause, the case becomes a clinically confirmed case. However, this information takes time to confirm and is not timely. Ambulance runs do provide a timely source for reporting suspected opioid overdoses; however, these cases are only suspected. It is important to understand the differences in information provided by hospitalizations and ambulance runs.
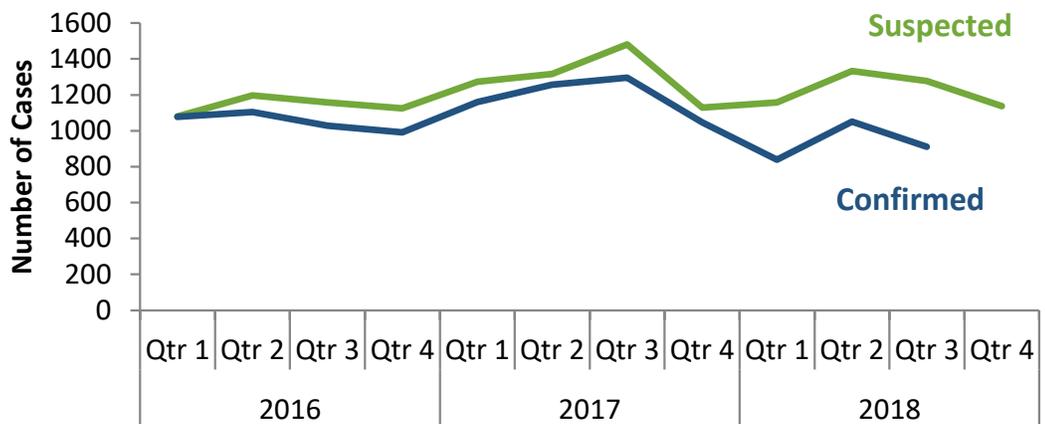
Who gets counted and in which source?

	Person 1 Opioid overdose	**Person 2** Cocaine overdose	**Person 3** Fentanyl overdose	**Data Source**
Ambulance Runs	Ambulance called • **SUSPECTED** opioid overdose • Naloxone given • Person responded • Refused transport to hospital	Ambulance called • **SUSPECTED** opioid overdose • Naloxone given • Person did not respond • Transported to hospital	Ambulance called • **SUSPECTED** opioid overdose • Naloxone given • Person did not respond • Transported to hospital	**Opioid Count = 3**
Hospital Visit	(not counted)	Admitted to Emergency Department **CONFIRMED** cocaine overdose	Admitted to Emergency Department **CONFIRMED** opioid overdose	**Opioid Count = 1**

Ambulance runs document **SUSPECTED** cases of opioid overdoses. Hospital visits document **CONFIRMED** cases of opioid overdoses.

As seen in the figure, **SUSPECTED** cases mirror **CONFIRMED** cases.

So SUSPECTED cases can be used as a more timely proxy of the truth.

Suspected opioid overdose ambulance runs mirror confirmed opioid overdose hospitalizations

Source: Office of Health Informatics, Wisconsin Department of Health Services (May 2019)
Suspected data is from the Wisconsin Ambulance Run Data System (WARDS)
Confirmed data is from inpatient and emergency department hospital discharge claims