No short- or long-term increase in opioid overdoses detected in number of emergency medical responses or emergency department/urgent care visits.

Opioid Overdose: Emergency Medical Service Responses

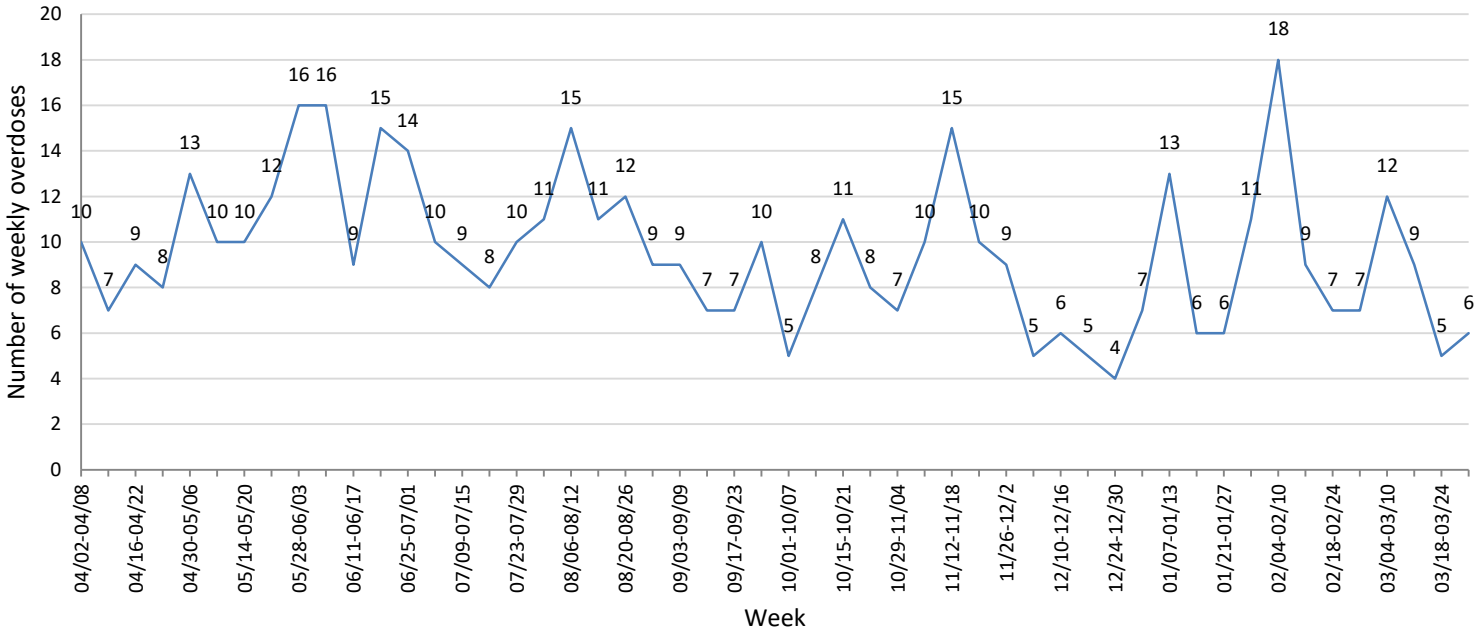
4/2/17 – 3/31/18

Between, April 2, 2017 – March 31, 2018, emergency responses for opioid overdoses ranged from 4-18 overdoses, with the mean of 10 overdoses per week.

Background

One way to track the number of non-fatal overdoses is to review ambulance responses related to overdose, usually distinguishable by documentation of naloxone administration. Naloxone is a synthetic antagonist of narcotic drugs that is typically administered to reverse the effects of opioids—especially in the emergency treatment of opioid overdose. In July of 2013, Oregon passed legislation to allow laypersons to administer naloxone, and in 2015, many law enforcement agencies began carrying naloxone. In 2015, Oregon expanded its Good Samaritan Law, which protects overdose bystanders from being prosecuted for drug-related crimes in the event that they call 9-1-1 for medical assistance.

Number of Weekly Confirmed Opioid Overdose Cases from American Medical Response, Clackamas and Multnomah Counties, and Metro West, Washington County
April 2, 2017-March 31, 2018



The Tri-County Opioid Safety Coalition coordinates efforts to decrease the harms and overdose deaths from opioids, improve the quality of life for people living with chronic pain, and improve the quality of life for people with opioid use disorder in Clackamas, Multnomah, and Washington counties.

Methods

Multnomah and Clackamas counties both use American Medical Response (AMR) as the transport agency for Emergency Medical Services (EMS), while Washington County uses Metro West. The case definition used for identifying non-fatal overdoses includes emergency medical responses to overdose calls when naloxone was administered by EMS and the patient became more alert and responsive after administration (increase of Glasgow Coma Scale score ≥3).

We reviewed 5% (n=88) of all cases who were administered naloxone from January 1, 2016-August 22, 2017. The positive predictive value (true positive cases) was high, 92.0%, but the negative predictive value was low at 52.4%. The negative predictive value suggests that we are missing roughly 50% of the opioid overdose cases based on our current case definition. Alternative case definitions yielded significantly lower positive predictive values.

Limitations

This methodology may not reflect the actual number of overdoses for multiple reasons. Only instances in which an ambulance arrived on scene are counted and 9-1-1 is not always called for overdoses. Cases aren't captured in the EMS system in instances where naloxone was either not administered or was administered by someone other than the paramedic, such as another first responder (e.g., Fire and Rescue, law enforcement) or a bystander. Changes in state law in 2013 increased the availability of naloxone to laypersons and this was further expanded in 2017, potentially making layperson-administration of naloxone to reverse overdoses more common. In other words, using only EMS data to assess the number of non-fatal overdoses likely results in an undercount.

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