

PATHOLOGY FINDINGS FOR SAN LUIS OBISPO COUNTY CORONER INVESTIGATED DEATHS:

APRIL 2015 – MARCH 2018

San Luis Obispo County, California

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COUNTY OF SAN LUIS OBISPO HEALTH AGENCY

PUBLIC HEALTH DEPARTMENT

Introduction

This report is a summary of the toxicology findings from coroner-investigated deaths for the period April 1, 2015 through March 31, 2018 (three years). The Coroner is required to review or investigate every death in which a decedent has not been seen by a physician within the past 20 days, in unattended or violent deaths, deaths involving drugs, and other circumstances as required by law. A pathology report is sometimes ordered to help determine the cause of death. Although prescription drugs, homeopathic medicines or illegal drugs may be present, their presence alone is only one factor used to determine a cause of death. The type of drug, quantities present, or combination of drugs found may also be important factors in determining a final cause of death.

For the purposes of this report, the following definitions are used:

- **Positive Pathology Report:** post mortem testing done by the San Luis Obispo Coroner's Office that determines the presence of specified drug(s) and/or alcohol in a decedent's system.
- **Drug-related Deaths:** deaths in San Luis Obispo County with positive pathology reports for opioids, stimulants and/or sedatives.
- **Toxic Level:** pathology reports determined the presence of a lethal level of the drug in the deceased's system. It is important to note that while a dose may be toxic to a casual user, some users build up tolerance to drugs and that level may not be toxic to them.

In this report, drugs were reviewed if they fell into any of three categories: opioids, stimulants and sedatives.

- Opioids are drugs containing any opiate, natural or synthetic.
- Stimulants include drugs such as cocaine, methamphetamine, and ephedrine.
- Sedatives include benzodiazepines, antihistamines, and sleeping aids.

Findings

Between April 1, 2015 and March 31, 2018, there were 6,699 deaths in San Luis Obispo County. Of the 6,699 deaths in San Luis Obispo County, the San Luis Obispo County Coroner's office requested toxicological analysis in 732 cases to help determine cause of death. Of the 732 deaths in which a pathology report was ordered to help determine cause of death, 532 deaths had positive toxicology reports for alcohol, opioids, stimulants, sedatives, or any combination of the three.

Of the 532 deaths with positive toxicology screens, the following were found:

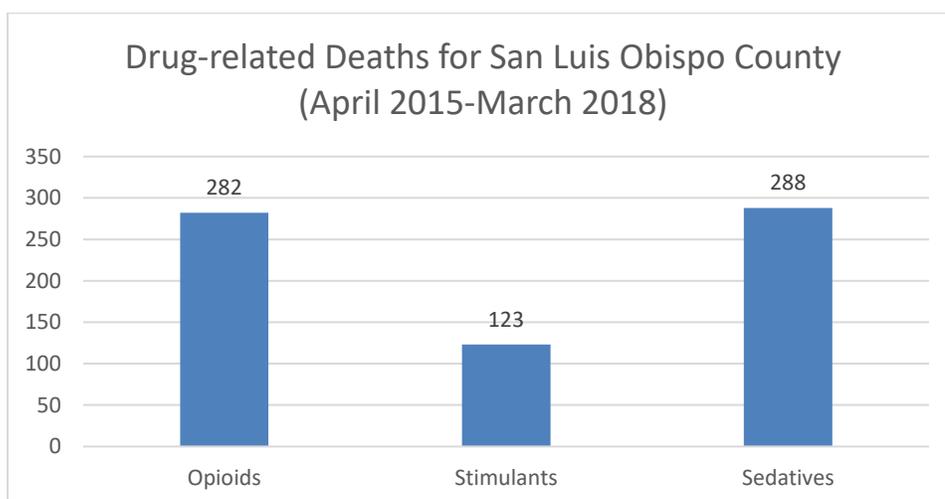
- 282 tested positive for opioids alone or in combination with stimulants and/or sedatives
- 123 tested positive for stimulants alone or in combination with opioids and/or sedatives
- 288 tested positive for sedatives alone or in combination with stimulants and/or opioids

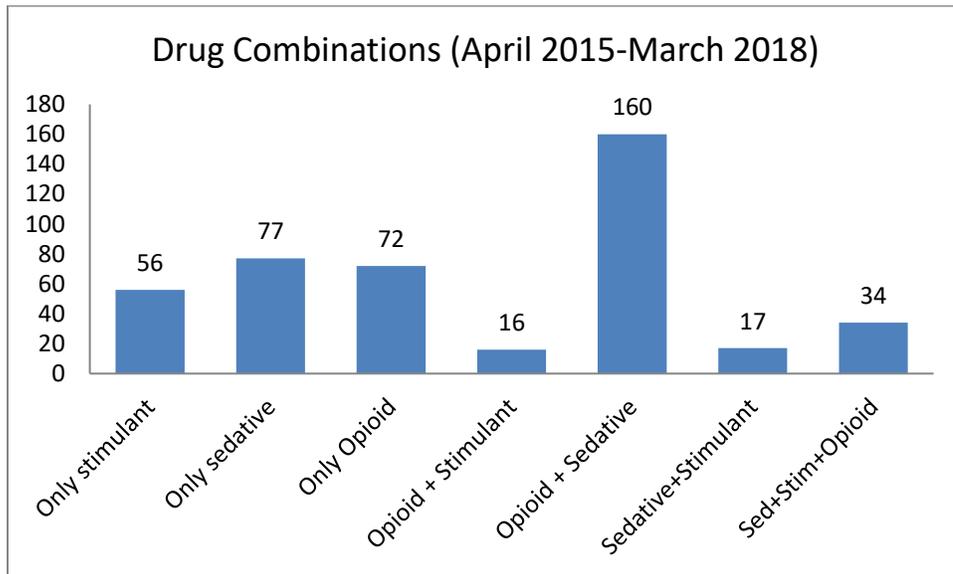
Sedatives were the most commonly found drug type in toxicology samples, with 14% of samples positive for a sedative only, and an additional 36% in combination with an opiate.

Of the 288 decedents testing positive for sedatives, 29% of those had toxic levels of drug in their blood.

Of the 123 decedents testing positive for stimulants, 71% had toxic levels of drug in their blood.

Of the 282 decedents testing positive for opioids, 27% of those had toxic levels of drug in their blood.

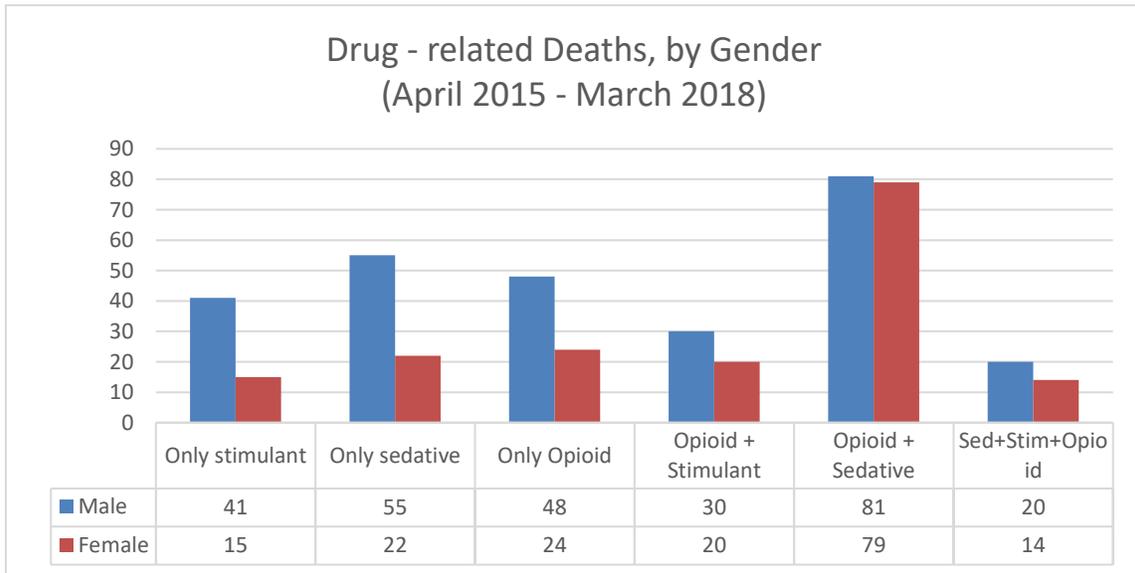
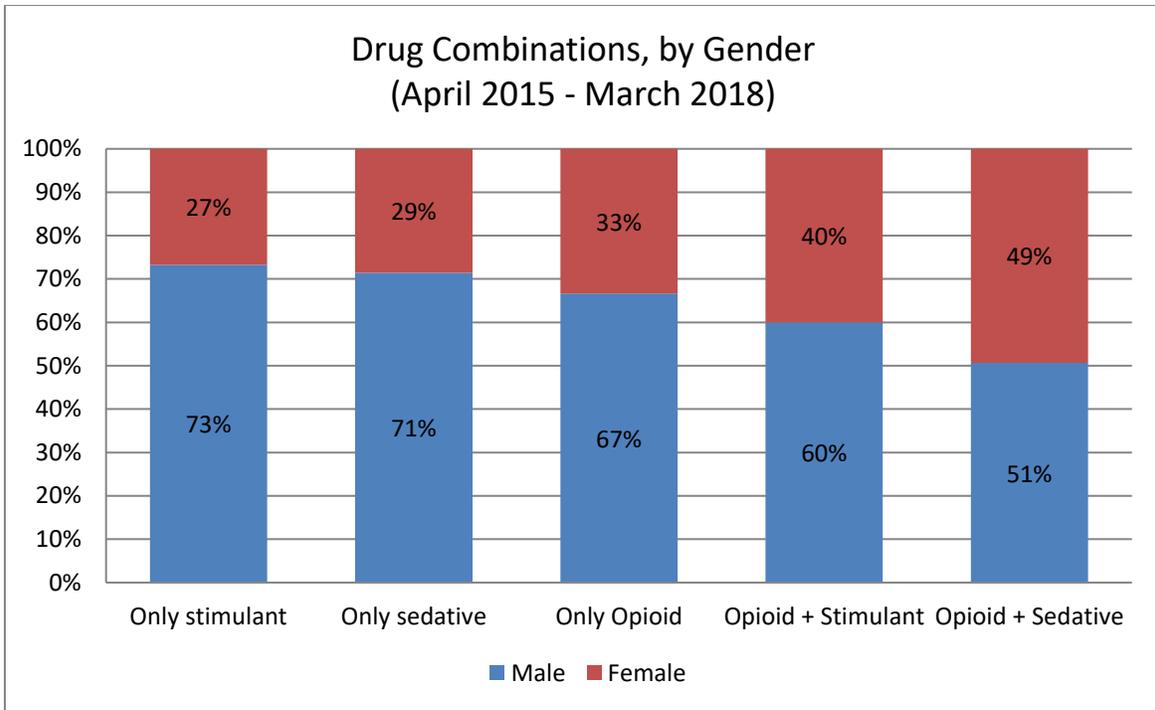




Often, positive toxicology reports can be misleading because multiple drugs may be present in the deceased's system at the time of their death.

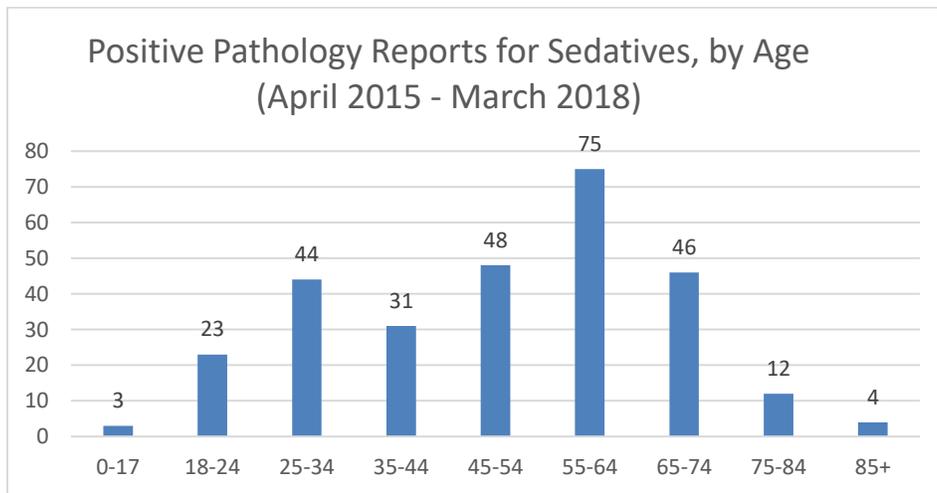
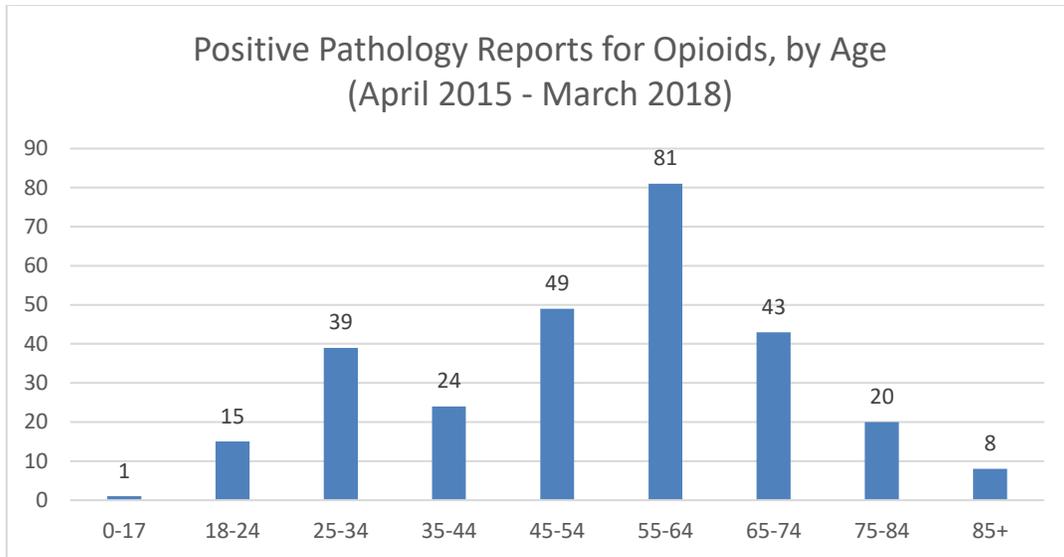
- Drug-related deaths where opioids were combined with sedatives were the most common, making up 30% of drug-related deaths from 2015-2018.
- Drug-related deaths where only stimulants and opioids were involved made up 10% of deaths.

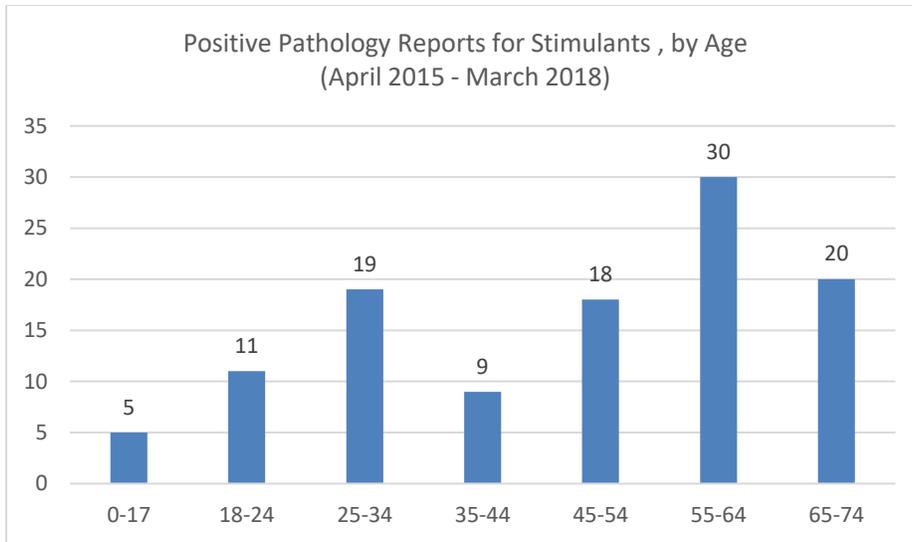
Sedatives and stimulants were least commonly found together.



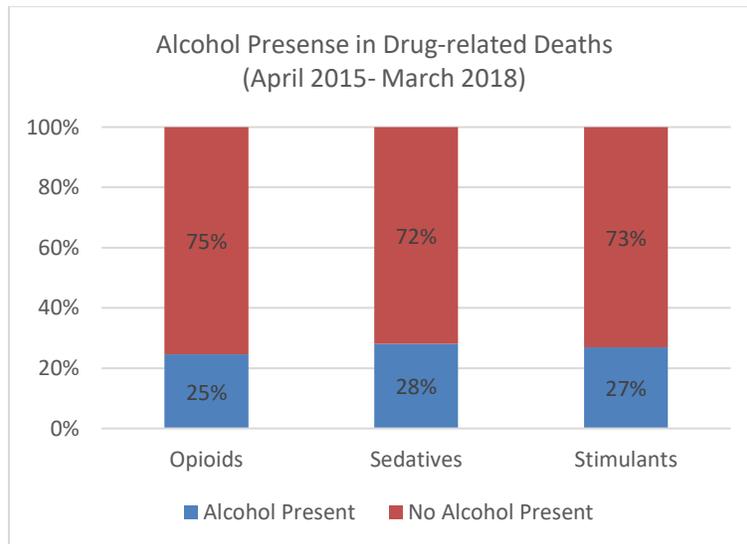
Of the 532 drug-related deaths, 335 were male and 197 were female.

- 71% of those that tested positive for sedatives were men; 29% were women
- Opioids were present in slightly more men (60%) than women (40%)

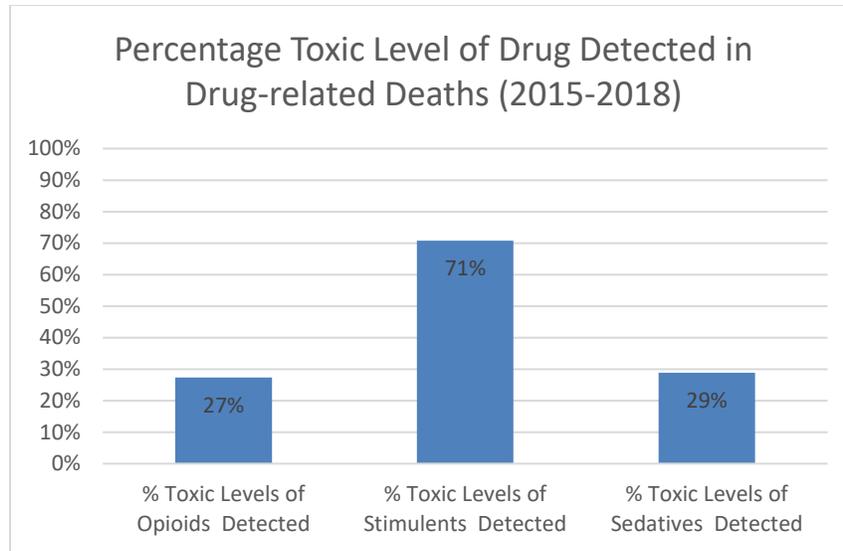




Opioids, sedatives and stimulants were most likely found in decedents aged 55-64.



Alcohol presence at time of death is determined in the coroner's toxicology report. Many drug-related deaths involved alcohol: Independent of drug type, about 25-30% of drug-related deaths involved alcohol.



Often drug-related deaths can be overlooked because a formally-defined "toxic level" of the drug are not detected.

- For deaths that had opioid and sedatives present, only about a quarter detected toxic levels of the drug.
- 71% of deaths with positive pathology reports for stimulants had toxic levels in their systems.
- A toxic level of any one drug is not required to cause death; sometimes multiple drugs can combine to create a toxic effect.

Conclusion

Drugs, whether legal or illegal, can be a significant contributor to an individual's death. This report represents an analysis of the types of drugs present in decedent's systems at the time of death, and can serve as a baseline for further analysis. Opioids are of great concern in our community, but it is clear that stimulants and sedatives are also contributing to mortality amongst our residents.

A previous version of this report incorrectly stated the number of cases in which opioids, sedatives and stimulants were present. The correct numbers are included in this version. We regret the error and welcome inquiries regarding this data. Please [contact us](#) or call 805-781-5500 with questions.