SNOHOMISH OVERDOSE PREVENTION

A COMMUNITY COMING TOGETHER TO STOP SNOHOMISH COUNTY'S OPIOID EPIDEMIC

# OPIOID OVERDOSE RELATED EMERGENCY DEPARTMENT VISITS AT PROVIDENCE EVERETT

## Quarterly Report

## June — August 2017


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## Introduction

In the five year-period between 2012 and 2016, Snohomish County had the fourth-highest rate of opioid overdose (OD) death in Washington State (12.4 per 100,000 population)[1] . In response, under Center for Disease and Prevention (CDC) Priority Strategy 2 (enhancing and empowering community-level prevention), an Opioid Overdose Prevention project was funded. The project is to provide community and prescribers opioid overdose information and education to prevent opioid overdose and improve clinic care for patients taking opioids for chronic pain and those with opioid use disorder. Data has been collected on patients with OD at Providence Hospital's emergency department (ED) in Everett since June 2017. This report on OD related ED visits will be revisited on a quarterly basis. A total of 100 OD-related ED visits occurred between June 1 and August 31 2017.

## Demographics

Figures 1-5 show demographic and social information for OD-related ED visits from June-August, 2017. Data include age, gender, race, ethnicity, type of medical insurance, and employment.

Among all the OD-related ED visits, more than one-third were patients ages 25 to 30 years (34, 34%). Mean age is 34.6. The youngest patient was 17, and the oldest was 61 years old (Figure 1). OD visits occurred more frequent in males than in females (59, 59%; 40, 40% respectively) (Figure 2). Most of them were non-Hispanic (92, 92%), 51 were white, 10 were Native American and 3 were African American (Figure 3). More than half had Medicaid (64, 64%) or no insurance (17, 17%) (Figure 4). The majority were unemployed (70, 70%), including 22 homeless people (Figure 5).

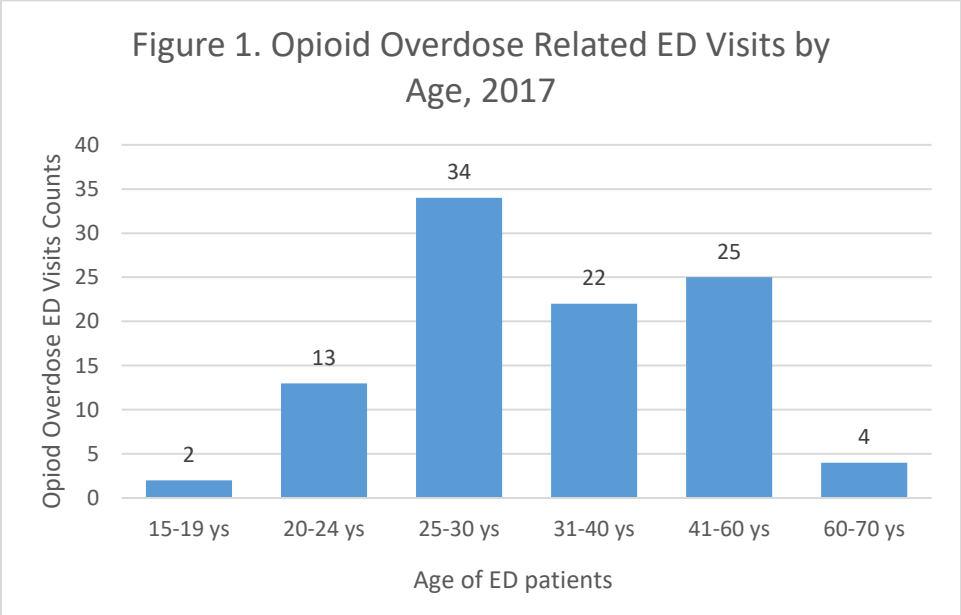


Figure 2. Opioid Overdose related ED Visits by Sex, 2017

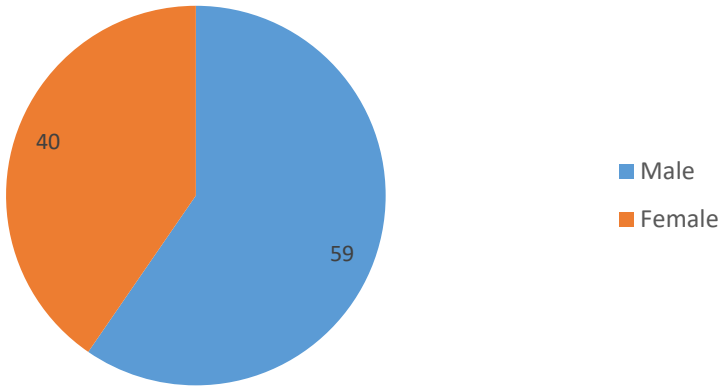
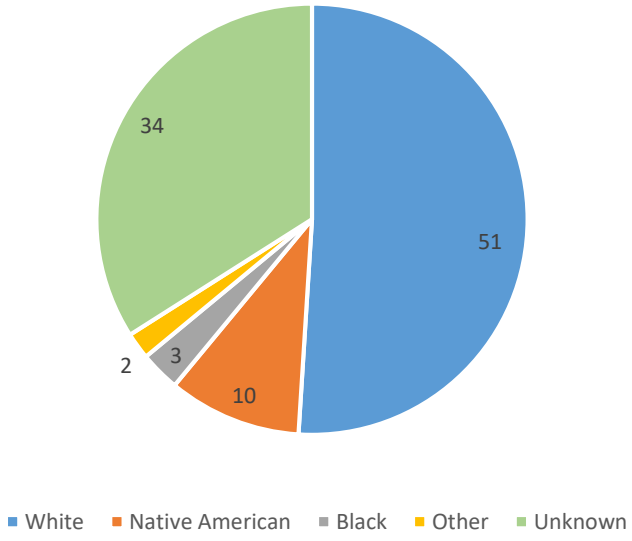
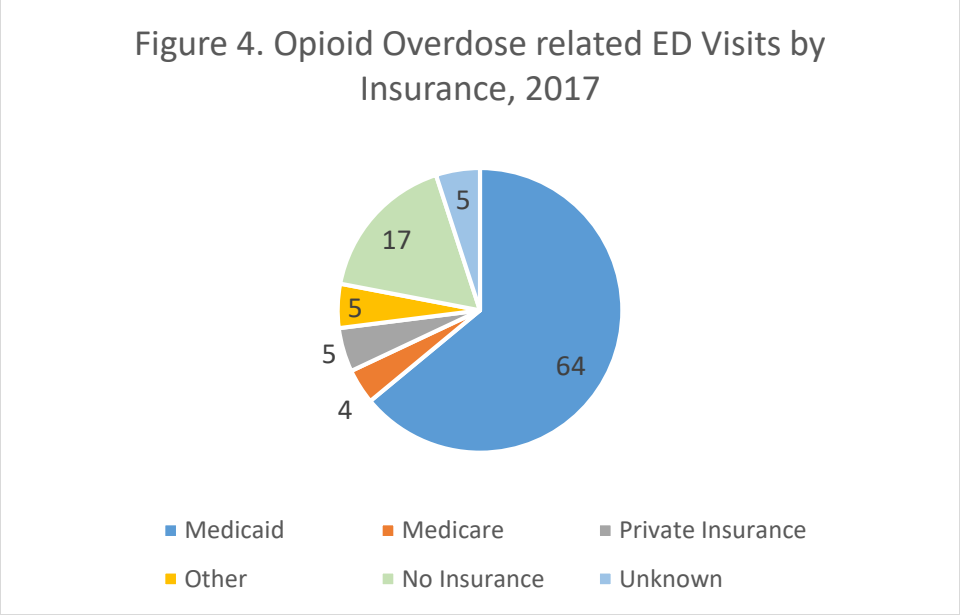
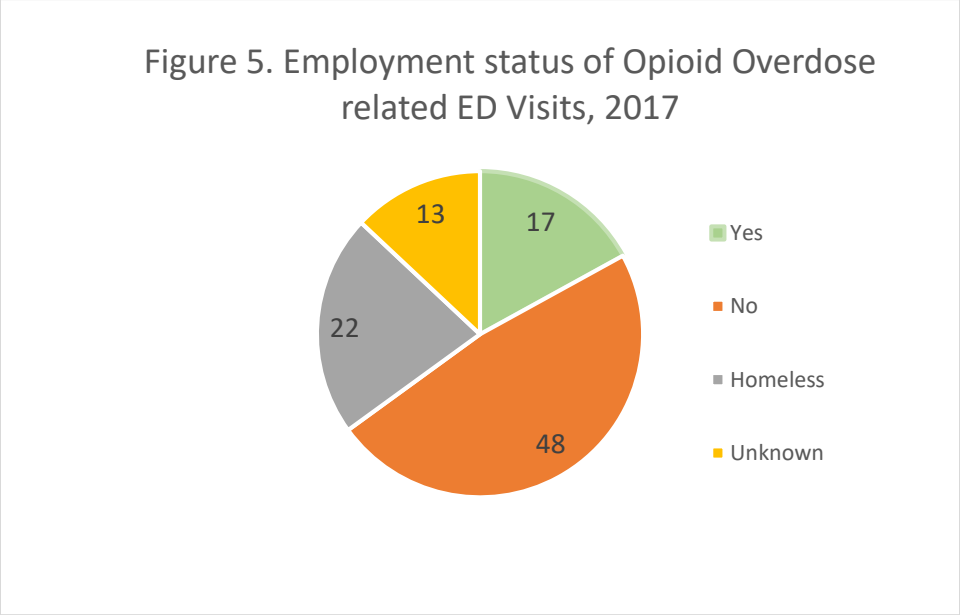



Figure 3. Opioid Overdose related ED Visits by Race, 2017



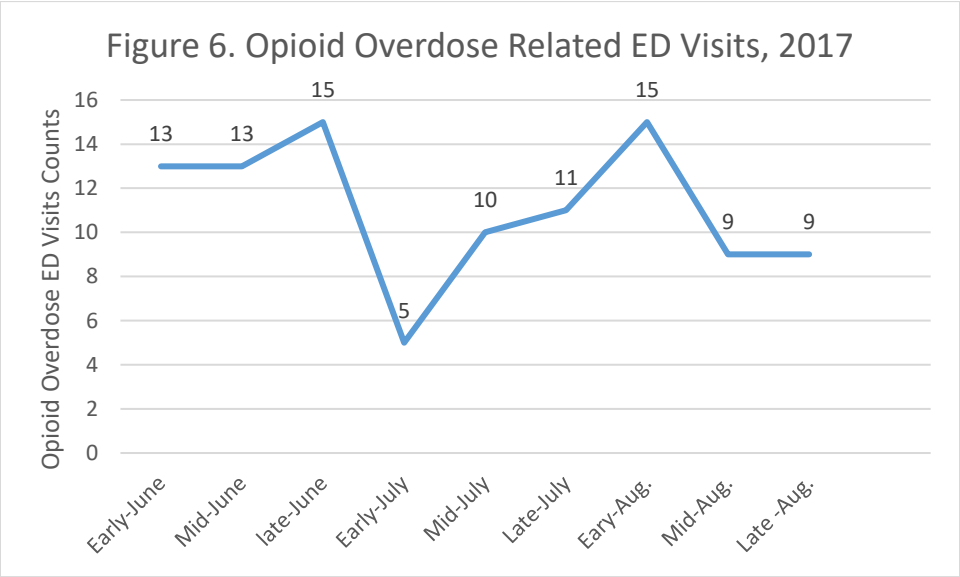


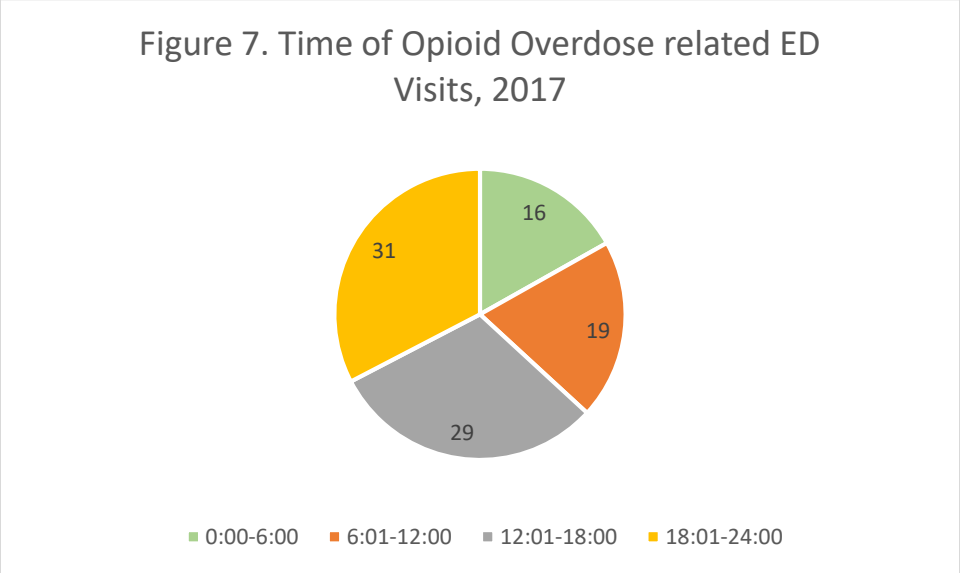



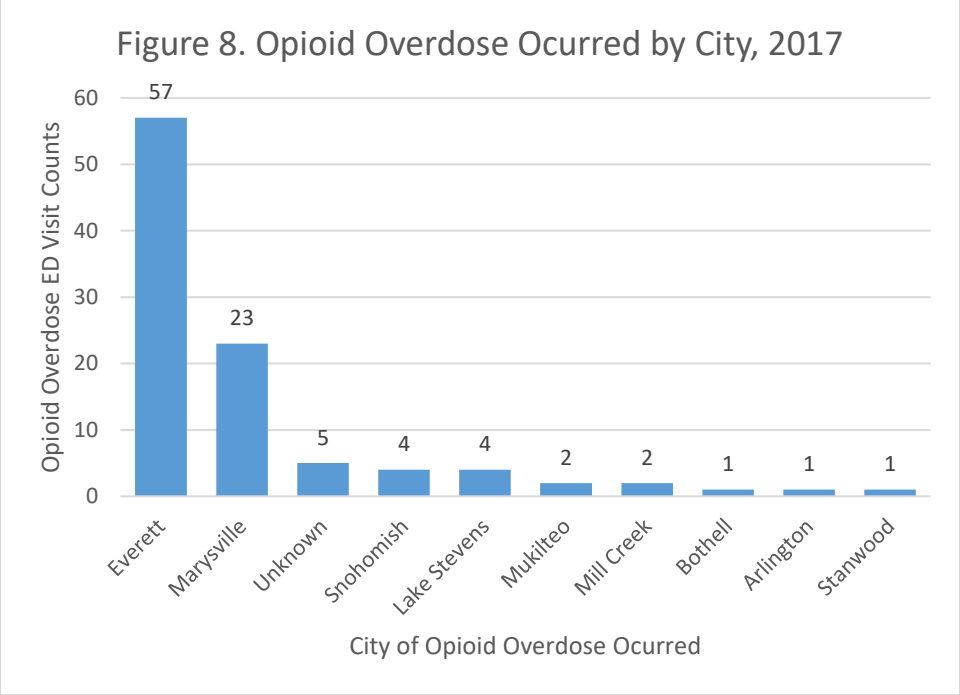

**Characteristics of OD events**

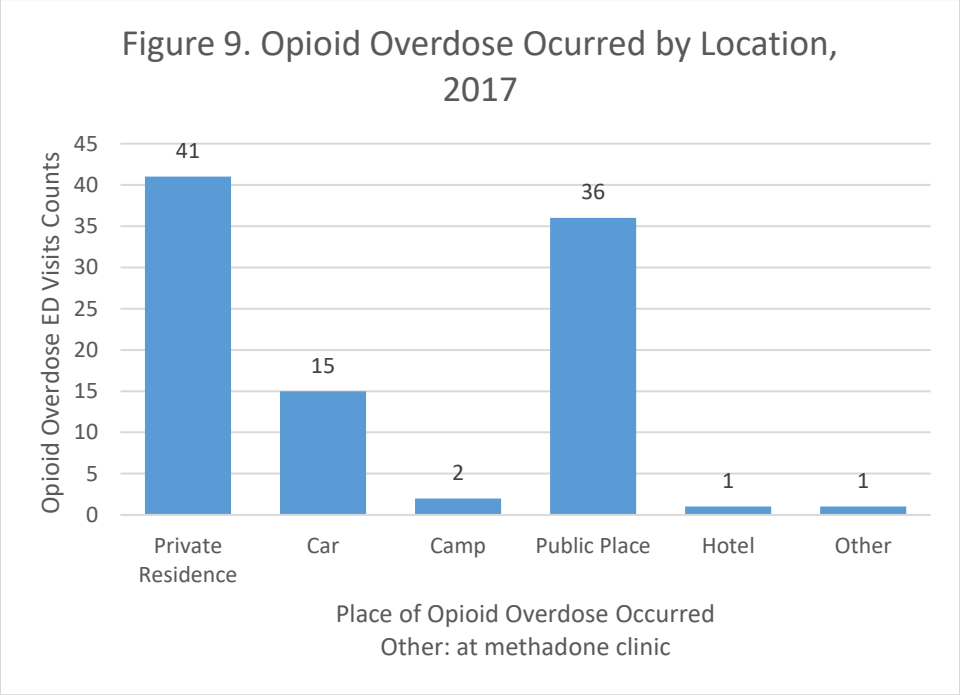
Figures 6-9 show characteristics of the OD events, including the date, time, location and city. Near half (41, 41%) of all visits in the three-month period occurred in June (Figure 6). More than half (60, 60%) occurred between 12pm to midnight (Figure 7). OD cases occurred most frequently in Everett (57, 57%) and Marysville (23, 23%), with other cases happening in Arlington, Lake Stevens, and Snohomish, Mukilteo, Mill Creek, Bothell and Stanwood (Figure 8). The most common locations where OD cases occurred were in public places (such as

restaurants, parks, and grocery stores) and private residences, 36 (36%) and 41 (41%), respectively, 15 occurred in a car, One OD happened at a Methadone clinic, one occurred in a hotel and two occurred in a camp (Figure 9).





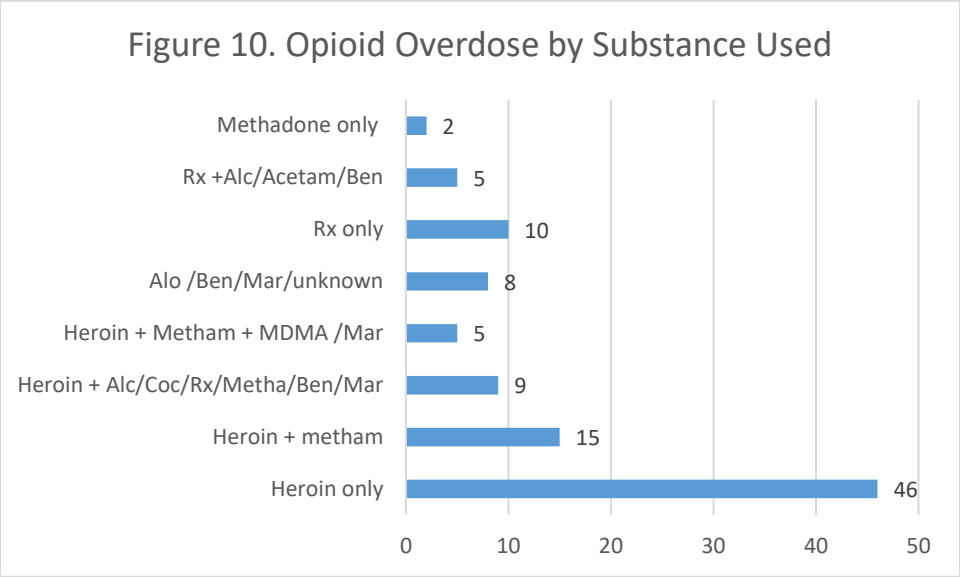




**Drug usage in OD related ED visits**

Figures 10-13 show the types of drugs and practices used by patients of OD-related ED visits. The most common opioid drug used was heroin (75, 75%), including 46 cases with the patient using heroin only, and 15 cases using heroin with methamphetamine (Figure 10). There were 15 cases using prescribed pain medicine including six cases using medicine prescribed to

themselves (Figures 10). More than half the drugs were obtained illegally on the streets (57, 57%) (Figure 11). Injection was the most common administration method (52, 52%) (Figure 12).

Reasons other than substance use disorder for using opioid drugs included chronic pain (9), cancer (3), depression (3), and recreation (4). Fifty three (53%) people received naloxone from ED staff, 15 from EMS staff, 5 had it administered by a friend /acquaintance or family member, and 7 were given naloxone by police (figure 13). Fourteen patients were experiencing their first overdose and 33 patients admitted having repeated overdose.




Metham=Methamphetamine
Alc=Alcohol
Coc=Cocaine
Rx=Prescribed Pain Medicine
Ben=Benzos
Mar=Marijuana
MADA=3,4-Methylenedioxymethamphetamine
Acetam=Acetaminophen

Figure 11. Source of the Substance used among Opioid Overdose, 2017

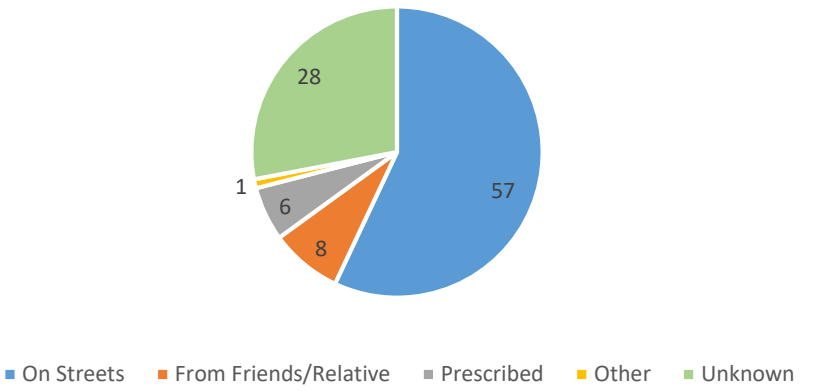
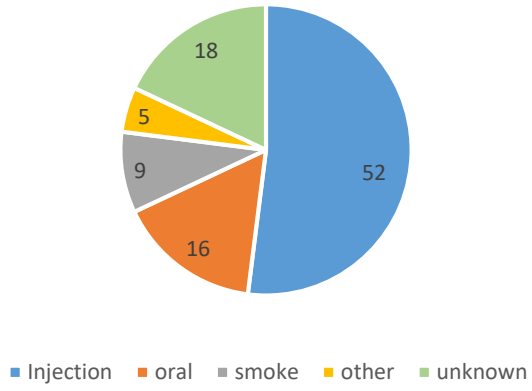
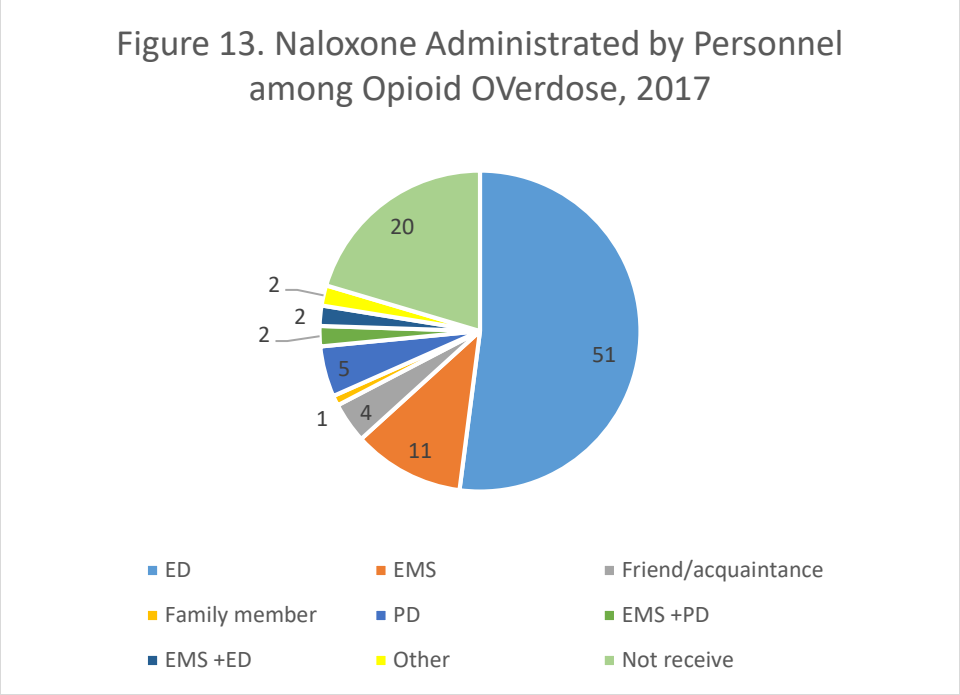



Figure 12. Opioid Overdose by Route of Administration, 2017






## Referrals

The opioid education nurse at the Providence ED had limited success in following up with patients with 29 patients contacted before or after discharge. Among them, six accepted treatment referrals, two accepted naloxone referrals, six accepted treatment and naloxone referrals, eight accepted treatment, naloxone and needle exchange clinic referrals, one accepted naloxone and needle exchange clinic referrals, and six patients were also interested in Recovery Café* for support, Snohomish County Opioid Outreach Specialist for counseling, and Community Health Centers of Snohomish County for establishing a primary care provider.

## Conclusions

There were 100 OD visits in one hospital ED in three months. OD occurred most in people using heroin. There are ways to reduce heroin-related OD visits and OD death. Trainings on how to use naloxone and getting naloxone kits to those who need it most are useful as they reduce not only OD death but also reduce the burden on ED and EMS. Increased access to methadone would reduce OD deaths and hospitalizations as well. Targeted outreach areas would be most successful

in Everett and Marysville among heroin users aged 25-40 years, especially those unemployed or on Medicaid. These efforts could include looking at service organizations such as food banks, shelters, the Everett Gospel Mission, and others. Only 29 out of 100 were contacted successfully, indicating a need to change the strategy of patient outreach for referrals and education.

There is a hope for people with substance use disorder. In response opioid crisis, " the National Institutes of Health is joining with private partners to launch an initiative in three scientific areas: developing better overdose-reversal and prevention interventions to reduce mortality, saving lives for future treatment and recovery; finding new, innovative medications and technologies to treat opioid addiction; and finding safe, effective, nonaddictive interventions to manage chronic pain."[2]

We thank Robin Addison at Providence Hospital ED department for data collections, and Hollianne Bruce, Gabrielle Fraley and Carrie McLachlan at Snohomish Health District for the input.

References

1. Washington State Department. (2017). Opioid-related Deaths in Washington State, 2006-2016. http://www.doh.wa.gov/Portals/1/Documents/Pubs/346-083-SummaryOpioidOverdoseData.pdf
2. Volkow, N. D., & Collins, F. S. (2017). The Role of Science in Addressing the Opioid Crisis. *New England Journal of Medicine*.

* Recovery Café : offers recovery support for people who have been traumatized by addiction. https://recoverycafe.org/

## Appendix

| Table 1. Opioid Overdose Related ED Visits by Age, 2017 | | |
|---|---|---|
| **Age (year)** | n | |
| **15-19** | 2 | 2% |
| **20-24** | 13 | 13% |
| **25-30** | 34 | 34% |
| **31-40** | 22 | 22% |
| **41-60** | 25 | 25% |
| **60-70** | 4 | 4% |
| **Mean age** | | 34.6 |

| Table 2. Opioid Overdose Related ED Visits by Sex, 2017 | | |
|---|---|---|
| **Sex** | n | |
| **Male** | 59 | 59% |
| **Female** | 40 | 40% |
| **unknown** | 1 | 1% |

| Table 3. Opioid Overdose Related ED Visits by Race and Ethnicity, 2017 | | |
|---|---|---|
| **Ethnicity /Race** | n | |
| **Hispanic** | 3 | 3% |
| **Non-Hispanic White** | 51 | 51% |
| **Non-Hispanic Native American** | 10 | 10% |
| **Non-Hispanic African American** | 3 | 3% |
| **Other** | 2 | 2% |
| **Unknown** | 34 | 34% |

| Table 4. Opioid Overdose Related ED Visits by Type of Insurance , 2017 | | |
|---|---|---|
| **Insurance** | n | |
| **Medicaid** | 64 | 64% |
| **Medicare** | 4 | 4% |
| **Private Insurance** | 5 | 5% |
| **Other** | 5 | 5% |
| **No Insurance** | 17 | 17% |
| **Unknown** | 5 | 5% |

| Table 5. Employment Status of Opioid Overdose Related ED Visits, 2017 | | |
|---|---|---|
| **Employment** | n | |
| **Yes** | 17 | 17% |
| **No** | 48 | 48% |
| **Homeless** | 22 | 22% |
| **Unknown** | 13 | 13% |

| Table 6. Opioid Overdose Related ED Visits, 2017 | | |
|---|---|---|
| **Month** | n | |
| **Early-June** | 13 | 13% |
| **Mid-June** | 13 | 13% |
| **Late-June** | 15 | 15% |
| **Early-July** | 5 | 5% |
| **Mid-July** | 10 | 10% |
| **Late-July** | 11 | 11% |
| **Early-Aug.** | 15 | 15% |
| **Mid-Aug.** | 9 | 9% |
| **Late-Aug.** | 9 | 9% |

| Table 7. Time of Opioid Overdose Related ED Visits, 2017 | | |
|---|---|---|
| **Time** | n | |
| **0:00-6:00** | 16 | 16% |
| **6:01-12:00** | 19 | 19% |
| **12:01-18:00** | 29 | 29% |
| **18:01-24:00** | 31 | 31% |
| **Unknown** | 5 | 5% |

| Table 8. Cities where Opioid Overdose Occurred, 2017 | | |
|---|---|---|
| **City** | n | |
| **Everett** | 57 | 57% |
| **Marysville** | 23 | 23% |
| **Snohomish** | 4 | 4% |
| **Lake Stevens** | 4 | 4% |
| **Mukilteo** | 2 | 2% |
| **Mill Creek** | 2 | 2% |
| **Bothell** | 1 | 1% |
| **Arlington** | 1 | 1% |
| **Stanwood** | 1 | 1% |
| **Unknown** | 5 | 5% |

| Table 9. Location of Opioid Overdose Occurred, 2017 | | |
|---|---|---|
| **Location** | n | |
| **Private Residence** | 41 | 41% |
| **Car** | 15 | 15% |
| **Camp** | 2 | 2% |
| **Public Place** | 36 | 36% |
| **Hotel** | 1 | 1% |
| **Other*** | 1 | 1% |
| **Unknown** | 4 | 4% |

***: at methadone clinic**

| Table 10. Substance Used among Opioid Overdose, 2017 | | |
|---|---|---|
| **Substance used** | n | |
| **Heroin only** | 46 | 46% |
| **Heroin + METH** | 15 | 15% |
| **Heroin + METH+ MDMA+Marijuana** | 1 | 1% |
| **Heroin + METH+ Marijuana** | 2 | 2% |
| **Heroin + METH+ Alcohol +Benzos** | 1 | 1% |
| **Heroin + METH+ Cocaine +Benzos +Marijuana** | 1 | 1% |
| **Heroin +Methadone** | 1 | 1% |
| **Heroin + Alcohol** | 5 | 5% |
| **Heroin +Cocaine** | 1 | 1% |
| **Heroin +Benzos +Marijuana** | 1 | 1% |
| **Heroin +Rx** | 1 | 1% |
| **Alcohol +Benzos** | 1 | 1% |
| **Alcohol +Benzos +METH** | 1 | 1% |
| **Rx only** | 10 | 10% |
| **Rx +Alcohol +Acetaminophen** | 1 | 1% |
| **Rx+Benzos** | 4 | 4% |
| **Methadone only** | 2 | 2% |
| **Marijuana only** | 1 | 13% |
| **Unknown** | 5 | 5% |

**METH: Methamphetamine**
**Rx: Prescribed Pain Medicine**
**MDMA: 3,4-Methylenedioxymethamphetamine, commonly known as ecstasy,**

| Table 11. Source of The Substance Used among Opioid Overdose, 2017 | | |
|---|---|---|
| **Source of Substance** | n | |
| **On Streets** | 57 | 57% |
| **From Friends/Acquaintance** | 8 | 8% |
| **Prescribed** | 6 | 6% |
| **Other** | 1 | 1% |
| **Unknown** | 28 | 28% |

| Table 12. The Administration Route of The Substance used among Opioid Overdose, 2017 | | |
|---|---|---|
| **Route of Administration** | n | |
| **Injection** | 52 | 52% |
| **Oral** | 16 | 16% |
| **Smoke** | 9 | 9% |
| **Other** | 5 | 5% |
| **Unknown** | 18 | 18% |

| Table 13. Personnel Administrated Naloxone among Opioid Overdose, 2017 | | |
|---|---|---|
| **Personnel** | n | |
| **Emergency Department** | 51 | 51% |
| **EMS** | 11 | 11% |
| **Friend/acquaintance** | 4 | 4% |
| **Family member** | 1 | 1% |
| **Police** | 5 | 5% |
| **EMS +Police** | 2 | 2% |
| **EMS +Emergency Department** | 2 | 2% |
| **Other** | 2 | 2% |
| **Not receive** | 20 | 20% |
| **Unknown** | 2 | 1% |