

Objectives

- Examine the causes of the opioid crisis
- Review the epidemiology of opioid overdose patients in Snohomish Co
- Understand the magnitude of the opioid crisis

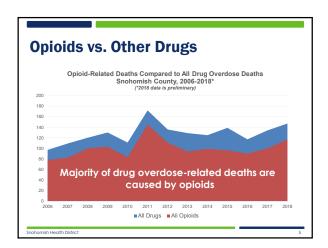
Snohomish Health Distric

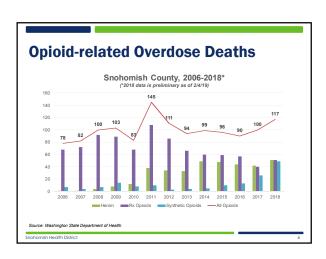
Which illicit drug is associated the majority of overdose deaths?

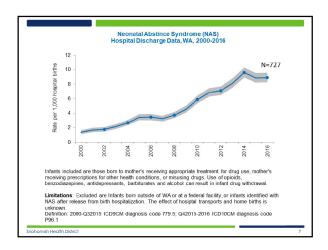
- A. Alcohol
- B. Heroin
- C. Crack Cocaine
- D. Methamphetamines

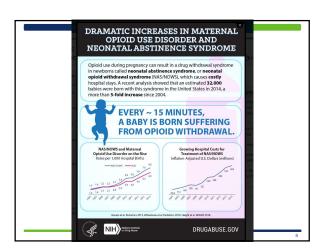
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Substance Use During Pregnancy

- Associated with other risks
 - HIV, Hepatitis C
- Places infant at risk
 - Birth defects
 - Poor intrauterine growth
 - Premature birth
 - Seizures

Snohomish Health District

Neonatal Abstinence Syndrome

- Neonatal Abstinence Syndrome (NAS)
 - Neonatal Opioid Withdrawal Syndrome (NOWS)
 Majority of NAS are NOWS

 - Onset 24 to 48 hours after birth to 10 days

Tremors (trembling) Sleep problems Tight muscle tone Seizures

High-pitched crying Hyperactive reflexes Yawning Poor feeding Poor suck

Stuffy nose, & sneezing Vomiting Diarrhea

Dehydration Fever /unstable temperature

Irritability (excessive crying)

Sweating

Infants in Opioid Withdrawal

- Irritable and often have a difficult time being comforted
 - Snugly wrapping the baby in a blanket, may help
- May need extra calories due to increased activity
- Intravenous fluids if dehydrated or vomiting/diarrhea

History of Opioid Prescribing

- Late 1990s, rising concern that PCPs had exaggerated concerns re: addiction & opioid side effects $^{\rm l}$
- 1999, an MD disciplined for not prescribing enough pain medication¹
- 2000, VHA launched a National Pain Management Strategy: "Pain as the fifth vital $sign^1$ "
- 2001, a jury found an MD committed elder abuse by failing to adequately treat pain¹
- 2001, Joint Commission required organizations to recognize patients' right to appropriate pain assessment & management¹
- 2004, Federation of State Medical Boards: "Under-treatment of pain just as serious of a violation of the standard of care as over-treatment!"
- 2013, enough prescriptions for opioids were written to provide every American a bottle $^{\!2}$

	Patients	Prescriptions	Drug Class
Hydrocodone	111,641	290,354	OPIOID
xycodone	69,780	244,847	OPIOID
odeine	33,204	49,474	OPIOID
Alprazolam	20,356	77,380	BENZODIAZEPINE
orazepam	17,832	54,462	BENZODIAZEPINE
Zolpidem	16,465	72,491	SEDATIVE
Diazepam	15,047	34,444	BENZODIAZEPINE
ramadol	10,668	22,930	OPIOID
Dextroamphetamine/Amphetamine	10,348	70,088	CNS STIMULANT
lonazepam	10,339	56,845	BENZODIAZEPINE
Methylphenidate	8,092	51,069	CNS STIMULANT
lydromorphone	6,741	22,972	OPIOID
Morphine	6,366	37,071	OPIOID
l'estosterone	5,575	20,884	ANABOLIC STIMULANT
Friazolam	3,242	6,258	BENZODIAZEPINE

	N	1ales	Fe	males	1	otal
Age Group	Population	Number of CS Prescriptions	Population	Number of CS Prescriptions	Population	Number of CS Prescriptions
0-9	48,247	13,227	46,099	5,861	94,346	19,088
10-17	39,088	31,632	37,413	17,185	76,501	48,817
18-24	33,355	27,233	30,869	31,331	64,224	58,564
25-34	52,599	62,140	49,195	94,074	101,794	156,214
35 - 44	53,002	78,634	50,664	121,617	103,666	200,251
45 - 54	56,584	116,207	55,278	175,131	111,862	291,338
55 - 64	48,748	118,872	50,040	162,080	98,788	280,952
65 - 74	25,734	53,536	28,712	81,453	54,446	134,989
75+	14,168	26,439	21,207	55,290	35,375	81,729
TOTAL	371,525	527,920	369,477	744,022	741,002	1,271,942
		Source itate Office of Financia aa Demographic Estim		recast and Research D		

	N	/lales	Fer	males		lotal .
Age Group	Population	Number of CS Prescriptions	Population	Number of CS Prescriptions	Population	Number of CS Prescriptions
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	for e	every	one	in so	me 35,375	age
rou	for e					

How many of new heroin users started out misusing their prescription painkillers?

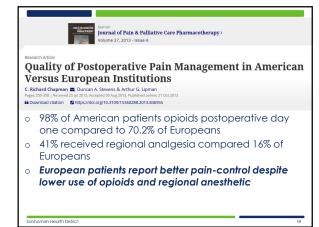
- 1 in 5
- 2 in 5
- 3 in 5
- 4 in 5
- 5 in 5

Source: Jones CM. Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers – United States 2002-2004 and 2008-2010. Drug Alcohol Depend. 2013 Sep 1;132 [1-2]:95-100. doi: $10.1016 f_1$ drugalcdep.2013.01.007. Epub 2013 Feb 12

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What is the probability in one year that a patient on a 5-day course of opioids for pain control will continue to seek opioids?

A. 1%

B. 3%

C. 5%

D. 10%

Source: CDC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use -- United States, 2006-2015. MMWR 2017: 66 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-265 [10]: 265-

What is the probability in one year that a patient on a 5-day course of opioids for pain control will continue to seek opioids?

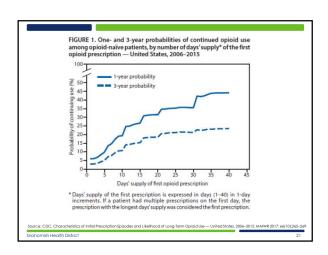
A. 1%

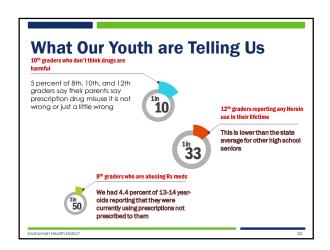
B. 3%

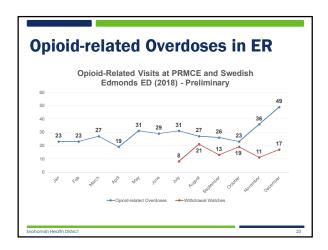
C. 5%

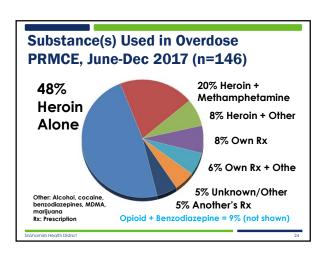
D. 10%

Source: CDC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006-2015. MMWR 2017: 66(10):265-









Opioid-related Overdoses by Age

PRCME and Swedish Edmonds ED Jan. 1, 2018 - Dec. 30, 2018 (Preliminary)

Age Range	Total Reported Overdoses
<11 yrs old	<5
11-20	20
21-30	158
31-40	107
41-50	59
51-60	54
61-70	29
>70 yrs old	<5
Grand Total	434

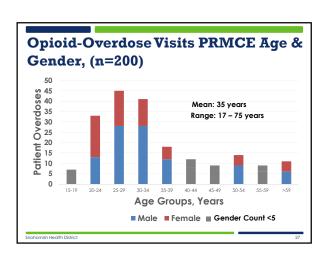
Snohomish Health District

Opioid-related Overdoses by Gender

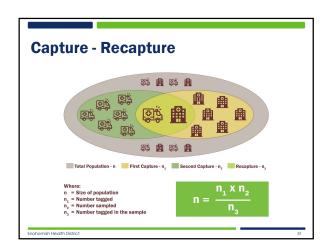
PRCME and Swedish Edmonds ED
Jan. 1, 2018 - Dec. 30, 2018 (Preliminary)

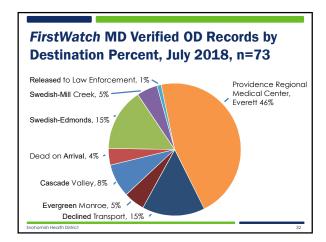
Of these
women,
81% were
15-45 years
of age

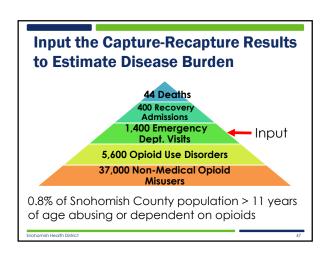
Women
37%
63%



Characteristics of Women Seen in ED PRCME and Swedish Edmonds ED	-
Jan. 1, 2018 - Dec. 30, 2018 (Preliminary) • 87% unemployed	
• 19% homeless	-
• 6% uninsured	
• 30% injecting drugs	
16% suicide attempts6% overdosed during arrest	
Snohomish Health Didrict 28	·
For chronic pain management	
opioids are first line therapy	
A.True	
700	
B. False	
29	-
For chronic pain management	
opioids are first line therapy	
A.True	-
, and	
B. False	







Compara	Comparability of Results					
Dataset	Deaths	Recovery Admissions	Emergency Dept. Visits	Opioid Use Disorder	Opioid Misusers	
Burden of Disease with Capture- Recapture Method	44	400	1,400	5,600	37,000	
2016 National Survey on Drug Use and Health	41	400	1,300	5,400	34,000	
2017 Washington Syringe Exchange Health Survey	70	700	2,300	9,400	59,000	
2017 Snohomish County Opioid- related Death Data	100	1,000	3,000	13,000	83,000	
2018 Point-in-Time Study	90	900	3,000	12,000	80,000	

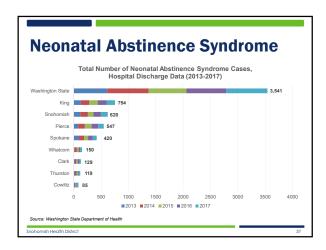
Burden of Disease

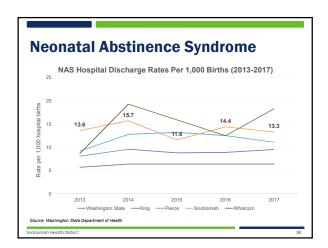
- o Capture-recapture method estimates 1,400 ED visits for opioid overdose
- Range of residents with OUD is Snohomish County is likely between 5,000-10,000
- Results consistent with the National Survey on Drug Use and Health (NSDUH) population based survey (5,400)

Snohomish Health Distric

Age-Adjusted Opioid-Related Overdose Death Rates by County, 2012-2016

Rates per 100,000 population 12.4 14.7 9.0 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8.9 17.6 8







Setting (n)	Interested	Not Interested	Refused to Answer	No Response Provided
Overdose patient transported to hospital (437)	23%	58%	13%	6%
Withdrawal watch in hospital emergency department (42)	55%	33%	7%	5%
Syringe exchange client (552)	78%	14%	-	8%