Opioid Trends in Pierce County

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Tacoma-Pierce County Health Department
Healthy People in Healthy Communities

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INTRODUCTION

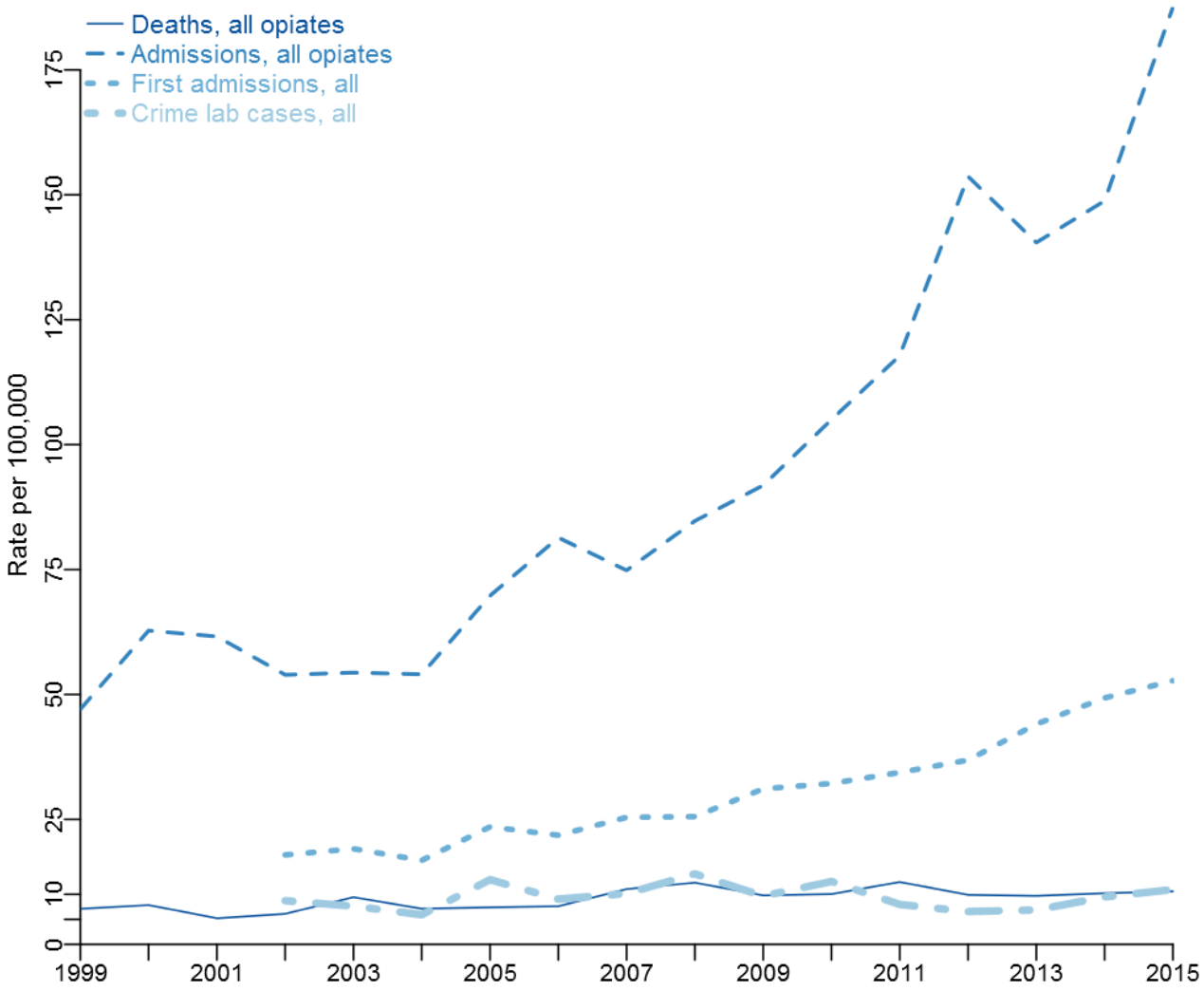
Opioid use, morbidity, and mortality have increased nationally, across Washington State, and within Pierce County (Jones et al., 2015; *Opioid trends across Washington State*, 2015). To provide information for Pierce County on this challenging to measure topic, several data sources are presented to provide different perspectives and insights into the nature of opioid related harms.

The three main data sources used for trend analyses include crime lab testing results for Pierce County law enforcement cases, drug treatment admissions, and fatal drug overdose statistics. Crime lab testing results represent a partial measure of the supply of drugs on the street. Drug treatment admissions represent current treatment utilization, which is driven by both demand and capacity. Given that opioid use disorder is a chronic and relapsing health condition, first-time admissions to treatment are indicative of an increasing proportion of the population who will require recovery support services and, for many, medications, for many years. Fatal drug overdoses represent the tip of the iceberg in terms of morbidity and mortality in that there are at least 20 non-fatal overdoses for every fatal overdose (Darke et al., 2003). Many deaths that involve opioids (e.g., injuries or acute medical events) may not be ruled a poisoning death and therefore are not included. Other data sources such as the Healthy Youth Survey and syringe exchange client survey results are also included. More information on data sources appears at the end of this report.

OPIOID DATA TRENDS

Overall trends for all opioids are presented in Figure 1, combining heroin and prescription-type opioids (e.g. OxyContin®, Vicodin®), as these substances can be used interchangeably. Note that the prescription-type opioids category includes opioids prescribed to individuals, diverted prescription-type opioids, and more recently illicitly manufactured opioids including fentanyl and related compounds. Interventions, including treatment medications, and the opioid overdose antidote naloxone work equally well for both types of opioids. Below, we present rates (per 100,000 county residents) of deaths attributed to any opioid, treatment admissions for which an opioid is the primary drug, and police evidence testing (crime lab cases) involving any opioid. First treatment admissions provide insight into newer users. All treatment admissions is a more inclusive measure of service utilization that includes those entering treatment for the first time as well as those entering repeatedly over time. The rates of total treatment admissions and first admissions began increasing around 2006. The death rate appears flat in recent years and crime lab cases began increasing again in 2013.

Figure 1. Pierce County opioid death, treatment admission, and crime lab case rates

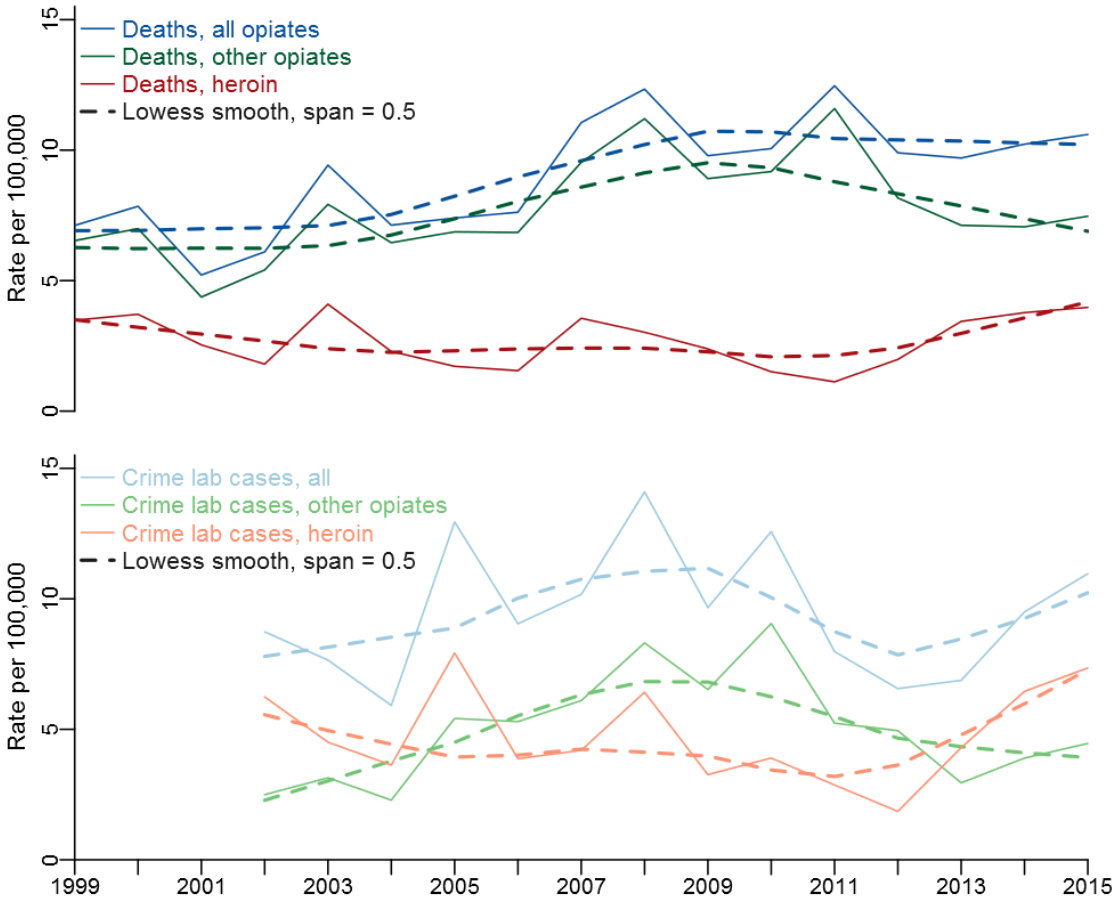


PRESCRIPTION-TYPE OPIOIDS AND HEROIN DEATH AND POLICE EVIDENCE TRENDS

In Figure 2, deaths and police evidence cases are presented adjacent to each other to better see changes over time. Given the relatively small rates, we also present smoothed lines that stabilize the rates to better see basic trends. Deaths attributed to any opioid appear to have leveled off over the past several years in Pierce County, but the overall flat trend masks an increase in heroin-involved deaths and a decline in prescription-type deaths – a trend similar to Washington State as a whole.

Police evidence testing cases are rebounding after hitting a new low in 2012. This recent rise in opioid police evidence cases is driven by heroin. Both crime lab cases and deaths show prescription-type opioids declining as heroin increases over the past few years.

Figure 2. Pierce County deaths and crime lab cases by major opioid subtype



TRENDS IN TREATMENT ADMISSIONS

The decline in prescription-type opioids, even as heroin increases, is also seen in treatment admissions in Figure 3. The peak in Pierce County treatment admissions for prescription-type opioids came two years after the statewide peak (data available at http://adai.washington.edu/WAdata/opiate_home.htm). The initial rise in prescription-type opioids came while heroin deaths, crime lab cases, and treatment rates were on the decline, and the recent decline for prescription-type opioids comes as heroin returns to prominence.

Figure 3. Pierce County treatment admissions by major opioid subtype

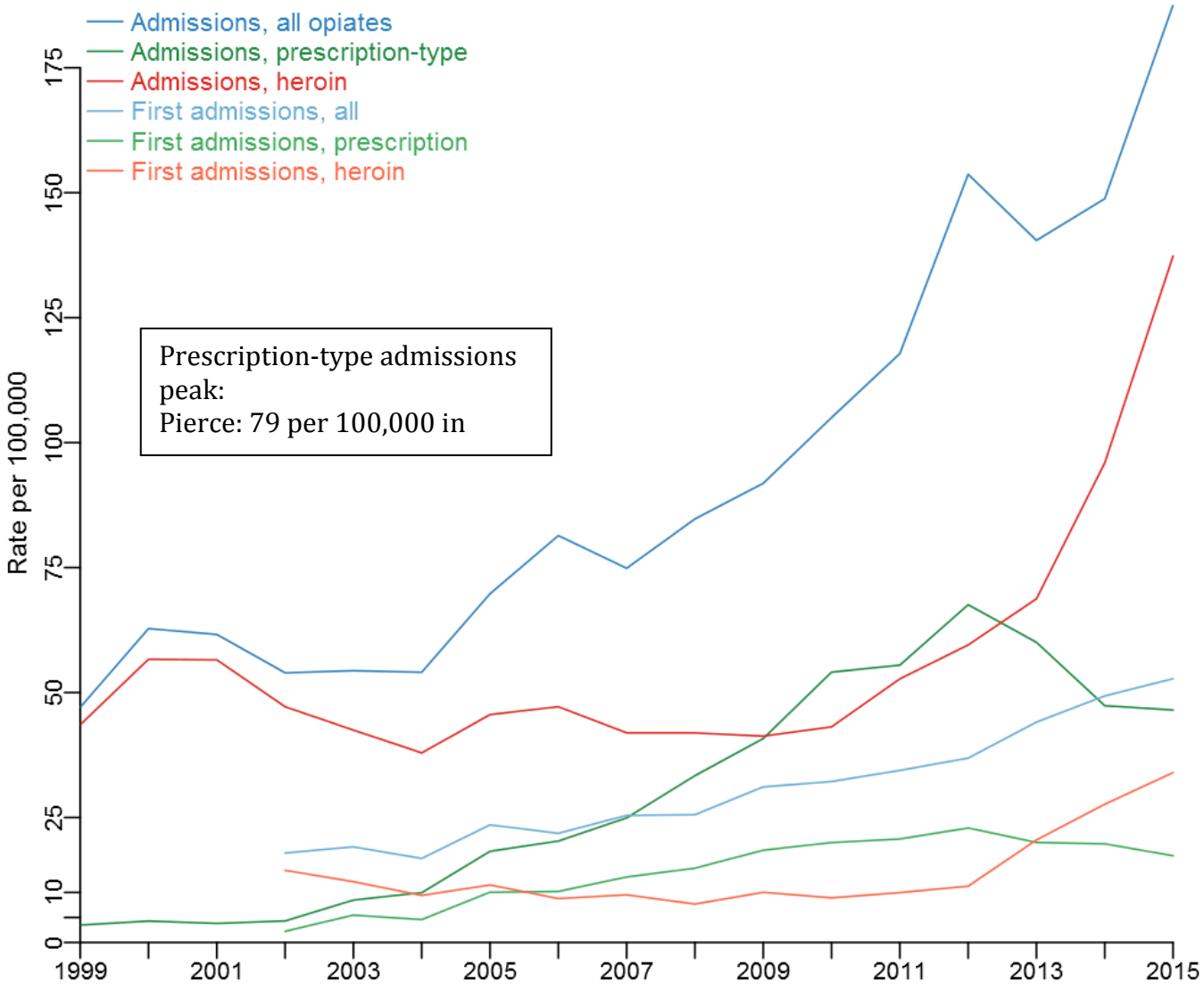
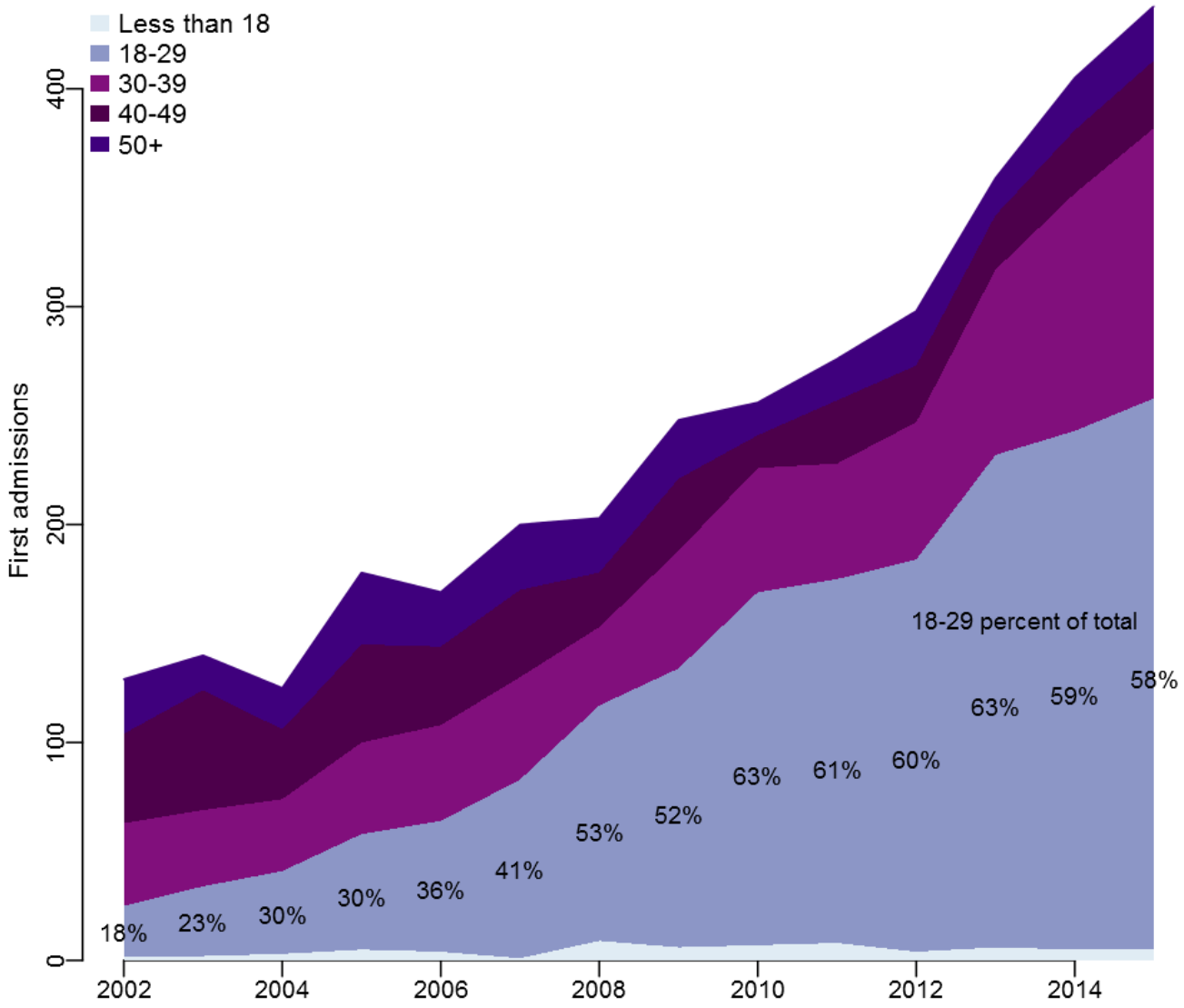


Figure 4 shows first-time admissions to treatment for any opioid by age at the time of admission; these are the first admissions documented in WA DSHS DBHR's TARGET data system from 1999 onwards. Two things stand out: First, the overall number of first-time admissions tripled from 2002 to 2015, and second, the increase is driven primarily by those ages 18-29. From 2008 onwards over half of those entering treatment for the first time were young adults. The young adult age group is very important because they represent a group with opioid use disorder who will need recovery support services for the majority of their lives.

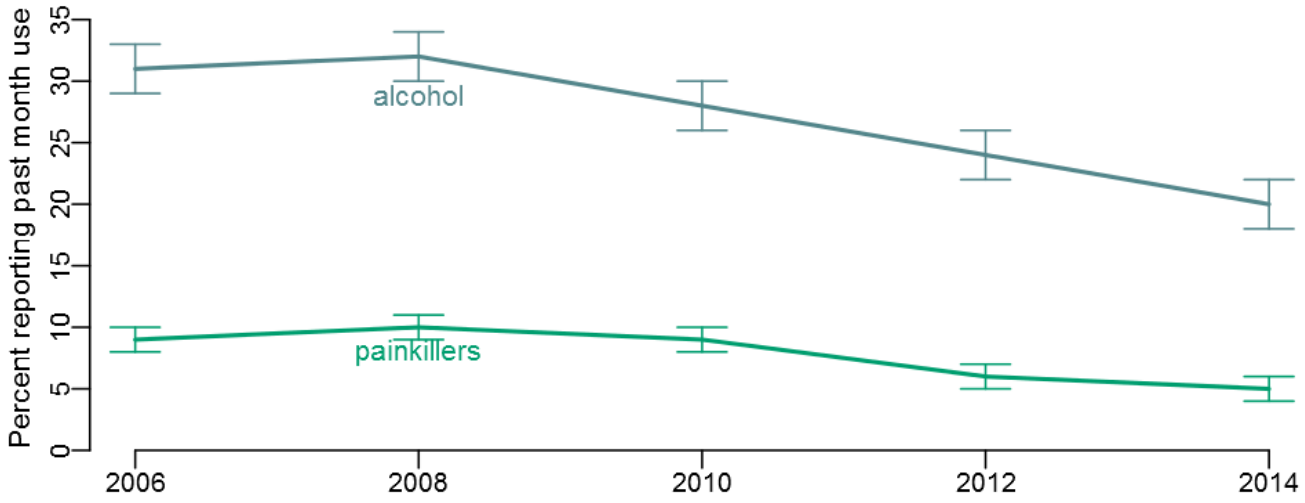
Figure 4. First time admissions to treatment with any opioid as the primary drug of choice



ADOLESCENT MISUSE IN OPIOIDS

Adolescent misuse of prescription-type-opioids is very important because it is the peak period in life when people first misuse opioids (Meier et al., 2012). Use of painkillers within the past month "to get high" was reported by approximately 10% of 10th graders in Pierce County from 2006-2010, and declined to 5% by 2014. Note for comparison that alcohol also showed a significant decline over this same period (Figure 5).

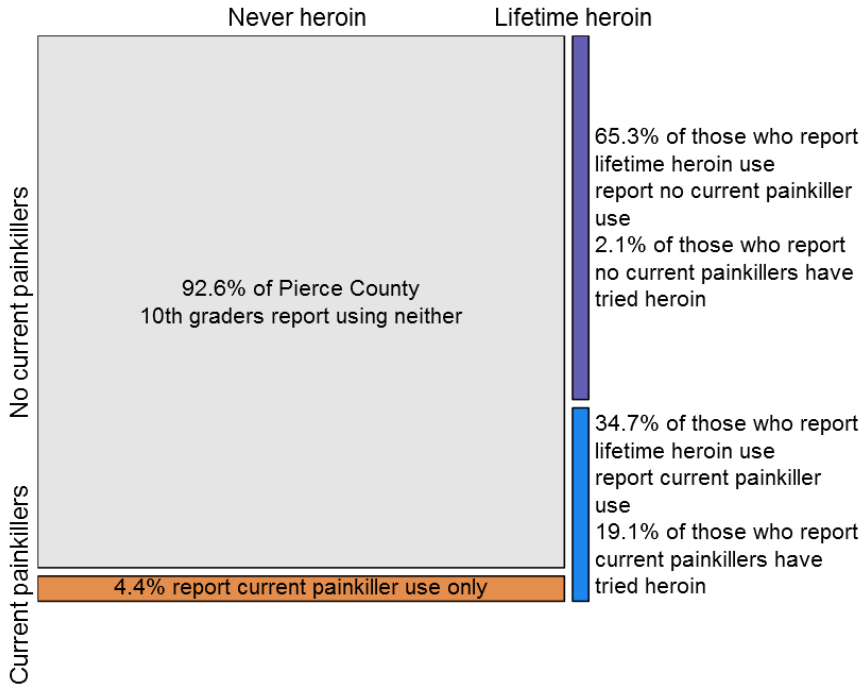
Figure 5. Past-month use of painkillers "to get high" and alcohol, Pierce County 10th Graders Healthy Youth Survey



This decline in youth initiation suggests that the new population of users is smaller now than a decade ago, perhaps associated with the general decline in opioid prescribing. It is possible that approximately 25% of these youth who use misuse prescription-type-opioids will eventually develop opioid use disorder. This is based on evidence that 25% of those who try heroin develop opioid use disorder, the fact that heroin and pharmaceutical opioids are biological equivalents, and further that the mindset and social context of misuse may be similar. So, while the decline in prescription-type opioid misuse is positive, a substantial minority of those who misuse prescription-type opioids may develop opioid use disorder and in turn need recovery supports (social, psychological, and/or medicine) for the rest of their life.

To illustrate the relationship between heroin and prescription-type opioids, we present the results in Figure 6 from Pierce County 10th graders regarding reported lifetime heroin use and current painkiller use "to get high" in 2014. While most students report using neither, 3% have ever tried heroin, 4.4% report current painkiller use only, and 1% report both. To illustrate the association between heroin and other opioids, among those who have tried heroin, the current painkiller use rate is 34.7% versus 4.5% among those who report no lifetime heroin use. Nearly one in five students who report painkiller use in the past month report ever using heroin.

Figure 6. 10th grade reported lifetime heroin and past month painkiller use (2014 survey year)



DRUG INJECTOR SURVEY

For the 2015 Washington State syringe exchange survey, 77 people who inject drugs were surveyed in Pierce County. Heroin was the most common main drug reported (74%), followed by methamphetamine (25%), and methamphetamine with heroin (1%). Most heroin users (57%) reported that they were "hooked on" prescription-type opioids before they began using heroin.

A substantial minority (22%) reported having an overdose in the prior year and 40% reported witnessing an overdose. Most (77%) indicated that they were interested in "getting help to stop or reduce" their drug use. 1,544,006 syringes were distributed in Pierce County by syringe exchange programs in 2015 http://adai.uw.edu/pubs/infobriefs/SEPoverview2015.pdf. Combining the survey data with the number of syringes distributed allows for a crude estimate of the number of opioid injectors not in treatment (2,137) as well as the number of those not in treatment who would like help reducing their use (1,646; see Table 1). These numbers are likely underestimates as not everyone gets syringes at syringe exchange, and in terms of the number with opioid use disorder, some do not inject their opioids. Although some can, and many want to, access existing treatment services, there are others who cannot and do not want access to existing treatment resources. This, however, does not mean they want to keep injecting opioids. The Washington State Opioid Work Plan indicates there is a need to continue to provide both more treatment capacity as well as new models of care http://stopoverdose.org/section/wa-state-interagency-opioid-working-plan/.

Table 1. Pierce County Estimates of Injection Drug Users Based upon 2015 Syringe Exchange Survey & Syringes Distributed

Average # syringes used per day per person		1.5
Average syringes used per year per person		549
2015 syringes distributed		1,544,006
Estimated # current injection drug users	2,812	
% opioid injectors		76%
Estimated # of opioid injectors	2,137	
% opioid injectors not in treatment		100%
Estimated # opioid injectors not in treatment	2,137	
Estimated % opioid injectors wanting to stop/reduce use		77%
Estimated # opioid injectors wanting to stop/reduce use	1,646	

CONCLUSION

Declines in 10th graders misuse of prescription-type opioids is a hopeful sign that the number of new people with opioid use disorder is declining. However, young adults are the largest group of people entering treatment for the first time, and given that opioid use disorder is a chronic and relapsing condition, adequate treatment and recovery support capacity will be needed for decades. Syringe exchange survey data can be used to create a conservative estimate that there are an additional 2,137 opioid injectors not in treatment, of which 77% (1,646) indicate a current interest in stopping or reducing their use. Ensuring low barrier, rapid access to care could help meet this immediate treatment need when combined with adequate capacity to provide long term maintenance. The use of buprenorphine or methadone have been shown to reduce mortality by 50% (Pierce et al., 2016), and long-acting naltrexone also shows promising signs of helping reduce mortality (Lee et al., 2016). Syringe exchange data also indicates that approximately one-quarter of people are not currently interested in getting help to stop or reduce their use, but still need health services to reduce their chances of dying and acquiring or spreading infectious diseases.

There are unmet needs for treatment and drug user health services. Increased capacity is needed to help people with opioid use disorder get the services that they need in both the short and long term to stay alive and be successful in their recovery.

DATA SOURCES

Crime lab data: From the Washington State Patrol Forensic Laboratory Services Bureau (FLSB). An "opioid crime lab case" is the result of chemical analysis of evidence submitted by local law enforcement and refers to a unique FLSB case number that had at least one result positive for any opioid. Only crime lab submissions from an agency clearly operating within Pierce County were associated with the county.

Treatment data: From the Washington State Division of Behavioral Health and Recovery Treatment and Assessment Report Generation Tool (TARGET). The counts reflect publicly funded treatment via outpatient, intensive inpatient, recovery house, long-term residential, and opioid substitution modalities, for which the primary substance is listed as heroin, oxy/hydrocodone, prescribed opioid substitute, non-prescription methadone, or other opioid. Department of Corrections and private/self-pay treatment excluded. First admissions are a subset of all admissions in which no other publicly funded drug treatment for the individual is found in the database from 1999 onwards.

Deaths data: From the Washington State Department of Health Center for Health Statistics. Includes only deaths in the state for which an underlying cause of death was determined to be any opioid. Positively identifying heroin in deaths is complicated and may be underestimated. Most opioid involved deaths involve other substances as well.

Student drug use data: From the Washington Healthy Youth Survey conducted bi-annually from 2006-2014, conducted in schools on behalf of the Department of Health. The current painkiller use question asks students if they have used "a painkiller TO GET HIGH, like Vicodin" in the past 30 days. The lifetime heroin use question asks students "Have you ever, even once in your life: Used heroin?"

Syringe exchange survey data: Data was collected by syringe exchange staff and volunteers during the summer of 2015 via an anonymous survey. This data was collected as part of a statewide survey of syringe exchanges that can be found online at: http://adai.uw.edu/pubs/infobriefs/2015DrugInjectorHealthSurvey.pdf

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