



Baseline Opioid Survey: Access, Consumption, Consequences, and Perceptions among Young Adults in Alaska

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Baseline Opioid Survey: Access, Consumption, Consequences, and Perceptions among Young Adults in Alaska

Technical Report

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Background

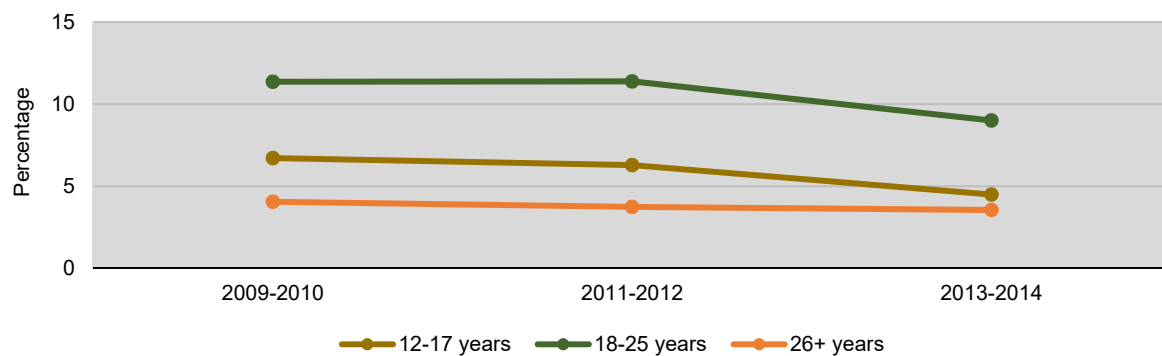
In September of 2015, SAMHSA awarded the Partnerships for Success (PFS) grant to the State of Alaska Department of Health and Social Services, Division of Behavioral Health (DBH). The PFS grant program is a five-year effort that focuses on preventing and reducing substance use and building prevention capacity at both the state and community levels. DBH provides leadership for the project and facilitates the conduct of project activities by community-level coalitions. Additionally, DBH contracted with the Center for Behavioral Health Research and Services (CBHRS) at the University of Alaska Anchorage (UAA) to conduct a comprehensive evaluation of the PFS project.

Using a data-informed prioritization process to narrow the substance abuse focus of the grant, the State Epidemiological Outcomes Workgroup chose two PFS priority areas: **1) non-medical use of prescription opioids among 12-25 year olds; and 2) heroin use among 18-25 year olds**. Data on the use of and consequences related to prescription opioids and heroin in Alaska are described below.

Partnerships for Success (PFS) Priority Area: Non-Medical Use of Prescription Opioids

Data from the National Survey on Drug Use and Health (NSDUH) indicate that young adults aged 18-25 consistently have the highest percentage of non-medical use of prescription pain relievers in Alaska compared to youth aged 12-17 and adults aged 26 and older (see Figure 1).^{1,2,3} While small decreases in use were observed among all age groups from 2009 to 2014, the age-specific pattern remained consistent.

Figure 1. Past year non-medical use of prescription pain relievers in Alaska from 2009 to 2014 by age



Additional data requested from NSDUH (see Table 1) indicated no significant change in non-medical use of prescription pain reliever estimates among 12-25 year olds in Alaska between years 2007-2010 and 2011-2014 but a decreasing trend was observed for past year use and past year prescription pain reliever dependence or abuse.⁴

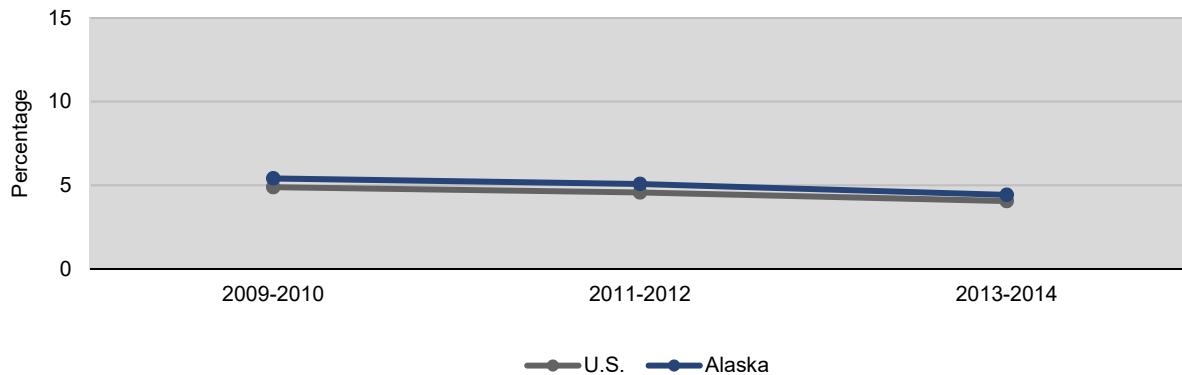
Table 1. Past year non-medical use of prescription pain reliever estimates among individuals aged 12 to 25 in Alaska from 2007 to 2014

Indicator	Indicator Type	2007-2010	2011-2014
Past Year Use	% (SE)	8.9 (0.7)	8.7 (0.7)
Past Year Dependence or Abuse ¹	rate per 1,000 (SE)	13.3 (2.9)	10.5 (2.5)
Days Used in Past Year (among past year users)	average (SE)	43.0 (5.7)	46.5 (7.5)

¹ Dependence/abuse is based on definitions found in the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* (DSM-IV)

Estimates of past year non-medical use of prescription pain relievers among individuals aged 12 and older in Alaska are slightly higher than national estimates but both follow a small decreasing trend in use from 2009 to 2014 (see Figure 2).^{1,2,3}

Figure 2. Past year non-medical use of prescription pain relievers among individuals aged 12 and older in the U.S. and Alaska from 2009 to 2014



Other indicators related to non-medical use of prescription opioids in Alaska have also decreased slightly or stabilized in recent years. Treatment admissions for synthetic opiates (opiates or synthetics including Methadone, Oxycodone, or Oxycontin) as a primary, secondary, or tertiary substance of abuse have stayed relatively stable from 2013 to 2015 (1,052 to 1,011 treatment admissions), according to the Alaska Automated Information Management System (AKAIMS).⁵ Age-adjusted overdose death rates in Alaska have decreased from 11.2 per 100,000 in 2009 to 8.5 per 100,000 in 2015. Although overdose deaths from prescription opioids are decreasing, Alaska still has higher rates of overdose deaths from prescription opioids than the nation overall (7.3 vs. 5.1 per 100,000 in 2012).⁶

Partnerships for Success (PFS) Priority Area: Heroin Use

Data from Alaska described above and other national data indicate that the prescription opioid problem is beginning to stabilize after years of growth but heroin use and other related indicators are continuing to rise.⁷ Less data is available about heroin use than for non-medical use of prescription opioids in Alaska. The NSDUH did not separate heroin use from all illicit drug use in annual state and national prevalence reports until 2013-2014. There was a significant increase in heroin use among individuals 12 years and older in Alaska from 0.7% in 2013-2014 to 1.2% in 2014-2015. Age breakouts indicate that heroin use among individuals 26 years and older increased significantly from 0.7% to 1.5% while use among 18-25 and 12-17 year olds trended lower or remained unchanged (1.2% to 0.9% and 0.1% to

0.1% respectively). National estimates among individuals 12 years and older during the same timeframe were lower than those found in Alaska and remained unchanged at 0.3%.⁸ A special NSDUH data request (see Table 2) found no significant changes in past year heroin use estimates between years 2007-2010 and 2011-2014 among individuals aged 12-25 in Alaska, but an increasing trend was observed for heroin use, heroin dependence or abuse, and the number of days heroin was used (see Table 2).⁴

Table 2. Heroin use estimates among persons aged 12 to 25 in Alaska

Indicator	Indicator Type	2007-2010	2011-2014
Past Year Use	% (SE)	0.8 (0.3)	1.2 (0.3)
Past Year Dependence or Abuse ¹	rate per 1,000 (SE)	3.5 (1.9)	8.0 (2.3)
Days Used in Past Year (among past year users)	average (SE)	91.6 (26.6)	111.0 (24.0)

¹ Dependence/abuse is based on definitions found in the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* (DSM-IV)

Other indicators related to heroin use in Alaska have also increased during recent years. Treatment admissions noting heroin as a primary, secondary, or tertiary substance of abuse in AKAIMS have increased 43% from 2013 to 2015 (706 admissions to 1,009 admissions).⁵ Rates of age-adjusted heroin overdose deaths have increased steadily from 1 death per 100,000 in 2010 to 4.7 deaths per 100,000 in 2015. Rates of overdose deaths from heroin were 1.5 times higher than the national rate in 2012.⁶ An additional consequence of increasing severity is the number of babies born with neonatal abstinence syndrome, a type of withdrawal associated primarily with opiate and heroin use, which has increased from 2.7 to 18.4 per 1,000 Medicaid-eligible live births from 2004 to 2015.⁹

Partnerships for Success (PFS) Approach and Funded Boroughs

Given the prevalence of non-medical use of prescription opioids and heroin use and the consequences associated with the use of these substances, effective prevention efforts are needed in Alaska. The PFS grant program requires that the majority of prevention funding be provided directly to communities in the state to increase capacity and address these issues based on local data. A competitive application process led to the selection of six coalitions, each representing an Alaskan borough, who received funding in July of 2016. The six funded boroughs (five urban and one rural) are presented in Table 3 and together comprise approximately 81% of Alaska’s total population according to the 2014 census estimates.¹⁰

Table 3. 2014 population of PFS boroughs in Alaska

	State	Anchorage	Fairbanks North Star	Juneau	Kenai Peninsula	Matanuska-Susitna	Sitka
Total population	735,601	300,549	97,962	33,026	57,212	98,063	9,061

The ability to monitor change in the non-medical use of prescription opioids and heroin use over the five-year grant project is important for performance measurement. However, no surveillance data currently exists to measure change over time for the specific priority areas of non-medical use of prescription opioids and heroin use, particularly among 18-25 year olds in PFS boroughs. In response to this data gap, a baseline surveillance survey to assess non-medical use of prescription opioids and heroin

use among 18-25 year olds was developed and administered in 2016. The same survey effort will be replicated in 2019 to collect data following implementation of grant activities and allow for pre-post analyses to assess change.

Using a data-driven process with a focus on local information, PFS coalitions are tasked with addressing three intervening variables to reduce non-medical use of prescription opioids and heroin use. In addition to measuring prescription opioid misuse and heroin use, the survey provided an opportunity to measure intervening variables of focus for the Alaska PFS project which include: 1) social access to prescription opioids through friends and family; 2) retail access to prescription opioids through providers and dispensers; and 3) perceived risk of harm from non-medical use of prescription opioids and heroin use. State and local-level survey findings were provided to borough coalitions to help support local-level understanding of each intervening variable and inform the selection of appropriate strategies.

Survey Methods

Survey Instrument

Table 4 outlines the domains of the survey instrument. To develop the survey instrument, evaluators at CBHRS reviewed existing surveillance surveys and utilized similar items when possible. For example, consumption, perceived risk of harm, and ease of access items parallel SAMHSA’s 2014 NSDUH instrument.¹¹ Consistency of questions allows for the comparison of results between PFS boroughs, overall state estimates, and national estimates over time. Additional questions were developed by CBHRS evaluators to meet the specific needs of the project.

Table 4. Survey domains

	Prescription opioids	Heroin
Perceived extent of the problem in the community	√	√
Prescription opioid misuse (lifetime, past year, past 30 days)	√	
Heroin use (lifetime, past year, past 30 days)		√
Days misused opioids/used heroin in the past 30 days ^a	√	√
Perceived risk of harm from trying once or twice	√	√
Perceived risk of harm from using weekly	√	√
Difficulties experienced from substance use	√	√
Awareness of prevention messages	√	
Prescribed opioids (lifetime, past three years)	√	
Disposal practices ^b	√	
Provider discussions ^b	√	
Ease of access to substance ^a	√	√
How substance was accessed for misuse ^a	√	
Reasons for misuse of substance ^a	√	
Doctor shopping behavior ^a	√	

Only asked if: ^(a) prescription opioids misused or heroin used in past 30 days; ^(b) received an opioid prescription in the past three years

Sampling

A list of names and mailing addresses of 18-25 year olds residing in Alaska was purchased from a reputable market research company in order to conduct a mail-based survey. The sampling plan, displayed in Table 5, was derived based on the budget available and the estimated population of 18-25 year olds in each funded borough. With a goal of obtaining 1,500 completed surveys (and at least 150 from each funded borough) and an anticipated response rate of 20%, the sampling plan was to randomly select a total of 7,472 individuals from the purchased mailing list. For borough-level analyses, oversampling was necessary in smaller boroughs to reach the threshold of 150 completed surveys. The complete mailing list of all 18-25 year olds in Sitka included only 380 individuals, which was less than the estimated 722 total 18-25 year olds in Sitka, all of whom were planned to be invited to take the survey. Therefore, final sample sizes in other boroughs were increased by 5% to make up the shortfall in total invitations.

Table 5. Survey sampling plan by PFS borough

	All boroughs	Anchorage	Fairbanks North Star	Juneau	Kenai Peninsula	Matanuska-Susitna	Sitka
Estimated population of 18-25 year olds	61,645	33,542	12,097	2,852	4,409	8,023	722
Original sampling plan							
Survey invitations	7,472	2,000	1,750	750	1,000	1,250	722
Estimated response rate (20%)	1,500	400	350	150	200	250	150
Revised sampling plan							
Survey invitations	7,469	2,100	1,838	788	1,050	1,313	380
Estimated response rate (20%)	1,495	420	368	158	210	263	76

Data Collection and Incentives

After obtaining approvals from the UAA Institutional Review Board (IRB) and the Alaska Area IRB, up to three survey invitation letters were mailed to all randomly selected individuals, with mailings occurring approximately every two weeks. The first invitation letter invited potential participants to complete the survey online by providing a survey link, a unique passcode, and a small notebook as a pre-incentive. The second invitation letter contained the same online survey link and passcode but also included a paper survey and pre-addressed and pre-paid return envelope. The last letter specified that it was the final request and again included the online survey link and unique passcode. Once individuals responded to the survey, no further invitation letters were sent. Once a unique passcode was used to complete the survey, it could not be used a second time, preventing duplicate responses and limiting unintended participation. Data collection occurred from October 10th to November 28th, 2016.

Survey participants received a \$15 gift certificate to a local grocery store and were entered into a drawing to win a round-trip airline ticket donated by Alaska Airlines.

After the second survey invitations were delivered, CBHRS evaluators learned that the purchased mailing intended to identify individuals 18-25 years of age in Alaska also included some individuals outside that age range and therefore some individuals outside of the target age range were invited to participate in the survey. The invitation of individuals outside of the targeted age group caused two problems: 1) it reduced the actual number of eligible participants invited to complete the survey; and 2) increased the number of individuals outside of the target age range who completed the survey despite clear survey instructions regarding the age restriction. Survey responses included participants' age, which is how the issue was identified. By the time the issue was identified, additional individuals within the targeted age group were not able to be recruited due to time and cost restrictions.

Response Rate

Completed surveys were returned by 1,032 total individuals, resulting in a 13.8% overall response rate. Of these completed surveys, 779 (75.5%) were completed by individuals within the target age range. A total of 253 surveys (24.5%) were excluded due to an age that was undetermined or out of range. The age range for eligibility was increased from 25 to 27 to accommodate individuals who may have had a recent birthday prior to recruitment and to maximize the sample size as many questions ask about behaviors over the past year, three years, or lifetime, thereby making their responses relevant for the target age range. Establishing an exact survey response rate is difficult as the true denominator of individuals invited to take the survey within the target age range is unknown. A total of 779 surveys were completed by individuals within the target age range which is a 10.4% response rate from the total number of 7,469 invitations sent. Table 6 outlines the survey response rate in total and by borough. Although 779 survey respondents is a smaller sample size than anticipated, power analyses indicate 99% certainty that sample estimates are within $\pm 4.6\%$ of the population.

Table 6. Survey response rate among 18-27 year olds by borough

	All boroughs	Anchorage	Fairbanks North Star	Juneau	Kenai Peninsula	Matanuska-Susitna	Sitka
Total invitations	7,469	2,100	1,838	788	1,050	1,313	380
Participants (Response rate)	779 (10.4%)	212 (10.1%)	167 (9.8%)	73 (9.3%)	126 (12.0%)	143 (10.9%)	58 (15.3%)

Sample Demographics and Data Weighting

Data weights were applied by borough size and gender to match 2015 census estimates of the 18-25 year old population in PFS boroughs (see Table 7).¹² Of the 779 survey respondents, 766 indicated their gender as male or female and were able to be included in the weight calculations. Thirteen participants did not indicate a gender or selected "other" gender and were therefore excluded from the weighted sample. Males were underrepresented in the original sample and respondents from the Anchorage borough also required larger weights because of the borough's large population size relative to other boroughs.

Table 7. Data weights by borough and gender based on 2015 census estimates of 18-25 year olds

	Estimated Population of 18-25 year olds		Unweighted Survey Sample		Weight Applied	Weighted Survey Sample	
	<i>n</i>	%	<i>n</i>	%		<i>n</i>	%
Anchorage							
Male	17,441	28.9	72	9.4	3.072	221	28.9
Female	15,109	25.0	137	17.9	1.400	192	25.1
Fairbanks North Star							
Male	6,874	11.4	57	7.4	1.530	87	11.4
Female	5,119	8.5	104	13.6	0.624	65	8.5
Juneau							
Male	1,385	2.3	25	3.3	0.703	18	2.3
Female	1,368	2.3	47	6.1	0.369	17	2.2
Kenai Peninsula							
Male	2,473	4.1	39	5.1	0.804	31	4.0
Female	1,870	3.0	85	11.1	0.270	23	3.0
Matanuska-Susitna							
Male	4,255	7.0	46	6.0	1.173	54	7.0
Female	3,845	6.4	96	12.5	0.508	49	6.4
Sitka							
Male	335	0.6	24	3.1	0.177	4	0.5
Female	376	0.6	34	4.4	0.140	5	0.7

Gender and race characteristics of the survey sample before and after weighting are presented in Table 8. These categories are used for data breakdowns in the remainder of the report. In the survey, respondents were asked to indicate all races with which they identify. To allow for an adequate sample size in each race group, responses are grouped into three categories that are used for race comparisons throughout the report: 1) White/Caucasian alone, non-Hispanic; 2) Alaska Native or American Indian alone or in combination with one or more other races; and 3) other race(s) alone or in combination.

Table 8. Demographics characteristics of survey respondents after weighting

	Before Weighting		After Weighting	
	<i>n</i>	%	<i>n</i>	%
Gender				
Male	263	33.9	416	54.3
Female	505	64.8	350	45.7
Race Categories				
White/Caucasian alone, non-Hispanic	553	71.0	514	67.1
Alaska Native/American Indian alone or in combination with one or more races	106	13.6	109	14.3
Other race(s) alone or in combination	120	15.4	143	18.6

Prescription Opioids

To gather information on participants' use, consequences, and perceptions related to prescription opioids, the survey clearly defined prescription opioids as pain killers which include codeine, hydrocodone/Vicodin/ Norco, oxycodone/OxyContin/Percocet, Meperidine/Demerol, fentanyl/Duragesic, hydromorphone/ Dilaudid/Exalgo, morphine/Astramorph/Avinza, buprenorphine, Methadone, etc. Survey instructions also specified that prescription opioids do not include "over-the-counter" pain relievers such as aspirin, Tylenol, Advil, or Aleve, or prescription dosages of these medications.

Summary of Key Findings for Prescription Opioids

Misuse of Prescription Opioids

9.6% have misused prescription opioids (used in any way not prescribed) in their lifetime

Retail Access to Prescription Opioids through a Provider

49.0% have been prescribed an opioid at some point in their lifetime

Among individuals who were prescribed opioids in the past 3 years:

73.2% had pills leftover

80.4% reported no discussion with their provider or pharmacist about alternatives to opioids

46.3% reported no discussion with their provider or pharmacist to take pills as prescribed, not more

Social Access of Prescription Opioids through Friends or Family

57.3% had not seen any awareness messages aiming to reduce social access to prescription opioids including safe storage, proper disposal, or the risks of sharing with others

Among individuals who were prescribed opioids in the past 3 years:

75.3% of individuals who had pills leftover from their prescription did not dispose of them

73.0% reported no discussion with their provider or pharmacist about safe storage of pills

67.1% reported no discussion with their provider or pharmacist about not sharing pills with others

Perceived Risk of Harm

43.9% believe that regularly misusing prescription opioids does not cause great risk of harm

Detailed Findings for Prescription Opioids

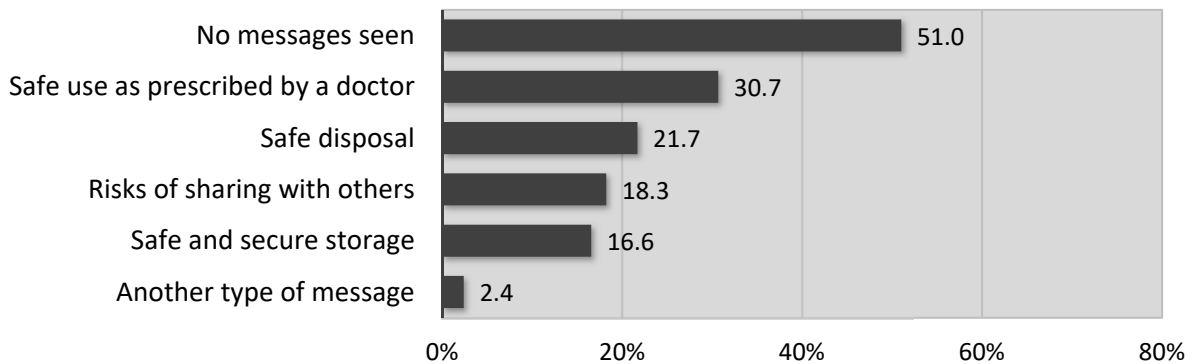
Using the weighted sample as described previously, detailed survey results are presented in the following pages. Demographic comparisons are displayed for gender and race when the sample size is adequate and results differ between groups by at least 5%.

Follow-up questions were asked only of respondents who reported prescription opioid misuse during the past 30 days. The group of respondents reporting past 30 day use and eligible for follow-up questions was smaller than expected at approximately 0.7% of the survey sample (or 5 respondents). As a result, findings from follow-up questions are not displayed.

Awareness and attitudes

Awareness messages to prevent opioid misuse have not been widely seen, with more than half of respondents reporting they have not seen any awareness messages to prevent prescription opioid misuse as shown in Figure 3. Messages promoting the safe use of opioids as prescribed by a doctor were seen by the greatest number of respondents while messages to promote the safe storage of prescribed opioids were seen by the fewest. The pattern was similar among gender subgroups. Prevention messages were seen most by white respondents with 51.7% seeing at least one prevention message, followed by 48.1% of Alaska Native or American Indian respondents, and 39.9% of other race respondents.

Figure 3. Prescription opioid awareness messages seen on the radio, TV, or on printed material



Perceptions about the severity of the prescription opioid misuse problem are mixed. On a scale from 1 (“no problem at all”) to 6 (“a very large problem”), just over 34% of the respondents reported the problem to be a 5 or a 6 in their community while 25.5% indicated the problem at a 1 or a 2. As shown in Figure 4, the mean score reflected a moderate perception overall ($M=3.7$; $SD=1.7$). Similar results were observed among gender and race subgroups. Mean differences in perceptions were observed among PFS boroughs as shown in Table 9, with urban areas of Anchorage and Fairbanks reporting the lowest perceived problem in the community and both Juneau and Sitka reporting the highest.

Figure 4. Perceived severity of the prescription opioid misuse problem in the community

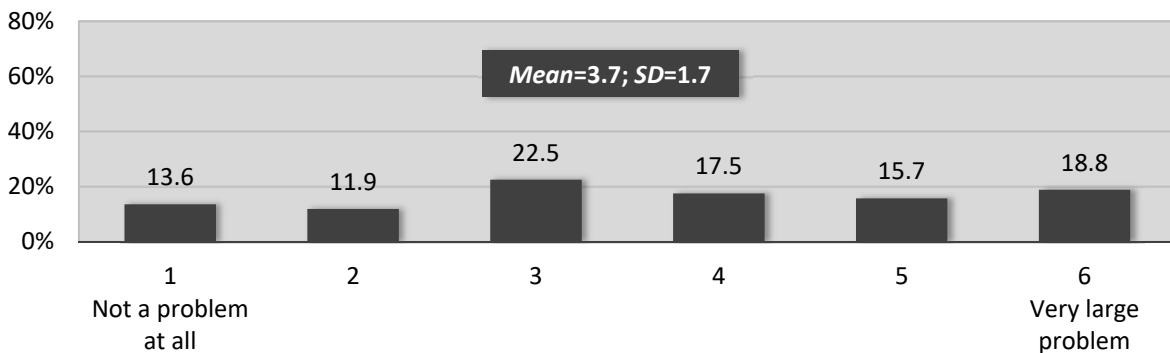


Table 9. Perceived severity of the prescription opioid misuse problem by PFS boroughs

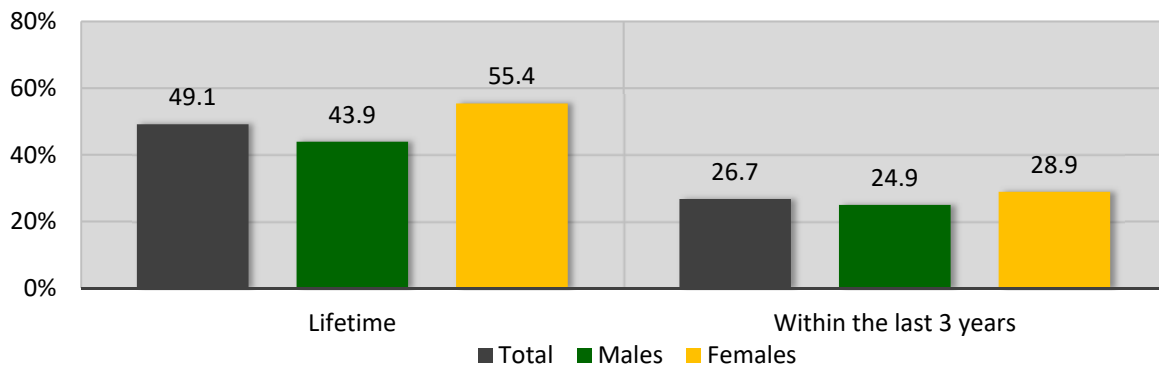
	All boroughs	Anchorage	Fairbanks North Star	Juneau	Kenai Peninsula	Matanuska-Susitna	Sitka
(1 = "not a problem at all" to 6 = "a very large problem")							
Mean	3.7	3.7	3.2	4.2	4.1	3.9	4.2
SD	1.7	1.7	1.5	1.4	1.6	1.7	1.6

Data is weighted by gender within each PFS borough

Retail access to prescription opioids

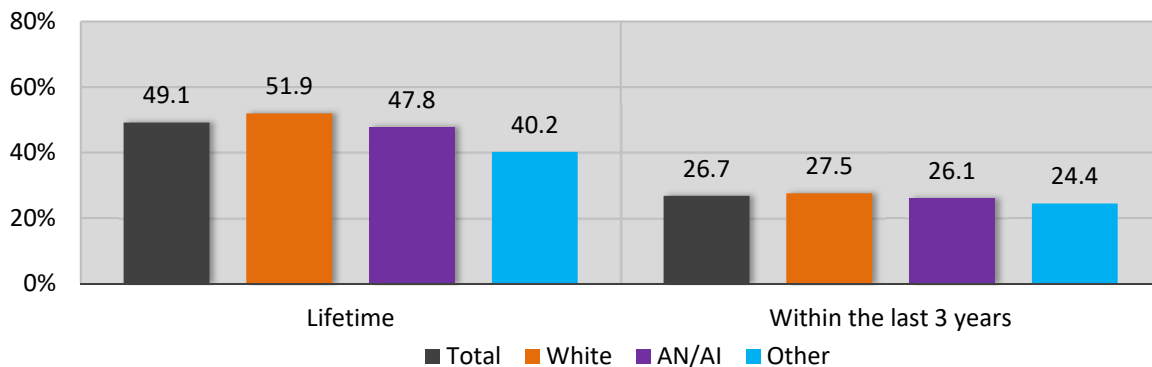
Retail access is the ability to obtain prescription opioids for misuse through a provider or dispenser. Nearly half of all respondents have been prescribed opioids in their lifetime with more women reporting at least one opioid prescription than men (see Figure 5).

Figure 5. Prescribed opioids in total and by gender



A greater percentage of White respondents reported receiving at least one lifetime opioid prescription as compared to both Alaska Native/American Indian respondents and those of another race as shown in Figure 6. Gender and race differences diminish when comparing respondents who received an opioid prescription in the past three years versus anytime in their life.

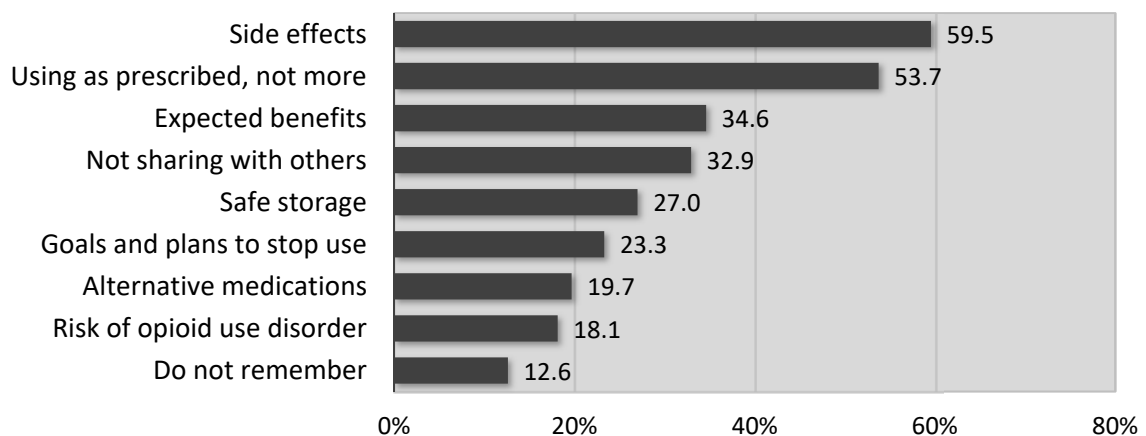
Figure 6. Prescribed opioids in total and by race



Further, the majority (73.2%) of individuals who received a prescription for opioids in the past three years had pills leftover (see Figure 8), indicating it may be common for prescriptions to include more pills than necessary. An extremely small sample size of past 30-day prescription opioid misusers provided little ability to determine how pills are acquired among this group. However, 2011-2014 aggregate NSDUH data indicate that 19.6% of individuals 12-25 years of age who misused prescription opioids during the past year in Alaska acquired them from a doctor.

Respondents who were prescribed opioids in the past three years were asked about topics they discussed with their doctor or pharmacist when receiving a prescription (see Figure 7). Less than 20% reported talking with their provider about alternative medications to opioids or the potential risk of developing an opioid disorder and only half reported discussing using opioids as prescribed and not more. The most common topic discussed with a doctor or pharmacist was the side effects of using prescription opioids.

Figure 7. Topics discussed with a doctor or pharmacist (if prescribed opioids in the past 3 years)



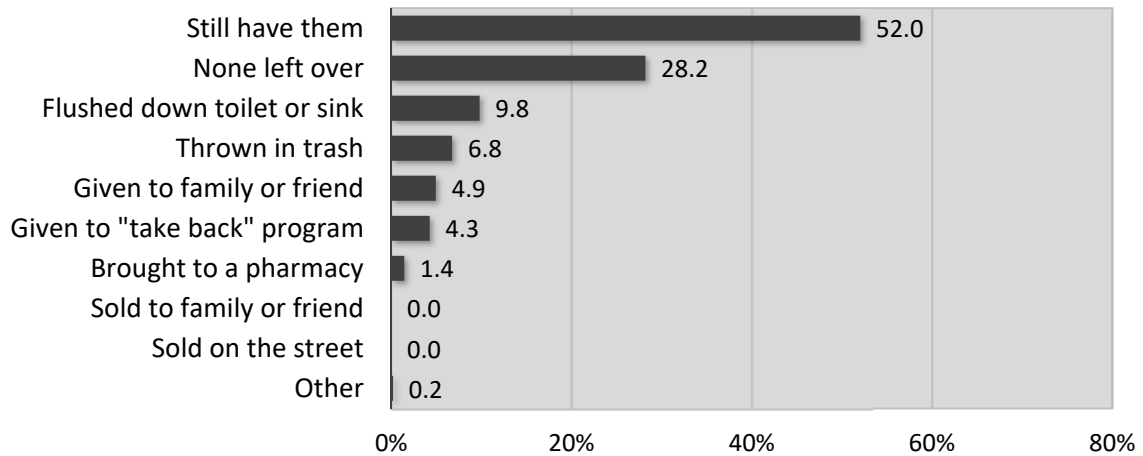
Social access to prescription opioids

Social access is the ability to obtain prescription opioids through friends and family without a prescription and includes getting pills for free, purchasing pills, and stealing pills from friends and family. Previous research has found that friends, family, and other acquaintances are the most common source of prescription opioids for misuse.^{13,14} An extremely small sample size of past 30-day prescription opioid misusers in the current survey (0.7%) provided little ability to determine how pills are acquired among this group but other available data help to fill this gap. NSDUH data from 2011-2014 indicate that 66.8% of individuals aged 12-25 who misused prescription opioids during the past year in Alaska reported to get them through a friend or relative, demonstrating that social access is a primary source of prescription opioid acquisition among youth and young adults in Alaska.⁴

Additional data in the PFS baseline survey provided more context for understanding other aspects of social access. As displayed in Figure 8, 73.2% of respondents who were prescribed opioids in the past three years had pills leftover from their last prescription, thereby creating a potential opportunity for others to access prescription opioids through social sources. Among the respondents who had pills leftover, 24.7% reported disposing of leftover pills, 6.7% gave or sold them to friends and family, and 72.0% still had some on hand.

Few respondents reported that their physician or pharmacist addressed social access considerations with them when prescribing or dispensing opioids in the past three years. Only 32.9% reported their physician or pharmacist talked to them about not sharing their prescription and only 27.0% were advised to store their prescription in a safe and secure location (see Figure 7).

Figure 8. Disposal practices of leftover pills (if prescribed opioids in the past 3 years)

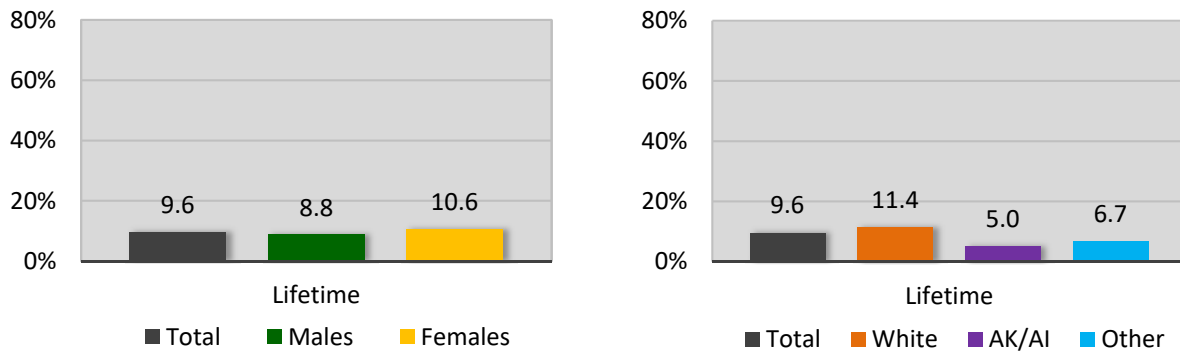


Prescription opioid misuse

Prescription opioid misuse was defined in the survey as use without a doctor's prescription or in a way that a doctor has not directed. Misuse includes using a prescription opioid: 1) without a valid prescription; 2) in greater amounts, more often, or longer than directed; or 3) in any other way than as directed by a doctor. Only a small percentage of survey respondents reported misusing opioids in the past 30 days (0.7%) or the past year (1.8%) which did not allow for meaningful comparisons by gender and race. Past year estimates of misuse from the PFS baseline survey (1.8%) are lower than NSDUH prevalence estimates of past year non-medical use of prescription pain killers among 18-25 year olds in Alaska during 2013-2014 (9.0%)¹⁵ and nationally in 2015 (8.5%).¹⁶

A total of 9.6% of respondents (see Figure 9) reported prescription opioid misuse at least once in their lifetime. Women report somewhat higher levels of lifetime misuse while White respondents are twice as likely to report lifetime misuse compared to Alaska Native/American Indian respondents and respondents of other races. Among the small number of past 30-day prescription opioid misusers, about 45.6% found prescription opioids easy or very easy to obtain. No respondents found them difficult to obtain.

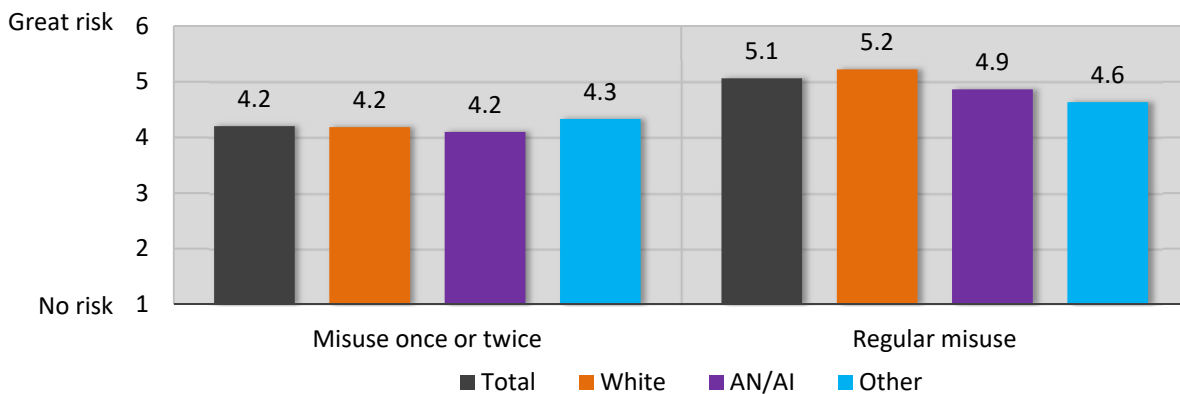
Figure 9. Lifetime misuse of prescription opioids in total and by gender and race



Perceived risk of harm from prescription opioid misuse

Perceived risk of harm was defined in the survey as the perceived risk of physical or other harms from misusing prescription opioids. On a scale from 1 (“no risk”) to 6 (“great risk”), nearly a third of respondents (30.7%) indicated a perception of great risk of harm from misusing opioids only once or twice while 56.2% perceive a great risk from misusing prescription opioids regularly (once or twice every week). Similar results were observed among gender subgroups. Results indicate that 59.2% and 60.3% of White and Alaska Native or American Indian respondents, respectively, believe that regular misuse of prescription opioids poses a great risk of harm compared to only 42.0% of other race respondents. Mean perceptions by race subgroups are shown in Figure 10.

Figure 10. Perceived risk of harm from misusing prescription opioids in total and by race

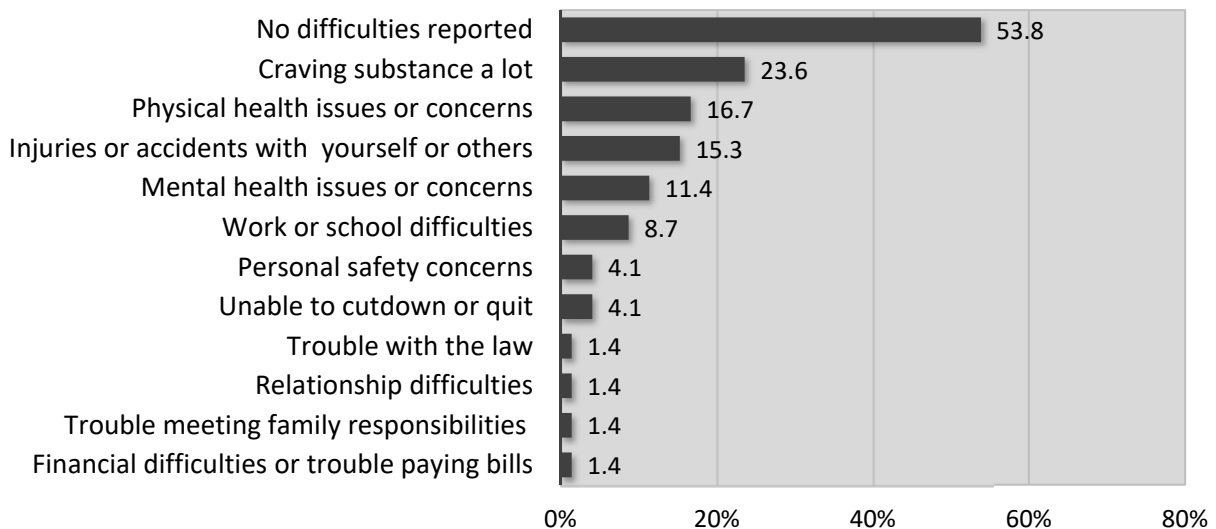


Research shows that lower perceived risk of harm is associated with higher rates of substance abuse for alcohol, marijuana, and other illicit substances.¹⁷ This pattern was also found in the survey sample for prescription opioids. Using unweighted data, results of an independent samples t-test indicate that respondents who have misused opioids in their lifetime had significantly lower mean perceptions of risk of harm from misusing prescription opioids once or twice ($M = 4.0, SD = 1.5; n = 80$) than those who have not misused prescription opioids in their lifetime ($M = 4.4, SD = 1.6; n = 696, t(774) = 2.13, p = .03$). No significant differences in perceived risk of harm from regular misuse were found between these two groups as both groups perceived the risk of harm to be high (5.2 versus 5.1).

Difficulties from prescription opioid misuse

Respondents who misused opioids in the past 12 months (1.8%) were asked if they had experienced any difficulties related to opioid misuse. While over half of respondents did not experience any difficulties, 46.2% experienced at least one difficulty as shown in Figure 11. The most common difficulty was “craving the substance a lot,” suggesting addiction may be present or developing for those individuals.

Figure 11. Difficulties reported from misusing opioids over the past 12 months



Heroin

To gather information on participants’ use, consequences, and perceptions related to heroin, the survey explained that heroin can be smoked or injected and can be purchased in a variety of forms and colors. Heroin was described to survey respondents as simply heroin; no other street names or descriptions were provided.

Summary of Key Survey Findings for Heroin

Use of Heroin

2.7% have used heroin in their lifetime with more White respondents reporting lifetime use

Perceived Risk of Harm

22.7% perceive that regular heroin use does not cause great risk of harm

Difficulties from Use

95.4% of respondents reported difficulties from heroin use across a variety of domains

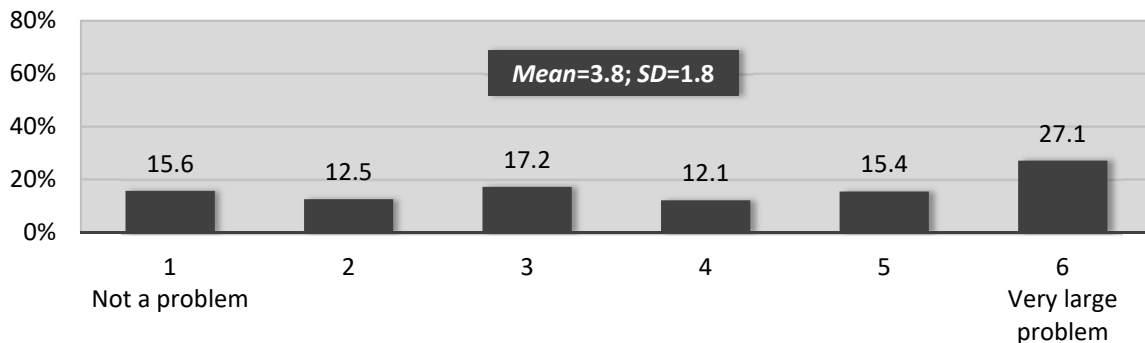
Detailed Findings for Heroin

Using the weighted sample as described previously, detailed survey results are presented in the following pages. Demographic comparisons are displayed for gender and race when the sample size is adequate and results differ by at least 5%. Follow-up questions were asked of respondents who reported heroin during the past 30 days; however, this group was smaller than expected at approximately 0.5% of the survey sample (3 respondents). As a result, these findings are not displayed.

Attitudes

Attitudes about the perceived extent of the heroin problem in local communities are mixed. On a scale from 1 (“no problem at all”) to 6 (“a very large problem”), just over 42.5% of the respondents reported heroin is a 5 or a 6 in their community while 28.1% indicated the extent of the problem is a 1 or a 2. As displayed in Figure 12, the mean score fell in the middle at 3.8, similar to the mean score for prescription opioids of 3.7. No differences were observed among gender and race subgroups.

Figure 12. Perceived severity of the heroin problem in the community



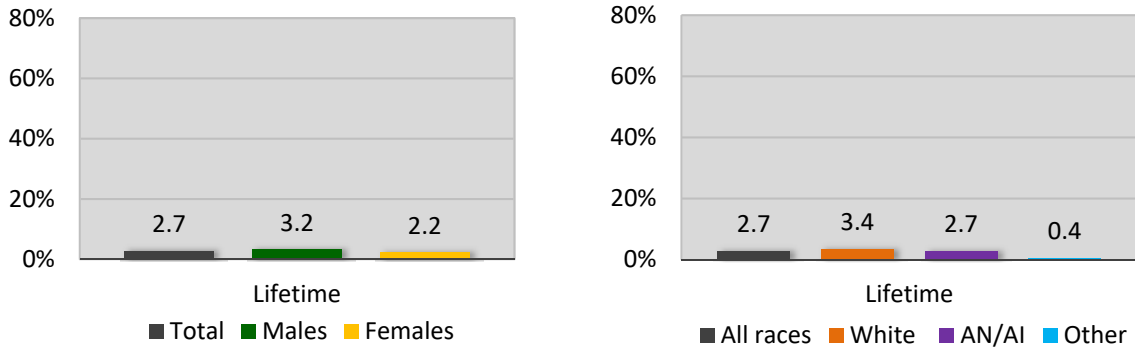
Heroin use

Only a small percentage of survey respondents reported heroin use in the past 30 days (0.5%) or the past year (0.8%) which did not allow for meaningful comparisons by gender or race. Past year estimates from the current survey are similar to other NSDUH prevalence estimates among 18-25 year olds in Alaska during 2014-2015 (0.9%)¹⁸ and higher than national prevalence estimates in 2015 (0.6%).¹⁹ A total of 2.7% of respondents reported heroin use at least once in their lifetime. Lifetime heroin use was highest among men and white respondents while respondents of other races reported the smallest percentage of lifetime use (see Figure 13).

A smaller number of survey respondents reported lifetime heroin use (2.7%) compared to prescription opioid misuse (9.7%) but a relationship in use exists between these two substances. Research suggests that non-medical use of prescription opioids is a strong risk factor for later initiation of heroin use and a large percentage of current heroin users begin their abuse of opioids with prescription opioids.^{7,13,20,21} Similar to the pattern identified in research findings, 88.0% of lifetime heroin users in the unweighted survey sample ($n = 22$ out of 25) reported lifetime prescription opioid misuse but only 27.5% lifetime prescription opioid misusers ($n = 22$ out of 80) reported lifetime heroin use. However, the sequential order of substance abuse initiation cannot be determined due to the cross-sectional nature of the survey data.

Among the very small sample of past 30-day heroin users ($n = 3$), all respondents reported they found heroin easy obtain.

Figure 13. Lifetime misuse of heroin in total and by gender and race



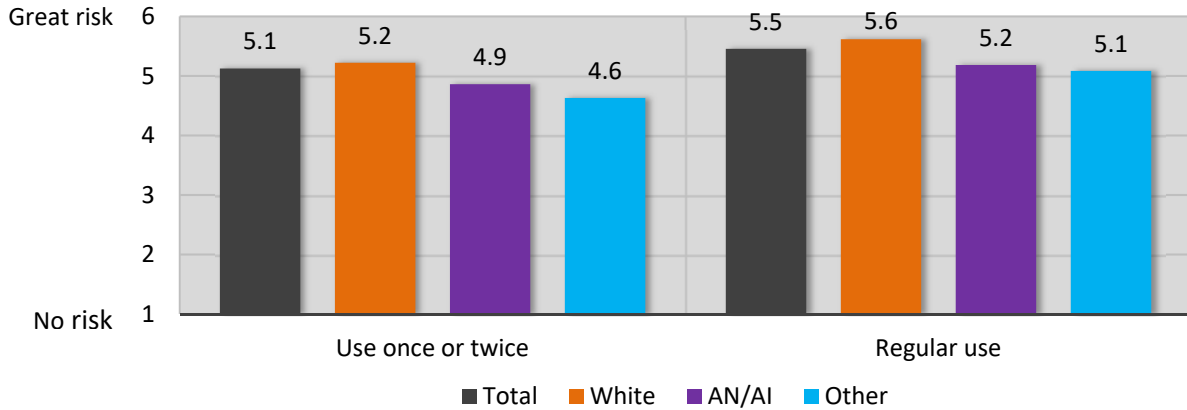
Perceived risk of harm from heroin use

Perceived risk of harm was defined in the survey as the perceived risk of physical harm or other harms from heroin use. On a scale from 1 (“no risk”) to 6 (“great risk”), 62.9% of respondents perceive a great risk of harm from trying heroin once or twice while 77.3% perceive a great risk from using heroin once or twice each week. Perceived risk of harm in the PFS baseline survey is slightly lower than results found by 2011-2014 aggregate NSDUH in Alaska among 12-25 year olds at 65.9% (trying heroin) and 85.8% (using heroin weekly).⁴

Small variability in mean scores were found among sample subgroups. Females and White respondents reported slightly higher mean scores than males and the other race groups. Mean differences by race subgroups are displayed in Figure 14. Approximately 12.9% of Alaska Native and American Indian respondents felt that regular use of heroin posed no risk which is higher than White respondents (2.0%) and other race subgroups (8.8%).

Research shows that a lower perceived risk of harm is associated with higher rates of substance abuse for alcohol, marijuana, and other illicit substances.¹⁷ A similar pattern was present for heroin use in the current unweighted survey sample but results of independent samples t-tests were not statistically significant. Respondents who have used heroin in their lifetime had similar perceptions of risk from trying heroin once or twice ($M = 5.2, SD = 1.2; n = 25$) than those who have not used heroin ($M = 5.3, SD = 1.3; n = 750$), $t(773) = 0.33, ns$. Further, no significant differences in perceived risk of harm from regular use of heroin were found between lifetime heroin users ($M = 5.6, SD = 1.1; n = 25$) and respondents who have not used heroin ($M = 5.2, SD = 1.4; n = 750$), $t(25) = 0.16, ns$.

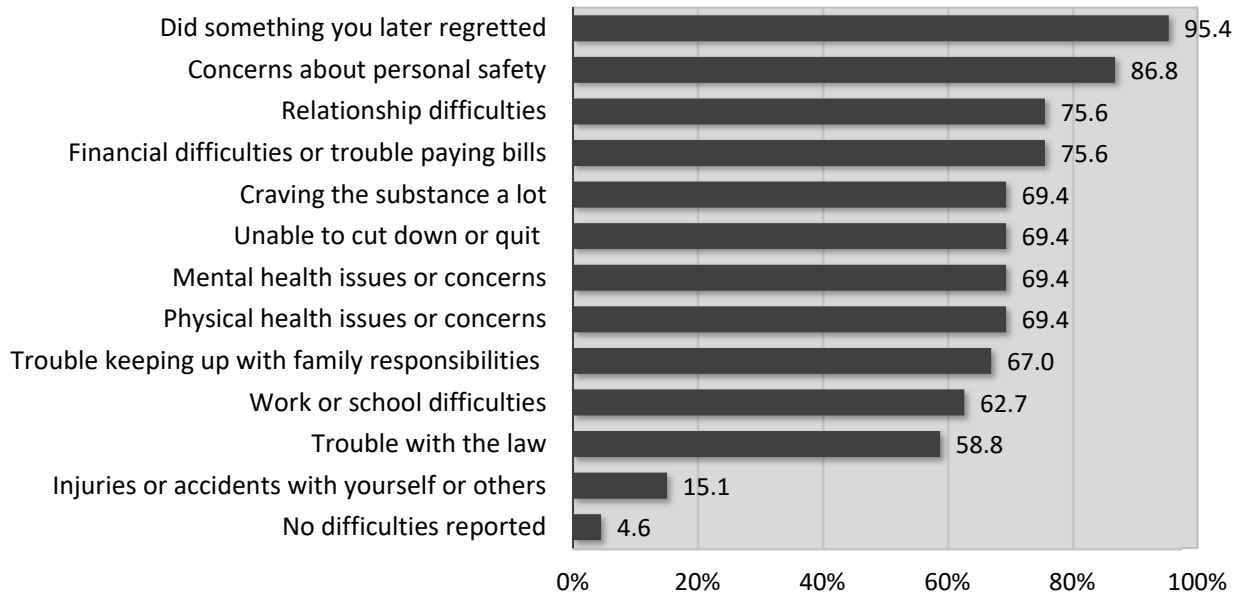
Figure 14. Perceived risk of harm from using heroin in total and by race



Difficulties from heroin use

Respondents who used heroin in the past 12 months (0.8%) were asked if they had experienced any difficulties related to heroin use. As displayed in Figure 15, nearly all respondents (95.4%) experienced at least one difficulty related to heroin use across a wide variety of domains which is higher than the percentage of prescription opioid misusers who experienced difficulties (46.2%).

Figure 15. Difficulties reported from using heroin over the past 12 months



Conclusion

Prescription opioid misuse and heroin use are public health concerns in both Alaska and the nation and are best addressed using data-informed decision making and multi-level evidence-informed approaches.¹⁴ The survey results presented in this report represent data from one point in time among 779 randomly selected 18-27 year olds in six PFS boroughs in Alaska. Further analyses of the survey data will be conducted and shared by CBHRS evaluators through special reports as needed or requested for a better understanding of opioid use, intervening variables, and perceptions. Current survey data will be compared to data collected from 18-27 year olds in 2019 to evaluate pre-post change in opioid outcomes associated with PFS grant efforts among young adults in Alaska.

This survey represents just one component of a comprehensive mixed-method evaluation plan developed by CHBRS evaluators for the five-year PFS project which targets the prevention of prescription opioid misuse among 12-25 year olds and heroin use among 18-25 year olds. These substance use patterns will be addressed by: 1) reducing social access to prescription opioids through friends and family; 2) reducing retail access to prescription opioids through providers and dispensers; and 3) increasing perceived risk of harm from non-medical use of prescription opioids and heroin use.

Recommendations

The Alaska Opioid Policy Taskforce recently completed its year-long process to develop a set of comprehensive recommendations to guide Alaska in its efforts to reduce opioid abuse and associated consequences.²² Other national level guidance documents have also highlighted evidence-informed approaches for states and communities to address the opioid epidemic.^{14,23,24,25} Our intent is not to present comprehensive guidance already established but instead to highlight recommendations from existing documents and literature that are relevant to PFS project goals and both supplement and frame recommendations based on survey findings as appropriate.

Non-medical use of prescription opioids and heroin use are emerging and expanding public health issues and less is known about the risk and protective factors associated with prescription opioid misuse and heroin use versus other substances (e.g., alcohol). Few longitudinal studies and rigorous research studies have been conducted examining the relationship of risk factors with heroin use and/or non-medical use of prescription opioids. Below are some ways that the state and communities can support the prevention of prescription opioid misuse and heroin use based on what is currently known.

Prevent social access to prescription opioids

Social access is the most common way that prescription opioids were accessed for misuse among 12-25 year olds in Alaska. Less than half of survey respondents saw any awareness messages about social access, most respondents have pills leftover if prescribed opioids (73.2%), and only a quarter dispose of leftover pills properly. Few respondents reported conversations with providers about issues related to social access when receiving opioid prescriptions.

- Use mass media and social marketing campaigns aimed at adults to:
 - increase knowledge about how prescription opioids are accessed for misuse
 - reduce prescription sharing
 - increase safe storage and monitoring practices

- improve proper disposal practices
- Create policy change in medical practices and pharmacies to ensure that patients who are prescribed opioids hear verbally or in writing from their provider or a dispenser to not share pills, how best to store and monitor pills, and ways to dispose of opioids properly.
- Promote the National Drug Take Back Day each year and support or expand other prescription drug take-back programs.
- Provide or increase access to safe and convenient prescription drug disposal sites to allow individuals to dispose of leftover prescription opioids safely.
- Provide safe drug disposal pouches and other safe disposal information at local pharmacies where opioids are dispensed.

Prevent retail access to prescription opioids

Retail access is the second most common way that prescription opioids were acquired for misuse among 12-25 year olds in Alaska. However, greater retail availability of prescription opioids through over-prescribing practices can also increase social access through friends and family. Nearly three-quarters of respondents had pills leftover from a prescription indicating that opioid prescriptions often include more pills than necessary, less than 20% of respondents discussed alternative medications to opioids with their provider, and just over half of respondents had discussions with their provider to use pills as prescribed.

- Implement clear prescribing guidelines for health care providers such as the Interagency Guideline on Prescribing Opioids for Pain Prescribing created by Washington State Agency Medical Director’s Group²⁶ or the CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016.²⁷ These guidelines address numerous aspects of a comprehensive pain management plan but specifically address retail access issues identified in the survey data, including:
 - prescribing the minimum number of pills and/or dosage necessary for pain management
 - using alternatives to prescription opioids when possible
 - discussing risks and benefits of opioid use with patients including both the patient and clinician responsibilities in pain management therapy (i.e., identifying clear treatment goals, using only as prescribed, risk of developing an opioid use disorder, not sharing with others, and storing/disposing of opioids properly)
- Implement a comprehensive training and education plan to ensure prescribing guidelines are understood by all providers who prescribe opioids and implement prescribing guidelines into medical school and other relevant provider curriculums.
- Implement additional policies in clinical settings and pharmacies that are responsive to local needs in order to limit the ability of individuals to acquire prescription opioids for misuse.
- Establish a functioning Prescription Drug Monitoring Program (PDMP) and require:
 - timely entry each time opioids are prescribed
 - use of the PDMP by all prescribers and dispensers to identify high-risk patients
- Empower licensing boards to use data to enforce use of the PDMP and identify high-risk prescribers and dispensers.
- Consider offering Screening, Brief Intervention and Referral to Treatment (SBIRT) in clinical settings for all patients on medium to longer-term opioid therapy to reduce risk for opioid misuse or dependence. SBIRT for this population includes screening pain patients to assess potential opioid risk, use a monitoring framework for patients on opioid therapy to assess response to opioids and track concerning behaviors, perform brief interventions that may assist

patients in resolving concerning behaviors, and refer patients who need more intensive pain or addiction therapy. Evidence of effectiveness has been established for SBIRT's use as a universal approach for alcohol but adaptation to this population and substance has not been rigorously studied. Nonetheless, SBIRT gives providers a framework for discussing the use of substances, including prescription opioids, with their patients.

Increase perceived risk of harm

The relationship between low perceived risk of harm and increased substance use has been found in numerous correlational studies, including the current survey. Opportunities exist for youth and young adults to increase their knowledge about physical and other harms associated with misuse of prescription opioids and use of heroin. Youth often perceive the risk of harm from illicit drugs such as heroin to be lower than adults, making schools an important potential venue for prevention efforts.

- Implement media and social marketing campaigns aimed at increasing perceived risk of harm by increasing knowledge about the physical and other harms associated with the misuse of prescription opioids and the use of heroin and increase perceived risk of harm.
- Comprehensive prescribing guidelines discussed above could also include a discussion between patients and a provider or pharmacist on the risks of harm associated with misuse when patients are prescribed opioids.
- Incorporate prescription opioid misuse and heroin use prevention into existing evidence-informed school drug education curriculum for youth.

Improve access to data for prevention efforts in Alaska

Having greater access to quality data on consumption patterns, risk and protective factors, and attitudes related to prescription opioid misuse and heroin at the state, regional, and community levels is important to monitor progress, evaluate specific efforts, identify disparities, and inform prevention efforts.

- Expand opioid and heroin-related consumption and risk and protective factor questions within existing surveillance surveys such as the Youth Risk Behavior Survey and Behavioral Risk Factor Surveillance Survey. Data can be used for ongoing surveillance and evaluation purposes as well as to identify important risk and protective factors for specific populations in Alaska.
- Prioritize accurate, accessible, and timely data sharing from the Alaska PDMP database. PDMP databases are the best source of surveillance data to monitor retail access to prescription opioids if adequately resourced and managed.
- Encourage and support research that assesses the effectiveness of prevention strategies, particularly in Alaska, including efforts to determine what works for whom under what conditions.

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