Feasibility Study for Achieving Change Together Northwest (ACT NW)

Spring 2020

ECONorthwest
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Foreword

"We are very excited to introduce a new kind of program to meet the needs of adolescents experiencing co-occurring substance use and mental health disorders. ACT NW's program will create an atmosphere of hope and recovery infused with laughter, fun and the latest advancements in adolescent treatment. We have taken the best practices in adolescent and family care to create efficacious programming that will attract youth, retain them in care, and educate and support their caregivers. ACT NW integrates interventions for substance use and mental health disorders through a multi-disciplinary treatment team approach to consolidate care into one setting. Mentorship is a key component of ACT NW and Certified Recovery Mentors join with Licensed Therapists to combine fun activities with therapeutic supports. The mentorship philosophy cultivates a positive peer culture for youth as they stabilize, grow into recovery, and transition out of clinical programming, continuing to participate in pro-social activities where they will model healthy behaviors and relationships. Caregivers and parents will have opportunities to share what they've learned with new families entering the program too, as they benefit from ongoing support from ACT NW's therapeutic groups and support meetings.

"Our team at ACT NW is comprised of leading, experienced healthcare professionals from across Oregon, as well as those with lived experience as youth or parents of youth that have struggled with substance use and mental health disorders. We understand the challenge of standing up a program that overcomes the administrative barriers to providing true integrated co-occurring care. We are prepared to take on those challenges and we are committed to providing treatment with the highest standards of quality in a sustainable non-profit business model that removes barriers for youth and their caregivers and provides equitable care for our community. At ACT NW, we envision a world where all young people can enjoy vibrant, fulfilling lives, and starting in the fall of 2020, we will bring that vision to bear!"

Alison Mann, Co-Founder, Board Chair ACT NW, Parent of young person in recovery from Substance Use Disorder

Paul Bryant, LCSW, CADC 3, Co-Founder, Vice Board Chair ACT NW, Director of Kaiser Permanente Addiction Medicine Program

Brent Canode, MPA, Co-Founder, Board Director ACT NW, Executive Director, Alano Club of Portland

Executive Summary

Achieving Change Together Northwest (ACT NW), in partnership with the Portland Alano Club as fiscal sponsor, plans to establish an adolescent treatment and recovery management program with an embedded Alternative Peer Group (APG) framework in Oregon. APGs provide community-based, family-centered adolescent recovery support programming that relies on positive peer pressure and peer-to-peer social engagement to increase the appeal and probability of staying in recovery and committing to sobriety.

ACT NW's planned program would focus primarily on substance use disorder (SUD) treatment for adolescents and combine a clinical partial hospitalization program (PHP) with an APG framework. The program seeks to fill needs not currently being met by treatment providers in Oregon.

This report describes research literature regarding the APG model, the prevalence of substance use and mental health disorders among Oregon adolescents, the treatment and recovery support landscape in the Portland region, market research and conversations with local experts, and the financial feasibility of ACT NW's planned model. Overall, our analysis indicates a local need for programs like that planned by ACT NW.

The ACT NW model

The proposed ACT NW model is unique in its combination of the following program components: (1) integrated clinical treatment for SUD and mental health, (2) prosocial alternative peer group (APG) supports, (3) a partial hospitalization program, and (4) acceptance of both Medicaid and private insurance. Treatment of co-occurring disorders will be provided by master's degree-level clinicians certified in addiction counseling.

Literature review

The small but emerging body of existing research regarding the APG model, and the body of research on the treatment of adolescents with SUDs and co-occurring mental health disorders more generally, supports the APG model combined with ACT NW's focus on co-occurring mental health disorders as a promising approach to treating adolescent SUDs.

Research shows adolescents aged 12-17 are more susceptible to SUDs, relapse, and peer influence than are adults, and often enter treatment lacking the motivation necessary for successful sobriety. Such differences are due in large part to the fact that their brains are still under development (Gonzales-Cataneda and Kaminer 2016; Nash and Collier 2016), and adolescents with co-occurring substance use and mental health disorders are the "rule rather than the exception among youth populations" (Kaminer 2015; Gonzales-Cataneda and Kaminer 2016).

The ACT NW model responds to these characteristics of the adolescent population, incorporating many of the program elements researchers have identified as effective for treating adolescents with SUDs. Program elements include parental involvement, a positive social

support network within a "climate of trust," and social influence (Brannigan et al. 2004 and Collier, Hilliker, and Onwuegbuzie 2014), as well as wrap-around support services. Collier, Hilliker, and Onwuegbuzie (2014) describe the logic behind the positive peer support network in the APG as follows: "The basic assumption of this model is that peer relationships, much like the ones that encouraged high-risk behavior, are necessary to enable recovery."

Needs assessment

Recent national survey data indicate that Oregon continues to have a high prevalence of youth SUDs relative to other states and a correspondingly high share of adolescents needing treatment for SUDs but not receiving treatment at a specialty facility.[1] Depression among adolescents is also relatively more prevalent in Oregon and the Portland region, compared to the nation as a whole.[2] An Oregon survey of teenagers in public schools suggests increasing prevalence of unmet mental health needs over time.

Market analysis

Our scan of the treatment landscape in the Portland region identified facilities that report they provide care to adolescents with SUDs, mental health disorders, or both, but no programs with the structure nor level of integrated clinical care ACT NW is proposing. The combination of intensive clinical care with an APG model further distinguishes ACT NW; only one other local recovery program provides APG services. Our research indicates that ACT NW would be the first program in Oregon—and perhaps anywhere in the U.S.—to provide the proposed level of integrated clinical services with an APG framework.

Local experts ECONorthwest interviewed confirmed that ACT NW's proposed program would fill a need for treatment options relevant to adolescents, particularly those with co-occurring disorders. Interviewees also described a number of challenges treatment and recovery programs sometimes face:

- Providing care for clients with co-occurring disorders can present an administrative burden due to separate regulatory and cost structures and a lack of standardized dual diagnosis criteria.
- Accepting both Medicaid and private insurance can result in greater administrative overhead than accepting just one or the other due to different patient needs, rate structures, and billing requirements associated with each insurance type.
- Low pay and demanding work can present barriers to recruitment and retention of the high-quality staff necessary to engage adolescent clients.

[1] Substance Abuse and Mental Health Services Association (SAMHSA), Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.
[2] National Surveys on Drug Use and Health: Substate Age Group Tables, Percentages.

- Retaining adolescent clients and ensuring regular attendance can be a challenge, as adolescents with SUDs often enter treatment without the motivation necessary to maintain sobriety.

ACT NW staff's long experience in the SUD and mental health fields helps position the program to address and overcome these types of challenges, should they arise. A team of subject matter experts from across the SUD continuum of care also supports the program and can help assist the organization in addressing challenges. Program staff have long-standing connections with other providers and experts in the region, which will likely help them attract client referrals and attract and retain high-quality staff.

Financial feasibility

We assess the financial feasibility of an ACT NW treatment center using a standard pro forma financial model that incorporates information provided by ACT NW and other sources about anticipated staffing, number of clients, billing rates, projected revenue, and operating expenses at the end of 2020.

Based on the assumptions described in this report, our pro forma model supports the financial viability of the planned ACT NW program. ACT NW staff anticipate possible program expansion to include one or two additional treatment centers of similar size and capacity to the first during 2021-22. The results of our modeling apply equally to each center under consideration.

Background and Purpose

Achieving Change Together Northwest (ACT NW), in partnership with the Portland Alano Club as fiscal sponsor, plans to establish an adolescent treatment and recovery management program with an embedded Alternative Peer Group (APG) framework in Oregon. The program model is expected to be a valuable addition to the collection of treatment and recovery services currently available to adolescents in the Portland region and is ideally suited for collaborating with recovery high schools such as Harmony Academy, which opened in Oregon in 2019 to serve youth from Washington, Clackamas, and Multnomah counties.

The purpose of this report is to describe the ACT NW model, the research literature regarding APG services, the relative need among Portland-area adolescents for SUD and mental health treatment, the current treatment landscape for adolescents, market research and conversations with local experts, and the financial feasibility of ACT NW's planned model.

The ACT NW Model

ACT NW's planned combination of integrated substance use disorder (SUD) and mental health care, an APG framework, and a clinical partial hospitalization program (PHP) structure is a unique model for adolescent outpatient treatment in Oregon and the U.S. This section highlights the key components of the ACT NW program based on descriptions provided by program staff.

Integrated care for co-occurring disorders

Co-occurring disorders, or concurrent substance use and mental health disorders, are common in adolescents.[3] The Oregon Health Authority (OHA) provides the following definition:

> *"Co-occurring disorders refers to an individual having one or more substance abuse disorders and one or more psychiatric disorders. Formerly known as Dual Diagnosis. Each disorder can cause symptoms of the other disorder leading to slow recovery and reduced quality of life."*[4]

The type of integrated care best suited for treating co-occurring disorders has been defined as "care for both/all disorders [that] is provided by the same cross-trained clinicians and in the same program, resulting in clinical integration of services."[5] ACT NW's planned treatment and recovery model would offer adolescents tailored SUD and mental health treatment that meets this standard for integrated care. The program's staff would include a master's level clinician with a degree in psychology, social work, or a related field and a certification in addiction

[3] Kaminer 2015; Gonzales-Cataneda and Kaminer 2016

[4] Oregon Health Authority, Co-occurring Disorders. https://www.oregon.gov/oha/HSD/AMH/Pages/Co-occurring.aspx

[5] Sterling, Stacy, Chi, Felicia, and Hinman, Agatha. "Integrating Care for People With Co-Occurring Alcohol and Other Drug, Medical, and Mental Health Conditions." *Alcohol Research and Current Reviews.* 2011

counseling. This clinical therapist would work with recovery mentors to ensure each patient has a unified treatment plan.

Alternative peer group (APG)

APGs are community-based, family-centered adolescent recovery support programs that, ideally, "[integrate] recovering peers and prosocial activities into evidence-based clinical practice."[6] Using positive peer pressure to promote staying in recovery, APGs focus on making sobriety "more fun than using" by organizing and staffing sober social functions after school, on weekends, and through summers.

The model provides recovering adolescents with prosocial and structured activities to help them build new peer networks and relationships that support their recovery. APG programs also provide support to parents and families and involves them in recovery. In Houston, where APGs originated, the programs provide valuable support (and referrals) to the recovery high school Archway Academy and their presence signals to the community that "there are groups committed to supporting the emotional, psychological, spiritual and social needs of teens in recovery."[7]

"A patient that comes to ACT NW will have a primary therapist that is a master's level clinician with a certification in drug and alcohol counseling that will work with the treatment team to have a unified treatment plan that includes interventions for mental health and SUD.

"This team approach that involves recovery mentors and therapists with the skills and training to engage [the patient] in prosocial activities (recovery mentors) and therapeutic activities (therapist) is much more effective that the typical model."

–ACT NW Program Staff

PHP structure / billing

A partial hospitalization program is one in which individuals continue to live at home but attend a treatment center most days of the week, for partial or full days. ACT NW is planning to move from a standard fee-for-service model to a PHP / day treatment billing structure during the first year of operation. A PHP structure, together with billing for mental health services, is expected to provide the program with financial stability and set it apart from other APG programs and traditional treatment facilities. The rate schedule will likely include graduated rates for bundled services, with different levels of day treatment assigned different billing codes and distinguishing between more intensive clinical intervention early in treatment and less intensive treatment later. The program will accept both Medicaid and private insurance. Program staff describe the model as "an integrated hybrid, fully capable of addressing co-occurring mental health and SUD issues in one program."

[6] Nash, A. & Collier, C. (2016). The Alternative Peer Group: A Developmentally Appropriate Recovery Support Model for Adolescents. *Journal of Addictions Nursing*, 27:2, 109-119.
[7] Association of Recovery Schools (2016). *State of Recovery High Schools, 2016 Biennial Report*. https://recoveryschools.org/wp-content/uploads/2016/03/State-of-Recovery-Schools_3-17-16-low.pdf

In sum, ACT NW's planned program combines the benefits of integrated clinical and therapeutic care, prosocial APG supports, and bundled billing that simplifies processes and provides program stability.

Literature Review

This section summarizes literature ECONorthwest reviewed related to the treatment of adolescents for SUDs and co-occurring mental health disorders, focusing on treatment programs with APG frameworks that integrate SUD treatment and mental health care.[8] The existing body of research around these topics is relatively small; the paragraphs that follow provide a summary of the extant literature.

An APG engages recovering adolescents in prosocial activities that build new peer networks and interpersonal relationships that support their recovery. Rochat et al. write that an APG "integrates the important peer connection with sound clinical practice through intervention, support, education, accountability and family involvement" (2011).

The APG model is frequently advanced as a successful treatment model for adolescents as it incorporates many of the program elements that researchers have identified as effective. Brannigan et al. (2004) and Collier, Hilliker, and Onwuegbuzie (2014) highlighted parental involvement, a positive social support network within a "climate of trust" and social influence as effective program elements for adolescents.

An APG can create a positive social support network by surrounding adolescents with peers in recovery and engaging adolescents in structured social outings to give them alternatives to using substances. In addition, APGs can help strengthen family relationships and can provide parents with tools to support their recovering adolescent, as discussed later in this review.

Adolescents are challenging to treat for SUDs. Research shows adolescents aged 12-17 are more susceptible to SUDs, relapse, and peer influence than adults due in large part to the fact that their brains are still under development (Gonzales-Cataneda and Kaminer 2016; Nash and Collier 2016). Adolescents with co-occurring substance use and mental health disorders are also the "rule rather than the exception among youth populations" (Kaminer 2015; Gonzales-Cataneda and Kaminer 2016).

In addition, Ramo and Brown (2008) found that adolescents were more likely to give in to social pressure and relapse compared with adults, at rates of 70 percent and 46 percent, respectively (also Collier, Hilliker, and Onwuegbuzie 2014). Further, adolescents rarely enter treatment with high motivation to become sober (Nash 2015; Kaminer and Godley 2010; Wisdom and Gogel, 2010).

[8] See the "Citations for Reviewed Literature" section at the end of this report for a list of full citations.

The APG model can help to address some of the most substantial challenges in treating adolescents by providing the wrap-around services adolescents need. As Steiker et al. note: "it is not enough that [adolescents] attend 8 hours of sober school settings; after school, evenings and weekends need attention as well." (Steiker, Nash, Counihan, White, and Harper 2015).

An APG provides adolescents with continuous support and engages them in a peer network that encourages positive rather than self-destructive behavior. Collier, Hilliker, and Onwuegbuzie (2014) describe the logic behind the positive peer support network in the APG: "The basic assumption of this model is that peer relationships, much like the ones that encouraged high-risk behavior, are necessary to enable recovery."

In 2011, Rochat et al. conducted one of the leading studies examining the effectiveness of the APG model. The authors reported a two-year sobriety rate of nearly 90 percent for teens who completed an intensive APG program and also attended a recovery high school[9] (Rochat et al. 2011). In Nash et al.'s 2016 focused ethnography of young people in the Teen and Family Services (TAFS) APG, interviewed participants "attributed peer accountability as an important element for motivating them to persist in the process" (Nash et al. 2016).

Rochat et al. (2011) also examined the perceived attachment to parents of 114 adolescents enrolled in an APG and compared them to the parental attachments of 127 students enrolled in a local high school. They found that not only did teens feel a greater sense of attachment and trust toward their parents due to the APG program, but that parents felt that the program helped teach them how to set effective boundaries and support their recovering adolescent (Rochat et al. 2011 as described in Collier, Hilliker, and Onwuegbuzie 2014).

Despite the perceived effectiveness of the model, only a handful of APGs are running in the United States, with perhaps the most well-known being the Palmer Drug Abuse Program (PDAP) in Houston, Texas. Founded in 1971 by Father Charlie Wyatt-Brown, PDAP was the nation's first APG program and the model has since spread throughout Houston. Recovery programs that incorporate prosocial activities and peer networks into their models are becoming more popular but APGs remain few and far between.

The Recovery Resource Hub from CapaciType, a non-profit that compiles the locations of treatment services, and the Association of Alternative Peer Groups, list a total of 22 unique APGs across the United States, with about half located in the Houston area. Family Inspired Recovery (FIR) is the only APG currently listed in Oregon.[10]

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[9] This finding highlights that collaboration between ACT NW's planned treatment model and Harmony Academy Recovery High School could be especially effective for treating adolescent SUDs.

[10] CapaciType. Recovery Resource Hub. Retrieved from https://www.recoveryresourcehub.org/find-it?zoom=5&view=map&center=31.461028932759003,-96.83692932128908&facets%5Bservices%5D%5B0%5D%5B%5D=Alternative%20Peer%20Group%20Program

Association of Alternative Peer Groups (AAPG). Retrieved from http://www.aapg-recovery.com/

The literature suggests that the model proposed by ACT NW—comprehensive clinical mental health and SUD treatment integrated with an APG framework—would provide effective treatment for adolescents:

> Accordingly, to be effective, experts recommend treatment models that are comprehensive, developmentally appropriate, and tailored to address the multifactorial issues and social contexts associated with adolescent substance use disorders. (Nash and Collier 2016 citing Brannigan, Schackman, Falco, and Millman 2004 and the National Institute on Drug Abuse 2012).

The holistic nature of ACT NW's planned model is expected to help it meet the complex needs of the adolescent population while remaining socially relevant to youth participants. The next section discusses the need for such a model in the Portland region.

Needs Assessment

This needs assessment explores the prevalence of adolescent substance use and mental health disorders in Oregon as well as the treatment options currently available for adolescents. We relied on data from numerous publicly available sources:

- **The Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Behavioral Health Statistics and Quality** is the primary federal agency for behavioral data and health research. SAMHSA's National Survey on Drug Use and Health (NSDUH) compiles behavioral health statistics across the United States annually and the Behavioral Health Services Information System collects data on the U.S. behavioral health treatment system and maps facility locations through its Behavioral Health Treatment Services Locator.

  In addition, SAMHSA performs annual censuses of substance abuse and mental health treatment centers through its National Survey of Substance Abuse Treatment Services (N-SSATS) and National Mental Health Services Survey (N-MHSS).
- **The Oregon Healthy Teens Survey (OHT)** is a voluntary, anonymous school-administered survey sponsored by the Oregon Health Authority that asks questions about the prevalence of drug and alcohol use, risky behavior, and attendance patterns of Oregon's 8th and 11th grade students.[11] The survey is conducted every two years. In our analysis we focused on survey years 2011, 2013, 2015, and 2017 and generated substance use prevalence trends to analyze how Oregon students' use has changed over time.
- **Mental Health America (MHA)** is a national non-profit that compiles various statistics and data on mental health in America. MHA produces annual State of Mental Health reports that rank states on various measures of behavioral health.

[11] Oregon Health Authority, Oregon Healthy Teens Survey. http://www.oregon.gov/oha/PH/BirthDeathCertificates/Surveys/OregonHealthyTeens/Pages/index.aspx

- **American Community Survey 2014-2018 five-year estimates:** The American Community Survey (ACS) is completed annually and is a sample of around 3 million households in the U.S. The ACS collects detailed information about households and individuals, including population and demographics. We use 2014-2018 ACS five-year estimates in our analysis. These five-year pooled data allow for analysis on smaller geographies.

As discussed below, we found that Oregon has a high prevalence of adolescents (defined as ages 12 through 17) with substance use and/or mental health disorders when compared to the nation as a whole. In addition, Oregon ranks below most states in terms of its provision of treatment for both SUDs and mental health disorders for adolescents.

In MHA's 2020 State of Mental Health report,[12] a higher numeric ranking indicates higher prevalence of substance use or mental health disorders and lower rates of access to care. Oregon ranked 44th in the nation for adolescents with SUDs and 47th in the nation on a composite measure that evaluated youth mental health and access to care.[13]

Below we discuss the issues of adolescent substance use, mental health, and co-occurring disorders in Oregon and, where data were available, the Portland region.

Substance Use Disorders

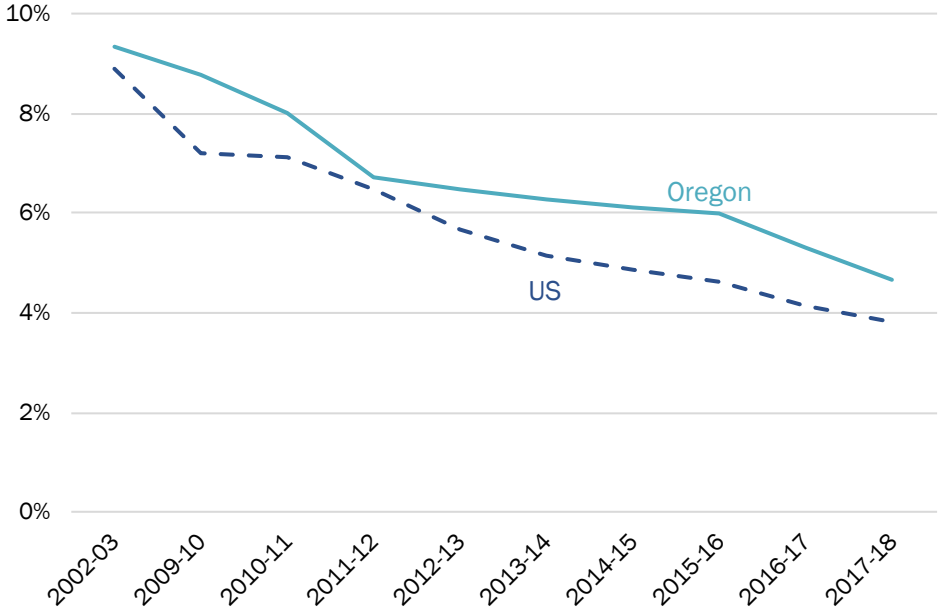
This section uses national data on SUDs among adolescents to provide context for the state of Oregon and also discusses the prevalence of disorders among adolescents in the state and tri-county area (Multnomah, Washington, and Clackamas counties).

As shown in Exhibit 1, Oregon has historically had a higher prevalence of youth SUDs than the rest of the nation. As of 2018, Oregon continues to remain above the national rate.

[12] Fritze, Danielle, Nguyen, Theresa, and Reinert Maddy. *The State of Mental Health in America 2020*. Mental Health America. 2020.

[13] The composite measure includes these seven indicators: (1) Youth with at least one major depressive episode in the past year. (2) Youth with substance use disorder in the past year. (3) Youth with severe major depressive episode. (4) Youth with major depressive episode who did not receive mental health services. (5) Youth with severe major depressive episode who received some consistent treatment. (6) Children with private insurance that did not cover mental or emotional problems. (7) Students identified with emotional disturbance for an individualized education program.

Exhibit 1. Share of 12-17 year-olds with a substance use disorder (dependence or abuse of illicit drugs or alcohol in the past year), 2002-03 to 2017-18

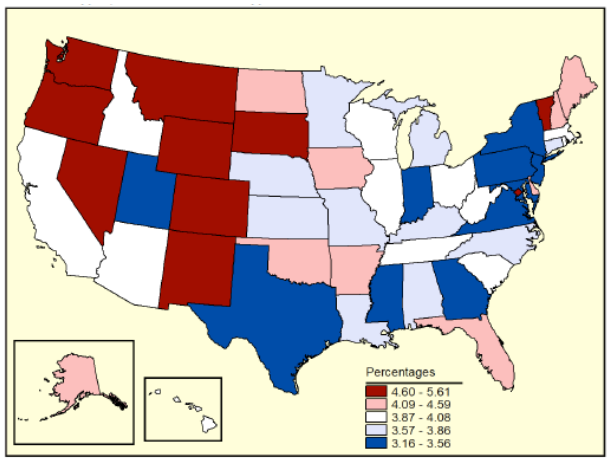


Notes: Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically, including methamphetamine. Dependence or abuse is based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Data for 2014-15 unavailable; a value was interpolated from surrounding data years. Data source: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, Model-Based Prevalence Estimates

Our analysis of ACS and NSDUH data indicates that nearly 6,000 adolescents aged 12-17 in the tri-county region experienced an SUD in 2018.

Exhibit 2 illustrates the share of each state's adolescent population with an SUD "within the past year." The exhibit indicates that Oregon adolescents experience SUDs at one of the highest rates in the nation (4.65 percent versus 3.83 percent for the U.S., a 21 percent difference).

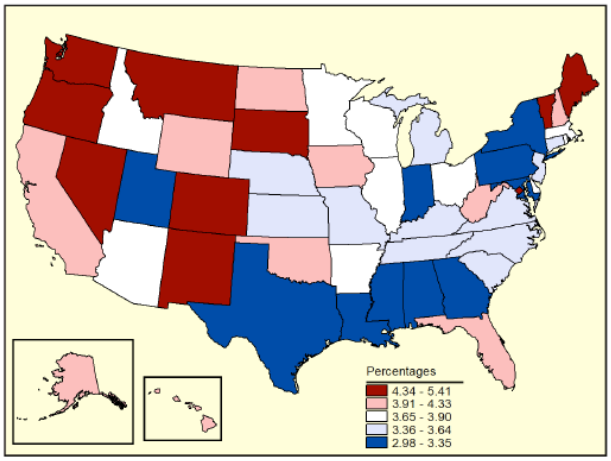
Exhibit 2. Substance use disorder in the past year among youths aged 12 to 17, by state, 2017-2018



Source: Substance Abuse and Mental Health Services Association (SAMHSA), Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018

In addition to having a high prevalence of adolescents with SUDs, Oregon has a high prevalence of youth needing but not receiving treatment at a specialty facility for substance use (see Exhibit 3). Oregon's rate is 20 percent higher than the nation's (4.34 versus 3.62 percent). Reported reasons for not receiving treatment include not perceiving a need for treatment, not being ready to stop using, having no health care coverage, not knowing where to go for treatment, and not being able to afford the cost of treatment.[14] See Appendix A for additional, substance-specific maps.

Exhibit 3. Needing but not receiving treatment at a specialty facility for substance use in the past year among youths aged 12 to 17, by state, 2017-2018



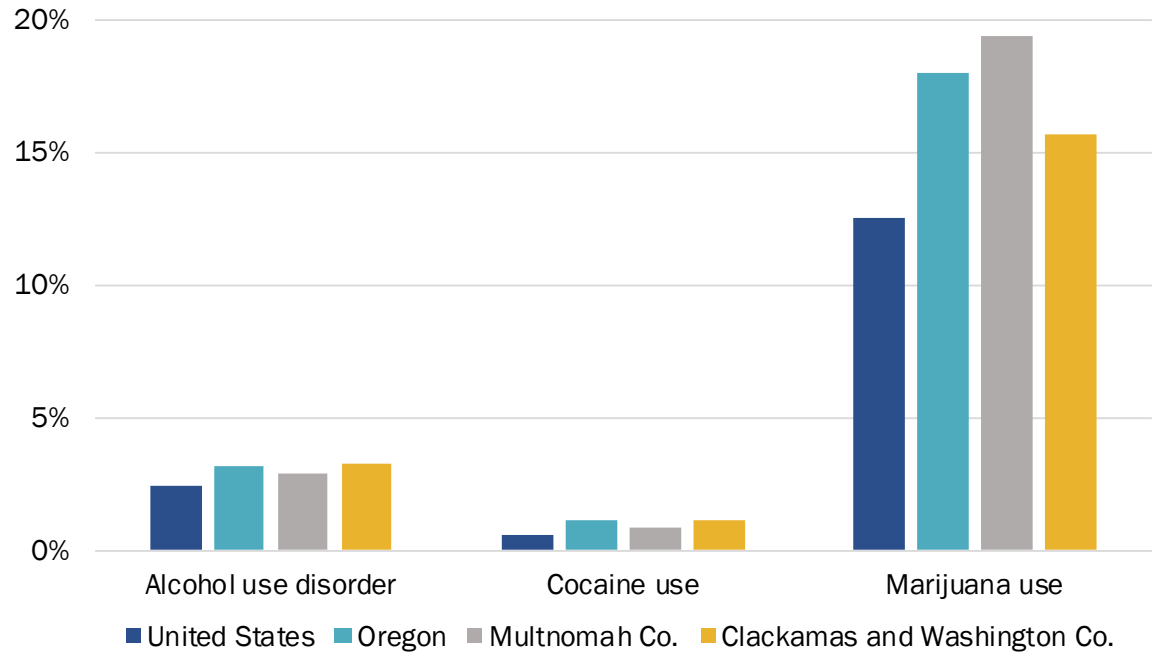
Source: Substance Abuse and Mental Health Services Association (SAMHSA), Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018

[14] See SAMHSA, *Key Substance Use and Mental Health Indicators in the United States: Results from the 2018 National Survey on Drug Use and Health,* http://samhsa.gov/data

Regional patterns of substance use and addiction in Multnomah, Clackamas, and Washington counties are similar to the state as a whole and also above national averages. Exhibit 4 presents rates of adolescents with an alcohol use disorder, and cocaine or marijuana use in the past year. On all three metrics, Multnomah, Clackamas, and Washington counties were fairly similar to the state and higher than the nation.

The share of teens with an alcohol use disorder is 21 percent larger (0.5 percentage points higher) in Multnomah County than it is in the nation, for example. The share of adolescents using cocaine within the past year in Multnomah County is about a third larger (0.2 percentage points higher) than the national rate, and the share of adolescents using marijuana is 54 percent larger (6.9 percentage points higher) (probably due at least in part to Oregon's legalization of recreational marijuana for those aged 21 and older).

Exhibit 4. Alcohol use disorder, cocaine, and marijuana use in the past year, share of 12-17 year olds, 2014-2016 averages



Data source: 2014, 2015, and 2016 National Surveys on Drug Use and Health: Substate Age Group Tables, Percentages

Considered in tandem with national survey data, the OHT survey provides additional information about substance use for a specific subpopulation of adolescents in the tri-county area (Multnomah, Washington, and Clackamas counties) and the state overall. [15]

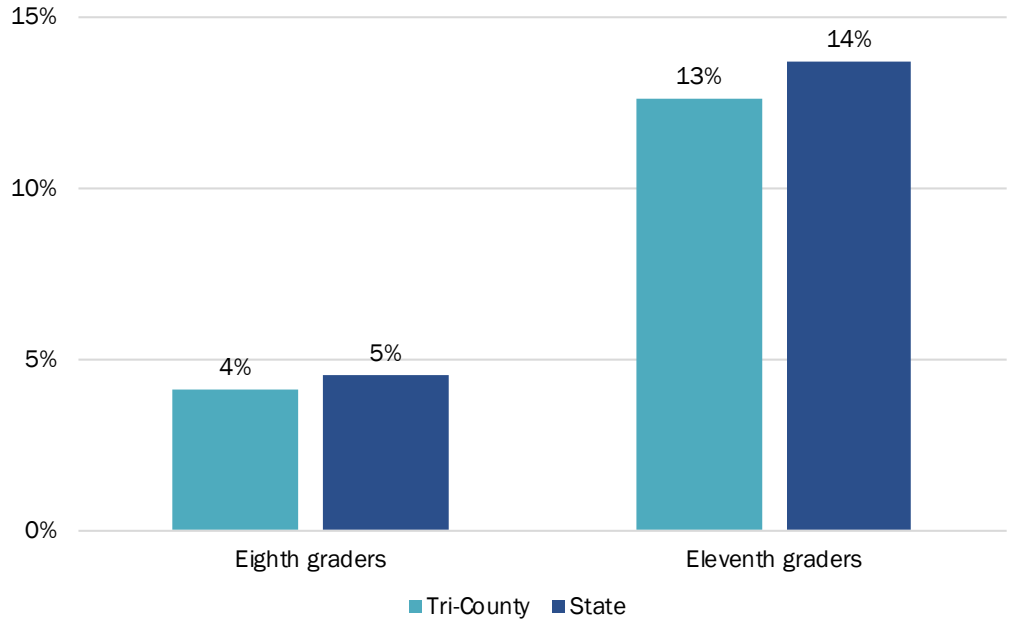
Exhibit 5 gives a sense of the share of Oregon adolescents who use illicit substances regularly, graphing the share of eighth grade and eleventh grade students who reported using alcohol,

[15] Due to the sensitive nature of some OHT questions, many Oregon districts and schools choose to not administer the survey to their students, making the survey results neither comprehensive nor representative of the Oregon student body. However, survey responses can suggest broad statewide trends.

marijuana, cigarettes, or prescription drugs six or more days in the past month in 2017. The exhibit compares the usage of eighth and eleventh graders in the tri-county region and the state overall.

In 2017, the rate of eighth and eleventh graders who used substances regularly was slightly higher for the state as a whole than it was in the tri-county region. The share of eleventh graders reporting regular use was more than double the share of eighth graders reporting regular use, regardless of geography.

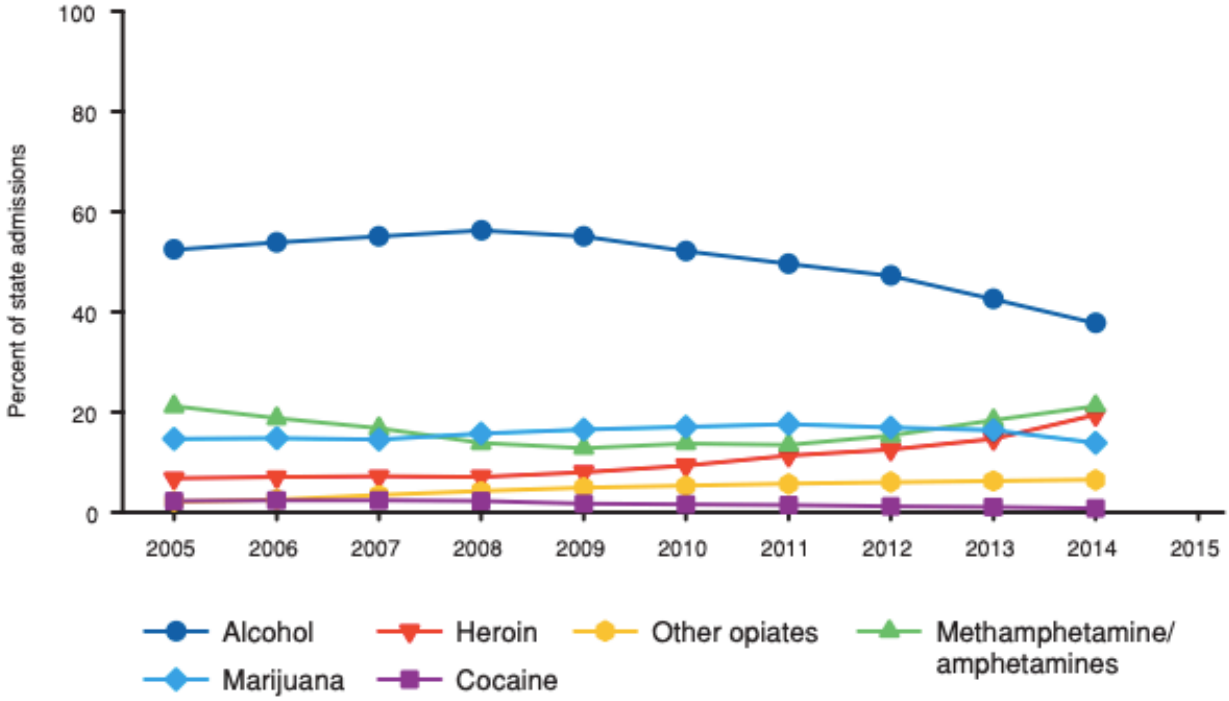
Exhibit 5. Regular users of alcohol, marijuana, cigarettes, or prescription drugs (6 or more days using in last 30 days), eighth grade and eleventh graders, 2017



Data source: Oregon Healthy Teens Survey, Survey Year 2017. Note: results weighted for state and county.

Exhibit 6 shows the share of admissions to Oregon SUD treatment facilities by primary substance of abuse (ages 12 and older). Alcohol accounts for the largest share in Oregon admissions. Oregon, like much of the nation, saw an uptick in heroin and other opiate admissions as a share of total admissions during this time period.

Exhibit 6. Oregon admissions aged 12 and older, by primary substance of abuse, 2005 through 2015



Data source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Note: Oregon did not report data for 2015 due to changes in its reporting system.

In sum, Oregon continues to have persistently high prevalence of youth SUDs compared to the rest of the nation. The state ranks poorly in terms of youth access to treatment, suggesting an unmet need for SUD treatment among adolescents.

Mental Health

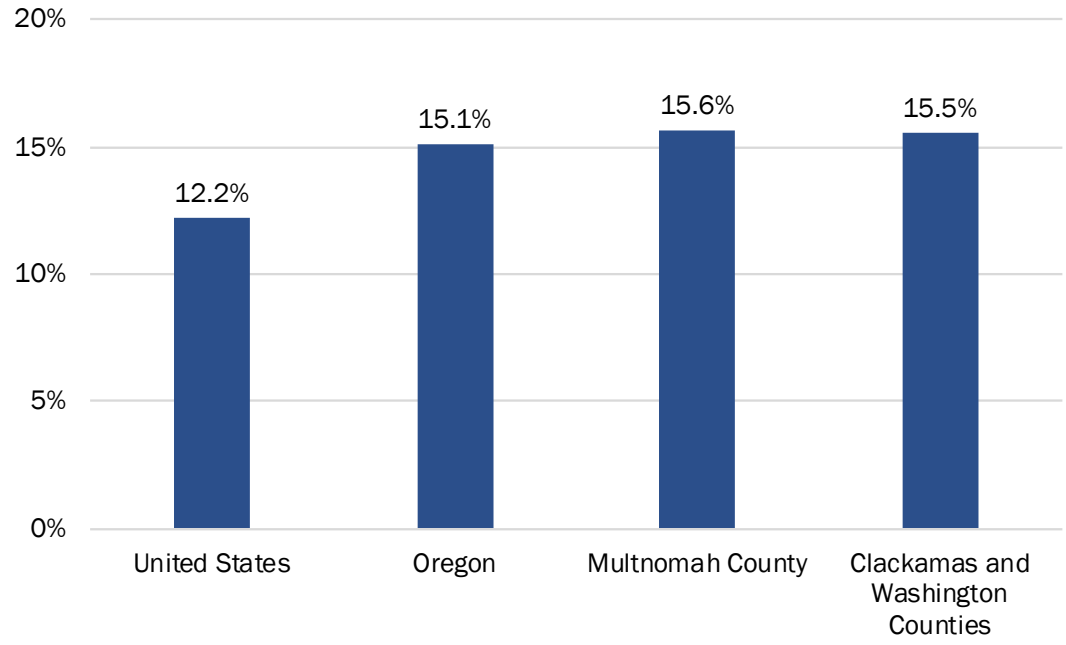
The share of adolescents with mental illnesses has been on the rise nationally and in Oregon. MHA's 2020 State of Mental Health in America Report states that the nationwide prevalence of a major depressive episode within the past year rose from 8.7 percent to 13.0 percent between 2012 to 2017 for youth aged 12 to 17 (a 49 percent increase).[16] In Oregon, the share of youth with at least one major depressive episode in the past year rose from 10.2 percent to 16.3 over the same time period (a 60 percent increase).

[16] Fritze, Danielle, Nguyen, Theresa, and Reinert, Maddy. *The State of Mental Health in America 2020*. Mental Health America. 2020.

Oregon ranked last in the nation on a composite metric that measures youth and adult mental health and SUDs in the past year,[17] suggesting that Oregon has high prevalence and severity of mental illness relative to the nation among adults and adolescents. The state looks better on measures of access to care and mental health workforce availability, ranking more toward the middle of the pack.

Exhibit 7 illustrates the relatively high prevalence of mental illness among Oregon and tri-county 12-17 year olds using NSDUH data. The share with a major depressive episode in the past year (average for 2014 through 2016) was 24 percent higher in Oregon (15.1%) than it was in the nation (12.2%). Multnomah County and Clackamas and Washington counties had similar but slightly higher shares of youth with a major depressive episode than the state (15.6% and 15.5% respectively).

Exhibit 7. Major depressive episode in the past year, share of 12-17 year olds, 2014-2016 averages



Data source: 2014, 2015, and 2016 National Surveys on Drug Use and Health: Substate Age Group Tables, Percentages

The OHT data suggest similar trends. Exhibit 8 graphs eighth graders and eleventh graders who reported feeling sad or hopeless for two weeks or more or who seriously considered suicide. Feeling sad or hopeless for two weeks or more is a common indicator of depression.

[17] Components of the metric include (1) Adults with Any Mental Illness (AMI), (2) Adult with Substance Use Disorder in the Past Year, (3) Adults with Serious Thoughts of Suicide, (4) Youth with At Least One Major Depressive Episode (MDE) in the Past Year , (5) Youth with Substance Use Disorder in the Past Year, (6) Youth with Severe MDE.

The OHT data show an upward trend for both eighth graders and eleventh graders who feel sad or hopeless and who are considering suicide. These trends reflect those for the nation, but Oregon has some of the highest rates of mental illness for adolescents in the country.

Exhibit 8. Feeling sad for two weeks or more or seriously considering suicide in the past year, eighth and eleventh graders, 2011 through 2017

Exhibit 8A: Eighth graders

The share of eighth graders reporting that they felt sad or hopeless for two weeks or more and those who reported seriously considering suicide has been on the rise. In 2017, 29 percent of tri-county eighth graders reported feeling sad for two weeks or more and 16 percent reported that they seriously considered suicide.

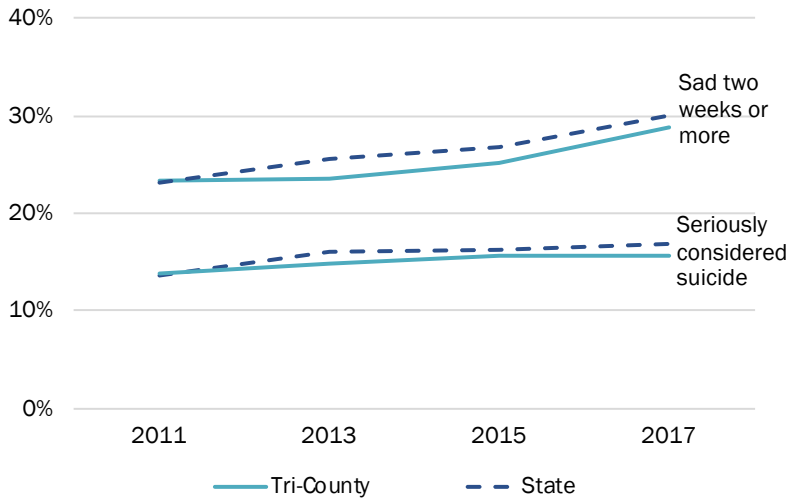
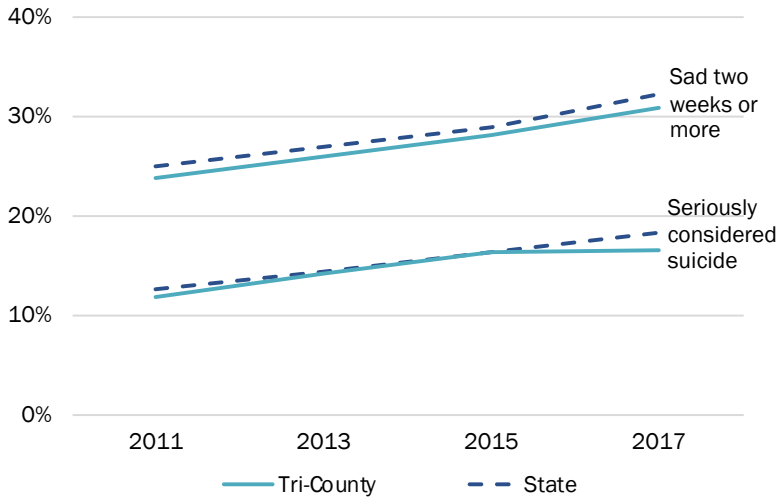


Exhibit 8B: Eleventh graders

The share of eleventh graders reporting that they felt sad or hopeless for two weeks or more or that they seriously considered suicide also rose between 2011 and 2017. In 2017, 31 percent of tri-county eleventh graders reported feeling sad or hopeless for two weeks or more and 17 percent reported that they seriously considered suicide.



Data source: Oregon Healthy Teens Survey, Survey Years 2011, 2013, 2015, and 2017. Note: results weighted for state and county.

Exhibit 9 graphs two different measures of mental health for eighth grade and eleventh grade students and shows the share of eighth and eleventh graders who reported that they had unmet emotional or mental health needs or who rated their mental health as "poor."

For unmet emotional or mental health needs, respondents were asked to include any time they thought they should have seen a counselor, social worker, or other mental health professional, but were unable to do so.

Exhibit 9. Share with unmet emotional needs or ranking mental health as “poor”, eighth and eleventh graders, 2011 through 2017

Exhibit 9A: Eighth graders

Since 2011, an increasing share of eighth graders reported that they had unmet emotional or mental health needs or rated their mental health as “poor.” In 2017, 19 percent of tri-county eighth graders reported having unmet emotional or mental health needs and 8 percent rated their mental health as “poor.”

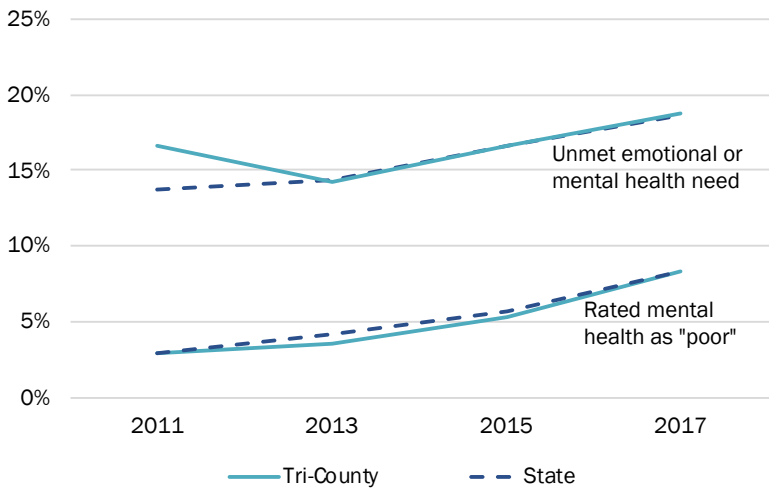
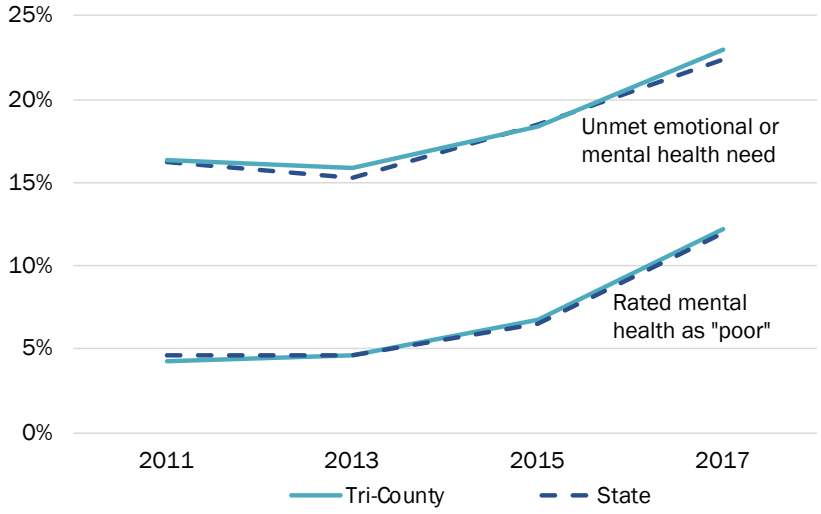


Exhibit 9B: Eleventh graders

The uptick for eleventh graders reporting unmet emotional or mental health needs or rating their mental health as “poor” between 2011 and 2017 was larger than it was for eighth graders. In 2017, 23 percent of tri-county eleventh graders reported having unmet emotional or mental health needs and 12 percent rated their mental health as “poor.”



Data source: Oregon Healthy Teens Survey, Survey Years 2011, 2013, 2015, and 2017. Note: results weighted for state and county.

As with eighth and eleventh graders reporting sadness or hopelessness for two weeks or more or seriously considering suicide, we see an upward trend in those reporting unmet emotional or mental health needs or rating their mental health as poor.

Experts have debated the drivers of the youth mental health situation in Oregon. A ten-part series on youth mental health published in *The Oregonian* identified rising academic pressures and stress related to climate change, school shootings, a troubling political climate, and other global disasters as important drivers of the apparent decline in youth mental health.[18]

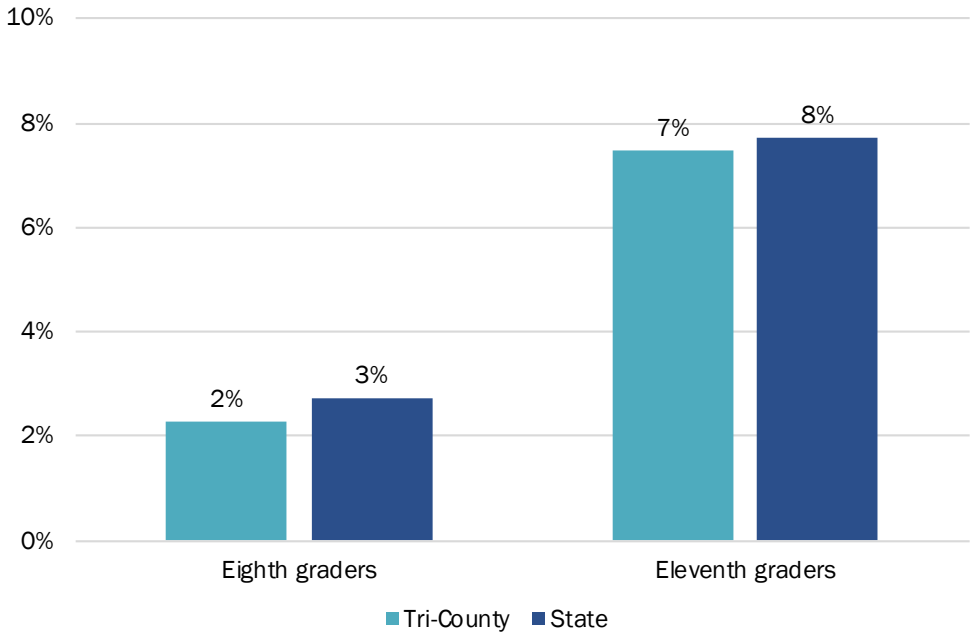
> "America and its young people live in an age of near-constant bad news. OregonLive, like other news websites, is replete with headlines that stoke young people's existential fears: stories highlighting climate change, mass shootings, political hate and the like."
>
> -Casey Chaffin, *OregonLive*

Co-Occurring Disorders

Oregon's high prevalence of youth substance use and mental health disorders and the tendency for adolescents to experience both disorders simultaneously indicate that Oregon likely has a relatively large share of adolescents with co-occurring disorders.

Exhibit 10 presents suggestive evidence of the prevalence of co-occurring disorders from OHT. The exhibit graphs the share of eighth and eleventh graders who reported both using an illicit substance (alcohol, marijuana, or cigarettes) six times or more in the past month and feeling sad or hopeless for two or more weeks in a row (an indicator of depression).

Exhibit 10. Share with potentially co-occurring disorders, eighth graders and eleventh graders, 2017



Data source: Oregon Healthy Teens Survey, Survey Year 2017. Note: results weighted for state and county.

[18] Chaffin, Casey. "In Oregon, academic pressures, existential fears help explain rising rates of suicide, mental health conditions." *OregonLive*. Sept. 08, 2019. Retrieved from: https://www.oregonlive.com/health/2019/09/in-oregon-academic-pressures-existential-fears-help-explain-rising-rates-of-suicide-mental-health-conditions.html

In the tri-county region, 2 percent of eighth graders and 7 percent of eleventh graders reported that they used alcohol, cigarettes, or marijuana six times or more in the past month and that they felt sad or hopeless for two weeks or more in the past year. On average, about 60 percent of eighth grade and eleventh grade students who reported regular substance use also reported feeling sad or hopeless for two weeks or more.

Research showing that adolescents tend to have co-occurring substance use and mental health disorders[19] supports this finding and suggests the need for more providers who can care for clients with co-occurring disorders.

Market Analysis

This market analysis examines the current substance use, co-occurring disorder, and integrated treatment landscape for adolescents in the Portland region. To inform our analysis, we reviewed information about existing treatment facilities in the region, interviewed local experts on the provision of care for adolescents, and compiled information from publicly available sources to support an understanding of the current treatment landscape.

Current Treatment Landscape

As noted above, SAMHSA performs annual censuses of substance abuse and mental health treatment centers in the U.S. through its National Survey of Substance Abuse Treatment Services (N-SSATS) and National Mental Health Services Survey (N-MHSS). Census survey responses are self-reported and include some information about individual facilities (e.g., types of treatment provided and services offered, public or private facility, special programs or groups provided for specific client types, client outreach and payment options) as well as general information such as licensure, certification, accreditation, and facility website availability.

While available survey data indicate the presence of SUD treatment centers that treat adolescents in the Portland region, they do not include information about the quality, level, nor comprehensiveness of the treatment offered at those facilities. We reviewed local online directories as well as provider websites to inform our understanding of the availability of integrated care for co-occurring disorders in the region.

Treatment Facilities in the Portland Region

According to N-SSATS and N-MHSS data, about 30 percent of Oregon's substance abuse treatment facilities treat adolescents and over 60 percent of Oregon's mental health providers serve adolescents. In the last three years, the reported number of substance abuse facilities

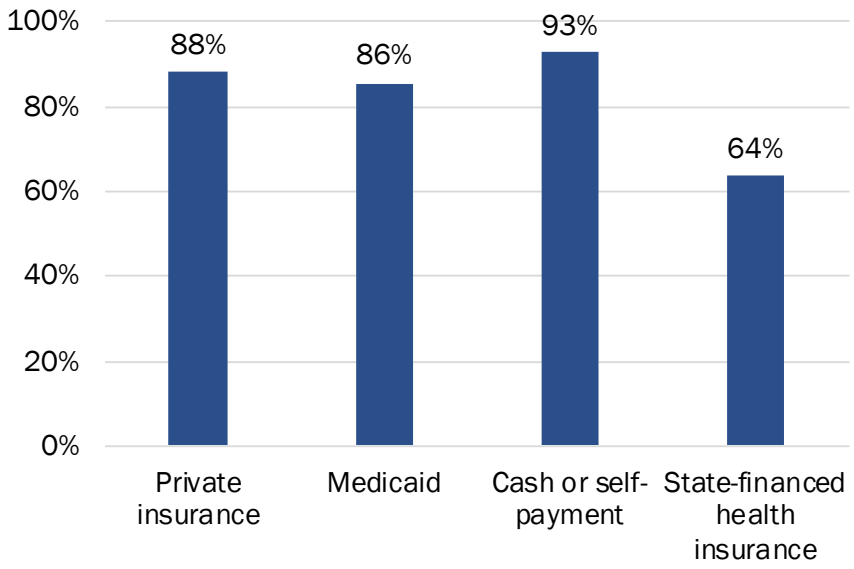
[19] Kaminer 2015; Gonzales-Cataneda and Kaminer 2016

serving adolescents declined slightly, while the number of mental health facilities serving adolescents increased slightly.

Oregon facilities report accepting a range of payment methods, as shown in Exhibit 11. The majority of facilities report that they accept private insurance or Medicaid in addition to other methods of payment. However, ACT NW program staff report that, in practice, many programs focus on one type of insurance or the other and that many publicly funded programs are not available to adolescents with private insurance.

Exhibit 11. Types of payment methods accepted, substance abuse facilities, Oregon, 2018

Most facilities in Oregon accept multiple forms of payment, including private insurance and Medicaid.



Data source: N-SSATS and N-MHSS.

To broaden our understanding of the treatment landscape in the Portland region[20] beyond what we could learn from SAMHSA data we searched multiple databases for local SUD and mental health treatment facilities that serve adolescents and conducted online searches to locate additional facilities (e.g., OHA, 211info, MAAPP [MetroPlus Association of Addiction Peer Professionals], CareOregon, and treatment facility websites).

We found that many organizations report providing SUD and mental health treatment for adolescents but in general do not describe the ways in which that care is provided (e.g., in the same or different locations, by the same or different clinicians, in an integrated way or not). To further characterize program availability, we reviewed treatment facility websites and collected opinions from local experts and ACT NW staff. This research did not identify any facilities that combined all of the program elements proposed by ACT NW, although fully characterizing the nature and level of services being provided by local programs would require a significant amount of additional qualitative research. Exhibit 12 summarizes our findings regarding the

[20] Defined as Multnomah, Washington, and Clackamas counties for our search.

types of adolescent SUD and mental health treatment available to adolescents in the Portland region.

Exhibit 12. Most common types of SUD and mental health treatment for adolescents in the Portland region, Spring 2020

Substance use disorder treatment	Most treatment facilities providing solely SUD treatment for adolescents offer outpatient care. Many programs center around group therapy and the twelve steps. It is not uncommon for programs to incorporate prosocial activities, similar to an APG. It is less common for SUD treatment facilities to offer more intensive clinical services, such as intensive outpatient or partial hospitalization. Local experts interviewed expressed a greater need for these services. Residential SUD treatment is the least common form of care available.
Mental health treatment	Most mental health treatment facilities provide outpatient care for adolescents. A number of facilities offer more rigorous services such as intensive outpatient care or partial hospitalization. A few facilities offer residential mental health treatment.
Substance use disorder and mental health treatment	It is not uncommon for facilities focusing primarily on adolescent SUD treatment to provide some form of mental health treatment. It is less common for facilities focusing primarily on adolescent mental health treatment to provide SUD treatment. For SUD treatment facilities offering mental health services, it can be difficult to determine the rigor or integration level of the care. For many SUD treatment facilities, mental health care is delivered either through peer counselors or counselors with associate's- or bachelor's-level certification. For other facilities, SUD and mental health care may not be coordinated nor provided by the same team of clinicians. Facility websites imply that some services are integrated and delivered at the same location, but additional research would be required to determine the extent and nature of the integration.

Availability of Integrated Care for Co-Occurring Disorders

As described above, limited data exist on the provision of integrated treatment for substance use and mental health disorders. One survey estimated that about half of programs nationwide[21] provide dual SUD and mental health treatment.[22] Fewer offer integrated services, in which the same clinicians provide concurrent SUD and mental health treatment for co-occurring disorders. ACT NW program staff report that, based on their experience and knowledge, even when facilities do offer both SUD and mental health services, they are not well integrated nor coordinated. For example, clients might receive services in two separate buildings, and providers might not discuss nor integrate their treatment plans.

Further, ACT NW program staff and local experts we interviewed indicated that few SUD treatment programs have master's-level clinicians on staff to provide mental health care; most staff and clinical supervisors providing SUD care in Oregon have a bachelor's or associate degree plus a certification in addiction counseling.

Legal, administrative, or staffing hurdles may also discourage providers from providing integrated care, as described in the next section. Our scan of the treatment landscape in the Portland region indicates the region would benefit from additional capacity to serve adolescents with co-occurring disorders.

Local Expert Interviews

To gain on-the-ground perspectives, ECONorthwest interviewed representatives from Medicaid (CareOregon), private insurance providers, treatment facilities, and other organizations associated with SUD and mental health treatment. This section summarizes the opinions, insights, and views of the individuals interviewed.

[21] The survey reported little variation across geographies, indicating that most states were similar to the nation.

[22] Mojtabai, Ramin. "Which Substance Abuse Treatment Facilities Offer Dual Diagnosis Programs?" *American Journal of Drug and Alcohol Abuse.* 2004.

Key Findings

- **Local experts generally agreed on the need for a treatment center like the one planned by ACT NW and were enthusiastic about the concept.** Most local experts agreed that the Portland region lacks adequate treatment options for adolescents, particularly for adolescents with co-occurring disorders. Interviewees cited specific gaps in the availability of long-term residential, intensive outpatient (IOP), and partial hospitalization programs (PHP).

  None of the local experts ECONorthwest spoke with was able to identify an adolescent treatment program in the Portland region that seamlessly integrates mental health and SUD treatment. Furthermore, local experts were optimistic about the value of APG frameworks and prosocial activities and noted that such programs ought to be built upon and better integrated into the Portland region's landscape of care.

  > "I've never met anyone with an SUD who did not also have an underlying mental health issue. The idea of having dual services and a PHP that is looking at [co-occurring disorders] is definitely a great avenue to explore."
  >
  > -Local youth care expert

  Local experts highlighted that the current continuum of care available for adolescents is patchy and that there are few high-quality programs. Local experts were generally enthusiastic about the ACT NW concept but also opined on the types of hurdles they thought such a program could encounter, based on the challenges they themselves had faced in providing mental health and or SUD treatment for adolescents.

  > "There's less than 100 substance use disorder residential beds that are for youths in the state of Oregon. The beds serve both commercial and Medicaid. That is a very inadequate number. All have to work with co-occurring disorders and vary in their ability to do so. Outpatient is also pretty woeful.
  >
  > "On the school-based side, there are promising programs popping up here and there, but many years of under-investment makes it a very patchy and not connected continuum of care.
  >
  > "Also, programs know what the best practices are and work to implement them and work with families, but this requires a higher level of clinical training and skill level.
  >
  > "It makes it hard to lift that exhaustive of a program. There are very few of them and they are not well connected."
  >
  > -Local youth care expert

- **Providing care for co-occurring disorders is difficult or impossible for many providers.** The separate reimbursement structures, different licensing and certification processes, and different cost structures of mental health and SUD treatment centers have presented challenges for some providers, according to interviewees. One local expert described running a facility that provides both mental health and SUD treatment as taking on "double the administrative burden" and "literally running two businesses."

  > "One of the big needs is for dual diagnosis treatment. The care systems and funding streams have historically been separated for mental health or substance abuse. Kids in the real world do not fall neatly into one or the other."
  >
  > -Insurance representative

  Reimbursement rates are higher for mental health providers but the costs of running mental health programs are also reportedly higher. One local expert cited the cost of hiring a full-time psychiatrist as particularly onerous for a mental health provider.

  In summary, while local experts thought it possible to run a facility that provides both mental health and SUD treatment, they added cautions about the absence of regulatory,

reimbursement, and legal infrastructure for such a facility and the administrative burdens that could result.

- **Working with both Medicaid and private insurance is challenging for some providers.** As described earlier in the needs assessment, self-reported data indicate that many treatment centers accept both private insurance and Medicaid. However, it is not uncommon for facilities to prioritize one type of insurance over another. Some facilities only accept Medicaid, for example, while others may accept only private insurance. Local experts described challenges associated with accepting each type of insurance.

  Medicaid reimbursement rates are lower than private insurance rates, but the Medicaid world (despite the need for additional credentialing) can be easier for providers to navigate. In contrast to private insurance, Medicaid is standardized and there are no copays.

  One local expert noted that private insurance copays can be difficult for providers, reporting that some providers do not have the needed infrastructure to calculate and accept payments and that understanding and working with a wide range of private insurance plans can add administrative burden.

  Local experts also noted that Medicaid patients tend to have different treatment needs than patients with private insurance. One individual noted that, "Patients in state care tend to have less resources available and have had [that] their whole lives. State care patients are much tougher to serve."

- **Retaining high-quality staff is challenging but crucial.** With all the challenges that come with treating adolescents and co-occurring disorders, and accepting both private insurance and Medicaid, many local experts emphasized that a successful program requires a strong team with an exceptional clinical director, and that recruiting and retaining staff who can connect and work well with adolescents is critical.

  Local experts stated that retaining quality staff can be difficult due to low pay and the demanding nature of the work. Most treatment facilities, especially those in the SUD treatment world, find it difficult to pay staff enough to retain them long-term. One care representative stated that "funding and burn out" were the two biggest challenges her organization faced.

  > "Outpatient requires dynamic personnel and people who can captivate an audience. They need to speak to what the kids are going through. Group leading needs to be interesting and well done enough to be captivating and relevant. The second kids don't find relevance or connectivity, they stop coming."
  >
  > -Local youth care expert

- **Despite the need for more adolescent care, attracting and retaining clients could prove difficult, but an APG framework and prosocial activities can help.** Consistent with some of the research on adolescent care cited earlier in this report, local experts cautioned about the likely challenges in ensuring regular attendance and personal investment of clients in an adolescent SUD treatment program.

Many adolescents begin treatment lacking the motivation necessary to become sober and many face strong peer mechanisms or family situations that can influence them to return to prior habits.

For this reason, local experts emphasized the importance of establishing strong connections with adolescents in treatment and building a foundation of trust between staff and clients. Staff need to set appropriate boundaries with the adolescents in their care but at the same time demonstrate flexibility to avoid creating an adversarial environment. Local experts suggested that developing partnerships with area schools can help encourage adolescents who are reluctant to participate.

> "Peer network is really important. The drag back and wanting to use and go back to old cycles is really strong. You have to really build that healthy peer group. All the kids are at different levels of investment and interest. Some kids can bring you to a worse place."
>
> -Local youth care expert

One local expert stated that poor attendance is one of the primary reasons day treatment programs for adolescents become financially unviable. Speaking about her program's own partial hospitalization program, she stated: "The biggest problem we have is that we have to have everyone there whether the kids show up or not. You don't get paid if the kids don't show up."

However, many local experts were optimistic about the effectiveness of APG frameworks and prosocial activities. They emphasized that, done correctly, such program elements can be successful in increasing buy-in from adolescent clients and in encouraging them to persist with treatment.

ACT NW staff's long experience in both the SUD and mental health fields helps position them to address and overcome the types of challenges the interviewees described, should they arise for ACT NW. Board members are familiar with Medicaid as well as private insurance and are working on program planning with representatives from both. A team of subject matter experts from across the SUD continuum of care supports the program and can help assist the organization in addressing challenges. And program staff have long-standing connections with other providers and experts in the region, which will likely help them attract client referrals and attract and retain high-quality staff.

Financial Feasibility

We assess the financial feasibility of an ACT NW treatment center using a standard pro forma financial model that incorporates information provided by ACT NW and other sources about anticipated staffing, number of clients, billing rates, projected revenue, and operating expenses at the end of 2020 (see below for additional detail). The resulting summary cash flow statement (Exhibit 13) shows the anticipated financial position of the center each year from 2021 through 2025.

ACT NW staff anticipate possible program expansion to include one or two additional treatment centers of similar size and capacity to the first during 2021. The present modeling exercise is for a single treatment center in order to allow flexibility in applying the results to one or multiple centers. Based on the assumptions described below, our pro forma model supports the financial viability of the planned ACT NW program. Although not necessary for financial viability, the revenue assumptions include fundraising anticipated by ACT NW of $65,600 during 2021-2025 ($12,400, net of fundraising costs, in 2021 and a comparable inflation-adjusted amount in each year 2022 through 2025).

Program details were still being finalized at the time of the publication of this report. As a result, this analysis should be used to guide program planning in conjunction with any new information relevant to the assumptions described below.

Billing Plan for Integrated Care

ACT NW staff plan to shift the program during the first year of operations from a standard fee-for-service model (used in the pro forma model below) to a rate schedule that bundles different levels of services, similar to billing for day treatment or partial hospitalization programs (PHPs) for mental illness and SUDs.

Program staff are currently working to obtain state-level certification to provide mental health and SUD services. They will then work with major insurance providers to develop contracts, or single case agreements (SCAs), based on fee-for-service billing codes for use during the first several months of program operation. Over subsequent months they plan to work with key behavioral healthcare representatives from CareOregon (Medicaid) and major private insurance companies to establish a rate schedule for ACT NW's services. The rate schedule will include graduated rates for bundled services, with different levels of day treatment assigned different billing codes and distinguishing between more intensive clinical intervention early in treatment and less intensive treatment later.

Based on discussion with key representatives, program staff believe payors will be interested in establishing and working exclusively within this model of care and payment structure by the end of the first year of program operation. Day treatment billing is expected to be simpler than fee-for-service billing for both ACT NW and the payors. ACT NW program staff will subsequently revise the budget to include the PHP funding model in place of the fee-for-service model.

Exhibit 13. Treatment center operating cash flow forecast, 2021-2025

	2021	2022	2023	2024	2025
Staff	4	4	4	4	4
Number of clients	32	32	32	32	32
Billing rate per month per client	$1,700	$1,750	$1,800	$1,850	$1,910
Revenue					
Services	$652,800	$672,000	$691,200	$710,400	$733,440
Less doubtful accounts	($6,500)	($6,700)	($6,900)	($7,100)	($7,300)
Fundraising	$12,400	$12,700	$13,100	$13,500	$13,900
Total revenue	$658,700	$678,000	$697,400	$716,800	$740,040
Expenses					
Occupancy cost (rent, utilities)	$80,100	$82,500	$85,000	$87,500	$90,100
Wages	$285,700	$294,800	$304,200	$314,000	$324,000
Payroll taxes and benefits	$91,400	$94,300	$97,300	$100,500	$103,700
Billing services	$49,400	$50,900	$52,300	$53,800	$55,500
FF&E, software (capital expenditures)	$17,100	$900	$900	$900	$1,000
Marketing, outreach	$11,200	$11,500	$11,900	$12,200	$12,600
Insurance	$5,900	$6,100	$6,300	$6,500	$6,700
Professional services	$6,300	$6,400	$6,600	$6,800	$7,000
Program expenses, travel, training, bank fees, conferences, misc	$89,600	$92,200	$94,800	$97,500	$100,600
Total expenses	$636,700	$639,600	$659,300	$679,700	$701,200
Revenue less expenses and capital expenditures	$22,000	$38,400	$38,100	$37,100	$38,840

Number of Clients and Staff

By October 2020 ACT NW staff expect to have 32 clients at the center: 18 with an SUD only, 5 with mental health needs only, and 9 with both. The pro forma assumes a steady client caseload and allocation of client type from 2021 through 2025—an average of 32 clients at any point during each year. Program staff believe client referrals could increase during the school year but also expect a full caseload during the summer when adolescents have unstructured days and need for social support.

During 2020 ACT NW expects to hire four staff: an executive director, a therapist, and two recovery mentors. We assume the center has four staff between 2021 and 2025. Associated personnel costs total $377,100 ($285,700 in wages and $91,400 in payroll taxes and benefits) in 2021 and increase with inflation to $427,700 in 2025.

Billing Rate Assumptions

Monthly billing rates are based on the Oregon Health Plan Fee Schedule[23], a conservative assumption because some clients are expected to have private insurance with higher reimbursement rates. Assumed per-client rates for 2020 range from about $78 per day (about $1,550 per month) for clients with SUDs or mental health needs only, to about $105 per day (about $2,100 per month) for clients needing both types of services. We assume per-client monthly billing rates increase by 3 percent (assumed rate of inflation) per year between 2021 and 2025.

The model is sensitive to the allocation of client types because of the higher rate for clients with co-occurring disorders. The per-client average under the assumed allocation of client types is $1,700 per month. If the number of clients with co-occurring disorders increased from 9 to 14 and only 13 clients (instead of 18) were SUD-only, the assumed per-client billing rate would increase to almost $1,800 per month. Conversely, if only 4 clients had co-occurring disorders and 23 had an SUD only, the average per-client billing rate would be about $1,600, resulting in a revenue shortfall in 2021 (about $2,000 short of anticipated expenses).

As described above, ACT NW expects to move toward a reimbursement model similar to partial hospitalization programs for mental illness and SUDs. Program staff are discussing the possibility of per diem rates with payors and anticipate contracts for rates up to $350 per day as soon as 2021. Even if a large portion of the program remains fee-for-service, the introduction of per diem rates at this level would have a sizable effect on revenue assumptions for ACT NW. For example, if 8 of the assumed 32 clients in 2021 were billed at $350 per day for 250 days, and neither billing service cost nor program expenses increased, annual revenue less expenses could increase to $400,000.

Revenue Assumptions

Billing for services, less 1 percent for doubtful accounts, would exceed anticipated expenses from 2021 through 2025. Revenue from services remains sufficient even with a doubtful account assumption of 5 percent. In addition to revenue from services, the model assumes ACT NW will raise $12,400 in 2021, $12,700 in 2022, and so forth (net of fundraising costs) through 2025, increasing annually with the rate of inflation.

For 2020, the program has secured $250,000 in grant funding and expects to raise $12,000 (net of fundraising costs) from private donors. These funds will help support staff compensation and rent payments in the opening months of the program. Currently unfolding events related to the COVID-19 pandemic could affect the program's launch and ability to raise funds for the next year or two as the economy recovers.

[23] March 2020 Behavioral Health Fee Schedule, OHP Fee-for-Service Fee Schedules, available at https://www.oregon.gov/oha/HSD/OHP/Pages/Fee-Schedule.aspx

Occupancy Cost and Capital Expenditure Assumptions

We assume the center will occupy 2,880 sq. ft. and we assume rent and utilities of $27/sq. ft., increasing with inflation through 2025, for totals ranging from $80,100 in 2021 to $90,100 in 2025.

We assume capital expenditures for furniture, fixtures, equipment, software, etc. based on reporting from roughly comparable clinics and centers. Some capital expenditures will likely occur in 2020 but the model includes them in 2021, with lower annual replacement expenses starting in 2022

Billing Services, Marketing, Insurance, Professional, and Miscellaneous Assumptions

We assume billing services, marketing, outreach, insurance, professional services, and program expenses (travel, training, bank fees, drug tests, conferences, security, etc.) as shares of total revenue, totaling $162,400 in 2021 and rising with inflation each year thereafter to $182,400 in 2025.

Conclusion

Oregon remains among the top ten states with the highest rates of SUDs among adolescents and among the top ten states in terms of the share of adolescents needing but not receiving care for SUDs at a specialty facility. Based on our research, Oregon and the tri-county Portland area need more adolescent treatment and recovery programs, and ACT NW is well-positioned to help fill that need.

A majority of adolescents with an SUD also have a co-occurring mental health disorder, and the data suggest an increasing prevalence of mental health disorders, with higher rates in the Portland region than across the state and the nation as a whole. Taken together, the available, self-reported data suggest a strong local need for facilities that treat both SUDs and mental health disorders for adolescents, a need supported by local experts interviewed for this report.

ACT NW seeks to fill this gap in local service provision for adolescents by implementing a integrated treatment program with an APG framework at a new center that will treat co-occurring disorders. The existing literature about this model points to the potential benefits of providing adolescents in recovery with a positive peer support network and other program elements provided by an APG.

In addition to confirming a general need for more treatment centers focused on adolescents, interviewees believed that ACT NW's proposed program is well-designed to fill unmet need for focused, prosocial services in the region. Our financial analysis, based in part on inputs derived from programs elsewhere in the state that have characteristics in common with ACT NW's, suggests that if well-implemented, ACT NW's program will be financially viable.

Citations for Reviewed Literature

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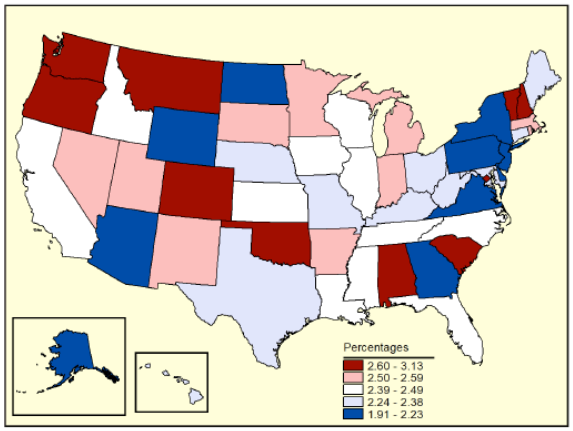
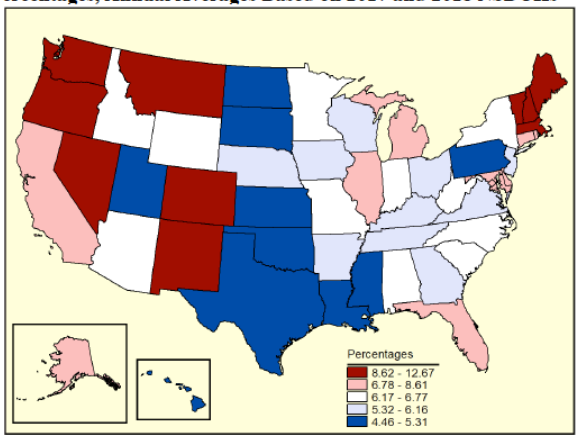
Appendix: NSDUH national maps of prevalence estimates, by state, 2017-18

Figure 6b ***Illicit Drug Use Other Than Marijuana in the Past Month among Youths Aged 12 to 17*, by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



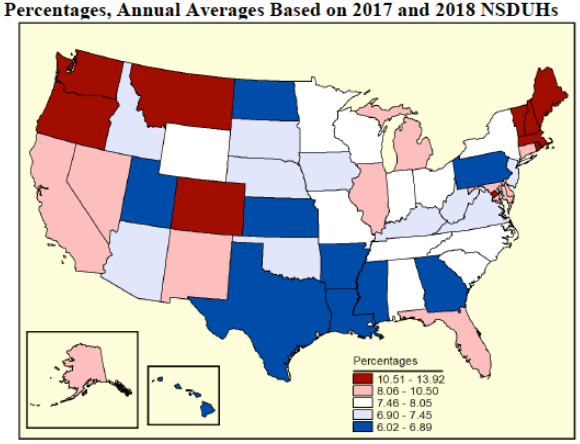
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 3b ***Marijuana Use in the Past Month among Youths Aged 12 to 17*, by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



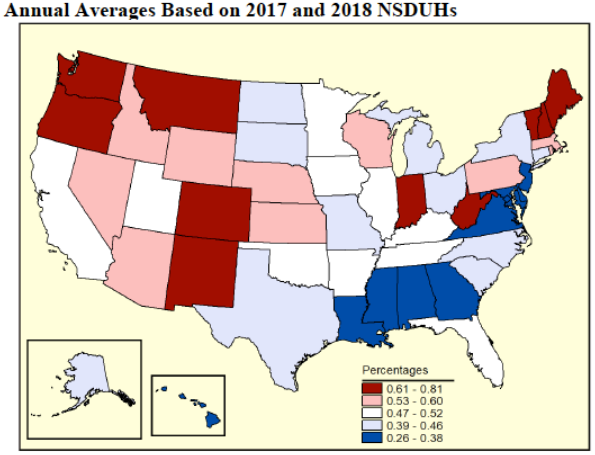
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 1b ***Illicit Drug Use in the Past Month among Youths Aged 12 to 17*, by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



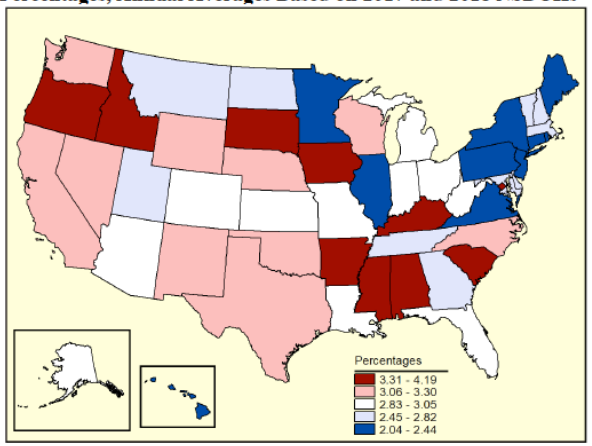
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 7b ***Cocaine Use in the Past Year among Youths Aged 12 to 17,*** **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



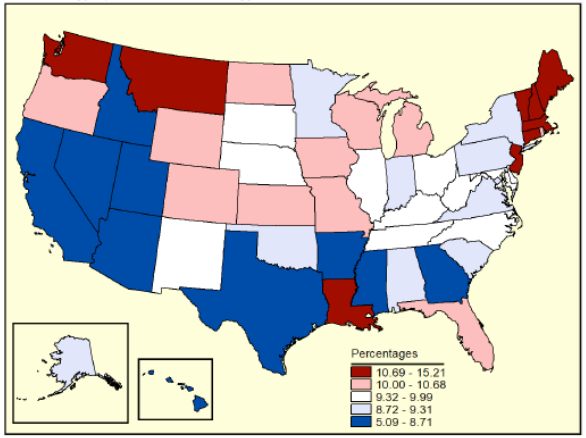
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 12b ***Pain Reliever Misuse in the Past Year among Youths Aged 12 to 17,*** **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



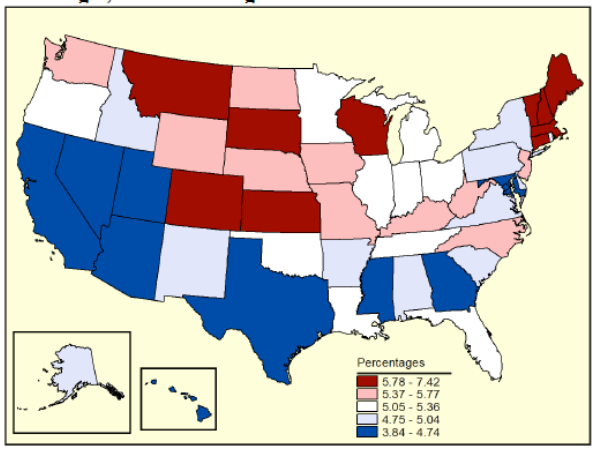
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 13b ***Alcohol Use in the Past Month among Youths Aged 12 to 17,*** **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



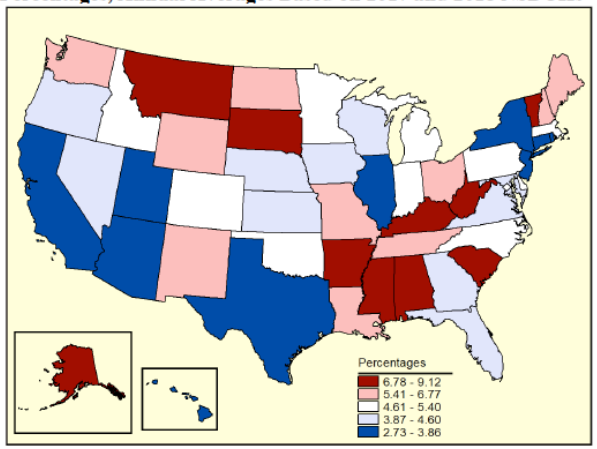
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 14b ***Binge Alcohol Use in the Past Month among Youths Aged 12 to 17,*** **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



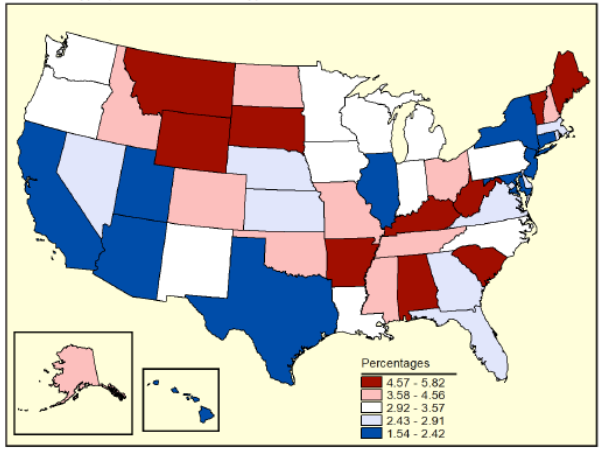
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 17b *Tobacco Product Use in the Past Month among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



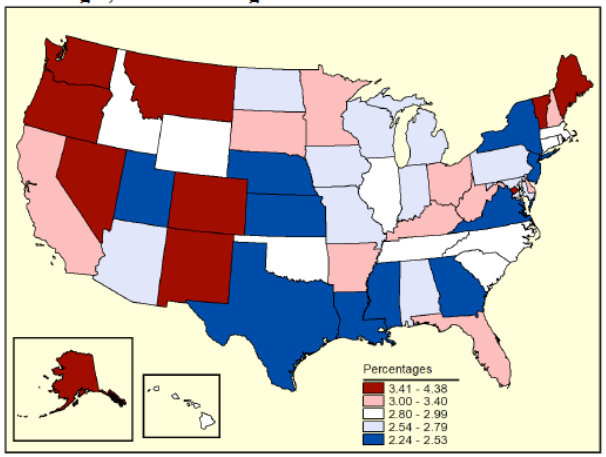
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 18b *Cigarette Use in the Past Month among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



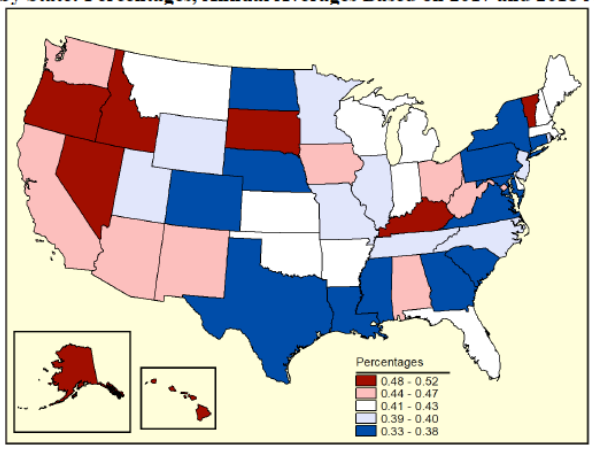
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 20b *Illicit Drug Use Disorder in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



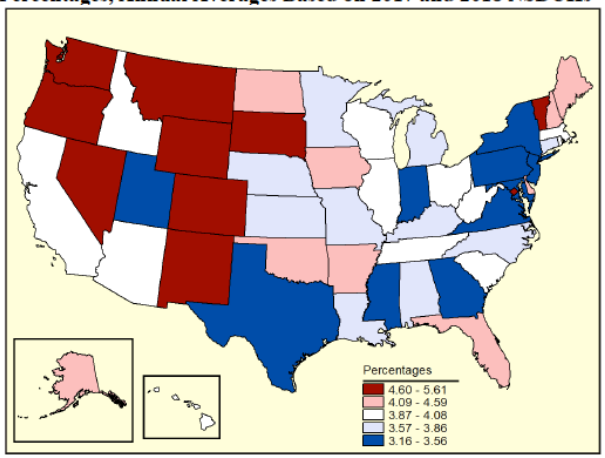
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 21b *Pain Reliever Use Disorder in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



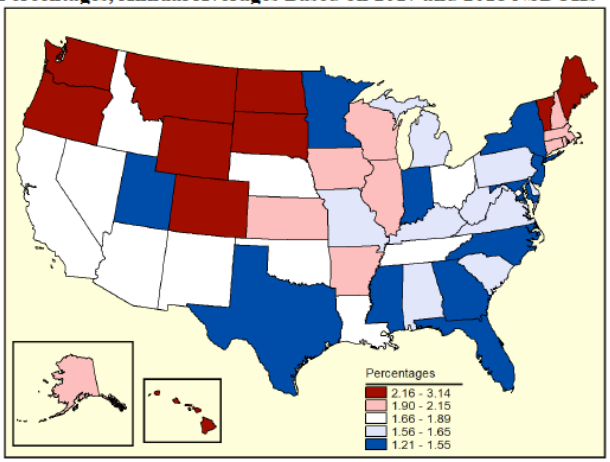
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 23b *Substance Use Disorder in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



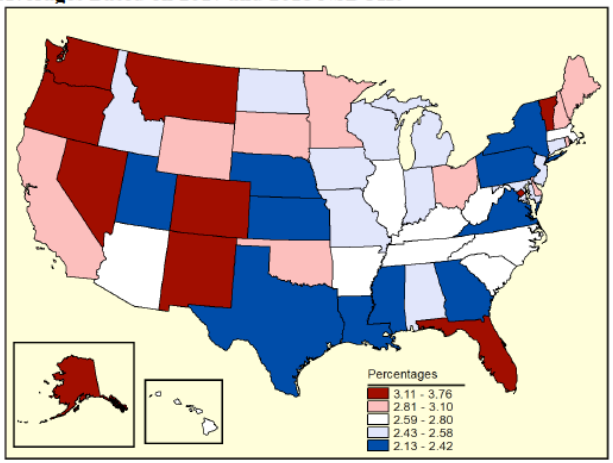
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 22b *Alcohol Use Disorder in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



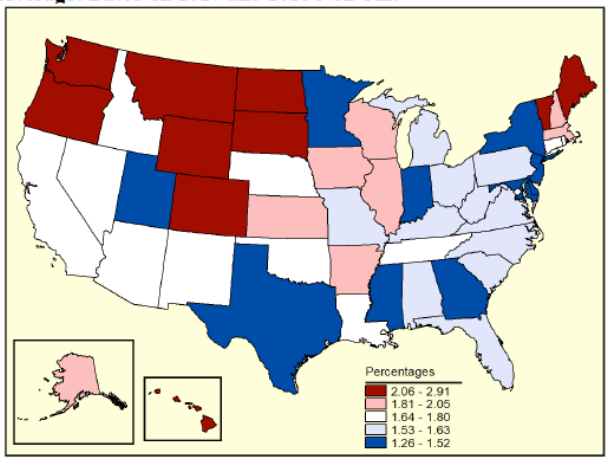
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 24b *Needing But Not Receiving Treatment at a Specialty Facility for Illicit Drug Use in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



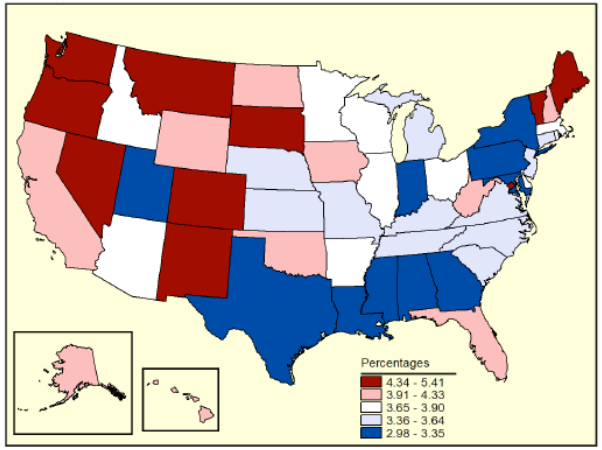
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 25b *Needing But Not Receiving Treatment at a Specialty Facility for Alcohol Use in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.

Figure 26b *Needing But Not Receiving Treatment at a Specialty Facility for Substance Use in the Past Year among Youths Aged 12 to 17,* **by State: Percentages, Annual Averages Based on 2017 and 2018 NSDUHs**



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2017 and 2018.