

# **Analysis of Oregon's Publicly Funded Substance Abuse Treatment System: Report and Findings for Senate Bill 1041**

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## **Oregon Criminal Justice Commission**

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The mission of the Oregon Criminal Justice Commission is to improve the legitimacy, efficiency, and effectiveness of state and local criminal justice systems.

This report is dedicated to Senator Jackie Winters, who championed Senate Bill 1041 and was tirelessly devoted to improving the lives of all Oregonians.

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## EXECUTIVE SUMMARY

Senate Bill 1041 (2017) asked the Oregon Criminal Justice Commission to study and report on the total public funds spent on substance abuse treatment, the outcomes received for that expenditure by type of treatment, and the effect of treatment outcomes on the criminal justice system. Public expenditures on substance abuse treatment focus primarily on the Medicaid (Oregon Health Plan) population that accounts for about a *quarter of the insured population* (about 1 million persons) in Oregon.<sup>1</sup> Most Oregonians are covered by private insurance (65%), and data specific to alcohol and drug treatment are redacted from Oregon's All Payer All Claims Database (APAC) due to federal confidentiality laws, so very little is known about the expenditures or outcomes from the private sector. Absent this information, optimizing addiction treatment for all Oregonians will remain a challenge.

As discussed in the full report, Oregon ranks among the most challenged states in the nation for substance abuse and mental health problems, while at the same time ranking among the worst states for access and engagement with care. In 2017, Oregon ranked first in marijuana use and pain reliever misuse, second in methamphetamine use, and fourth in cocaine use nationally. The same year Oregon ranked fourth in both alcohol use disorders and substance use disorders (SUD). Also in 2017, Oregon had the second highest rate of mental illness and ranked third for needing but not receiving treatment for alcohol and illicit drugs, and fifteenth for receiving mental health services.

### Summary of Public Expenditure on Substance Abuse Treatment Services

In the 2017-19 biennium, Oregon will spend an estimated \$470M (\$235M/year) on substance abuse prevention and treatment-related services, including prevention, screening and assessment, brief interventions, detoxification, residential, intensive outpatient, outpatient, medication-assisted treatment, primary care/hospital-based interventions, gambling treatment, and recovery and peer-delivered services.

- Medicaid (OHP) accounts for 63.5% (\$298.3M) of the total public expenditure, followed by non-Medicaid (25.1%, \$117.8M), Department of Corrections (3.6%, \$17.2M), Criminal Justice Commission (2.7%, \$12.7M), counties (2.2%, \$10.5M) and Oregon Youth Authority (.2%, \$1M). Note: DHS does not directly fund substance abuse treatment except in rare circumstances.
- An analysis of Medicaid expenditures by the Center for Health Systems Effectiveness (CHSE) at Oregon Health & Sciences University (OHSU), found a 59% increase in annual expenditures per capita on substance abuse treatment services from \$134 in 2010 to \$213 in 2017.
- Since mid-2014, non-Medicaid expenditures and services are tracked in OHA's Measures and Outcomes Tracking System (MOTS) which, as detailed in this report, is an unreliable system. Consequently, OHA is in the process of settlements with counties dating back to the 2013-15 biennium, where often county-created spreadsheets are the only available evidence for spent funds.
- Spending on substance abuse prevention relative to treatment remains very low, accounting for only 3.3% (\$13.6M) of the total public expenditure.
- In the 2017-19 biennium, OHA will spend \$2.3B in behavioral health services: 81% allocated to mental health (\$1.9B) and 19% spent on substance abuse treatment services (\$430M).

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<sup>1</sup> United States Census Bureau, American Community Survey (2017), <https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2017.html>

## Summary of Substance Abuse Treatment Outcomes

- Due to the unreliability of MOTS, only Medicaid claims data was used to study treatment outcomes. In an analysis by CHSE, among 858,190 total Medicaid enrollees in 2017, 70,304 (8.2%) were identified as having an active SUD. Of those with an SUD 40% received one or more substance abuse treatment services, which included outpatient (68%), residential (29%), or a service delivered in a primary care setting (19%).
- No reliable outcomes data exist, either in MOTS or Medicaid, on the effectiveness of treatment, or how well the services worked to reduce clinical symptoms and enhance quality of life. The last study in Oregon to investigate outcomes beyond discharge from treatment occurred in 2011.

## Effects of Outcomes on the Criminal Justice System

- No treatment outcomes exist for youth or adult offenders who receive SUD treatment in prison (DOC), in facility (OYA), or in the community once released, other than general counts of services. Therefore, the effect of treatment on criminal justice outcomes, including recidivism, is unknown.
- An analysis for this report by CJC of 9,509 offenders released from DOC between July 2015 and June 2017 found that 59% were classified as highest risk for need of SUD treatment. In total, 52% of those in need of SUD treatment received some kind of service.

## Recommendations

- *Fix or Replace MOTS.* Critical to all stakeholders in the treatment system, particularly Coordinated Care Organizations (CCOs) and Community Mental Health Programs (CMHPs), are reliable outcomes for both substance abuse and mental health interventions.
- *Collaborate with Private Insurers and Providers.* Optimizing care for all Oregonians (public and private) suffering from behavioral health disorders requires input and coordination with the private sector.
- *Track the Biennium Public Expenditures and Outcomes of Behavioral Health Treatment.* This report provides a baseline starting point, but such tracking needs to continue. The development of a public dashboard where this data is easily accessible would provide a mechanism for assessing interventions aimed at improving or optimizing the system.
- *Invest More Funding in Prevention.* Evidence-based prevention efforts decrease downstream behavioral health challenges and costs to the overall system.
- *Optimize Treatment Outcomes.* Efforts to adhere to evidence-based practices should be balanced with sufficient attention to the therapeutic alliance and aligned treatment expectations between counselor and patients if outcomes are to be optimized.
- *Study the Effectiveness of Behavioral Health Treatment.* Tools and methods for analyzing outcomes in real-time, and measuring long-term outcomes, should be a priority.
- *Utilize Emerging Digital Therapeutics.* The majority of Oregonians who could benefit from a SUD or mental health intervention do not engage in help. The emerging field of digital health, and more specifically digital therapeutics, offer innovative population-based interventions that have the potential to reach those who could benefit from treatment, but are not likely to seek care from traditional treatment programs

A copy of both the Executive Summary and the Report is available to members of the Legislative Assembly upon request. Please contact the Criminal Justice Commission via email at [Criminal.Justice@oregon.gov](mailto:Criminal.Justice@oregon.gov) or via phone at (503) 378-8487 to request a paper or electronic copy. The Report can also be accessed on the Criminal Justice Commission's website at: <https://www.oregon.gov/cjc/SAC/Pages/Publications.aspx>.

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## 1. SB 1041 STUDY AND SCOPE OF PROBLEM

Senate Bill 1041 (2017) (SB 1041), asked the Criminal Justice Commission (CJC) to study, track, and account for all public monies appropriated for and expended on the provision of alcohol and drug treatment, and to investigate the effect of treatment outcomes on the criminal justice system. This study is an important step forward in gaining insights into a system that most believe needs increased resources if addiction problems in Oregon are to be sufficiently addressed. It also focuses on the publicly funded substance abuse treatment system, which is largely the Medicaid population (about 1 million people). In Oregon, Medicaid covers about 23% of the population while 67% is covered by private insurance (Medicare, at 19%, Veterans Affairs, at 3%, and the uninsured, at 6.8%, make up the balance, with some individuals having coverage from multiple sources).<sup>2</sup> Similarly, the Oregon Health Insurance Survey found that 94% of Oregonians have health insurance coverage, with 26% being covered by Medicaid.

### 1.1. NATIONAL SURVEY ON DRUG USE AND HEALTH

The National Survey on Drug Use and Health (NSDUH) is the primary source for assessing the prevalence of substance use, substance use disorders, and mental health conditions in Oregon.<sup>3</sup> Comparing results from 2010-2011 to the most recent data from 2016-2017 suggests that Oregon ranks among the states with the highest substance abuse and mental health challenges, while ranking among the lowest for access to care.<sup>4</sup>

As shown in Table 1.1, Oregon ranks first in the prevalence of marijuana use and pain reliever misuse nationwide, second in methamphetamine use, and fourth in cocaine use.<sup>5</sup> These rankings (2016-17) translated into total the population estimates are found in Table 1.1, which demonstrates that a significant number of Oregonians misuse these substances. Further, it is worth noting that in 2016-17, *past month binge alcohol use* for Oregonians aged 12 and over was 24.9 percent, which is a primary risk factor for an alcohol use disorder.<sup>6</sup> Binge alcohol use is defined as drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days. Finally, Oregon also ranks very high in prevalence of alcohol and substance use disorders (alcohol and illicit drug use combined), as well as making the top ten for illicit use disorders.<sup>7</sup>

While not part of the scope of SB 1041, due to the co-occurring nature of substance abuse and mental illness, it is useful to consider where Oregon ranks on mental illness. As shown in Table 1.1, similar to

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<sup>2</sup> United States Census Bureau, American Community Survey (2017), <https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2017.html>. Similarly, the Oregon Health Insurance Survey found that 94% of Oregonians have health insurance coverage, with 26% being covered by Medicaid.

<sup>3</sup> The Substance Abuse and Mental Health Services Administration (SAMHSA) contracts with the Research Triangle Institute to conduct an ongoing population-based survey in all 50 states (and the District of Columbia). Two years of data are combined to provide state-level estimates. The survey covers residents of households and individuals in noninstitutional group quarters (e.g., shelters, boarding houses, college dormitories, migratory workers' camps, halfway houses), but excludes people with no fixed address (e.g., homeless people not in shelters), military personnel on active duty, and residents of institutional group quarters, such as jails, nursing homes, mental institutions, and long-term care hospitals. In the tables, listed percentages and rankings are estimates based on 95% confidence intervals, meaning the actual percent and rank could be different. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2019). *National Survey on Drug Use and Health 2017* (NSDUH-2017-DS0001). Retrieved from <https://datafiles.samhsa.gov>

<sup>4</sup> Ibid

<sup>5</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2019). *National Survey on Drug Use and Health 2017* (NSDUH-2017-DS0001). Retrieved from <https://datafiles.samhsa.gov>

<sup>6</sup> Ibid

<sup>7</sup> Ibid

substance use and substance use disorders, Oregon ranks close to the top in the prevalence of any mental illness, and in the top ten for the prevalence of serious mental illness.<sup>8</sup> The 2018 Oregon's State Health Assessment published by OHA's Public Health Division offers additional data that mental illness in Oregon ranks alongside substance abuse problems with some of the highest rates in the nation.<sup>9</sup> An estimated 1 in every 5 adults in Oregon is coping with a mental health condition.

**Table 1.1. Oregon's Annual Average Percentages, Number of Oregonians, and National Rankings of Drug Use and Disorders, Mental Illness, and Treatment Access**

Category	Percent of Oregonians		Oregonians 2016-2017	Oregon's Rank Nationally	
	2010-2011	2016-2017		2010-2011	2016-2017
Marijuana Use	16%	26.5%	928,000	7	1
Pain Reliever Misuse	6.4%	5.4%	187,000	1	1
Methamphetamine Use	NA	1%	35,000	NA	2
Cocaine Use	2.1%	3%	104,000	7	4
Heroin Use	NA	0.4%	13,000	NA	21 (4-way tie)
Alcohol Use Disorder	7.7%	7.5%	261,000	13	4
Any Substance Use Disorder	9.8%	9.4%	329,000	10	4
Illicit Use Disorder	3.1%	3.3%	116,000	2	10
Pain Reliever Use Disorder	NA	0.7%	24,000	NA	18 (6-way tie)
Any Mental Illness	20.6%	23.6%	757,000	5	2
Serious Mental Illness	4.9%	5.4%	172,000	9 (2-way tie)	7 (2-way tie)
Needing But Not Receiving Treatment – Alcohol Use Disorders	7.4%	7.1%	250,000	12	3
Needing But Not Receiving Treatment – Substance Use Disorders (Alcohol + Illicit Drug) <sup>10</sup>	9.8%	8.9%	311,000	9	3
Needing But Not Receiving Treatment – Illicit Drug Use Disorders	2.8%	3%	105,000	2 (2-way tie)	10

Source: NSDUH<sup>11</sup>

While Oregon struggles with some of the highest substance abuse and mental health problems in the country, access to services ranks among the poorest of all states.<sup>12</sup> Oregon now ranks third nationally with the highest number of people needing but not receiving treatment for alcohol and substance use disorders.<sup>13</sup> These

<sup>8</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2019). *National Survey on Drug Use and Health 2017* (NSDUH-2017-DS0001). Retrieved from <https://datafiles.samhsa.gov>

<sup>9</sup> OHA Public Health Division. (2018). Oregon's State Health Assessment.

<sup>10</sup> See Appendix B for gaps analysis detailing substance abuse treatment need.

<sup>11</sup> NSDUH methodology changed between above time periods, so estimates are not directly comparable but suggestive of trends in Oregon.

<sup>12</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2019). *National Survey on Drug Use and Health 2017* (NSDUH-2017-DS0001). Retrieved from <https://datafiles.samhsa.gov>

<sup>13</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2019). *National Survey on Drug Use and Health 2017* (NSDUH-2017-DS0001). Retrieved from <https://datafiles.samhsa.gov>

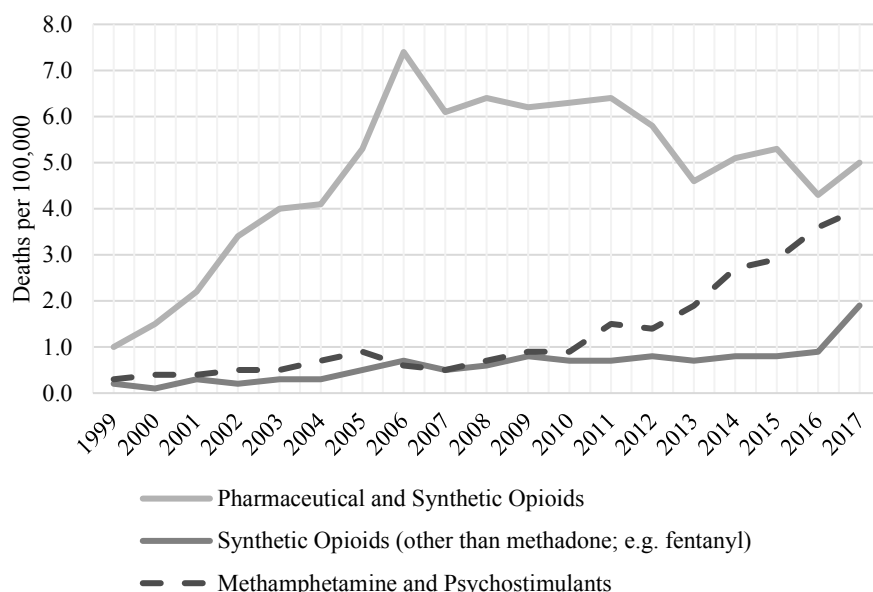
rankings (2016-17) translated into total population estimates are found in Table 1.1. Instead of calculating the need for mental health services similar to alcohol and other drugs, NSDUH calculates the total who report receiving mental health services.<sup>14</sup> In 2016-17, it was 542,000 people, or 17%, which ranks Oregon 15<sup>th</sup> nationwide. Given that the total mental illness population was estimated to be 929,000 (757K + 172K), this suggests a need gap of 387,000 (42%).

## 1.2. OREGON DRUG OVERDOSE DEATH DATA

The Oregon Health Authority's Public Health Division maintains a public webpage dedicated to tracking misuse and overdose of opioids and other drugs.<sup>15</sup> In 2017, a total of 504 people died of a drug overdose in Oregon (12.1/per 100K population). Figure 1.2.1. Represents overdose deaths listed on death certificates and counted using the International Classification of Diseases (ICD) codes consistent with national poisoning surveillance standards.<sup>16</sup> The deaths provide another perspective on the challenges Oregon presently faces in addressing substance abuse problems.

While Oregon has had consistently elevated rates for pain reliever misuse for many years, public health and treatment initiatives to curb this trend which began in 2011 have resulted in a decrease in pharmaceutical

Figure 1.2.1. Statewide Overdose Deaths by Drug Type, 1999-2017



opioid overdose deaths. These initiatives include the Oregon Opioid Prescribing Guidelines, the Prescription Drug Monitoring Program (PDMP), infrastructure for Oregon communities to address prescription drug overdose, and access to FDA approved pharmaceuticals such as medication for opioid use disorders (MOUD).<sup>17</sup> At the peak in 2006 there were 271 drug overdose deaths (7.4/100K). Since that time, opioids have trended downward to a low of 179 deaths (4.3/100K) in 2016, but increased to 206 (5/100K) in 2017 due primarily to deaths from fentanyl.

In 2017, 79 deaths were attributable to synthetic opioids compared to 38 in 2016. While this increase is alarming, national comparisons of overdose death data for pharmaceutical and synthetic opioids indicate that Oregon's rank is comparatively low. A report issued by the Centers for Disease Control and Prevention ranks

<sup>14</sup> NSDUH defines mental health services as having received inpatient treatment/counseling or outpatient treatment/counseling or having used prescription medication for problems with emotions, nerves, or mental health. Respondents were not to include treatment for alcohol or other drug use.

<sup>15</sup> <https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/SUBSTANCEUSE/OPIOIDS/Pages/data.aspx>

<sup>16</sup> For more information on this data source and additional graphs please visit the OHA Public Health Division website

<sup>17</sup> For additional information, see: <https://www.oregon.gov/OHA/PH/ABOUT/Pages/ship-substance-use.aspx>.

Oregon 41<sup>st</sup> in age-adjusted drug overdose deaths by state (2013 and 2017).<sup>18</sup> Finally, in 2016-2017, Oregon had the second highest rate of methamphetamine use in the nation and the fourth highest rate of cocaine use (NSDUH). Not surprisingly, deaths from stimulants have increased significantly over the past, with a high of 166 deaths in 2017 (4/100K).

### 1.3. TOBACCO AND EXCESSIVE ALCOHOL USE IN OREGON

Opioid and other drug-related substance use disorders have captured significant media attention in large part because their harms often occur unexpectedly and rapidly. Tobacco and alcohol use, however, remain as the first and third leading causes of preventable death in Oregon.<sup>19</sup> While 504 Oregonians lost their lives to a drug overdose in 2017, there were more than 7,500 tobacco-related deaths and nearly 2,000 alcohol-related deaths.<sup>20</sup> Yet these deaths are often overlooked in the context of understanding the problem of substance use because they are attributed to the underlying causes of alcohol and tobacco-related death and disease (for example, cancers, liver and heart disease, injuries, etc.). In other words, the majority of the harms and costs of tobacco and excessive alcohol use occur outside of what would be considered substance abuse, addiction or SUD.

For example, binge drinking is the most common, costly, and deadly pattern of excessive alcohol use.<sup>21</sup> It is responsible for more than half of the deaths and three-quarters of the economic costs associated with excessive alcohol use in the nation.<sup>22</sup> Excessive alcohol use has a substantial public health impact and costs the Oregon economy \$3.5 billion per year in lost productivity, health care expenses, criminal justice costs, and motor vehicle crashes.<sup>23</sup> However, most people who drink excessively would not be considered to have a dependency on alcohol. Similarly, Tobacco use costs the state over \$2.5 billion in medical spending, lost productivity and early death.<sup>24</sup>

Over the past few decades, effective public health strategies such as increasing the price of tobacco and eliminating smoking in indoor public places has helped drive a dramatic decrease in smoking. These strategies have helped decrease the rate of tobacco-related deaths from 187 per 100,000 in 2001 to 148 per 100,000 in 2017.<sup>25</sup> However, the rate of alcohol-related deaths (e.g., chronic diseases, acute poisoning and injuries, and fetal alcohol syndrome) increased by 33 percent during that same period.<sup>26</sup> In 2001 it was 30 per 100,000 population and has increased to 40 per 100,000 in 2017.<sup>27</sup> By way of comparison, the rate of all drug overdoses was 11.7 per 100,000 that same year.<sup>28</sup>

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<sup>18</sup> Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and Opioid-Involved Overdose Deaths — United States, 2013–2017. *MMWR Morb Mortal Wkly Rep* 2019;67:1419–1427.

<sup>19</sup> OHA, Public Health Division, What is Killing Oregonians: The Public Health Perspective; Oregon Death Certificate Data, unpublished.

<sup>20</sup> Oregon Vital Statistics Annual Reports, Volume 2, 2017. (tobacco-related deaths); and

2017 Oregon Death Certificate Data, <https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/alcoholdeaths.pdf>

<sup>21</sup> OHA, Public Health Division, December 2018. *Binge Alcohol Among Adults in Oregon*; <https://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>

<sup>22</sup> Sacks, Jeffrey J., Katherine R. Gonzales, Ellen E. Bouchery, Laura E. Tomedi, and Robert D. Brewer. “2010 National and State Costs of Excessive Alcohol Consumption.” *American Journal of Preventive Medicine* 49, no. 5 (November 2015): e73–79. <https://doi.org/10.1016/j.amepre.2015.05.031>

<sup>23</sup> Ibid

<sup>24</sup> Esser MB, Hedden SL, Kanny D, Brewer RD, Gfroerer JC, Naimi TS. Prevalence of alcohol dependence among US adult drinkers, 2009–2011. *Prev. Chronic Dis.* 2014;11:140329. doi: <http://dx.doi.org/10.5888/pcd11.140329>.

<sup>25</sup> Centers for Disease Control and Prevention. Smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 2000–2004. *Morbidity and Mortality Weekly Report* 2008;57(45):1226–8.

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and Opioid-Involved Overdose Deaths — United States, 2013–2017. *MMWR Morb Mortal Wkly Rep* 2019;67:1419–1427.

Tobacco and excessive alcohol use continue to impose massive costs to Oregon's health care system and economy. Tobacco and excessive alcohol use lead to chronic diseases and early death, substance use disorders, and harms to families and communities. In addition, tobacco and alcohol use make recovery more difficult for those with substance use disorders.

#### 1.4. BEHAVIORAL ADDICTIONS

While SB 1041 asked the CJC to study public expenditures and outcomes specific to alcohol and drug treatment, it is important to understand that substances do not represent the entire constellation of addiction problems facing Oregonians. Behavioral addictions to gambling, sex, gaming, and other behaviors also contribute to the overall burden of addiction disease.<sup>29</sup>

Since 1995, the Oregon Lottery has funded services to prevent, assess and treat problem gambling through the department of Problem Gambling Services (PGS) that is part of OHA's Health Systems Division. Funds provided to the Oregon Council on Problem Gambling (OCPG) have been used to conduct surveys on the prevalence of problem gambling, with the most recent survey completed in 2015. Results suggested that about 50% of Oregonians gamble and experience no gambling related issues, while about 8% have problems ranging from low to severe.<sup>30</sup> Of the group that gambles, about 2.6% of adults have moderate to serious problems.<sup>31</sup> For SB 1041, please note that funds for gambling services are included in the total estimates of public spending on substance abuse treatment.

The *Diagnostic and Statistical Manual of Mental Disorders (DSM)* published by the American Psychiatric Association is the industry standard for classifying all mental disorders including substance abuse.<sup>32</sup> It is used by clinicians, health insurance companies, researchers, regulatory agencies, and policy makers, in addition to the ICD-10 Classification of Mental and Behavioural Disorders published by the World Health Organization (WHO). In 2013, the most recent version of the DSM – the fifth edition – was published. In a historic change, Pathological Gambling was moved from the chapter on impulse control disorders to a chapter now called *Substance-Related and Addictive Disorders*. While this marked departure from previous DSM versions highlights for the first-time *addiction being defined beyond substances*, other behaviors including sex, shopping, and gaming were not included due to insufficient research.

“The inclusion of behavioral addictions as psychiatric disorders likely marks the next large paradigm shift in the field of addiction and, not surprisingly, has already garnered some debate. Although the future of behavioral addictions may lack certitude as of yet, what does seem clear, from a nosological standpoint, is the eventual expansion of the conceptualization of the broader category of addiction.”<sup>33</sup>

In summary, while numerous systems are in place to track the prevalence and patterns of substance use disorders – and to some degree problem gambling – those working to understand and treat addictive disease in Oregon would be well advised to incorporate measures to assess the full range of behavioral addictions as well.

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<sup>29</sup> Sussman, S., Lisha, N., & Griffiths, M. (2011). Prevalence of the Addictions: A Problem of the Majority or the Minority? *Evaluation & the Health Professions*, 34(1), 3–56. <https://doi.org/10.1177/0163278710380124>

<sup>30</sup> Oregon Council on Problem Gambling, 2018. *Gambling and Problem Gambling in Oregon*: <https://oregoncpg.org/>.

<sup>31</sup> Ibid

<sup>32</sup> American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

<sup>33</sup> Robinson, SM & Adinoff, B (2016). The classification of substance use disorders: Historical, contextual, and conceptual considerations. *Behavioral Sciences*, 6, 18 (Page 17): DOI: 10.3390/bs6030018.

## 1.5. PARENTAL SUBSTANCE USE DISORDERS IN DHS CHILD WELFARE IN OREGON<sup>34</sup>

Opioid use disorders have captured significant media attention in relation to child welfare populations in other parts of the country. In Oregon, methamphetamine abuse and methamphetamine use disorder are still the greatest threat to child safety, and the primary drivers of children being placed in foster care once they come under the scrutiny of child abuse investigations. Currently in Oregon there are approximately 7,500 children/youth in the child welfare substitute care system on any given day. In a recent study, *Identifying Capacity Needs for Children within the Oregon Child Welfare System*<sup>35</sup>, a random sample of 1,000 target removals was pulled from Oregon's IT system, OR-Kids. These target removals focused on a single child removed from home and placed in the substitute care system during a three-year period (December 2014 - 2017). In the study, severe domestic violence was a direct removal factor in 12% of the sample. Of these domestic violence cases, 87% were also involved with drugs and alcohol at the time of removal. In regard to the direct impact on children, 9.2% of children were identified with the physical issues of being "drug affected" at birth while another 12% were identified as "drug exposed." Even more significant is the overall statistic that over 75% of the cases were determined to have alcohol and/or drug involvement at the time of removal.

## 1.6. SUMMARY

Oregon now ranks among the most challenged states in the nation for substance abuse and mental health problems, while at the same time ranking among the worst states for access to care. While numerous reports over the past decade have documented the development of Oregon's substance abuse and mental health problems (see following sections), it remains largely unclear exactly how and why Oregon has found itself in this position. The preceding sections highlighted the need to understand alcohol and drug problems within the larger context of behavioral and public health and the need to integrate substance abuse treatment and mental health care into a behavioral health treatment system that also links with public health and primary care medicine. The promise of reduced costs and improved patient outcomes continues to fuel many stakeholders to push for integration, but presently the systems remain largely fragmented. Although this study focuses on publicly funded substance abuse treatment, gaining similar insights into the mental health treatment system would be useful. When available, data on mental health spending and outcomes was obtained and is included in this report. Lastly, before reporting on the public expenditure and outcomes of treatment, it's useful to have some context of what is meant by the publicly funded addiction treatment system, which is the focus of the next chapter.

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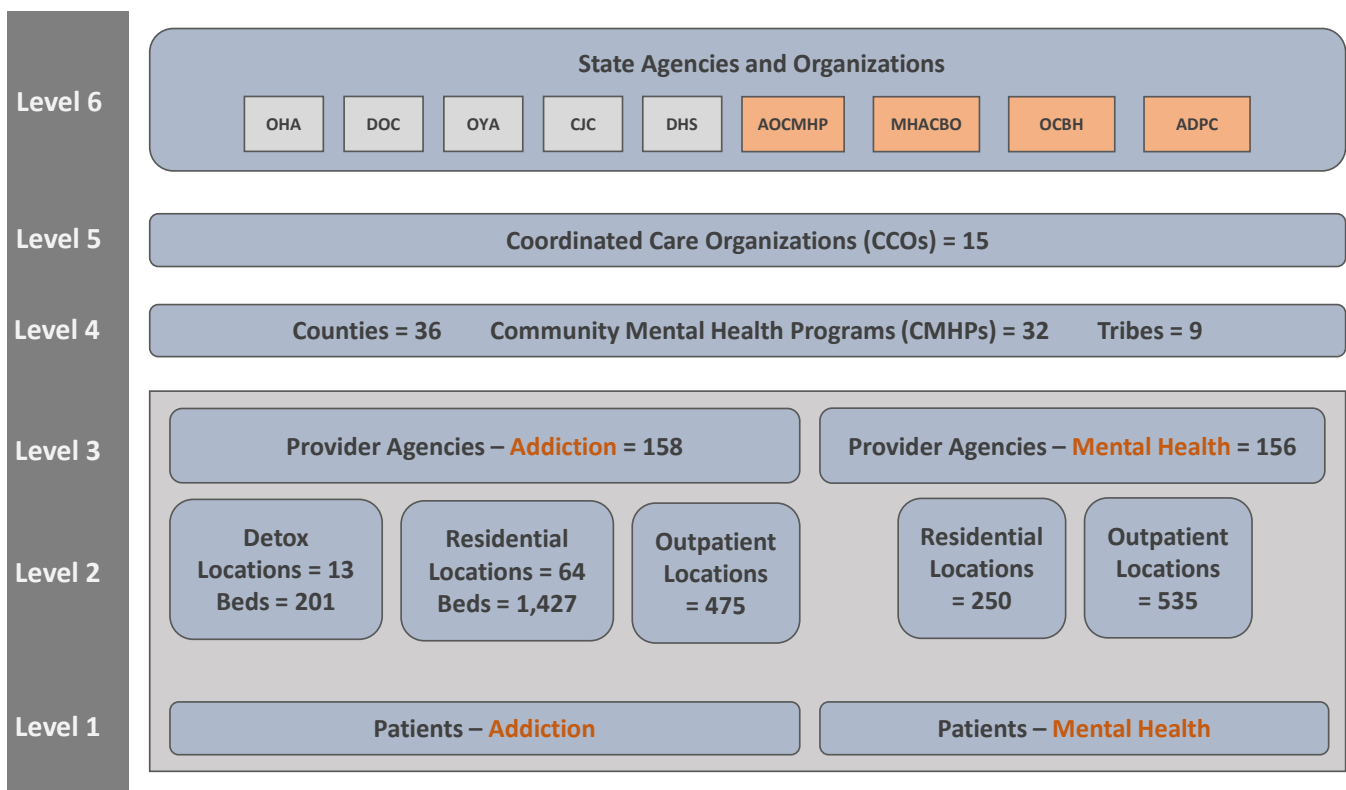
<sup>34</sup> Entire section from DHS, Office of Child Welfare Programs, email communication, 8/27/19

<sup>35</sup> DHS, *Identifying capacity needs for children within the Oregon child welfare system*, Summary Document, May 2019

## 2. UNDERSTANDING OREGON’S PUBLICLY FUNDED ADDICTION TREATMENT SYSTEM

Oregon’s substance abuse treatment system is best understood as a complex system, with many dynamic parts and stakeholders. To fully appreciate how complex the system is, CJC created the following figure with key parts graphically illustrated within a multilevel framework. In Figure 2.1., levels are utilized as an organizational tool to depict the many system stakeholders and their operations within the system. Patients and provider agencies are split between addiction and mental health because they are largely independent treatment systems, although for some the systems do overlap. Many patients suffer from co-occurring disorders (addiction and mental health), and some provider agencies deliver co-occurring treatment services. Also, because the addiction and mental health treatment systems have in common the same counties, tribes, community mental health programs (CMHPs), coordinated care organizations (CCOs), state agencies, and other behavioral health organizations shown in levels 4 through 6, both are included in the diagram. It is because both addiction and mental health treatment systems share significant higher-level resources that continuing to work towards an integrated behavioral health system provides the best opportunity to optimize costs, resources, and treatment outcomes.

Figure 2.1. Multilevel Perspective of the Oregon Addiction Treatment System



While there are numerous other stakeholders that could be included in the above figure (i.e., hospital systems, pharmacies, drug courts, self-help programs, peer support), the key point is that addiction treatment is embedded in a complex and ever-changing system. In the sections ahead, each level is described in more detail, including key aspects of how a level interacts with other parts of the system.

### 2.1. LEVEL 1: PATIENTS

Patients enter the treatment system through different doors, and numerous factors influence where they obtain care, including: 1) Presenting clinical problem (addiction, mental health, co-occurring disorders); 2)

availability of care, 3) insurance coverage, and 4) case management needs (e.g., housing, medical/dental care, childcare). Ideally, the system would have no wrong door for patients, meaning that wherever they present they would receive the necessary help. Instead, fragmentation in the system between addiction and mental health providers, behavioral health and primary care medicine, and higher levels of the system (i.e., CCOs and CMHPs), result in less than optimal outcomes.

## 2.2. LEVELS 2 AND 3: TREATMENT PROVIDERS

In Oregon there are currently 158 Provider Agencies that offer substance abuse treatment services.<sup>36</sup> Provider agencies can have multiple offices and locations delivering different levels of care. In this report, levels of care are synonymous with *type of treatment*, defined by the American Society of Addiction Medicine as a continuum of care that includes detoxification, residential and outpatient services.<sup>37</sup> Across Oregon, addiction treatment provider agencies have a total of 475 outpatient locations, 13 detoxification facilities, and 64 residential programs.<sup>38</sup> Also included in Figure 2.1 are the 156 provider agencies that offer mental health services, as well as their total number of outpatient and residential locations.<sup>39</sup> The number of behavioral health provider agencies and locations is constantly changing.

OHA's Health Systems Division (HSD) "certifies" outpatient programs and "licenses" detoxification and residential programs, primarily because a license goes beyond a certification to include conditions of the living space. While no residential treatment program can be licensed to do addiction and mental health treatment, certain provider agencies have outpatient certifications that allow clinical staff to deliver co-occurring treatment across levels of care (i.e., mental health treatment in a substance use disorder residential or outpatient facility, or substance use disorder care in a mental health residential or outpatient facility). OHA's oversight and authority over provider agencies, including ongoing auditing of programs, ensures the system meets OAR quality standards. At the same time, the benefits of the protections can produce administrative burdens to other stakeholders in the system (provider agencies, CCOs, CMHPs).

## 2.3. DETOXIFICATION AND RESIDENTIAL CAPACITY

**Table 2.3.1. Statewide Detoxification Capacity (March 2019)**

County	Total Beds	Population	Population Per Bed
Washington	12	588,957	49,080
Jackson	12	217,479	18,123
Deschutes	12	186,875	15,573
Marion	32	341,286	10,665
Multnomah	76	807,555	10,626
Douglas	11	109,405	9,946
Umatilla	14	76,985	5,499
Klamath	16	66,935	4,183
Lincoln	16	48,920	3,058
<b>Total</b>	<b>201</b>		

OHA's HSD is responsible for licensing detoxification and residential facilities and programs statewide. For this report, HSD provided a summary of the capacity of both types of care. As shown in Table 2.3.1, in Oregon, there are 13 HSD-licensed detoxification facilities that have a total capacity of 201 beds (men and women combined). No system tracks day-to-day utilization rates. Statewide there are 64 HSD-licensed residential substance abuse treatment programs with a total bed capacity of 1,427. Table 2.3.2 provides a detailed, but *estimated and always changing*, accounting of beds at the county-level for men, women, and children as of March 2019. While treatment programs individually manage utilization of residential

<sup>36</sup> OHS HSD, data provided in email November 2018

<sup>37</sup> See: <https://www.asam.org/resources/the-asam-criteria/about>

<sup>38</sup> OHS HSD, data provided in email March 2019

<sup>39</sup> Ibid



beds, access for a patient can be challenging due to wait lists extending statewide and prioritizing certain populations, including: 1) pregnant injecting drug users, 2) pregnant substance abusers, 3) women with dependent children, and 4) injecting drug users. In addition, no system presently tracks availability of beds at the state level, so there is no data on bed availability at any given time. Given the significant waiting lists, programs work hard to minimize downtime between patient transitions.

**Table 2.3.2. Oregon's Residential Treatment Capacity (March 2019)**

County	Men	Women	Male Child	Female Child	Total Beds	Population	Population Per Bed
Clackamas	6	5			11	412,672	37,516
Washington	14	12	13	13	52	588,957	11,326
Deschutes	9	9			18	186,875	10,382
Marion	21	13			34	341,286	10,038
Josephine	5	8			13	86,352	6,642
Columbia	8	8			16	51,782	3,236
Douglas	8	24		15	47	109,405	2,328
Jackson	24	73			97	217,479	2,242
Benton		15	15	16	46	90,951	1,977
Lane	87	115			202	374,748	1,855
Jefferson	13				13	23,758	1,828
Multnomah	197	202	52	12	463	807,555	1,744
Clatsop	16	11			27	39,182	1,451
Umatilla	51	15			66	76,985	1,166
Yamhill	47	48			95	105,722	1,113
Klamath	32	33			65	66,935	1,030
Crook	12	12			24	23,123	963
Malheur	48	12			60	30,480	508
Baker	24	54			78	16,054	206
<b>Total</b>	<b>622</b>	<b>669</b>	<b>80</b>	<b>56</b>	<b>1,427</b>		

#### 2.4. SUBSTANCE ABUSE TREATMENT WORKFORCE

In 2016, OHA convened the Behavioral Health Collaborative to further efforts on improving the behavioral health treatment system in Oregon. One recommendation was to undertake a comprehensive workforce assessment to identify workforce gaps and study recruitment and retention.<sup>40</sup> The Eugene S. Farley, Jr. Health Policy Center at the University of Colorado Anschutz Medical Campus was contracted by OHA to complete the study.<sup>41</sup> Demographic summaries of licensed prescribers and providers were primarily obtained from OHA's Health Care Workforce Reporting Program. Of the total licensed behavioral health workforce, 12% were prescribers and 88% providers. A key finding from the analysis of the licensed workforce was that due to the discrepancy between number practicing and FTE, the overall supply is smaller than it appears.<sup>42</sup>

<sup>40</sup> OHA, Behavioral Health Collaborative Report, 2016

<sup>41</sup> The report titled *An Analysis of Oregon's Behavioral Health Workforce: Assessing the Capacity of Licensed and Unlicensed Providers to Meet Population Needs* is due to be published by OHA September 2019. It included assessing demographics for both the licensed and unlicensed behavioral health workforce, calculating demand for mental health and substance abuse needs, and determining the relationship of workforce capacity to need utilizing a Provider to Need Ratio (PNR). The PNR accounts for the geographic variation in both provider supply and population need.

<sup>42</sup> The report titled *An Analysis of Oregon's Behavioral Health Workforce: Assessing the Capacity of Licensed and Unlicensed Providers to Meet Population Needs* is due to be published by OHA September 2019

**Table 2.4.1. Summary of Licensed Behavioral Health Prescribers and Providers in Oregon**

Licensed Prescribers	Num Practicing	FTE (Hrs Tot)	Direct Patient Care FTE
Psychiatrist: MD	700	575	461
NP	534	376	362
Psychiatrist: DO	50	42	37
PA	24	18	14
CAN	19	11	11
Total Licensed Prescribers	1,327	1,022	885
Licensed Providers	Num Practicing	FTE (Hrs Tot)	Direct Patient Care FTE
LCSW	3,684	2,412	1,884
LPC	2,616	1,688	1,250
Psychologists	1,629	1,147	836
CSWA	857	480	522
LMFT	648	372	301
LPC/LMFT	87	59	45
Total Licensed Providers	9,521	6,158	4,838

Source: An Analysis of Oregon's Behavioral Health Workforce (OHA, Eugene S. Farley, Jr. Health Policy Center)

**Table 2.4.2. Summary of Certified Addiction Providers, March 2019**

Certification Type	Total
<b>CADC I:</b> Certified Alcohol Drug Counselor – I	1,757
<b>CADC II:</b> Certified Alcohol Drug Counselor - II	994
<b>CADC III:</b> Certified Alcohol Drug Counselor - III	454
<b>CADC-R:</b> Certified Alcohol Drug Counselor - Intern	858
<b>CGAC I:</b> Certified Gambling Addiction Counselor – I	26
<b>CGAC II:</b> Certified Gambling Addiction Counselor – II	64
<b>CGAC-R:</b> Certified Gambling Addiction - Applicant	15
<b>CGRM:</b> Certified Gambling Addiction Peer	31
<b>CRM:</b> Certified SUD Addiction Peer	973
<b>PRC:</b> Certified Advanced SUD Addiction Peer	50
<b>CPS:</b> Certified Alcohol & Drug Preventionist	171
Total Certified Addiction Workforce	5,393

The report did not provide a table summarizing the unlicensed workforce because “it is not yet possible to accurately report their total quantity, distribution, and FTEs for the state (p28).”<sup>43</sup> While true for the unlicensed mental health workforce, the unlicensed addiction workforce is tracked by the Addiction Counselor Certification Board of Oregon (ACCBO), which in 2018 also began certifying unlicensed mental health professionals and updated their name to the Mental Health and Addiction Certification Board of Oregon

(MHACBO). Data from MHACBO regarding certified addiction providers is reported in Table 2.4.2. While Table 2.4.2 summarizes the total workforce with addiction certifications, however, MHACBO does not track prescriber or provider licenses of those with certifications. MHACBO does report that the majority of those with certifications are working in the addiction treatment field.

Perhaps the most significant limitation of the study is that data used to analyze licensed prescribers/providers does not accurately differentiate FTE specific to treating substance use and mental health disorders. To address this limitation, the study made use of whether a prescriber/provider indicated having a “specialty” in addiction. This led to estimating that Oregon has 91 licensed prescribers (7% of total practicing) and 422 licensed providers (4% of total practicing) serving the needs of patients with addiction.<sup>44</sup> PNRs calculated for either substance use or mental health using these numbers need to be interpreted with caution given the likelihood that they under-represent the addiction workforce, particularly if unlicensed workers are

<sup>43</sup> Ibid.

<sup>44</sup> The report titled *An Analysis of Oregon's Behavioral Health Workforce: Assessing the Capacity of Licensed and Unlicensed Providers to Meet Population Needs* is due to be published by OHA September 2019

factored into the equation. Until there is an accurate accounting of FTEs in the bifurcated substance use and mental health system, and the entire licensed and unlicensed workforce is accounted for in PNRs, measuring the workforce gaps with some degree of confidence will remain challenging.

In 2018, MHACBO conducted an extensive workforce survey that involved emailing 4,400 questionnaires to its entire database of certified providers (CADC's, QMHAs/Ps, CRM's, CGAC's, CPS), state-approved addiction treatment program directors, and state approved mental health program directors.<sup>45</sup> The survey was also distributed through AOCMHP and the Oregon Prevention Education and Recovery Association, which is now the Oregon Council For Behavioral Health (OCBH). A total of 1,306 responded to the survey (29.7% response rate), and 86% of responders completed the entire assessment. The survey was further analyzed by the Farley Health Policy Center as part of the previously discussed study, and 273 (21%) of the respondents indicated being part of the licensed workforce.<sup>46</sup>

**Table 2.4.3. Median Hourly Wages for Addiction vs. Mental Health Workers (rounded to nearest dollar)**

Median Wages	Addiction	Mental Health
All clinical behavioral health workers (CADC, QMHAs/Ps)	\$19	\$25
Supervisors	\$25	\$30
Peers	\$15	\$17

than their counterparts working in the area of addiction.

As shown in Table 2.4.3, a key part of the survey was analyzing hourly wages with attention to the discrepancy between addiction and mental health workers.<sup>47</sup> Mental health workers, on average, make more

Beyond the findings reported above regarding the gap between mean hourly wages for addiction versus mental health workers, the survey also found several other notable things. First, while 62% of all behavioral health staff reported working with clients participating in medication-assisted treatment, 40% believed MAT should only be used for withdrawal management. Second, of time counselors time spent in supervision, 35% was spent on paperwork and administrative compliance. Third, addiction supervisors reported addiction staff needing co-occurring training (9%) significantly less than mental health supervisors report of the same need for mental health staff (76%). Finally, there were several training issues identified by survey participants, which included: (1) Trauma Informed Care; (2) Motivational Interviewing; (3) Co-occurring Disorders; (4) Medication Assisted Treatment; and (5) DSM-V/ASAM.

**2.5. LEVEL 4: COUNTIES, COMMUNITY MENTAL HEALTH PROGRAMS (CMHPS) AND TRIBAL GOVERNMENTS**

Counties are a critical hub within the behavioral health treatment system, and each has a *Local Mental Health Authority* (LMHA) made up of county commissioners or tribal councils, in the case of a federally recognized tribal government. LMHAs are responsible for receiving funds from OHA and meeting the behavioral health needs of their population. In some cases, smaller counties have banded together to form a regional LMHA. Each LMHA is statutorily required to complete a Comprehensive Local Plan (CLP) that

<sup>45</sup> Razavi, M, Labhart, B, Martin, E, (2018). Oregon Behavioral Health Workforce Survey. Mental Health & Addiction Certification Board of Oregon. For more information on the MHACBO survey and results, see: <https://www.mhacbo.org/en/>. The average age of the behavioral health workforce was 48 years old, and approximately 50 years old for addiction staff. Participants had varied educational backgrounds, including: Master's (48%), Bachelor's (29%), Associate's (21%), and Doctorate degrees (2%).

<sup>46</sup> The report titled *An Analysis of Oregon's Behavioral Health Workforce: Assessing the Capacity of Licensed and Unlicensed Providers to Meet Population Needs* is due to be published by OHA September 2019

<sup>47</sup> Razavi, M, Labhart, B, Martin, E, (2018). Oregon Behavioral Health Workforce Survey. Mental Health & Addiction Certification Board of Oregon. For more information on the MHACBO survey and results, see: <https://www.mhacbo.org/en/>

includes analyzing the behavioral health needs of the county, available resources, and how funds will be utilized and outcomes evaluated. While OHA requires CLPs, there is no uniform template or required form in which to complete one. Accordingly, the CLPs received by OHA vary widely in their content, are usually not scored, and have limited functional use.<sup>48</sup>

Every county (or group of counties) has a *Community Mental Health Program* (CMHP) which functions as a county-wide system of care. Each CMHP is responsible for delivering the full range of behavioral health services to its citizens, including crisis services and all levels of care across mental health and addiction treatment. Each CMHP is issued a certificate of approval from OHA's HSD once it determines the CMHP has met all the statutory requirements. One of the key roles of LMHAs is to decide whether the county (or counties) they represent want to serve as the CMHP, or whether to contract this service to an organization (usually a non-profit). If contracted out, LMHAs still remain responsible for ultimately meeting their contractual funding agreements with OHA. Presently, 20 counties have chosen to be the CMHP and 16 counties have contracted with an organization to fulfill this role.

In an interview with Julie Johnson, the Tribal Affairs Director at OHA, the following information was obtained. Oregon is home to nine federally recognized tribes, and presently 129,579 Oregonians self-identify as being an American Indian /Alaska Native (AI/AN) alone, or in combination with another race/ethnicity. These individuals are most likely enrolled in a federally recognized tribe or a descendant of a tribe. American Indians and Alaskan Natives in Oregon may be able to receive culturally responsive health care through the Tribal Health System. This includes the Indian Health Services, Tribal Health Providers, or the Urban Indian Health Program. Through the Tribal Health System a variety of behavioral health services are available. Providing prevention, treatment and recovery for both Substance Use Disorder and Mental Health, services vary based on the specific programs available. Seven tribes operate SUD outpatient programs. Currently, there is one Tribal CMHP which is the Confederated Tribes of Warm Springs. There is one Urban Indian Health Care Program, Native American Rehabilitation Association of the Northwest (NARA). AI/AN in Oregon can also receive behavioral health treatment services including addiction treatment if they choose through local CMHPs, CCOs, or other fee-for-service providers.

## 2.6. LEVEL 5: COORDINATED CARE ORGANIZATIONS (CCOS)

In 2012, Oregon embarked on an innovative path to improve healthcare outcomes and better manage Medicaid (Oregon Health Plan) costs through the creation of CCOs (a form of Accountable Care Organizations). The idea was to create locally governed systems of care, provide each CCO a global budget to address the medical, behavioral and dental needs of their given population, and empower each to decide how best to spend the money to optimize health outcomes and costs. A review in 2017 found that the experiment paid off for Oregon, resulting in a 7% relative reduction in expenditures in five service areas: evaluation and management, imaging, procedures, tests, and inpatient facility care.<sup>49</sup> The most significant cost-savings occurred in inpatient utilizations.

OHA convened a group of 50 behavioral health stakeholders – known as the *Behavioral Health Collaborative* – to develop a set of recommendations to optimize Oregon's behavioral healthcare system<sup>50</sup>. In 2016, the group reported that “the behavioral health system continues to include fragmented financing, carve-outs that prevent integration and efficiencies, siloed delivery systems, and services that fail to serve and exacerbate poor health outcomes.”<sup>51</sup> Also, the Oregon Alcohol and Drug Policy Commission published

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<sup>48</sup> OHA HSD interviews

<sup>49</sup> McConnell, KJ, Renfro, S, Wallace, N, Cohen, DJ, Lindrooth, RC, Chernew, M. Oregon's Medicaid Reform and Transition to Global Budgets were Associated with Reductions in Expenditures. *Health Affairs*. 36(3) 451-459. 2017

<sup>50</sup> OHA, Behavioral Health Collaborative Report, 2016, Page 4.

<sup>51</sup> Ibid, Page 4

*Substance Use Treatment through Oregon's CCOs*, summarizing how well CCOs screened, referred and engaged substance use patients in treatment.<sup>52</sup> Results showed that while screenings increased over time because it was an incentivized CCO metric, overall engagement rates of patients with SUD were significantly less than would be expected given known prevalence rates of SUD.<sup>53</sup>

There are presently 15 CCOs in Oregon and contracting for the next budget cycle known as CCO 2.0 (2020-2024) is now complete. The next iteration of CCOs is to focus on four key changes: 1) improving the behavioral health system, 2) increasing value and pay for performance, 3) focusing on social determinants of health and health equity, and 4) maintaining sustainable cost growth. Yet a review of CCO 2.0 contract award decisions found that seven out of the fifteen awarded CCOs failed to pass the required contracting categories “Clinical and Service Delivery” or “Care Coordination and Integration” (see Appendix E).<sup>54</sup> Part of that failure was directly related to insufficient information about behavioral health services. It is worth noting that the ability of CCOs to succeed in the delivery of behavioral health will in large part depend on the collaboration and performance of stakeholders operating at other levels of the system (Figure 2.1.). Access to a full continuum of care, an adequate workforce, and necessary data systems to assess needs and outcomes are key ingredients that extend beyond the borders of any given CCO. Also, as people move between CCO regions, processes need to be in place to ensure that people are not left without services.

## 2.7. LEVEL 6: STATE AGENCIES AND ORGANIZATIONS RELATED TO ADDICTION TREATMENT

At the highest level in the figure are state agencies and organizations involved in addiction treatment. Four state agencies – OHA, DOC, CJC and OYA – publicly fund 98% of all addiction treatment (see following sections). DHS refers people to behavioral health treatment, but does not fund treatment except in rare cases. While funding and treatment remain mostly bifurcated between substance use and mental health at all levels of the system, integration continues to be critical for improving care and lowering costs. Presently, all four agencies have initiatives aimed at improving addiction treatment through better systems integration.

There are other promising indicators that stakeholders across the system are motivated to bridge the gap between addiction and mental health treatment. In 2018, the Addiction Counselor Certification Board of Oregon (ACCBO) changed their name to the Mental Health and Addiction Certification Board of Oregon (MHACBO). The organization now offers a continuum of certifications and educational trainings for unlicensed mental health and addiction professionals. And the Oregon Prevention Education & Recovery Association (OPERA) joined forces with the Oregon Residential Providers Association (ORPA) to become the Oregon Council for Behavioral Health (OCBH). The organization is a private, non-profit member driven behavioral health provider trade and advocacy organization, focused on both mental health and addiction issues. In addition, the Association of Community Mental Health Programs (AOCMHP) is developing better tools to track county expenditures on behavioral health.

One organizational exception to the focus on behavioral health is the Alcohol and Drug Policy Commission (ADPC). Created by the Oregon legislature in 2009 (HB 3353) to improve the effectiveness and efficiency of state and local prevention, treatment and recovery efforts, the ADPC issued its first report in May 2010.<sup>55</sup> It found that Oregon's treatment system was under-funded, fragmented, and had no rational data-

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<sup>52</sup> ADPC, April 5, 2017. Substance use treatment through Oregon's CCOs.

<sup>53</sup> Ibid

<sup>54</sup> OHA, CCO 2.0 Contract Awards: <https://www.oregon.gov/oha/OHPB/Pages/CCO-2-0-Awardees.aspx>

<sup>55</sup> ADPC (May 1, 2010). Improving Oregon's alcohol and drug prevention and recovery strategy: Report to Governor Ted Kulongoski: Page 5.

collection and accountability system to track funding and ensure monies were used wisely.<sup>56</sup> The review concluded that significant reform was necessary, with the goal being:

“To create a unified, coordinated, coherent, interagency system that has clearly articulated budget and policy priorities, covers as many people as possible and leverages all available funding sources. It should be streamlined, transparent and accessible for state agencies, local governments, providers and citizens.”<sup>57</sup>

Interviews with past and present members on the ADPC reported that despite a strong initial vision, the commission has struggled to produce measurable outcomes of their work.

In 2018, HB 4137 required the ADPC to develop a new strategic plan by July 2020. JBS International was hired as a consulting agency to lead the planning process which has included collaborative engagement of key state agencies including those involved in SB 1041, and multiple community stakeholder meetings. The overarching goal of the plan is to reduce Oregon’s SUD rate from 9.4% (see Chapter 1) to 6.8% in five years based on NSDUH data. Using the latest estimates, this means going from the 4<sup>th</sup> highest rate of SUD in the country to 45<sup>th</sup> place, or a 28% decrease. Among the challenges the ADPC faces in being responsible for the creation and implementation of the statewide plan are how to include and hold accountable (to the plan):

- *Private insurance* that covers addiction treatment for about 65% of Oregonians (see Appendix D)
- *15 CCOs* that fund about 60% of all public expenditures on addiction treatment through Medicaid, and individually have flexibility in how they meet the behavioral health needs of the populations they serve (see Appendix E)
- *36 counties* that fund about 25% of all public expenditures on addiction treatment through non-Medicaid monies, and individually have flexibility in how they meet the behavioral health needs of the populations they serve through their CMHPs

Beyond the significant system fragmentation is the fact that very little data to measure outcomes presently exist in Oregon. While NSDUH provides reliable estimates of SUD rates in Oregon, no system reliably tracks public or private outcomes. Since mid-2014 when OHA implemented the Measures and Outcomes Tracking System (MOTS) to measure treatment performance among patients receiving behavioral health services from all publicly funded providers, the system has failed to provide reliable outcomes (see Chapter 4). In addition, private addiction treatment data is redacted from the Oregon All Payer All Claims Database (APAC) due to the federal confidentiality law 42 CFR Part 2, so no data exist on private expenditures in addiction treatment nor patient-level outcomes. While these regulations were significantly revised in 2017 to better balance the need to protect a person’s sensitive health information with efforts to better integrate health information across systems, to date no systematic effort has attempted to report on the needs, treatment utilization, costs, and available outcomes from private insurers. Absent systems to track expenditures and measure treatment outcomes, the statewide plan will be challenged in knowing which intervention pathways will lead to the desired goals.

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<sup>56</sup> Ibid

<sup>57</sup> Ibid

### 3. PUBLIC EXPENDITURE ON SUBSTANCE ABUSE TREATMENT

In the 2017-19 biennium, Oregon will spend an estimated \$470M on substance abuse treatment services.<sup>58</sup> Over 90% of all expenditures comes from OHA and is split between Medicaid (63.5%), non-Medicaid (25.1%) and Public Health (prevention) (2.9%). While the majority of moneys spent on substance abuse treatment come from OHA, other state agencies as well as counties also expend resources. Table 3.1 describes the spending by agency and also reports the moneys spent by counties.

**Table 3.1. Summary of Total Estimated 2017-19 Biennium Public Expenditure on Substance Abuse Treatment**

Agency/Counties	Federal	State	County	Total	Percent of Total
<b>OHA</b>					
Medicaid (CCOs)	\$246,917,748	\$51,385,688		\$298,303,436	63.5%
Non-Medicaid	\$67,248,462	\$50,546,753		\$117,795,215	25.1%
Public Health	\$10,022,643	\$3,579,630		\$13,602,273	2.9%
Total OHA				\$429,700,924	91.4%
<b>DOC</b>					
In-Prison		\$7,943,975		\$7,943,975	1.7%
In-Community		\$9,207,821		\$9,207,821	2.0%
Total DOC				\$17,151,796	3.6%
<b>CJC</b>					
Specialty Court		\$6,569,032		\$6,569,032	1.4%
Justice Reinvestment		\$6,111,758		\$6,111,758	1.3%
Total CJC				\$12,680,790	2.7%
<b>OYA</b>					
In-Facility		\$774,245		\$774,245	0.2%
In-Community	\$84	\$217,604		\$217,688	0.0%
Total OYA				\$991,933	0.2%
<b>Counties</b>					
11 Counties*			\$10,508,962	\$10,508,962	
Total Counties				\$10,508,962	2.2%
<b>Total</b>	<b>\$324,188,937</b>	<b>\$136,336,506</b>	<b>\$10,508,962</b>	<b>\$470,042,472</b>	<b>100.0%</b>

\* 2015-2017 biennium.

#### 3.1 OREGON HEALTH AUTHORITY (OHA) EXPENDITURE

##### 3.1.1 Medicaid Expenditure on Substance Abuse Treatment

To understand total Medicaid spending patterns on substance abuse treatment, OHSU's Center for Health Systems Effectiveness (CHSE) completed a longitudinal analysis from 2010 to 2017<sup>59</sup> (See Appendix F

<sup>58</sup> Expenditures include all costs associated with traditional levels of substance abuse treatment care, as well as funds used for prevention, gambling treatment, and services delivered in primary care settings. Also, while every effort has been made to accurately account for all public funds, this report is a *snapshot in time* of a mix of budgets and actuals that collectively are a reasonable estimate of the public expenditure on alcohol and drug treatment.

<sup>59</sup> Renfro S and Gu Y. Oregon Health Plan Spending on Substance Use Disorder Treatment Services, 2010-2017. Center for Health Systems Effectiveness, Oregon Health & Sciences University; 2019. This descriptive analysis used administrative claims data from OHA's Health Systems Division to describe substance use disorder (SUD) treatment services and spending for Oregon Medicaid enrollees. The analysis includes enrollees aged 12 years and older who are not dually eligible for Medicare. Per capita expenditures were calculated using *member years* as the denominator, which are

for complete unpublished report). As shown in Table 3.1.1.1., from 2010 to 2017, spending on SUD treatment services increased 59 percent from \$134 to \$213 per capita. During this eight-year time period, two notable events impacted enrollees and spending. In 2012, Oregon reorganized Medicaid spending through the creation of the CCOs, which led to a 13 percent increase in SUD spending a year later (\$170 per capita in 2013). In 2014, Medicaid Expansion resulted in a significant 92% increase in total enrollees (aged 12 years and older) from 399,417 in 2013 to 765,922 in 2014. This marked increase led to an initial decrease in per capita SUD spending from \$170 in 2013 to \$156 in 2014. However, the following year (2015) spending returned to the pre-expansion expenditure level (\$171 per capita) and continued to increase each year thereafter. Data to calculate member years for 2018-19 were not available, but total annual expenditures provided by OHA for 2018 (\$142,550,548) and 2019 (\$155,752,881) suggest the increased spending trend on SUD continues.

**Table 3.1.1.1. Medicaid Medical Spending for Substance Use Disorder (SUD), 2010-2017**

Year	Total Enrollees	Member Years	Annual Expenditures, Total	Annual Expenditures, Per Capita
2010	351,062	249,002	\$33,446,569	\$134
2011	394,893	310,426	\$42,654,858	\$137
2012	403,647	326,102	\$49,194,230	\$151
2013	399,417	326,711	\$55,607,448	\$170
2014	765,922	674,192	\$105,068,285	\$156
2015	899,925	747,166	\$127,607,180	\$171
2016	916,575	732,246	\$145,008,410	\$198
2017	858,190	666,352	\$141,947,705	\$213

Based on administrative claims data. Member years calculated as enrolled months/12.

Medicaid funds (Oregon Health Plan or OHP) are split between CCOs and fee-for-service (FFS), where treatment providers are paid directly by OHA. Medicaid is a matching program, which is why state general funds are allocated to Medicaid in order to receive the federal match. In March 2018, the monthly Medicaid population report indicated that 845,401 (77%) were enrolled in a CCO, 158,422 (14%) were covered by FFS, and 50,124 (5%) were enrolled in managed care other than a CCO (total OHP = 1,104,071). All who receive Medicaid services must meet eligibility requirements.

total enrollee's months on OHP divided by twelve. Definitions from the National Committee for Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) were used to identify members with an active SUD. Only diagnoses and services rendered and billed via administrative claims were represented in the results, so actual prevalence of substance use disorders and treatment may be higher.

Spending estimates included service costs on medical claims where the primary diagnosis indicates a SUD. Because claims do not always capture associated service costs, missing costs were imputed following the approach of Renfro S, Lindner S, McConnell KJ (Decomposing Medicaid Spending During Health System Reform and ACA Expansion: Evidence from Oregon. Medical Care 56(7); 589-595. PMID: 29762274.11, 2018) by substituting the average cost of the service (for inpatient stays billed on a DRG-basis) or substituting Oregon's fee schedule rate (for non-DRG-based services). Pharmacy costs and non-claims based spending are not included in this summary, so total spends per year represent a baseline estimate with actual expenditures being higher. The Institutional Review Board at OHSU determined that this analysis did not constitute human subjects research, and qualified for an exemption from continued IRB review.



**Table 3.1.1.2. Medicaid Spending by CCOs and Fee-For-Service on Substance Abuse Treatment**

Year	CCO/FFS	State Funds	Federal Funds	Total Funds
2018	CCO	\$20,174,128	\$93,871,942	\$114,046,069
	FFS	\$5,312,186	\$23,192,294	\$28,504,479
2019	CCO	\$21,704,757	\$104,472,536	\$126,177,293
	FFS	\$4,194,618	\$25,380,976	\$29,575,594
CCO Total:		\$41,878,885	\$198,344,478	\$240,223,362
FFS Total:		\$9,506,804	\$48,573,270	\$58,080,073

global funds, there is no uniform spending on substance use or mental health disorders, other than the requirement that each CCO meets the needs of the population they serve. Most CCOs base substance abuse treatment rates largely on the Division of Medical Assistance Programs (DMAP) rates combined with rates specific to risk populations.

At any given time, about 10-15 percent of Oregonians eligible for Medicaid will not be enrolled in a CCO. They are considered “open-card” or “fee-for-service” (FFS) clients, and they have this status due to certain exemptions that include: 1) being on both Medicaid and Medicare, 2) designated tribal status, or 3) they have third party insurance that does not cover all necessary services, so Medicaid becomes the payer of last resort. These services are billed directly to OHA.

One CCO, Health Share of Oregon, did a detailed analysis of spending on substance abuse treatment from July 2016 to June 2017, with a focus on spending related to opioid use disorders (OUD)<sup>60</sup>. During the one-year time period, Health Share spent \$43.3M on substance abuse treatment, which included medical, behavioral, pharmacy, and non-emergent medical transportation services. These services covered 10,585 adults, and the expenditures represented 6.3 percent of the total \$682.2M that Health Share spent on all services for 133,874 adults during the same time frame. Analysis of expenditures on OUD found that about \$21.6M (49.9%) was spent on 4,553 members for: medical/behavioral services (\$14.3M), medication-assisted treatment (\$1.3M), and non-emergent medical transportation (\$6M). Most notable was the high transportation expense for rides given to and from opioid treatment programs. Also, MAT prescriptions for buprenorphine and naltrexone products comprised 0.8% of total adult pharmaceutical costs. The study compared OUD members to an equal number of adults without an OUD diagnosis sharing similar traits, and found that OUD members cost Health Share double those without OUD, or an additional \$49M per year.

CCOs are provided a global budget to address the medical, behavioral (including SUD) and dental needs of their given populations. Each CCO works with their communities to assess risk and develop *Community Health Improvement Plans*, but the specificity of how each plan will address addiction and mental health issues is limited. Because each CCO decides how to spend the

<sup>60</sup> Health Share Bridge, Opioid Use Disorder Costs: July 2016-June 2017.

### 3.1.2 Non-Medicaid Spend on Substance Abuse Treatment

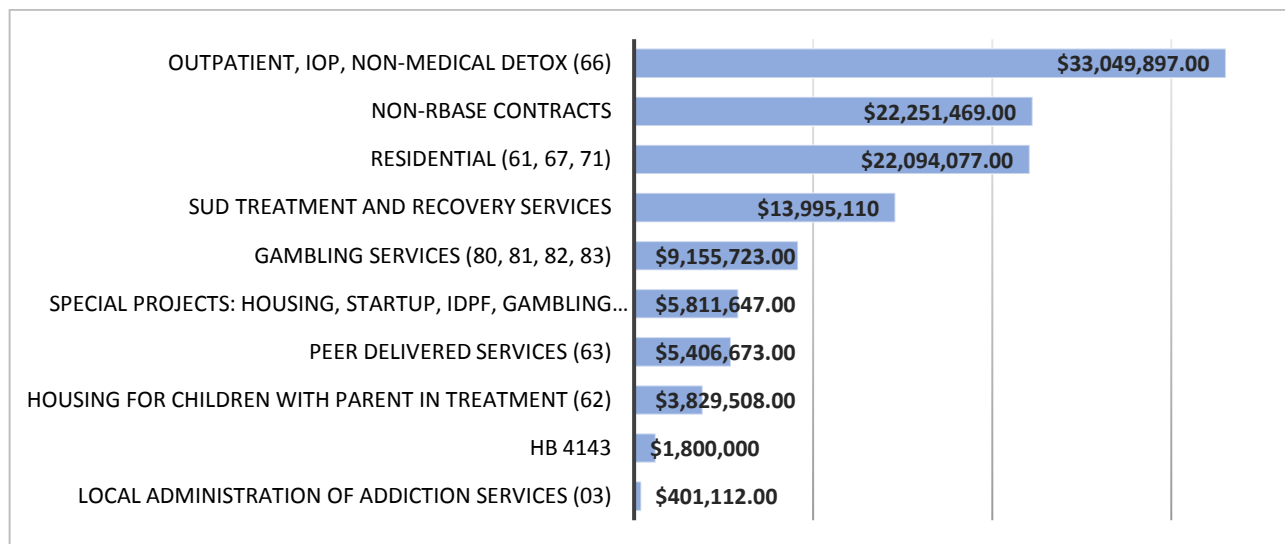
**Table 3.1.2.1. Origin of Non-Medicaid Monies, 2017-19 Biennium**

Fund		% of Total
<i>General Fund</i>		
General Fund	\$3,950,000	3.4%
<i>Other Funds Limited</i>		
Beer & Wine Fund	\$11,218,700	9.5%
Marijuana Fund	\$21,882,589	18.6%
Criminal Forfeiture Account	\$99,001	0.1%
Intoxicated Driver Program Fund	\$3,893,953	3.3%
Lottery Fund	\$9,502,511	8.1%
Total	\$46,596,754	39.6%
<i>Federal Funds Limited</i>		
TANF Grant	\$1,829,508	1.6%
Access to Recovery	\$3,820,831	3.2%
SAMSHA MAT	\$2,020,833	1.7%
State Opioid Response "Grant	\$5,904,083	5.0%
SAMSHA Opioid STR	\$9,705,582	8.2%
SAPT Treatment	\$43,967,625	37.3%
Total	\$67,248,462	57.1%
Total Non-Medicaid	\$117,795,216	100.0%

Non-Medicaid funds originate from federal (57%) and state (43%) sources, with about 36% of funds generated from taxes on liquor, marijuana and lottery winnings. Non-Medicaid money funds *direct client services* and pays for *administrative and programmatic services* that support the substance abuse treatment system. It also pays for non-Medicaid services for those on Medicaid.<sup>61</sup> Table 3.1.2.1. summarizes non-Medicaid expenditures for the 2017-19 biennium.<sup>62</sup>

Non-Medicaid expenditures are reported in Figure 3.1.1. Of the total non-Medicaid funds used for direct client SUD treatment, about 28% pay for outpatient, IOP and non-medical detoxification services (\$33M), 19% pay for residential treatment (\$22.1M), 8% for gambling services (\$9.2M),

**Figure 3.1.2.1. Summary Expenditures of Non-Medicaid Monies, 2017-2019**



<sup>61</sup> Expenditures on client services are dispersed to counties through "service elements" that specify contractually how money is to be used by each CMHP. There are 12 different categories of service elements. For a county to receive funds for a service element it must demonstrate that it has the capabilities/facilities to deliver that service. The services are similar to those paid for by Medicaid and include levels of care (detox, residential, IOP, outpatient), but also include things that Medicaid will not pay for such as housing. Clients use these funds when they are not enrolled in Medicaid (covered by a CCO), in-between insurance plans, or indigent. Ideally, CMHPs use non-Medicaid funds until a person can get enrolled with their local CCO.

<sup>62</sup> See Appendix G for expenditures detailed by service element.

and 5% for peer delivered services (\$5.4M). Because expenditure totals represent a mix of budgets and actuals, the \$13.9M listed for SUD Treatment and Recovery Services are funds not yet allocated to a service element, or is in process of being allocated. Money not spent in the present biennium is rolled into the next one. Monies for gambling services fund prevention efforts, the problem gambling help line, treatment, outcomes research, workforce development, and recovery support. Providers who deliver treatment services are required to track clients in the Gambling Participant Monitoring System (GPMS).

In addition to funding direct client services through service elements, non-Medicaid money also funds NON-RBASE contracts (22.3M) and House Bill 4143 (1.8M). NON-RBASE contracts (19% of total funds) include about fifty individual contracts with organizations including MHACBO, Herbert and Louis and FEI Systems among others. Funds pay for building infrastructure, creating training programs, maintaining software or data, or creating strategic plans. These contracts can also include grant agreements that may include some client services, such as MAT training and then the delivery of the trained service. House Bill 4143 required the Director of Department of Consumer and Business Services to study barriers to effective treatment for and recovery from substance abuse disorders, including addictions to opioids and opiates, and to report and make recommendations to the Legislative Assembly by June 2018.<sup>63</sup>

Unlike Medicaid funds and treatment services that are reliably tracked through the Medicaid Management Information System (MMIS), the system to track non-Medicaid funds – MOTS – is unreliable. While some counties continue to submit data to MOTS, others track their use of funds in spreadsheets which also get submitted into the system.<sup>64</sup> At the end of a biennium, a *settlement* occurs between each county and OHA to reconcile contracts, which presently date back to the 2013-15 biennium.<sup>65</sup> Because of the unreliability of MOTS data, OHA often utilizes county spreadsheets as proof of contractual obligations.<sup>66</sup> Historically, most counties spend all of their non-Medicaid monies, but with the implementation of CCOs, it's unclear whether this is still the case. It is also unclear whether the relationship between Medicaid and non-Medicaid spending has ever been reevaluated and adjusted after the creation of the CCOs. Without a functioning system to track *outcomes* we are left with only the ability to track *outputs*.

### 3.1.3 Public Health Expenditure on Substance Abuse Prevention

**Table 3.1.3.1. Total OHA Expenditure on Substance Abuse Prevention**

Title	General	Other	Federal	Total
Revenues	\$1,149,651	\$0	\$10,022,643	\$11,172,294
Transfer In	\$0	\$2,429,979	\$0	\$2,429,979
Total Revenues	\$1,149,651	\$2,429,979	\$10,022,643	\$13,602,273
Personal Services	\$432,882	\$126,154	\$540,020	\$1,099,056
Services and Supplies	\$271,259	\$1,164,867	\$805,343	\$2,241,469
Special Payments	\$445,510	\$1,138,958	\$8,677,280	\$10,261,748
Total Expenditures	\$1,149,651	\$2,429,979	\$10,022,643	\$13,602,273

In the Oregon's Public Health Division, the Health Promotion and Chronic Disease Prevention Program (OHA-PHD HPCDP) provides leadership for prevention and health promotion initiatives for tobacco, asthma, nutrition, diabetes, arthritis, heart disease, physical activity, stroke and cancer, and now includes

substance misuse prevention in its portfolio. HPCDP takes an integrated approach to reducing premature death and chronic diseases by focusing on the common risk factors of tobacco use, excessive drinking, physical inactivity and poor nutrition across all Oregon communities. As a result of the integrated approach to prevention, funding specific for SUD is not easily delineated and estimated.

<sup>63</sup> OHA, Consumer and Business Services (2018). Report on existing barriers to effective treatment for and recovery from substance use disorders, including addictions to opioid and opiates: As required by 2018 House Bill 4143.

<sup>64</sup> OHA HSD, multiple interviews with staff

<sup>65</sup> Ibid

<sup>66</sup> Ibid

Public health prioritizes population-level alcohol and other drug prevention policy approaches that provide sustainable environmental changes to promote health and to protect communities from unhealthy influences. OHA-PHD HPCDP promotes a comprehensive, community-wide approach, based on evidence-based public health practice, to prevent alcohol and other drug use, misuse and related harms in communities. Oregon’s comprehensive program includes: State and community interventions, mass-reach health communication interventions, surveillance and evaluation, infrastructure, administration and management functions. This work is outlined in the department’s Alcohol and other Drug Prevention and Education Program (ADPEP), which includes<sup>67</sup>:

- *Statewide alcohol interventions to reduce excessive drinking.* Alcohol use is the third-leading cause of preventable deaths among people in Oregon. Excessive alcohol use—which includes binge drinking, heavy drinking, and alcohol use by people under 21 or pregnant women—can cause or exacerbate heart disease, diabetes, cancer, motor vehicle accidents, and violence. Prioritized interventions in Oregon aim to create community environments that reduce exposure to alcohol availability, marketing and promotions to discourage excessive drinking, as well as raising the price of alcohol.
- *Community program local infrastructure.* OHA-PHD funds communities in all 36 Counties, 9 Tribes and Regional Health Equity Coalitions (RHECs) to address alcohol, tobacco and other drugs through community mobilization efforts. Funded communities help plan, implement, and evaluate strategies that prevent substance use, misuse and related harms.
- *Health communications.* OHA-PHD created Stay True to You (STTY), a mass media health education campaign directed at youth and young adults that included Talk With Them, a component directed at parents and youth-serving adults. HPCDP is currently conducting an assessment to inform health communication messages to increase acceptance of policies and regulations to reduce excessive alcohol consumption in Oregon.
- *Surveillance and Evaluation.* OHA-PHD uses data to identify strategic priorities and best practices for population level prevention; measure progress towards health outcome goals and targets; and provide internal and external data-related technical assistance. This is done by building and implementing systems for collecting, processing, analyzing and reporting data from a wide variety of sources.

### 3.1.4 OHA Expenditure on Mental Health vs. Substance Abuse Treatment Services

**Table 3.1.4.1. Total OHA Public Expenditure Budgets for Substance Abuse and Mental Health Services – 2017-19 Biennium**

	Total Expenditure	% of Total
Alcohol & Drug Budget		
Medicaid (includes FFS)	\$ 298,303,436	13%
Non-Medicaid (includes gambling)	\$ 117,795,215	5%
Public Health	\$ 13,602,273	1%
Mental Health Budget		
Medicaid (includes FFS)	\$1,488,494,603	65%
Non-Medicaid	\$ 372,480,568	16%
Total OHA Behavioral Health Spend	\$2,290,676,095	100%

The substance abuse and mental health treatment systems remain largely fragmented from each other, yet share many of the same funding sources, treatment programs and patients. For these reasons, tracking public expenditures on mental health treatment is useful if the ultimate goal is to optimize behavioral health for all

Oregonians. Table 3.1.4.1. provides a budget summary of OHA’s total public expenditures for behavioral health in the 2017-19 biennium.<sup>68</sup> The total OHA budget for behavioral health services in the 2017-19 biennium is \$2,290,676,095, of which, 19% is spent on substance abuse treatment services, and 81% on mental health services. Medicaid funds mental health treatment services about three times that of alcohol and drug services. But for non-Medicaid funds, the proportional expenditure on mental health is less than alcohol and drugs. The

<sup>67</sup> OHA, Public Health Division, email correspondence, February 20, 2019

<sup>68</sup> OHA HSD, 2019

following table provides more detailed spending estimates of Medicaid money by CCO, MHO and FFS.<sup>69</sup>

**Table 3.1.4.2. Total Medicaid Expenditure on Mental Health Services by CCO, MHO, and FFS – 2017-19 Biennium**

	State Funds	Federal Fund	Total Funds
Mental Health CCO Cost Estimate			
SFY18	\$105,381,686	\$355,849,647	\$461,231,332
SFY19	\$121,727,602	\$405,675,499	\$527,403,100
2017-19	\$227,109,287	\$761,525,146	\$988,634,433
Mental Health MHO Cost Estimate			
SFY18	\$832,935	\$1,464,129	\$2,297,064
SFY19	\$778,574	\$1,353,291	\$2,131,865
2017-19	\$1,611,510	\$2,817,420	\$4,428,930
Mental Health FFS Cost Estimate			
SFY18	\$68,122,406	\$180,519,333	\$248,641,739
SFY19	\$70,977,417	\$175,812,084	\$246,789,501
2017-19	\$139,099,823	\$356,331,417	\$495,431,240
Mental Health Combined Cost Estimate			
SFY18	\$174,337,027	\$537,833,109	\$712,170,136
SFY19	\$193,483,593	\$582,840,874	\$776,324,467
2017-19	\$367,820,620	\$1,120,673,983	\$1,488,494,603

Similar to the analysis done by the Center for Health Systems Effectiveness on Medicaid spending from 2010 to 2017 on substance abuse treatment services, Table 3.1.4.3. provides annual expenditures per capita for mental health services.<sup>70</sup>

**Table 3.1.4.3. Medicaid Medical Expenditures for Mental Health Services, 2010-2017**

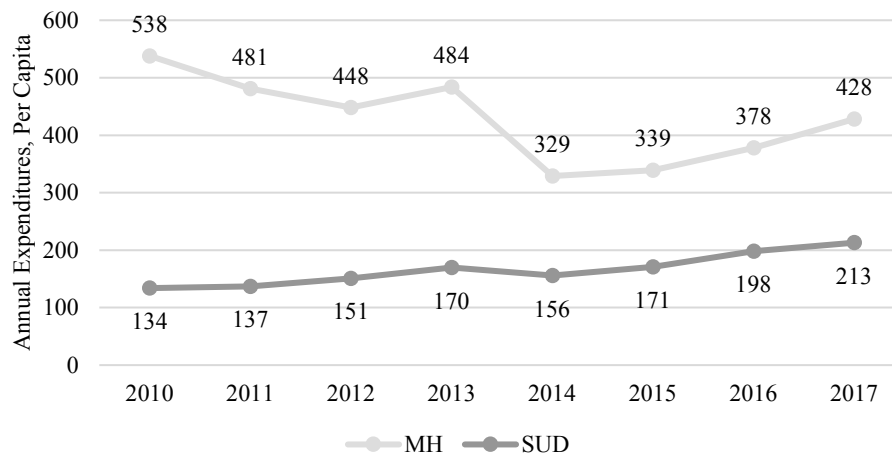
Year	Total enrollees	Member years	Annual expenditures, total	Annual expenditures, per capita
2010	351,062	249,002	\$133,957,281	\$538
2011	394,893	310,426	\$149,371,652	\$481
2012	403,647	326,102	\$146,251,841	\$448
2013	399,417	326,711	\$158,197,566	\$484
2014	765,922	674,192	\$221,816,802	\$329
2015	899,925	747,166	\$252,926,221	\$339
2016	916,575	732,246	\$276,446,171	\$378
2017	858,190	666,352	\$285,036,811	\$428

Based on administrative claims data. Member years calculated as enrolled months/12.

<sup>69</sup> Ibid

<sup>70</sup> Renfro S and Gu Y. Oregon Health Plan Spending on Substance Use Disorder Treatment Services, 2010-2017. Center for Health Systems Effectiveness, Oregon Health & Sciences University; 2019.

Figure 3.1.4.1. Medicaid Annual Expenditures, Per Capita: Mental Health (MH) vs. SUD, 2010-2017



As shown in Figure 3.1.1, Medicaid spending on mental health services has been variable, unlike the increasing trend in spending on SUD services. Since Medicaid expansion in 2014, people with severe mental illness were often eligible for Medicaid pre-expansion through the disability category. Thus the Medicaid expansion brought an influx of people with lower mental health prevalence, since people with mental health conditions tended to have

been enrolled already. This resulted in a decrease in per capita spending, in contrast to SUD which were not a basis for Medicaid eligibility prior to ACA expansion.

Non-Medicaid funding for mental health services originate from the state General Fund (71%), Other Funds Limited (25%), which come from tobacco and marijuana taxes, and Federal Funds Limited (4%) which is primarily block grants. By way of comparison, non-Medicaid monies used for alcohol and drug treatment are less state General Fund (3.4%), and more Other Funds Limited (39.6%) and Federal Funds Limited (57.1%). Table 3.1.4.4. summarizes expenditures on non-Medicaid mental health services.<sup>71</sup>

<sup>71</sup> OHA HSD, 2019

**Table 3.1.4.4. Non-Medicaid Summary of Projected Expenditures for Mental Health Services, 2017-2019**

<b>Children's Programs</b>	
Crisis Service – Lines for Life	\$1,150,632
Early Assessment and Support Alliance (EASA)	\$11,760,783
Residential Mental Health Treatment Services for Youth and Young Adults in Transition	\$7,778,713
Psychiatric Residential Treatment Services – Youth	\$7,743,300
Parent/Child Interactive Therapy (PCIT)	\$3,900,847
Crisis and Acute Transition Services for children/families (CATS)	\$2,967,347
Mental Health Services for Children who have been victims of commercial exploitation	\$3,757,339
Federal Block Grant Children's MH Services	\$395,204
Juvenile Aid and Assist	\$212,989
Promotion and Prevention Services	\$4,394,512
School-based Mental Health Services	\$2,649,500
School-based Mental Health Services delivered through Public Health School Clinics	\$6,400,000
Young Adult hubs	\$2,725,380
<b>Subtotal Children's Mental Health – Non-Medicaid</b>	<b>\$55,836,545</b>
<b>Adult Programs</b>	
Non-Residential Mental Health Services	\$48,105,426
Supported Housing	\$1,862,199
Acute and Intermediate Inpatient Psychiatric Service	\$16,988,159
Community Crisis Services – youth and adult	\$59,585,083
Residential Treatment Services	\$48,106,455
Mental Health Supports for clients in residential care	\$568,188
Housing Development for people with Mental Illness	\$5,065,160
Psychiatric Security Review Board – Monitoring, Security, and Supervision	\$11,115,957
Psychiatric Security Review Board – Treatment and support services	\$4,264,917
Adult Foster Care	\$646,202
Older and Disabled Adult Mental Health Services	\$6,608,268
Preadmission Screening/Annual Resident Review for persons with SPMI entering Long-Term Care Facilities	\$343,000
Supported Employment	\$4,062,343
Transition from Homelessness	\$1,236,598
Aid and Assist Projects	\$7,235,383
Veterans' Behavioral Health	\$2,500,000
Assertive Community Treatment	\$4,836,029
Jail Diversion	\$13,320,072
Oversight and Coordination for Adults with SPMI	\$21,220,079
Peer Delivered Services	\$112,195
Rental Assistance	\$41,828,331
Tribal Mental Health Services	\$2,811,133
<b>Subtotal Adult Mental Health Services – Non-Medicaid</b>	<b>\$302,421,175</b>
<b>System-wide Services</b>	
Local Program Evaluation and Data Collection	\$14,222,848
<b>Total Community Mental Health Non-Medicaid Services Contracts and Projections</b>	<b>\$372,480,568</b>

### 3.2. OREGON CRIMINAL JUSTICE SYSTEM EXPENDITURES

#### 3.2.1. Oregon Department of Corrections

**Table 3.2.1.1. Total Spend on Prison-Based SUD Treatment Services by Contractor**

Contractor	Contract Amount
Cascadia - CCF	\$1,365,456
Cascadia - CRCI	\$1,679,579
New Directions NW	\$3,153,194
WestCare Foundation	\$626,799
Pathfinders of Oregon	\$760,336
Multi-Cultural Consultants	\$358,612
Total	\$7,943,975

The Oregon Department of Corrections estimates spending \$7,943,975 in the 2017-19 biennium on in-prison SUD treatment, and \$9,207,821 on community-based SUD treatment in the 2015-17 biennium, for an estimated total of \$17,151,796.<sup>72</sup> Adults in custody (AICs) receive an intake evaluation that measures criminogenic risk factors as well as mental health and substance abuse problems used for initial prison placement. As of September 1, 2019, 67% of AICs had a substance abuse problem and 61% had a mental health need that could benefit from treatment.<sup>73</sup> Due to limited funding, treatment for SUD occurs in the final six months of incarceration (see Chapter 5 for outcomes). Treatment is done

by DOC staff or contracted through different agencies, can be residential or outpatient, and is only available at select prisons (so AICs are moved when necessary).<sup>74</sup> Treatment in prison utilizes evidence-based curricula, but the DOC employs no system to track AIC treatment outcomes.<sup>75</sup> Upon release, some AICs are required to engage in SUD community-based treatment (See Chapter 5). DOC provides grant-in-aid (GIA) funding to each county's community corrections agency for supporting treatment, but each county may spend more in total on treatment for offenders by utilizing other funding sources like non-Medicaid funds.

As outlined in Figure 3.2.1.1., in the 2015-17 biennium, a total of \$9,207,821 was spent on treatment in the community.<sup>76</sup> SUD programs received \$8,302,025 while drug courts received \$905,796. Like in-prison treatment, SUD providers are required to deliver evidence-based practices and agree to a comprehensive auditing process done by DOC staff. A summary of these audits over the past few years indicate that most providers are challenged to deliver evidence-based treatment (see Appendix H for a summary of audit findings). It's worth noting that DOC relies upon MOTS to track SUD outcomes for treatment in community, so little is known about treatment outcomes.

<sup>72</sup> DOC, August 2019.

<sup>73</sup> DOC, Inmate population profile for 9/1/19 (total inmate population: 14, 462).

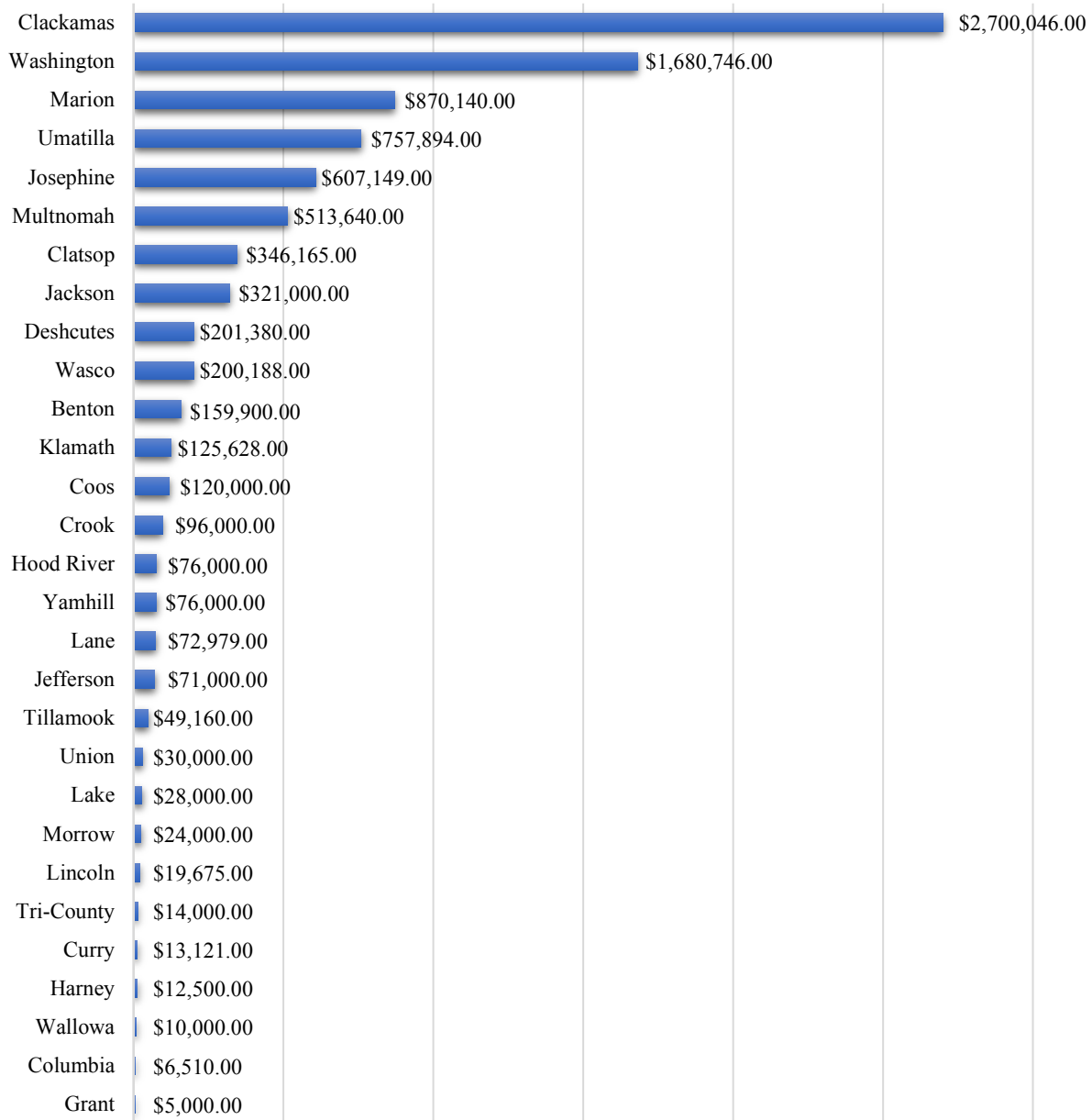
<sup>74</sup> Coffee Creek Correctional Minimum (CCCM)- 54 female inpatient beds and 48 outpatient beds; Columbia River Correctional Institution (CRCI)- 61 male inpatients beds and 50 outpatient beds; Oregon State Correctional Institution (OSCI)- 24 male outpatient beds; Powder River Correctional Facility (PRCF)- 128 male inpatient beds - Bed counts represent actual beds, but utilization can vary as AICs are transitioned in and out of treatment.

<sup>75</sup> DOC has recently developed a monthly report tracking AICs who received treatment in prison, are released, and then recidivate.

<sup>76</sup> DOC, August 2019



Figure 3.2.1.1. Total DOC Spend on Community-Based SUD Treatment by County



**Table 3.2.1.2. Total Budgeted Spend on DOC Community Corrections by Program – 2017-19 Biennium**

Community Corrections	Total Spend	% of Total
Supervision	\$ 199,472,408.00	32
Custodial/Sanction Beds	\$ 162,652,615.00	26
Administration	\$ 103,837,305.00	17
Other Services	\$ 50,296,779.00	8
Transition Services	\$ 41,459,287.00	7
<i>Substance Abuse Treatment</i>	<i>\$ 25,051,063.00</i>	<i>4</i>
Comm-Based Custodial Alternatives	\$ 11,816,236.00	2
Other Programs	\$ 9,321,032.00	1
Day Reporting Centers	\$ 7,117,400.00	1
Community Service/Work Crew	\$ 5,390,444.00	1
<i>Mental Health Services</i>	<i>\$ 5,290,520.00</i>	<i>1</i>
Sex Offender Services	\$ 4,143,879.00	<1
Subsidy	\$ 1,950,436.00	< 1
Sanctions	\$ 375,167.00	< 1
<b>Total</b>	<b>\$ 628,174,571.00</b>	<b>100</b>

DOC tracks total funds provided to counties that support community corrections programs. These funds include monies from DOC, CJC, county general funds, as well as other sources. For the 2017-19 biennium, a total of \$628,174,570 went to support all county community corrections programs. The following table provides a summary of spending by program to all counties. Total estimated statewide spend on SUD treatment at the *county-level from all funding sources* is about \$25M (\$9.2M provided by DOC), or 4% of the total spend on community corrections programs. In comparison, the mental health treatment spend is about \$5.3M, or one-fifth the investment, and accounts for about 1% of the total spend.

### 3.2.2 Other Criminal Justice System Funds

State monies provided to the Oregon Criminal Justice Commission fund substance abuse treatment services through two programs or approaches: *Justice Reinvestment* and *Specialty Courts*.<sup>77</sup> As shown in table 3.2.2.1. on the following page, for the 2017-19 biennium, an estimated total of \$13.2M was spent on SUD treatment services, \$6.1M through justice reinvestment and \$7.1M through specialty court programs. Finally, the Oregon Youth Authority (OYA) exercises legal and physical custody of youth committed to OYA by juvenile courts, and exercises physical custody of youth committed to the Oregon DOC by adult criminal courts and placed with OYA due to their age.<sup>78</sup> The total budgeted expenditure on substance abuse treatment by OYA for

<sup>77</sup> Between 2000 and 2010, Oregon's prison population increased nearly 50%. As a result, the Oregon Justice Reinvestment Act was passed in 2013 with the goal of financially supporting counties to plan, implement, or expand initiatives that reduce recidivism, reduce prison population, increase public safety, and hold offenders accountable. Included in these efforts was a focus on enhancing addiction treatment services. Since CJC began managing the program, nearly \$100M in grant funds have been distributed to counties. Specialty courts are problem-solving courts that operate under a specialized model to provide court-directed supervision and mandated treatment to nonviolent individuals with substance use or mental health issues underlying their criminal behavior. Specialty Court judges typically impose a strenuous regimen of treatment and accountability that requires a strong personal commitment from participants to take control of their lives to eliminate substance use and sustain a crime-free lifestyle. Both Justice Reinvestment and Specialty Courts are grant-based programs that involve counties submitting applications for funds. Once awarded, CJC manages the grants with staff who meet with recipients on an ongoing basis to assure funds are being used in accordance with the grant contracts.

<sup>78</sup> As of January 2019, the agency employs about 1,000 staff who manage a total youth population of 1,235 ages 12-25 who have committed serious delinquent or criminal conduct prior to their 18<sup>th</sup> birthday, and have been determined by juvenile court to require out-of-home placement. Of this total, 505 are serving time in OYA Youth Correctional Facilities (280 OYA facility, 225 DOC youth), and 730 are on parole or probation in the community. Youth on probation or parole are supervised by OYA parole and probation officers and may be living at home or in an OYA-contracted residential program, foster home, or proctor home. The agency is responsible for the supervision, management, and administration of Oregon's five youth correctional facilities and four transition facilities. OYA also supervises approximately 40 contracted programs providing community-based residential services for OYA youth on probation or parole.

2017-19 is \$991,993. This includes \$774,245 for in-facility treatment and \$217,688 for treatment in-community.<sup>79</sup>

**Table 3.2.2.1. Total CJC Expenditure on Substance Abuse Treatment Services by County – 2017-19 Biennium**

County	Justice Reinvestment	Specialty Court	Total
Jackson	\$1,456,696	\$1,105,828	\$2,562,524
Multnomah	\$1,359,262	\$922,660	\$2,281,922
Douglas	\$1,038,333	\$427,050	\$1,465,383
Marion	\$226,895	\$1,035,282	\$1,262,177
Clackamas	\$533,625	\$325,800	\$859,425
Columbia	\$20,000	\$545,904	\$565,904
Josephine	\$548,125	\$0	\$548,125
Benton	\$166,673	\$371,887	\$538,560
Deschutes	\$190,005	\$342,500	\$532,505
Lane	\$0	\$507,161	\$507,161
Washington	\$34,690	\$347,450	\$382,140
Crook	\$0	\$341,767	\$341,767
Linn	\$324,361	\$0	\$324,361
Lincoln	\$0	\$183,730	\$183,730
Jefferson	\$0	\$176,877	\$176,877
Union	\$0	\$115,825	\$115,825
Harney	\$0	\$114,900	\$114,900
Yamhill	\$0	\$105,341	\$105,341
Coos	\$90,847	\$0	\$90,847
Polk	\$0	\$82,500	\$82,500
Lake	\$57,500	\$0	\$57,500
Hood River	\$47,246	\$0	\$47,246
Clatsop	\$0	\$38,500	\$38,500
Wallowa	\$10,000	\$0	\$10,000
Tillamook	\$7,500	\$0	\$7,500
Union	\$0	\$0	\$0
Klamath	\$0	\$0	\$0
Total	\$6,111,758	\$7,090,962	\$13,202,720

<sup>79</sup> OYA, August 2019

### 3.3. COUNTY EXPENDITURE ON SUBSTANCE ABUSE TREATMENT

**Table 3.3.1. Total 2017-19 Biennium County Expenditure on Substance Abuse Treatment Services**

County	Estimated 2017-19 Biennium Total
Multnomah	\$8,886,746
Yamhill	\$450,000
Linn	\$406,660
Jackson	\$390,000
Marion	\$130,000
Union	\$84,000
Hood River	\$62,752
Wasco	\$56,428
Deschutes	\$20,000
Gilliam	\$20,000
Sherman	\$2,376
Total	\$10,508,962

To account for all public expenditures on substance abuse treatment in Oregon, federal and state funds for this report were tracked at the agency level. To obtain county expenditures on addiction treatment, CJC collaborated with the Association of Community Mental Health Programs (AOCMHP) and surveyed all counties on their individual contributions. Eleven counties reported spending county funds on addiction treatment services. It is important to note that because each county provided a yearly total expenditure, these amounts were doubled to arrive at an estimated biennium total for the summary spend. These results are displayed in Table 3.3.1. Because counties are the *primary hub* responsible for receiving and utilizing federal, state and county funds for both addiction and mental health treatment services, they maintain the most complete accounting of all funds being used for behavioral health treatment services at a local level.

While counties individually track funding sources, no system exists to comprehensively track behavioral health expenditures in a standardized format across all counties.

## 4. SUBSTANCE ABUSE TREATMENT OUTCOMES

Oregon will spend an estimated \$470M in the 2017-19 biennium on substance abuse treatment services. Understanding the degree to which this money impacts SUD problems in Oregon requires linking it with purchased services and evaluating how well those services produced the desired treatment outcomes. In mid-2014, OHA implemented a new behavioral health outcomes monitoring system known as the Measures and Outcomes Tracking System (MOTS). Based on interviews with OHA staff and other stakeholders in the treatment system, since its launch it has failed to produce reliable and valid outcome data.<sup>80</sup> In fact, only Oregon and Georgia have submitted insufficient data for inclusion in the national Treatment Episode Data Set (TEDS) from 2015-2017.<sup>81</sup> Because of the unreliability of MOTS data, outcomes for this report were based solely on Medicaid claims data linked with treatment expenditures by OHSU's Center for Health Systems Effectiveness (CHSE).<sup>82</sup>

### 4.1 CHSE MEDICAID OUTCOMES

SB 1041 required that outcomes be reported by *type of treatment*, which in this report is best understood as *levels of care* defined by the American Society of Addiction Medicine.<sup>83</sup> While the following table does not map exactly with the ASAM Levels, it does follow ASAM's continuum of care that include detoxification, residential, and outpatient services. In the CHSE analysis, detoxification and residential care were combined and services received in primary care settings were included in the count of services (e.g., screening, brief interventions). Table 4.1.1 summarizes substance abuse treatment services received by Medicaid members from 2010-2017.<sup>84</sup> The analysis of treatment services parallels the increased expenditure trend reported in Chapter 3. Following Medicaid expansion in 2014, there was a significant increase in delivered services. In 2017, of the total services provided, 68% were outpatient, 29% residential/detox, and 19% were delivered in primary care.

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<sup>80</sup> See Appendix H for more details about MOTS and its impact on the treatment system.

<sup>81</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2019). *National Survey on Drug Use and Health 2017* (NSDUH-2017-DS0001). Retrieved from <https://datafiles.samhsa.gov>

<sup>82</sup> The Medicaid Management Information System (MMIS) is an electronic claims processing system required by the federal government for Medicaid services. MMIS data are housed in the Decision Support Surveillance and Utilization Review System (DSSURS), which manages data quality, analysis and reporting functions. One reason for the reliability of Medicaid data is that it must be submitted timely and accurately in order for a provider to get financially reimbursed for services rendered. The Medicaid data elements specific to substance abuse treatment services are: 1) date of service, 2) procedure code, 3) diagnosis code, 4) modifier, 5) plan, 6) billing provider, 7) performing provider, 8) paid amount for services paid free-for-service, and 9) total per member per month amount paid to CCOs. It's important to understand that the MMIS was not developed to track treatment outcomes, but instead facilitate payment of services. Therefore, outcomes in this case are better thought of as outputs of the treatment system.

<sup>83</sup> See: <https://www.asam.org/resources/the-asam-criteria/about>

<sup>84</sup> Renfro S and Gu Y. Oregon Health Plan Spending on Substance Use Disorder Treatment Services, 2010-2017. Center for Health Systems Effectiveness, Oregon Health & Sciences University; 2019.

**Table 4.1.1. Count of Members with SUD Receiving Any Treatment Services<sup>85</sup>**

	2010	2011	2012	2013	2014	2015	2016	2017
Total Medicaid enrollees	351,062	394,893	403,647	399,417	765,922	899,925	916,575	858,190
Enrollees with SUD	25,114	31,326	31,816	31,642	62,679	72,590	71,478	70,304
(% of total)	(7.2%)	(7.9%)	(7.9%)	(7.9%)	(8.2%)	(8.1%)	(7.8%)	(8.2%)
Specialty residential/detox	405	610	1,902	2,913	5,950	7,280	8,213	8,148
Specialty outpatient	5,582	7,833	7,875	9,440	17,881	20,521	20,613	19,254
Primary care	958	753	814	898	2,814	3,517	4,917	5,289
<i>People receiving any treatment service</i>	<i>6,553</i>	<i>8,864</i>	<i>9,901</i>	<i>12,063</i>	<i>23,957</i>	<i>28,031</i>	<i>29,537</i>	<i>28,214</i>

As noted in Chapter 3, the per capita spending on SUD treatment did not include money spent on addiction medications. However, CHSE did provide a summary of counts of members with opioid use disorders who received such services, which is summarized in Table 4.1.2.<sup>86</sup> As shown in Table 4.1.2, approximately 50% of patients with an OUD receive medications for opioid use disorder, the most common being methadone. However, use of buprenorphine with naloxone, and the extended-release formulation of naltrexone, have increased significantly during the eight-year period. In 2017, patients with OUD received methadone (27%), buprenorphine (23%), or naltrexone extended-release (6%). The following table provides a summary of counts of enrollees with active SUD by substance, 2017 (for 2010-2016 see Appendix F).<sup>87</sup>

**Table 4.1.2. Count of Members with Opioid Use Disorder (OUD) Receiving Pharmacotherapy<sup>88</sup>**

	2010	2011	2012	2013	2014	2015	2016	2017
Total enrollees	351,062	394,893	403,647	399,417	765,922	899,925	916,575	858,190
Enrollees with OUD	5,696	7,382	7,799	8,289	15,592	19,456	20,891	21,688
(% of total)	(1.6%)	(1.9%)	(1.9%)	(2.1%)	(2.0%)	(2.2%)	(2.3%)	(2.5%)
Buprenorphine (mono)	48	123	204	300	604	705	776	1,207
Buprenorphine (w/Naloxone)	298	444	477	548	1,299	1,935	2,413	3,670
Methadone	2,518	3,050	3,137	3,136	4,791	5,337	5,565	5,799
Naltrexone (oral)	*	20	34	44	114	228	400	644
Naltrexone (extended-release)	*	*	71	148	515	874	1,213	1,353
<i>People receiving any pharmacotherapy</i>	<i>2,826</i>	<i>3,546</i>	<i>3,784</i>	<i>3,958</i>	<i>6,773</i>	<i>8,241</i>	<i>9,315</i>	<i>11,059</i>

\* Indicates result suppressed due to small cell size, less than 10 cases.

Table 4.1.3. displays the count of enrollees with an active substance use disorder. It is worth noting that in this table, cannabis use disorders rank first for ages 12-17 and 18-24, yet slip to fourth behind alcohol, other

<sup>85</sup> Based on administrative claims data. Members may receive more than one type of SUD treatment service.

<sup>86</sup> Renfro S and Gu Y. Oregon Health Plan Spending on Substance Use Disorder Treatment Services, 2010-2017. Center for Health Systems Effectiveness, Oregon Health & Sciences University; 2019.

<sup>87</sup> Renfro S and Gu Y. Oregon Health Plan Spending on Substance Use Disorder Treatment Services, 2010-2017. Center for Health Systems Effectiveness, Oregon Health & Sciences University; 2019.

<sup>88</sup> Based on administrative claims data. Members may receive more than one type of pharmacotherapy treatment.

(stimulants), and opioids for adults ages 25-64. Given that Oregon is now ranked first in the nation for marijuana use, reexamining the impact of legalization on health outcomes may be warranted.

**Table 4.1.3. Count of Enrollees with Active Substance Use Disorder (SUD), 2017<sup>89</sup>**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	604	412	1,970	1,257	9,353	6,447	7,690	4,455	80	29
Opioid	75	53	969	967	7,114	6,861	2,698	2,883	39	29
Marijuana	1,544	915	2,308	1,575	5,632	4,388	2,004	1,167	13	10
Cocaine	33	29	187	130	569	415	381	220	*	*
Hallucinogen	68	35	88	27	59	36	*	*	*	*
Sedative	61	32	126	60	435	426	141	297	*	*
Other	384	283	1,608	1,533	8,517	7,921	4,172	2,689	17	13
<i>People Receiving Any SUD</i>	<i>1,807</i>	<i>1,184</i>	<i>4,464</i>	<i>3,573</i>	<i>20,211</i>	<i>17,195</i>	<i>12,712</i>	<i>8,958</i>	<i>129</i>	<i>71</i>

\* Indicates result suppressed due to small cell size, less than 10 cases.

## 4.2 OHA MEDICAID OUTCOMES

**Table 4.2.1. Persons Receiving Medicaid Treatment Service, Comparison of Age Category by Year**

Age	2015-16	2016-17	2017-18
12-17	4%	5%	6%
18-24	14%	14%	14%
25-44	54%	53%	53%
45-64	26%	24%	24%
65+	2%	2%	3%

who received residential care, average stays were between two and six weeks, with about half of all patients receiving less than a month of treatment. Average outpatient care lasted between two and nine weeks, with about half of all patients receiving less than a month of treatment similar to residential.

Tables 4.2.1 and 4.2.2 display the data received from OHA. Over half of all persons receiving Medicaid treatment services were between the ages of 25 and 44, and about a quarter between the ages of 45-64. In Table 4.2.2, CHSE provided a count of members with SUD receiving substance abuse treatment services. OHA further calculated the average and median length of stay (measured in days) based on more expanded levels of care. Hospital and detoxification stays were relatively short, averaging a day to less than a week. For patients

<sup>89</sup> Based on administrative claims data. SUD categories are not mutually exclusive.

**Table 4.2.2. Average Length of Stay in Treatment by Levels of Care**

Level of Care/Service	2015-2016		2016-2017		2017-2018	
	Average	Median	Average	Median	Average	Median
<i>Detoxification</i>						
Hospital Inpatient	6	5	5.8	4	5.8	5
Free-Standing Residential	4.6	4	4.7	4	4.3	4
<i>Rehabilitation/Residential</i>						
Hospital Inpatient	*	*	*	*	*	*
Short-term residential	21.5	19	20	17	24	17
Long-term (over 30 days)	39.9	29	36.5	27	37.8	27
<i>Ambulatory (Outpatient)</i>						
Outpatient	50.5	28	61.7	35	**	**
Intensive Outpatient	48.9	29	60.8	36	65.5	44
Detoxification	3.2	3	2	2	1	1
<i>Opioid Agonist Therapy</i>						
Opioid Agonist Therapy	171.5	152	166.3	151	192.4	134
OAT Outpatient	29.1	1	12	1	NA	NA

\* Data not collected; \*\* OHA was unable to provide this data for technical reasons.

HB 4143 directed the Department of Consumer and Business Services, along with OHA, to study and report on barriers to addiction treatment. The central recommendation from the report was that *substance use disorders be addressed as chronic health conditions*.<sup>90</sup> A significant challenge of the present treatment system is how best to retool from an acute model of care to one that treats addiction similar to other chronic conditions (e.g., asthma, diabetes, hypertension). The above data suggest patients, including those on opioid agonist therapy, are largely receiving acute-based care. But not all people who enter the treatment system meet criteria for addiction, nor need long-term treatment. Some, who receive only a session or two, may not need additional interventions. Yet others, who receive the present standard of care, may continue to relapse after discharge and require ongoing interventions.

In addition, we have little data on how well treatment providers transition patients between levels of care. For example, patients who complete detoxification should be admitted for residential treatment, but because MOTS data is unreliable, the degree to which this happens is unknown. For this study, numerous treatment directors were interviewed about this issue, and all understood the importance of keeping patients in treatment as they transitioned between levels of care. Some providers even kept their own records and initiated interventions to enhance retention. All providers in Oregon could benefit from a functioning statewide outcomes system.

#### 4.3 EFFECTIVENESS OF TREATMENT

While Medicaid claims data summarize purchased services, they don't allow for analysis of how effective treatment was in leading to the desired clinical outcomes; namely a reduction in clinical symptoms and an improved quality of life. To do this, it is necessary to assess and compare symptoms when a patient enters treatment (baseline), when they complete treatment (discharge), and then again at time points in the future (e.g., 3-months, 6-months, and one-year). Measuring outcomes beyond discharge from treatment requires significant effort, resources, and research expertise beyond the intended use of MOTS and the scope of work of publicly funded treatment programs. Yet obtaining such outcomes is necessary if one wants to know whether public funds are being spent wisely on treatment.

<sup>90</sup> OHA, Consumer and Business Services (2018). Report on existing barriers to effective treatment for and recovery from substance use disorders, including addictions to opioid and opiates: As required by 2018 House Bill 4143.



In 2011, OHA's Addictions and Mental Health (AMH) Division contracted with NPC Research and designed a 12-month follow-up study to explore long-term outcomes for publicly funded treatment clients. Prior to the study, little statewide treatment effectiveness data existed. It involved 15 alcohol and drug treatment providers and 432 clients who completed assessments at baseline, discharge and 6- and 12-month post-treatment time points. Outcomes examined long-term sobriety, employment, income, selected health, mental health, and criminal justice involvement. Overall, outcomes were positive and provided support that Oregon's addiction treatment system produced measurable benefits for clients (see Appendix C).<sup>91</sup>

Since 2011, no other similar outcome studies have been done on treatment effectiveness in Oregon. Due to the significant changes in the state and treatment system since this study (introduction of CCOs, Medicaid expansion, opioid epidemic), the Oregon legislative assembly should consider funding another outcomes study to gain a greater understanding of the effectiveness of the present addiction treatment system. For reference, the 2011 study cost \$300,000 to complete.<sup>92</sup>

#### 4.4 TREATMENT OUTCOMES AND EVIDENCE-BASED PROGRAMS AND PRACTICES

In 2003, the Oregon Legislative session enacted Senate Bill 267 to promote the use of evidence-based programs in state agencies delivering substance abuse and mental health treatment services. A program is considered evidence-based if it incorporates significant and relevant practices based on scientifically based research and is cost effective. Agencies listed in the bill included DOC, OYA, the State Commission on Children and Families, the part of the Department of Human Services that deals with mental health and addiction issues, and CJC (although CJC is no longer required to submit reports due to not being a treatment provider). The bill required agencies to spend 25 percent of funds on evidence-based programs in the 2005-2007 biennium, 50 percent in the 2007-2009 biennium, and 75 percent in the 2009-2011 biennium and all biennia thereafter. Furthermore, the bill required each agency to submit a report on SB 267 compliance to the legislature by the 15<sup>th</sup> month of each biennium. The intent of the bill was to optimize treatment outcomes and the expenditure of public funds. Today, the bill continues to significantly influence addiction and mental health practices because of required reporting, and the belief by many stakeholders in the treatment system that evidence-based programs are the pathway to optimized healthcare.

Since 2004, the DOC has funded staff to travel around the state and complete comprehensive assessments on correctional programs delivered in prison and in community-based treatment programs (see Appendix H). The comprehensive assessments utilize the Correctional Program Checklist (CPC) to determine the degree to which a program's clinical practices align with SB 267 and ORS 182.515. The CPC is an evaluation tool based on multiple meta-analyses of correctional program effectiveness studies. To date, DOC has completed *several hundred assessments* of programs delivering cognitive-behavioral, sex offender, and substance abuse treatment among other clinical interventions. Among the most significant findings has been that programs do not consistently deliver evidence-based curricula or utilize the principles of effective interventions. In addition, programs often do not utilize or follow actuarial risk assessment tools, and do not have the background or training to self-correct content deficiencies.

Interviews conducted for this study with treatment directors, addiction researchers, and other stakeholders knowledgeable about clinical practices paralleled to some degree the DOC findings. Limited resources, staff turnover, and other factors contribute to challenges with adherence to evidence-based practices. At the same time, another theme that emerged from the interviews was that optimal outcomes must appreciate the important role of the therapeutic alliance, or the relationship between a patient and a counselor. One

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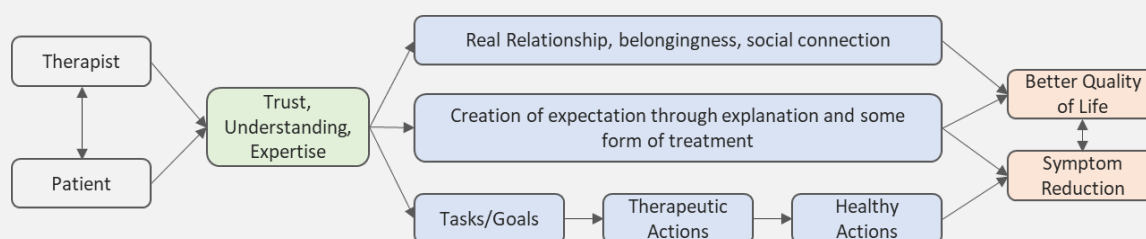
<sup>91</sup> NPC Research (August 2011). Oregon Addictions and Mental Health Division Substance Abuse Treatment Follow-Up Study: *Final Report*

<sup>92</sup> Phone conversation with NPC Research, 2019

unintended consequence of focusing solely on evidence-based practices has been the neglect of the important role the therapeutic relationship contributes to positive outcomes.

There has been an ongoing debate in the behavioral health field regarding what factors contribute the most to optimal outcomes.<sup>93</sup> The debate is best characterized by proponents who believe specific evidence-based treatments bring about the best outcomes, versus those who believe there are common factors found in all evidence-based practices that are the responsible ingredients of successful treatment. One common factor model that was first proposed in 2001, known as the Contextual Model, has attempted to bring together the most salient common factors and test them empirically. While other common factor models have been proposed, an updated review of the validity of the Contextual Model in 2015 suggests the choice of model has little impact on the overall conclusions regarding the debate.<sup>94</sup> As it turns out, since 2001 evidence is now even stronger that outcomes are optimized via a common-factors approach to treatment, not by focusing solely on individual practices.<sup>95</sup>

The Contextual Model posits that optimal outcomes occur through three change pathways.<sup>96</sup>



In brief, following the initial engagement between a therapist and patient where adequate relational connection leads to trust, *three pathways lead to optimal outcomes*. The first pathway is best understood as a real relationship between the therapist and the patient, or what is referred to as a positive therapeutic relationship or alliance. The second pathway involves the therapist and patient developing agreement on the nature of the problem to be addressed and the most appropriate treatment. Key to this pathway is that both therapist and patient have aligned expectations. The third pathway is the implementation of the treatment, or the pathway of specific evidence-based practices.

The implications of the Contextual Model are significant given present efforts in Oregon to reduce rates of SUD and mental illness. It provides an empirical roadmap for further optimizing outcomes beyond the present focus on evidence-based practices. Increased attention to the therapeutic alliance and expectations in academic programs, continuing education, and ongoing supervision practices can play an important role in improving Oregon's behavioral health treatment system. Incentive metrics aligned with the model and focused on both symptom reduction and better quality of life can also contribute to positive system change.

<sup>93</sup> Wampold, B.E. and Imel, Z.E. (2015). *The Great Psychotherapy Debate: The Evidence for What Makes Psychotherapy Work*, Routledge, NY, NY

<sup>94</sup> Ibid

<sup>95</sup> Ibid

<sup>96</sup> Multiple meta-analytic reviews comparing the effect sizes of common factors found in the Contextual Model with differences between treatments (or specific evidence-based practices), have consistently found support for the Contextual Model. For example, 190 studies involving over 14,000 patients studying the importance of the therapeutic alliance produced an effect size of .57, which explained 7.5% of variability in outcomes. Empathy and Positive Regard/Affirmation, two other key ingredients in therapeutic relationships, accounted for 9% and 7.3% of variability in outcomes respectively. Fifteen studies involving 1,300 patients investigating the second pathway of change, Goal Consensus and Collaboration, produced an effect size of .72 and explained 11.5% of variability in outcomes. At the same time, 295 studies involving over 5,900 patients investigating the third pathway of change, differences between treatments or specific evidence-based practices, produced an effect size of less than .2, which explained less than 1% of variability in outcomes. To be clear, these findings do not mean evidence-based practices are not important. They suggest that effective outcomes from evidence-based practices first require adherence to the other two pathways of change.

## 5. EFFECTS OF OUTCOMES ON THE CRIMINAL JUSTICE SYSTEM

Studying the effect of treatment outcomes on the criminal justice system requires access to outcomes from SUD treatment that can be linked to future criminal justice involvement and knowledge of the degree to which substance abuse or addictive behavior affects recidivism. At this time, SUD treatment outcomes for those in prison (or a youth facility) are not systematically tracked. While practically all youth and adults entering the criminal justice system receive comprehensive assessments that include screens for SUD, mental health issues, and criminogenic risk factors, the tracking of treatment services delivered in prison/facility is similar to claims data. Outcomes are counts of who received a service, rather than whether treatment worked to reduce clinical symptoms identified at intake. While recidivism is often used to assess treatment effectiveness, it's a poor outcome measure because people can recidivate for reasons having nothing to do with substance abuse. As such, CJC repeated the last DOC audit analyzing access to treatment for offenders done in 2013 using a combined DOC/OHA Medicaid data set.<sup>97</sup>

### 5.1. SUD TREATMENT ACCESS FOR ADULT OFFENDERS INVOLVED WITH DOC

**Table 5.1.1. Oregon Released Offenders, 2008-2011**

Risk of Reoffense	Substance Abuse Risk		Total
	Med/High	Low/No	
Med/High	9,704	1,137	10,841
Low/No	5,626	2,367	6,993
Total	15,330	3,504	18,834

In 2013, a Secretary of State Audit Report studied access to treatment for 18,834 adult offenders released from 2008 to 2011 from DOC custody.<sup>98</sup> The audit found that 99% were assessed for both substance abuse and criminality risk, with the following outcomes.<sup>99</sup> The classification of offenders by risk of re-offense following release from prison and substance abuse risk is reported in Table 5.1.1. The most

important cell in this table is the intersection between released offenders who were medium to high risk for both risk of re-offense and substance abuse.

**Table 5.1.2. Offenders Who Received Treatment in Prison, Community, or Both, 2008-2011**

	Count	Percent
In Prison	1,678	17%
In Community	1,996	21%
In Prison and Community	1,505	16%
Any Treatment (Total)	5,179	53%

The audit then investigated the degree to which Highest-risk offenders (9,704) received substance abuse treatment *in-prison* (only), *in-community* (only), and within 180 days of release), or in-prison and in-community (both). The results of this analysis are reported in Table 5.1.2. The audit highlighted the fact that only 53% of highest-risk released offenders

received substance abuse treatment.<sup>100</sup>

<sup>97</sup> This involved analyzing a combined data set from DOC and OHA. Data from DOC provided substance abuse and criminal risk scores which identified the highest-risk offenders, as well as who received treatment in-prison. Medicaid data from OHA was then matched with the population of released offenders to determine what percent received treatment and the level of care they received. It's worth noting that obtaining such a linked data set requires significant time and effort. Individual-level data that contains personally identifiable information is considered protected health information and not readily shared across agencies without clearly defined data-sharing agreements. To better facilitate this process, a division in the Office of Forecasting, Research, and Analysis (part of DHS) known as *Integrated Client Services (ICS)*, manages data-sharing needs across agencies. This includes reviewing and approving data-sharing agreements, and then performing the match, which results in a de-identified data set used for research. For the present analysis, CJC was provided a de-identified DOC-OHA matched data set from ICS.

<sup>98</sup> Secretary of State Audit Report (2013). *Department of Corrections: Treatment of the Highest-risk Offenders Can Avoid Costs: Report Number 2013-20*.

<sup>99</sup> Ibid

<sup>100</sup> Ibid

**Table 5.1.3. Oregon Released Offenders, 7/2015 – 7/2017**

Risk of Reoffense	Substance Abuse Risk		Total
	Med/High	Low/No	
Med/High	5,606	1,062	6,668
Low/No	1,988	853	2,841
Total	7,594	1,915	9,509

interesting to note that the share of released offenders occupying the cell for individuals medium to high risk in both risk of re-offense and substance use grew from 52% to nearly 59%.

**Table 5.1.4. Offenders Who Received Treatment in Prison, Community, or Both, July 2015 – June 2017**

	Count	Percent
In Prison	899	16%
In Community	991	18%
In Prison and Community	1,002	18%
Any Treatment (Total)	2,892	52%

treatment (nearly 59%), there is a slight decrease in those receiving treatment in-prison (16%) and a greater decrease is those receiving treatment in-community (18%) compared to the past audit. However, there was a slight increase in the number of highest-risk offenders who received treatment both in-prison and in-community (18%).

**Table 5.1.5. Count and Percentage of All Released Offenders Who Received Treatment in Prison, Community, or Both, July 2015 – June 2017**

Risk Level	Sample Size	Percent Receiving Any Treatment
Highest Risk	5,606	52%
Lowest Risk	3,903	20%
Total	9,509	39%

of treatment falls on those who are high risk, as only 20% of the lowest risk offenders received treatment within DOC or in the community.

**Table 5.1.6. Community Treatment Service Types Within 180 Days of Prison Release, July 2015 – June 2017**

Service Type	Count	Percent
Detoxification	107	4%
Residential	74	3%
Intensive Outpatient	34	1%
Outpatient	2,419	91%
Opioid Agonist Therapy	72	3%

Note: Persons can receive more than one type of service.

The methodology used to construct Tables 5.1.1 and 5.1.2 was duplicated to examine the extent to which the landscape has changed for adults released from DOC custody. Tables 5.1.3 and 5.1.4 report the results of this updated analysis for cohort of adults released from July 2015 to July 2017.

Comparing the Secretary of State report using data from 2008-2011 to the updated numbers obtained by the CJC, it is

Table 5.1.4 contains the counts of released offenders who received treatment of some kind. Results indicate that little has changed between the past audit and the present analysis. About half of all the highest-risk offenders did not receive treatment. While there was a significant increase in the population of highest-risk offenders who could benefit from

In addition to studying treatment access of the highest-risk offenders, CJC also conducted an analysis of all offenders who received treatment, regardless of risk level. In total, 39% of all offenders released from prison, or 3,660 individuals, received some SUD treatment in-prison, in-community, or in both settings. Interestingly, the split between the highest risk group and the lowest risk demonstrates that the primary focus

Finally, using the in-community Medicaid data set provided by OHA, CJC examined the types of treatment services received within 180 days of release from prison. The results of this analysis are reported in Table 5.1.6. As shown in the table, the vast majority of treatment was outpatient (91%) with very little residential (3%) and intensive outpatient (1%).

## 5.2. MENTAL HEALTH TREATMENT FOR ADULT OFFENDERS INVOLVED WITH DOC

**Table 5.2.1. Count of Inmates Receiving Some Type of Mental Health Service as of August 1, 2019**

Need	Count
Highest (MH3)	1,139
Severe (MH2)	2,341
Moderate (MHR)	1,658
Total	5,138

While substance abuse treatment only occurs for a select group of adult offenders in the final six months of incarceration, mental health services are delivered throughout a prison stay for those in need. As shown in Table 5.2.1, a summary review of services on August 1, 2019 indicated that a total of 5,138 adult offenders were receiving some type of mental health treatment service (about 35% of the entire prison population).

Inmates with the Highest and Severe mental health needs receive case management, as well as medication and other adjunctive services. Those with Moderate mental health needs generally receive just medication support therapy. It is important to note that in addition to the above population receiving services, many other adult offenders have mental health conditions, but their symptoms don't require behavioral health interventions.

## 5.3. IMPROVING PEOPLE'S ACCESS TO COMMUNITY-BASED TREATMENT, SUPPORTS, AND SERVICES (IMPACTS)

In May of 2018, Oregon state and county officials, in collaboration with The Council of State Governments (CSG) Justice Center, received financial support from the US Department of Justice's Bureau of Justice Assistance and The Pew Charitable Trusts to study people with complex needs who continually cycle through the criminal justice and health care systems.<sup>101</sup> Known as *Behavioral Health Justice Reinvestment in Oregon*, the goal of the initial project was to identify leverage points where investments in behavioral health would reduce use of criminal justice and health care services. The first phase of the project included convening a *Behavioral Health Justice Reinvestment Steering Committee*, and conducting interviews with stakeholders from 27 counties, 8 tribal nations, and key staff from multiple local and state agencies.

It also involved analyzing 2017 jail data from 12 counties (9 jails and 3,758 operational jail beds) linked with Medicaid claims data from OHA focused on emergency department visits. Participating counties represented 65% of Oregon's resident population, and 58% of the statewide operational jail bed capacity. Outcomes revealed that a small but significant group of people repeatedly cycle through Oregon's jails and emergency departments with implications for the broader statewide system.<sup>102</sup>

- 5,397 people with *frequent criminal justice involvement* (FCJI), defined as 4 or more jail bookings within a calendar year, accounted for 9% of people booked into county jails and were responsible for 29% of all booking events.
- FCJI persons cycled in and out of jails 4 to 15 or more times in a year, and accounted for 30,052 separate jail admissions.
- Only 2% of FCJI persons were booked on felony-level offenses against other people.
- FCJI persons were 650% more likely to have a SUD diagnosis and 150% more likely to have been to the emergency department than other Oregon adults enrolled in the Oregon Health Plan.
- FCJI persons had mental health diagnoses (29%), SUD diagnoses (45%), Emergency Department visits (60%), and were frequently homeless (27%).

One of the most significant findings from the analysis was a consistent pattern of *increased homelessness* among FCJI persons. Some counties had higher rates than the average, including: Jackson (42%), Washington (33%), and NORCOR jail counties – Hood River, Gilliam, Sherman and Wasco – (31%). Also of note, three

<sup>101</sup> See: <https://csgjusticecenter.org/jr/oregon/publications/behavioral-health-justice-reinvestment-in-oregon-fourth-presentation/>

<sup>102</sup> Ibid

counties included in the study – Deschutes, Marion, and Multnomah – had insufficient housing data and were excluded from the analysis.

The results, when extrapolated to all counties, suggest there are about 8,300 FCJI persons that cycle in and out of Oregon’s jails and hospitals. Following the initial study, supports necessary to effectively address the needs of FCJI persons were identified<sup>103</sup>. A summary of legislative FY2020-FY2021 funding necessary to pay for those services was then drafted. The Behavioral Health Justice Reinvestment Steering Committee recommended the establishment of a grant program similar to the Justice Reinvestment Grant Program currently managed by the CJC, aimed at intervening on FCJI users. Senate Bill 973, signed into law in July 2019, provided \$10.6 million for the 2019-21 biennium to fund a new grant pilot program, *Improving People’s Access to Community-Based Treatment, Supports, and Services (IMPACTS)*, which will also be managed by the CJC. The program offers counties and tribal nations an opportunity to apply for grant assistance with the above identified community-based supports and services for FCJI users, as well as people with mental illnesses and substance addiction who commonly end up in courts, jails and hospitals.

#### 5.4. SUD AND MENTAL HEALTH TREATMENT FOR OYA YOUTH OFFENDERS

OYA exercises legal and physical custody of youth committed to OYA by juvenile courts, and exercises physical custody of youth committed to the Oregon Department of Corrections (DOC) by adult criminal courts and placed with OYA due to their age.<sup>104</sup> All youth who enter the system receive an assessment that includes screens for SUD and mental health issues.

**Table 5.4.1. Summary of Social Characteristics of Youth Committed to OYA<sup>105</sup>**

Social Characteristics of Community Youth	Percent Males	Percent Females
Substance abuse or dependence	52%	80%
Parents have a history of alcohol/drug abuse	65%	77%
Diagnosed conduct disorder	37%	35%
Other diagnosed mental health disorder	73%	87%
Individualized education plan (IEP)	34%	17%
Past sexual abuse	14%	39%
Suicidal behavior (past 3 years)	12%	24%

Treatment for identified issues occurs both in-facility and in-community, and utilizes evidence-based interventions that include: cognitive behavior treatment, behavior modification, family counseling, skill building, and specific treatments for those with SUD, sex offenders, fire setters, violent offenders, and those with mental health issues. For youth in-facility, OYA provides SUD and mental health interventions to practically all youth who have an identified need. Because it is delivered in-facility, the level of care could be considered *residential* for all delivered services. Other than attendance, no other outcome data on treatment is collected in any systematic or aggregated way. However, OYA is presently developing a new system to better track in-facility treatment services, including linking baseline assessments to treatment progress and final outcomes. For youth in-community, serviced by providers certified and licensed by OHA, OYA will continue to rely upon whatever outcome system providers are required to use (which presently is MOTS).

<sup>103</sup> Ibid

<sup>104</sup> As of January 2019, the total OYA youth population was 1,235. Of this total, 505 were serving time in OYA Youth Correctional Facilities (280 OYA facility, 225 DOC prison), and 730 were on parole or probation in the community. Most of the youth were male (88%), White (57%), and between the ages of 18-20 (43%) or 16-17 (34%). OYA youths’ crimes included: sex offense (32%), property (26%), person-to-person (18%), robbery (8%), and crimes related to weapons (4%), drugs/alcohol (4%), and homicide (4%).

<sup>105</sup> OYA 2019-21 Budget Narrative

## 6. SUMMARY AND RECOMMENDATIONS

SB 1041 asked the CJC to study public expenditures on addiction treatment in Oregon, the outcomes from that expenditure, and the effect of outcomes on the criminal justice system. The hope in doing so, was that the study would offer the legislative assembly insights useful for knowing what to do next to optimize care for Oregonians. Given that intent, as the study evolved, it became clear that the work of SB 1041 was embedded within the larger context of behavioral and primary healthcare systems.

The reason is that substance abuse and addiction are best understood as doorways into a constellation of problems from which people suffer. Those who most cycle through jails and emergency rooms may be 650 percent more likely to have substance use disorders, but many are also homeless, have mental health issues, and suffer from developmental constrictions that impede their relational abilities to function well in society. This means optimal treatment outcomes result from successfully addressing not just substance abuse, but the multiple-occurring issues that initiate and perpetuate SUDs and addictive behavior.

While addressing mental and physical health beyond substance abuse is necessary if treatment outcomes are to be optimized, for many stakeholders passionate about addiction work, there is a fear that doing so will result in the field's continued struggle to gain parity with mental and physical healthcare. While such concerns are valid given historic reimbursement discrepancies, workforce pay disparities, and the aforementioned behavioral health workforce study that was characterized largely through the lens of mental health, integrated treatments produce the best outcomes. Because rates of both addiction and mental illness are among the highest in the nation, efforts to address one and not the other mean the overall system produces less than optimal outcomes.

Perhaps the single biggest challenge facing those who are now working to improve behavioral healthcare in Oregon is how best to overcome the significant fragmentation in the system by insurance markets (private vs. public), 15 CCOs, 36 CMHPs, 9 tribes, and bifurcated SUD and mental health funding. With these concluding comments in mind, this chapter summarizes the key findings from this study, and offers recommendations to those working on the front lines to address addiction and mental health problems in Oregon.

### 6.1 SUMMARY OF FINDINGS

- Oregon ranks among the most challenged states in the nation for substance abuse *and* mental illness problems, while at the same time ranking among the worst states for access to care.
- Publicly funded SUD treatment represents about a quarter of all Oregonians (about 1 million people), while private insurance covers about 65% of citizens statewide.
- The primary system in Oregon used to track private medical and behavioral health services statewide – the Oregon All Payer All Claims Database (APAC) – excludes substance abuse treatment due to the confidentiality law 42 CFR Part 2. This means that little is known about private expenditures on SUD treatment or the outcomes from that expenditure.
- The Oregon addiction treatment system is best understood as a multilevel, complex system, with many dynamic parts and stakeholders that share significant resources with the mental health treatment system.
- In the 2017-19 biennium, Oregon will spend an estimated \$470M (\$235M/year) on substance abuse prevention and treatment-related services, including prevention, screening and assessment, brief interventions, detoxification, residential, intensive outpatient, outpatient, medication-assisted treatment, primary care/hospital-based interventions, gambling treatment, and recovery and peer-delivered services.
- Medicaid (OHP) accounts for 63.5% (\$298.3M) of all public spending for substance abuse services, followed by non-Medicaid (25.1%, \$117.8M), Department of Corrections (3.6%, \$17.1M), Criminal

Justice Commission (2.7%, \$12.7M), counties (2.2%, \$10.5M), and Oregon Youth Authority (.2%, \$1M). Note: *DHS does not directly fund substance abuse treatment except in rare circumstances.*

- An analysis of Medicaid spending by OHSU's Center for Health Systems Effectiveness found a 59% increase in annual expenditures per capita on substance abuse treatment services from \$134 in 2010 to \$213 in 2017.
- MOTS is the primary system responsible for tracking expenditures and outcomes of Non-Medicaid spending, but as detailed in this report, produces unreliable data. Consequently, OHA is in the process of settlements with counties dating back to the 2013-15 biennium, where often county-created spreadsheets are the only available evidence for expended funds.
- Spending on substance abuse prevention relative to treatment remains very low, accounting for only 3.3% (\$13.6M) of the total public spend.
- In the 2017-19 biennium, OHA will publicly spend \$2.3 billion in behavioral health services, with 81% allocated to mental health (\$1.9B) and 19% spent on substance abuse treatment services (\$430M).
- Analysis of Medicaid claims data of SUD treatment services by CHSE and OHA revealed:
  - In 2017, of 858,190 total Medicaid enrollees, 70,304 (8.2%) had a SUD diagnosis.
  - Of the 70,304 with a SUD, 28,214 (40%) received one or more substance abuse treatment services. Of all services delivered, 68% were outpatient, 29% residential, and 19% delivered in primary care settings.
  - In 2017-18, those who received a treatment service were ages 12-17 (6%), 18-24 (15%), 25-44 (53%), 45-64 (24%), and 65+ (3%).
  - In 2017-18, the average length of stay in residential treatment was about one month and for outpatient about a month and a half.
- No reliable outcomes exist on the *effectiveness of treatment*, or how well the services worked to reduce clinical symptoms and enhance quality of life.
- No reliable treatment outcomes exist for youth or adult offenders who receive SUD treatment in prison (DOC), in facility (OYA), or in the community once released, other than *counts of services*. Therefore, it is *unknown what effect treatment has on criminal justice outcomes*, including recidivism.
- An analysis of 9,509 offenders released from DOC between July 2015 and June 2017 found that 5,606 (59%) were the highest risk in need of SUD treatment. Of this group, 16% received treatment in prison only, 18% in community only, and 18% in both prison and community. In total, 52% of those in need of SUD treatment received some kind of service. Similar results were found in a 2013 DOC audit.

## 6.2 RECOMMENDATIONS

- **Fix or Replace MOTS**

Across all levels of the behavioral health treatment system, stakeholders require access to reliable data. CCOs are required to have *community health improvement plans*, CMHPs are required to have *comprehensive local plans*, and agencies like OHA must report outcomes to the federal government for ongoing funding. Fixing or replacing MOTS should be among the legislative assembly's highest priorities.

- **Collaborate with Private Insurers and Providers**

Because about 65% of Oregonians access and pay for behavioral health treatment utilizing private insurance, efforts to optimize behavioral healthcare for all Oregonians necessitates private and public collaboration. The methodologies employed by CHSE in this study could prove useful for engaging private insurers to uniformly track SUD outcomes. Although SUD treatment records are redacted in the Oregon All Payer All Claims Database, they are included for mental health. Analyzing this data would be an important step in better understanding the role of private insurers in Oregon's behavioral healthcare system.

- **Track the Biennium Public Expenditures and Outcomes of Behavioral Health Treatment**

While this report offers a reasonable estimate of the public biennium expenditures on addiction



treatment, including a starting point for tracking mental health expenditures, such tracking needs to continue. And with that tracking, expenditures need to be linked with a reliable outcomes system, similar to what CMHE did for this study with Medicaid claims data. Only when expenditures and behavioral health outcomes become linked will it be possible to more fully understand the effectiveness of Oregon's behavioral health treatment system.

- **Optimize Treatment Outcomes**

Efforts to adhere to evidence-based practices should be balanced with sufficient attention to the therapeutic alliance and aligned treatment expectations between counselors and patients if outcomes are to be optimized. Academic programs, continuing education, and supervision practices can contribute greatly to improving treatment outcomes by embracing lessons from the Contextual Model discussed in this report.

- **Study the Effectiveness of Behavioral Health Treatment**

Tools and methods for analyzing outcomes in real-time, and measuring long-term outcomes, should be a priority. No studies on the effectiveness of treatment beyond patient discharges have been done since 2011.

- **Utilize Emerging Digital Therapeutics**

The majority of Oregonians who could benefit from a SUD or mental health intervention do not engage in help. The emerging field of digital health, and more specifically digital therapeutics, offer innovative population-based interventions that have the potential to reach those who could benefit from treatment, but are not likely to seek care from traditional treatment programs.

## APPENDIX A: METHODS

While SB 1041 is a relatively short bill with a specific ask, the process of obtaining, analyzing, and reviewing financial and outcomes data resulted in a research process akin more to putting a puzzle together with the added challenge of having to determine the boundaries of the puzzle – or the study. It was also the case that studying a complex system with many moving parts meant appreciating that no one person, group or agency can fully know each of the parts as well as those working within each part. So one challenge was identifying the unknown unknowns – or unknown puzzle pieces – through an iterative process of meetings and interviews with key stakeholders. As an example, in some cases this was money spent on treatment services that in a first pass with agencies was not accounted for, but later identified and included in the total public expenditure on treatment. In another case, it was identifying and including additional treatment services. For each of the study questions in SB 1041, the following methodology was used to arrive at the outcomes presented in this report.

### Public Expenditure on Substance Abuse Treatment

- Financial data used in this report was obtained from the following agencies/departments:
  - OHA: Fiscal and Operations Division
  - DOC: In-community treatment spend was obtained from the Community Corrections Division, and in-prison treatment spend was obtained from the Education, Training & Treatment Administration
  - CJC: Justice Reinvestment and Specialty Court monies spent on substance abuse treatment were obtained from CJC staff knowledgeable about these programs
  - OYA: In-community and in-facility treatment spends obtained from fiscal analysts
- County-level fiscal data was obtained by surveying all counties directly in collaboration with the Association of Oregon Community Mental Health Programs (AOCMHP).
- Financial data from existing reports was utilized when making comparisons to present spends, or in the absence of current financial data.
- Drafts of this report were then sent back to each agency/county for a final review of accuracy.

### Substance Abuse Treatment Outcomes

- OHSU's CHSE was employed to analyze Medicaid claims data due to their ability to link expenditure data with purchased services.
- Additional Medicaid claims outcomes on substance abuse treatment service outcomes was obtained from OHA's Office of Health Analytics.
- Prior studies and reports were also reviewed and included when appropriate.

### Outcomes and the Criminal Justice System

- Outcomes data used to analyze treatment effects on the criminal justice system came from both OHA and DOC. Identified or patient-level data from both agencies was provided to Integrated Client Services who linked the data sets and provided CJC a de-identified data set used for the outcomes analysis.
- Qualitative and quantitative data on use of evidence-based practices used by treatments agencies were obtained in a summary report from DOC.
- Outcomes from one prior report, *Department of Corrections: Treatment of the Highest-risk Offenders Can Avoid Costs*, August 2013, was included and reviewed in this report.

### Stakeholder Interviews

Throughout the study, many stakeholders were interviewed to better understand the substance abuse treatment system in Oregon, and help answer the questions of SB 1041.

## **Strengths and Limitations**

The primary limitations of this study include:

- While an attempt was made to comprehensively and accurately account for all public expenditures spent on substance abuse treatment in Oregon, due to the complex nature of the system, continued budgetary changes, and the many financial inputs into the system, there are likely additional monies that did not get accounted for in the present report. To gain increased clarity and accuracy on the total expenditure, an ongoing accounting of the financial spend on treatment is recommended.
- The research questions in SB 1041 could only be addressed to the extent that data was accessible. Most notably in this report is the absence of outcomes data specific to treatment effectiveness due to MOTS limitations.

The primary strengths of this study include:

- Utilizing a systems approach to further evolve prior efforts to understand the complex nature of the substance abuse treatment system in Oregon.
- Diverse input from many key stakeholders and knowledge experts who provided data, outcomes, analysis and feedback helpful in addressing the research questions in SB 1041.

## APPENDIX B: TREATMENT NEED GAPS ANALYSIS

### Service Utilization Gap

In the 2008 report, *Analysis of Oregon's Drug and Alcohol Treatment and Prevention System*,<sup>106</sup> HSRI calculated the gap in those who need treatment, but were not receiving it. Table B.1 reports the results from this analysis.

**Table B.1. Substance Abuse Treatment Needs Gap - 2007**

Age Range	Population	Percent	NSDUH Need	CPMS Tx Counts	Gap in Need	Gap %
Age 12-17	305,540	8.76%	26,765	4,603	22,162	83%
Age 18-25	416,009	20.13%	84,450	14,759	69,691	83%
Age 26+	2,451,901	6.19%	151,773	45,170	106,603	70%
Age 12+	3,173,450	8.22%	260,858	64,532	196,326	75%

The gaps were calculated in the following way:

- **Population** (Column 2): Population estimates for four age groupings were calculated using data obtained from Portland State University's Population Research Center. Because the population data obtained from PSU did not match the age ranges used by the National Survey on Drug Use and Health (NSDUH), total population estimates were *computed by HSRI*.
- **Rate** (Column 3): NSDUH 2005-2006 rates (percent) of alcohol or illicit drug dependence or abuse in Oregon were used.
- **NSDUH Need** (Column 4): NSDUH Need was calculated by multiplying the population estimates (column 2) by the NSDUH Rate of substance abuse problems (Column 3). This number represents the total number of people needing substance abuse treatment.
- **CPMS Treatment Counts** (Column 5): 2007 treatment count data from the Client Process Monitoring System (CPMS) was used. Counts represent unique individuals who received an episode of treatment paid for by public funds, in addition to DUII and methadone clients regardless of payment method. Clients may or may not have completed treatment.
- **Gap in Need** (Column 6): Gap in Need was calculated by subtracting CPMS treatment counts (column 5) from total NSDUH need (column 4).

To compare these gap estimates to 2015/16, the same methodology was employed to the extent possible. PSU's Population Research Center recommended using 2015 single-year estimates from the U.S. Census Bureau to calculate the total population for each age range. Instead of CPMS data, combined MOTS/MMIS data was used for treatment counts and included all DUII and methadone clients similar to the 2007 count. The results of this updated gap analysis are found in Table B.2.

**Table B.2. Substance Abuse Treatment Needs Gap, 2015/16**

Age Range	Population	Percent	NSDUH Need	MOTS/MMIS Tx Counts	Gap in Need	Gap %
Age 12-17	292,023	5.98%	17,463	1,784	15,679	90%
Age 18-25	454,827	18.04%	82,051	7,026	75,025	91%
Age 26+	2,768,566	8.64%	239,204	42,289	196,915	82%
Age 12+	3,485,416	9.55%	332,857	51,099	281,758	85%

<sup>106</sup> Human Services Research Institute, December 2008. *Analysis of Oregon's Drug and Alcohol Treatment and Prevention System*; Also see Appendix C.

As shown in Table B.3, since the 2008 report, NSDUH surveys now include data specific to those *Needing But Not Receiving Treatment*, both as a percentage (column 2) and total population count (column 3):

**Table B.3. Needing But Not Receiving Treatment (NSDUH), 2015/16**

Age Range	Rate of Need	NSDUH Population Total Need	MOTS/MMIS Tx Counts	Gap in Need	Gap %
Age 12-17	6.14%	18,000	1,784	16,216	90%
Age 18-25	16.83%	70,000	7,026	62,974	90%
Age 26+	8.50%	233,000	42,289	190,711	82%
Age 12+	9.31%	321,000	51,099	269,901	84%

In about a decade, *no matter which method is used* to calculate the treatment need gap, it has increased across every age category:

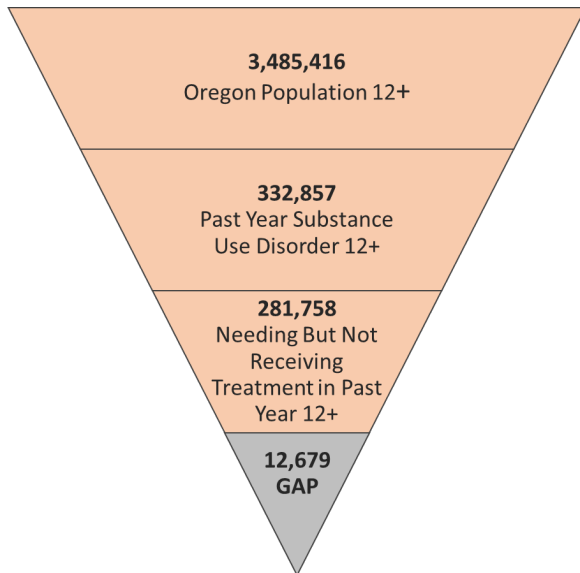
**Table B.4. Comparison of Treatment Need Gaps, 2007 to 2015/16**

	2007	2015/16	
Age Range	Gap	Gap	Pct. Change
Age 12-17	83%	90%	7%
Age 18-25	83%	91%	8%
Age 26+	70%	82%	12%
All ages	75%	84%	9%

What explains the significant increase? Most evident is that the overall need (Age 12+) for treatment has increased in the past decade, from 8.22 to 9.55 percent, while the total number of Oregonian's treated for a substance use disorder has declined from 64,532 to 51,099. While the increased gap is notable, what makes it even more concerning is that about 30 percent of the MOTS/MMIS treatment counts include non-HSD licensed services that were not included in the CPMS counts in the 2007 analysis as far as can be determined. Subtracting these services from the 2015/16 count (51,099 – 15,687) results in a much lower count of 35,412, which equates to an increased gap of 89% for Age 12+. In addition, between the 2007 and 2015/16 time points, Medicaid expansion (January 2014) occurred, increasing access of treatment services. Yet there is little support in the above analysis to suggest it made any difference.

In discussions with senior staff at OHA, decreases in overall treatment counts and subsequent increased gaps are best accounted for by differences in data collection and analysis between the CPMS and MOTS/MMIS systems. As detailed in Chapter 7, MOTS data is largely unreliable, resulting in an increased reliance on Medicaid data (MMIS) for calculating total treatment counts. While it's possible that decreases in counts reflect actual decreases in treatment services, absent reliable data means that such gaps remain estimates at best. Also, one important distinction between CPMS and MOTS/MMIS data is that the former counts "treatment episodes" while the later counts "treatment services." While an episode might be one treatment service, it also could mean multiple services, which would contribute to an even greater change in gaps. The key point is that the outcome systems are very different, and an argument could be made that comparing the 2007 gap to more recent gaps analyses is like comparing apples to oranges. At the same time, the conclusion that *the majority of people in Oregon who could benefit from some type of addiction treatment intervention don't receive it*, remains unchanged.

There is another important aspect to the previous gap analysis that was not included in the 2008 report, but is necessary for fully appreciating the nature of treatment gaps. The NSDUH percentage gap estimates were calculated by asking survey respondents who met criteria for a substance use disorder whether they were receiving treatment – most said they were not – thus the large gaps. But when respondents who were not receiving treatment were asked whether they were interested in receiving treatment, about 95 percent said they were not. When the *perceived need for treatment* is considered in the calculation of gaps, the number wanting treatment, but not receiving it, becomes a reasonable target for systems change.



In this analysis using the same data from Table X, the treatment need gap of 12,679 people is calculated by applying the percent who *express an interest in treatment* (4.5 percent) to the gap not receiving it (281,758). When perceived need is calculated into the equation of need, the overall treatment need gap decreases from 85 percent to 4 percent.

What should be made of these analyses? First, there are different ways to calculate gaps, and depending on the data sources, accuracy of the data, denominators used, whether perceived need is considered, and method of calculation, the gap percentages can *vary widely*. Second, if significant resources were suddenly made available to the entire treatment system, and capacity was doubled overnight, chances are good there would be a lot of excess capacity not being utilized. To be clear, this is not to say that increased capacity is not needed in the system – it is. But how, where

and when to add capacity, is best done with the awareness that changing a complex system often has unintended consequences.

A final consideration to take away from the treatment need gap analysis is that there is a large population of people who meet criteria from a substance use disorder, but have little motivation or perceived need to pursue treatment. Additional research should be aimed at understanding better the barriers of engagement, and developing tools and interventions to reach this group of people. The emerging field of digital health, and more specifically *digital therapeutics*, offer innovative population-based interventions that have the potential to reach those who could benefit from treatment, but are not likely to seek care from specialty addiction treatment programs.

## APPENDIX C: PAST REPORTS RELATED TO OREGON'S ADDICTION TREATMENT SYSTEM

In the past decade, numerous studies and reports have been done on various aspects of the Oregon substance abuse treatment system, but few have offered the level of detail to address the research questions in SB 1041 with the exception of the following three reports:

Title: **Analysis of Oregon's Drug and Alcohol Treatment and Prevention System**

Date: December 2008

Author: Human Services Research Institute

URL: <https://olis.leg.state.or.us/liz/2018R1/Downloads/CommitteeMeetingDocument/141033>

Summary:

- This report most closely aligns with the SB 1041 study and includes an accounting of the public investment in substance abuse treatment, a gaps analysis, a review of outcome systems, and local level case studies. However, other than number of people receiving treatment, no other treatment outcomes are presented in the report. Also, since 2008, numerous changes have impacted the delivery of healthcare, including substance abuse treatment. In 2009 OHA and DHS were split into two agencies to reduce costs and increase access to care. In 2012 Coordinated Care Organizations (CCOs) were launched, and in mid-2014 the Client Processing Monitoring System (CPMS) was replaced with MOTS. These changes, along with other agency, funding and environment factors, mean caution is called for when comparing this report to the present one.
- The report gained some notoriety for being among the first to “map out” the substance abuse treatment system graphically (p. 5). An updated systems map can be found in Chapter 4 of this report.
- Estimated treatment need gaps were calculated using 2007 National Survey on Drug Use and Health (NSDUH) data for prevalence of people needing but not receiving treatment, and 2007 CPMS data for counts of those who received treatment. Compared to an analysis of gaps today, the need for treatment has increased across all age groups. For a detailed comparison see Chapter 5.
- Similar to the present report, the public investment in substance abuse treatment was calculated by obtaining fiscal data from the agencies that fund treatment. Whereas the present report focused on accurately accounting for the public spend for one biennium (2017-19), this report obtained financial data for eight years, or four biennium and compared the spend over time adjusting for inflation. A detailed comparison between the reports can be found in Chapter 6.
- While the report reviews the state's outcome data systems, performance measures, and use of evidence-based practices, *no quantitative outcomes data was obtained or analyzed for this study*. Key themes reported include: 1) limited linking of data systems, 2) inconsistent data into the systems, 3) lack of data reporting to providers, and 4) limited monitoring of effectiveness of treatment.
- Local level case studies in three Oregon counties (Multnomah, Lane and Umatilla) and one tribe (Warm Springs) provided additional insights into the substance abuse treatment system Oregon.
- Summary recommendations included: 1) target 18-25 year-olds who have significant treatment needs, 2) prioritize re-entry services for those released from prison, 3) expand funding for the system through Oregon Health Plan, 4) capture additional revenues through OLCC, 5) improve linkages among state data systems, and 6) coordinate efforts to support evidence-based practices.

Title: **Improving Oregon's Alcohol and Drug Preventions and Recovery Strategy**

Date: May 1, 2010

Author: Alcohol and Drug Policy Commission (ADPC)

URL: <https://digital.osl.state.or.us/islandora/object/osl%3A6731/datastream/OBJ/view>

Summary:

- Report was first mandatory update from the newly created ADPC. Provided overview of the drug and alcohol challenges in Oregon, an overview of the goals of the ADPC, and outlined a new governmental

structure for prevention and treatment of substance abuse services with the ADPC as the mechanism of change.

- Three primary policy recommendations were: 1) create a permanent ADPC, 2) create budget committee within the ADPC that include stakeholders from key agencies, and 3) appoint a Director.

**Title: Oregon Addictions and Mental Health Division Substance Abuse Treatment Follow-up Study: Final Report**

Date: August 2011

Author: NPC Research

URL: <http://www.mentalhealthportland.org/wp-content/uploads/2011/11/Oregon-Addictions-and-Mental-Health-Division-Substance-Abuse-Treatment-Follow-Up-Study-Final-Report.pdf>

**Summary:**

- This study investigated long-term outcomes of publicly funded substance abuse treatment in Oregon. Participation was voluntary and no control group of similar substance abusers not in treatment was utilized. Outcomes included: long-term sobriety, employment, income, selected health, mental health and criminal justice outcomes, as well as client satisfaction with treatment.
- Study involved 15 alcohol and drug treatment providers who recruited 592 clients to participate in the 12-month study. A total of 432 clients (73 percent) completed the study with follow-up rates ranging from 66 to 88 percent for different agencies.
- Study involved assessing clients using a standardized survey instrument at baseline, then again at 6, and 12-months post-intake whether they were still in treatment or not.
- Average age was 36 years old, 59 percent of the study participants were male, and 82 percent were White. Median education was a high school diploma or GED, and 69 percent had been incarcerated in the past.
- Alcohol was the primary focus of treatment for 54 percent of clients, followed by amphetamine/methamphetamine (19 percent) and cannabis (14 percent).
- Half the study reported co-occurring mental health disorders, and 45 percent reported co-occurring chronic medical conditions.
- Of the study sample, 64 percent successfully completed treatment, 58 percent reported to be abstinent at exit, and another 22 percent had reduced use. Average length of stay in treatment was 6 months, with participants averaging one individual session per month and three group sessions per month.
- Study outcomes included:
  - Improvement in almost every outcome category from baseline to the 12-month follow-up interview.
  - Of those who reported using alcohol at baseline, 63 percent had increased abstinence in the past 30 days, and of those who reported using cannabis at baseline, 85 percent had increased abstinence in the past 30 days.
  - Of those who reported depression at baseline, 67 percent had decreased symptoms in the past 30 days, and of those who reported anxiety at baseline, 53 percent reported decreased symptoms.
  - Employment rates increased by 29 percent, and median monthly income increased by 36 percent or \$218.
  - About 85 percent of the study participants reported satisfaction with treatment.

**Title: Department of Corrections: Treatment of the Highest-risk Offenders Can Avoid Cost**

Date: August 2013

Author: Secretary of State Audit Report

URL: [https://www.oregon.gov/adpc/docs/DOC\\_SUDs\\_Tx\\_Audit\\_2013.pdf](https://www.oregon.gov/adpc/docs/DOC_SUDs_Tx_Audit_2013.pdf)

**Summary:**

- In December of 2012, 70 percent of incarcerated offenders had some level of substance abuse problem.



- From 2008 to 2011 a total of 18,834 offenders were released from prison. Of this group, 9,704 were considered highest risk, both in terms of criminal risk and substance abuse history. Of this group, 1,678 offenders (17 percent) received some type of treatment in-prison, 1,996 (21 percent) received some type of treatment in-community, and 1,505 (16 percent) received some type of treatment both in-prison and in-community. In total, 53 percent of the highest-risk population of released offenders received some substance abuse treatment.
- The treatment cost per offender in-prison was \$5,854, while the cost to treatment in-community was \$1,908.
- Report estimated that Oregon taxpayers and victims could have avoided about \$21.6 million in costs if substance abuse treatment had been provided to all of the highest-risk offenders.

In addition to the above summarized reports, additional background studies, reports, and documents helpful in providing context to SB 1041 include:

Title: **Oregon Behavioral Health Workforce Study**

Date: 2018

Author: Mental Health & Addiction Certification Board of Oregon

URL: <https://www.mhacbo.org/en/forms-info/reports/>

Title: **Preliminary Recommendations Scope: Scope and Framework of the Comprehensive Addiction Preventions, Treatment and Recovery Plan**

Date: September 2018

Author: Alcohol and Drug Policy Commission

URL: <https://www.oregon.gov/adpc/docs/Scope-Framework-Preliminary-Recommendations.docx>

Title: **Report on Existing Barriers to Effective Treatment for and Recovery from Substance Use Disorders, Including Addictions to Opioids and Opiates: As Required by House Bill 4143**

Date: 2018

Author: Opioid Epidemic Task Force directed Oregon Insurance Commissioner to complete report

URL: <https://www.oregon.gov/gov/policy/Documents/HB%204143%20Report%20FINAL.pdf>

Title: **Multnomah County Mental Health Systems Analysis**

Date: June 2018

Author: Human Services Research Institute

URL: <https://multco.us/file/74680/download>

Title: **Substance Use Disorders in Oregon – Prevention, Treatment & Recovery**

Date: November 2017

Author: Oregon Substance Use Disorder Research Committee

URL: <https://stateofreform.com/wp-content/uploads/2017/11/SUDs-in-Oregon-Prevention-Treatment-and-Recovery3.pdf>

Title: **Behavioral Health Barometer: Oregon, Volume 4**

Date: 2017

Author: SAMHSA

URL: [https://www.samhsa.gov/data/sites/default/files/Oregon\\_BHBarometer\\_Volume\\_4.pdf](https://www.samhsa.gov/data/sites/default/files/Oregon_BHBarometer_Volume_4.pdf)

Title: **Behavioral Health Collaborative Report**

Date: 2016

Author: Oregon Health Authority

URL: <https://www.oregon.gov/oha/OEI/Documents/BHC-Recommendations.pdf>

Title: **The 2015 Oregon Health Plan Behavioral Health Services Gap Analysis**

Date: November 2015

Author: Commissioned by the Oregon Association of Community Mental Health Programs and completed by Dale Jarvis & Associates

URL: None

Title: **Oregon Speaks: Community Addiction Services Investment Strategy**

Date: 2008

Author: A collaborative project involving Oregon Department of Human Services, Association of Oregon Community Mental Health Programs, Governor's Council on Alcohol and Drug Abuse Programs, and the Oregon Prevention, Education and Recovery Association

URL: <http://www.mentalhealthportland.org/wp-content/uploads/2018/06/Oregon-Community-Addiction-Services-Investment-Strategy-2008.pdf>

Title: **Report on Alcohol, Illicit Drugs and Mental Health in Multnomah County, Oregon**

Date: 2000 – 2008

Author: DHS, Addictions and Mental Health Division

URL: <https://multco.us/file/29158/download>

Title: **The Domino Effect: A Business Plan for Re-building Substance Abuse Prevention, Treatment & Recovery**

Date: 2007-2009

Author: The Governor's Council on Alcohol & Drug Abuse Programs

URL: <http://www.localcommunities.org/lc/652/FSLO-1203989072-947652.pdf>

## APPENDIX D: PRIVATE INSURANCE INVESTMENT

While the scope of SB 1041 has focused on the public spend and outcomes of addiction treatment in Oregon, to address the significant behavioral health challenges facing the state, it will be necessary to *coordinate public efforts with private support and investment*. The primary reason is that public funds and insurance (OHP) cover just 25% of Oregonians, while private insurance is responsible for about 65 percent of citizens in the state. Even more, coverage is not uniform, with some counties having much higher OHP rates than the statewide average, including: Jefferson (41%), Josephine (36%), Wasco (35%), Lincoln (34%), Douglas (32%) and Marion (32%). Also, rates of uninsured vary from a low of 2.4% in Benton County, to a high of 13.6% in Hood River County (For detailed analysis see: <https://www.oregon.gov/oha/HPA/ANALYTICS/InsuranceData/2017-OHIS-Health-Insurance-Coverage-Region.pdf>). Such variation in insurance coverage should be mapped against other known variables impacting the behavioral health treatment system to identify leverage points for intervention. Although not updated since 2015, OHA's *Behavioral Health Mapping Tool* offers an already established framework for doing so: <https://www.oregon.gov/oha/HSD/AMH/Pages/BH-Mapping.aspx>.

Table D.1 provides a list of the top five insurers that account for about 60% of the entire market.

**Table D.1. Top Five Health Insurers in Oregon by Total Value of Premiums and Market Share in 2017**

Health Insurance Company	Total Value of Oregon Premiums Written in 2017	Enrollment, 2017	Market Share 2017 (Percent)
Kaiser Foundation Health Plan of the Northwest	\$2.90 Billion	433,733	23.96%
Regence BlueCross BlueShield of Oregon	\$1.67 Billion	465,646	13.84%
Providence Health Plan	\$1.27 Billion	263,706	10.52%
Providence Health Assurance	\$689.24 Million	86,450	5.70%
Moda Health Plan	\$522.77 Million	71,285	4.57%
Total Enrollment 2017	\$7.04 Billion	1,320,820	58.59%

As previously noted earlier in this report, the primary system in Oregon used to track medical and behavioral health services statewide – the Oregon All Payer All Claims Database (APAC) – *excludes substance abuse treatment* due to the federal confidentiality law 42 C.F.R. Part 2. This means that presently very little is known publicly about the investment or outcomes of addiction treatment by private insurance.

Although beyond the scope of SB 1041, to better understand what data and outcomes private insurance might have in comparison to what has been presented in this report, three interviews were conducted with key staff employed by Kaiser Permanente (KP) and knowledgeable about addiction treatment services. Findings included:

- KP offers a full range of addiction treatment services similar to public providers, including all levels of care (e.g., detoxification, residential, outpatient) and medication-assisted treatment. KP is also the third largest provider in the state of DUII treatment services.
- Most patients are employed, middle-class, and seek outpatient services over residential so time off work can be avoided.
- Financial and treatment outcome data is limited and not well linked. KP is in the early phases of developing tracking tools, templates and dashboards that can better inform outcomes on patients who receive addiction treatment services.

- KP has focused efforts on patient retention, but have limited data on completion rates and whether patients accomplished the goals of their treatment plans.
- By the end of 2019, KP hopes to begin implementation of patient self-report measures (feedback-informed care) into both addiction and mental health services.
- No outcomes exist on the long-term effectiveness of treatment following discharge, however KP hopes to investigate such outcomes in the near future utilizing ongoing medical record data.
- Summary estimates on patients with SUD/addiction in 2018 include:
  - 28,500 patients had at least one SUD/addiction diagnosis either in primary care or specialty treatment (unknown denominator)
  - 600 patients received internal KP detoxification services, average 4 days
  - 30 patients received internal KP residential treatment services, average 13 days
  - 3,100 patient received an outpatient assessment, 75% of patients have at least one follow-up appointment post assessment, and 40-50% were still engaged 90 days post assessment
  - 41,000 outpatient counseling visits (individual or group)
  - 1,400 visits with a medical provider specific to SUD or addiction
  - 1,700 patients received medication-assisted treatment

In summary, as the largest private insurer of Oregonians, KP's present financial and outcomes data is not dissimilar to what is currently available in the public sector. Both have claims data that provide summary outputs of services, without any details about specific interventions or how well they work to reduce patient symptoms and enhance quality of life. While no other private insurance organizations were interviewed directly for this report, discussions with various stakeholders knowledgeable about the private sector believed KP's available outcomes were representative of other insurers.

## APPENDIX E: SUMMARY OF CCO 2.0 CONTRACT AWARDS

A review of CCO 2.0 contract award decisions<sup>107</sup> found that seven out of the fifteen awarded CCOs failed to pass the categories “Clinical and Service Delivery” or “Care Coordination and Integration.” And part of that failure was directly related to insufficient information about *behavioral health services*.

**Table E.1. Summary of CCO 2.0 Contract Awards**

CCO	Categories Passed	Behavioral Health Component	Years Awarded
Columbia Pacific	6/6	N/A	5
Health Share of Oregon	6/6	N/A	5
PacificSource	6/6	N/A	5
Community Solutions – Central Oregon			
PacificSource	6/6	N/A	5
Community Solutions – Columbia Gorge			
PacificSource	6/6	N/A	5
Community Solutions – Lane			
PacificSource	6/6	N/A	5
Community Solutions – Marion Polk			
Trillium Community Health Plan	6/6	N/A	5
Eastern Oregon	3/6	Nothing specifically listed	5
Jackson Care Connect	4/6	Missing detail specific to administrative and behavioral health benefit	5
Advanced Health	3/6	Missing plans for care coordination, culturally competent approaches to members with Severe and Persistent Mental Illness, and monitoring services	5
InterCommunity Health Network	3/6	Missing detail for care coordination of behavioral health services	5
Umpqua Health Alliance	2/6	Missing specific plans and monitoring for members with behavioral health needs	1
AllCare	1/6	Missing information about behavioral health covered services	1
Cascade Health Alliance	1/6	Did not sufficiently address approaches to high need populations including Severe and Persistent Mental Illness	1
Yamhill County Care Organization	1/6	Missing detail about subcontractor accountability for behavioral health and community needs analysis for behavioral health - Applicant described need for partnership with behavioral health population as “not applicable”	1

<sup>107</sup> See: <https://www.oregon.gov/oha/OHPB/Pages/CCO-2-0.aspx>

## APPENDIX F: NON-MEDICAID EXPENDITURES BY SERVICE ELEMENT, 2017-2019

**Table F.1. Non-Medicaid Expenditures by Service Element, 2017-2019**

SE#	SE Description	Total Spend
03	System Management and Coordination	\$401,112
60	Special Projects: Housing, Startup, IDPF, Gambling Outreach	\$5,811,647
61	Adult Substance Use Disorder Residential Treatment Services	\$8,358,358
62	Housing for Children Whose Parents are Receiving SUD Services	\$3,829,508
63	Peer Delivered Services	\$5,406,673
66	Community Behavioral and Substance Use Disorder Services	\$33,049,897
67	Substance Use Disorder Residential Capacity (Adult or Youth)	\$13,698,119
71	Youth Substance Use Disorder Residential Treatment Services	\$37,600
80	Problem Gambling Prevention	\$2,516,793
81	Problem Gambling Treatment	\$5,370,180
82	Problem Gambling Residential	\$1,248,750
83	Problem Gambling Treatment Enhancement	\$20,000
NA	NON-RBASE Contracts	\$22,251,469
NA	HB 4143	\$1,800,000
NA	SUD Treatment & Recovery Services	\$13,995,110
Total Non-Medicaid		\$117,795,216

## APPENDIX G: SUMMARY OF THE MEASURES AND OUTCOMES TRACKING SYSTEM (MOTS)

Since 1981, the primary outcome system used in Oregon to measure patient performance in treatment has been the *client process monitoring system*. In mid-2014, it was replaced by MOTS which measures treatment outcomes of patients receiving behavioral health services from all publicly funded providers who are licensed as addiction treatment programs through OHA's HSD. MOTS also collects data on private-pay clients receiving DUII or services through an opioid treatment program. The system does not apply to patients receiving addiction treatment services in hospital or primary care-based systems.

The primary purpose of MOTS is to demonstrate the impact of behavioral health services on those who receive services, including: evaluating client demographics, monitoring and reporting client outcomes, complying with federal and state funding requirements to ensure adequate and appropriate funding for the behavioral health system, evaluating contract utilization, and supporting quality and utilization management activities. It was designed to improve the electronic submission of data and improve tracking of outcomes. However, multiple OHA reorganizations have hampered MOTS development, deployment, and use.<sup>108</sup>

The first and most disruptive reorganization occurred in 2012-13. The Office of Information Services was beginning to build critical data warehouse and reporting capabilities necessary for extracting MOTS data in a form that could be analyzed and used for outcome reports when key developers left OHA. Since that time, OHA has struggled to complete the system and its reporting functionality remains largely unachieved. In March of 2014, the Director of OHA, Bruce Goldberg, was replaced by Lynne Saxton, which brought another wave of change and disruption. In August of 2017, Saxton resigned. Patrick Allen was appointed as the Director and he began another significant behavioral health reorganization. The continued change at OHA has been among the most disruptive factors for the MOTS system, and for all the systems that interact with how funding and outcomes connect with substance abuse and mental health treatment in Oregon.<sup>109</sup>

The challenged development and implementation of MOTS have frustrated treatment providers. In the past they routinely received summary reports from the CPMS system of their data submissions, but the reestablishment of this process with MOTS has been inconsistent. While OHA has the capability to produce reports and send them to individual providers – and does for some – what is needed is for providers to reconcile MOTS and Medicaid data to ensure the accuracy of the data prior to submitting to OHA. But this process can be resource intensive and involve staff who work on different systems. For many providers, such a reconciliation process is beyond their capabilities.

Also impacting the accuracy of MOTS data are inconsistent submissions by providers. Kaiser Permanente (KP) is the third largest provider of DUII treatment services in Oregon and remains challenged to meet MOTS submission requirements. In an interview with the Director of Addiction Medicine, he expressed frustration that MOTS requires use of web browser tools that are not compliant with present KP systems and has meant special allowances by his IT Department. Furthermore, MOTS unnecessarily consumes valuable resources. Initial entry of a patient requires about 30 minutes of staff time, and subsequent monthly submissions add another 15-20 minutes per patient. In another notable case involving a public provider of addiction treatment, 6,000 patient submissions failed to be uploaded into MOTS. Because submissions – private or public – are unrelated to reimbursement, little incentive beyond being compliant with OHA licensing exists.

While large providers in Oregon have computer systems capable of electronically submitting MOTS data, some smaller providers continue to collect hardcopy data and pay third-party vendors to convert it to electronic data and submit it on their behalf.<sup>110</sup> While MOTS data comes to OHA in different ways, it should be

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<sup>108</sup> OHA HSD, multiple interviews with staff

<sup>109</sup> Ibid

<sup>110</sup> Ibid

noted that presently OHA does not have sufficient staff or resources to maintain oversight on the timeliness and accuracy of MOTS data submissions, another factor influencing its reliability and usefulness.<sup>111</sup>

Despite the unreliability of MOTS data, it is still being used to meet state and federal reporting requirements. The system maintains behavioral health data on about 140,000 admissions from about 127,000 unique clients. One problem with MOTS data is that clients can have multiple records because the system has no unique client ID number like Medicaid. MOTS uses name and date of birth as identifiers, which result in discrepancies between providers and treatment episodes. The following table provides a summary of data collected in MOTS, who is required to submit it, and an abbreviated list of specific data elements:

**Table G.1. Summary of Data Elements and Applicable Audiences in MOTS**

<b>Data Element</b>	<b>Applicable Audience</b>	<b>Specific Elements (abbreviated)</b>
<b>Client Profile</b>	All publicly funded HSD licensed providers (Medicaid and Non-Medicaid)	Agency, facility, last name, first name, DOB, Client Tx status, Client ID or Medicaid Number, race, ethnicity, gender, marital status, veteran, employment, living arrangement, county
<b>Behavioral Health</b>	All publicly funded HSD licensed providers (Medicaid and Non-Medicaid)	Admission date, zip code, state, monthly income, dependents, health insurance, referral source, tribal affiliation, pregnant, education, tobacco use, legal status, arrests, DUIs, SID number, diagnosis (ICD-10), GAF, infectious disease, mental health Level of Care
<b>Addiction Detail</b>	All publicly funded HSD-licensed providers (Medicaid and Non-Medicaid)	Substance abuse problem, age of first use, frequency, route of admin., positive AOD tests, self-help attendance, DUII completion date, MAT use, addiction LOC, children in res. Tx
<b>Mental Health Crisis</b>	All publicly funded HSD-licensed providers (Medicaid and Non-Medicaid)	This data is an “event” that only gets submitted if applicable, includes: Date of service, place, time, referral, insurance, diagnosis, legal status, presenting danger (event)
<b>Involuntary Service</b>	All publicly funded HSD-licensed providers (Medicaid and Non-Medicaid)	This data is an “event” that only gets submitted if applicable, includes: service status, type of petition, date, hearing recommended, reason, disposition by judge, basis, date of commitment, length, setting
<b>Non-Medicaid Services</b>	All publicly funded HSD licensed providers who are NOT Medicaid	Date of service, procedure code, place of service, modifier, number of units, parent provider ID, billed charges, diagnosis (similar to what gets submitted for MMIS)

In summary, all providers licensed by HSD – both Medicaid and non-Medicaid – are required to submit data elements for: 1) Client Profile, 2) Behavioral Health, and 3) Addiction Detail. These three modules are the core MOTS data set for HSD licensed addiction treatment services. In addition, the same providers must submit MOTS “event” data anytime there is a: 1) Mental Health Crisis or 2) Involuntary Service. Lastly, providers receiving non-Medicaid funds are required to submit data similar to Medicaid claims data.

<sup>111</sup> Ibid



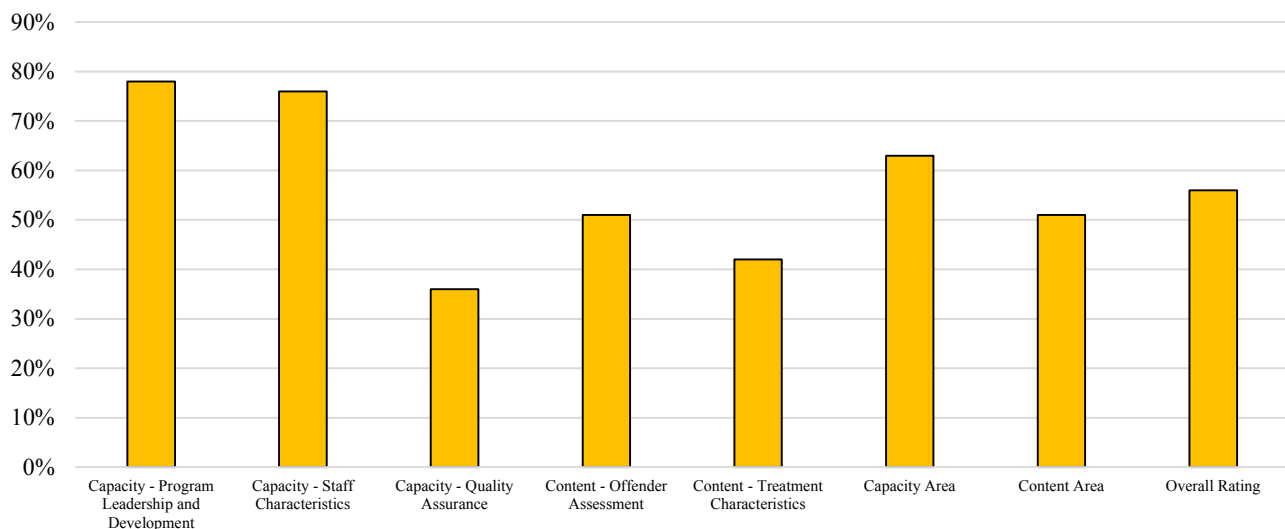
## APPENDIX H: DEPARTMENT OF CORRECTIONS SUMMARY REPORT ON CPCS

Senate Bill 267 (ORS 182.515) passed the Oregon legislature in 2003 and effected monies spent by Department of Corrections, Department of Human Services, Criminal Justice Commission, Commission on Children and Families, and the Oregon Youth Authority. Basic tenets of the legislation required that monies spent on treatment, prevention and intervention "...aimed to decrease future criminal behavior, reduce need for emergency mental health services..." must be "evidenced-based" and "cost-effective." Evidenced-based programs are those that are based on research principles and whose cost are realized over a reasonable period of time through cost savings. After passage, the various agencies agreed on an implementation strategy. DOC and OYA agreed to utilize the *Correctional Program Checklist* (CPC) to determine program/intervention compliance with ORS 182.515.

The CPC, developed by the University of Cincinnati, is an evaluation tool based on multiple meta-analyses of correctional program effectiveness studies. The CPC is based on the principles of effective intervention and is a tool for assessing programs based on empirical evidence. The CPC can be used to evaluate, develop, improve, fund and design correctional programs. *Principles of Effective Intervention* (PEI) include: Risk (who)- treat only offenders who are likely to reoffend (medium to high risk; Need (what)- Target criminogenic needs; Responsivity (how)- General, use cognitive behavioral techniques, and Specific tailor services to overcome barriers to offender engagement and completion of program.

Since 2004, the DOC has completed *several hundred assessments* on correctional programs including institutional programs, community programs (sex offender, cognitive, Batterer Intervention, and Alcohol/Drug). As a result of these assessments several important trends have become apparent:

**Figure H.1. Correctional Program Checklist Assessment Averages**



In general alcohol and drug treatment programs across the state have the "Capacity" (Leadership and staff) to deliver effective interventions/programming. Leadership, community/criminal justice support, and funding all consistently are found to be present and supportive of the ability of programs to deliver effective programs. Staff: Oregon program(s) staff are qualified, experienced, and passionate. Programs struggle with Quality Assurance which includes training, clinical supervision, reassessment, and outcome tracking. This lack of Quality assurance is particularly problematic in that it leads to inconsistent delivery of services and lack of fidelity to any intervention model.

Programs in Oregon are less proficient in the content of the programs being delivered. In general programs *do not consistently deliver evidenced based curriculum or utilize the principles of effective intervention*. Program(s) do not utilize or follow actuarial risk assessment tools, and do not have the background or training to self-correct content deficiencies. At present the Oregon Department of Corrections utilizes two staff to conduct program assessments of 134 programs receiving \$15,361,774 in eligible funding. In addition to these two full-time staff, multiple community partners have provided staff to take part in the assessments.

## APPENDIX I: LIST OF ACRONYMS

**Table I.1. Acronyms and Full Forms**

Acronym	Full Form
ADPC	Alcohol and Drug Policy Commission
ADPEP	Alcohol and Other Drug Prevention and Education Program
AIC	Adults in Custody
AOCMHP	Association of Oregon Community Mental Health Programs
APAC	Oregon All Payer All Claims Database
ASAM	American Society of Addiction Medicine
CCCM	Coffee Creek Correctional Minimum
CCO	Coordinated Care Organization
CDC	Center for Disease Control
CHSE	OHSU's Center for Health Systems Effectiveness
CJC	Oregon Criminal Justice Commission
CLP	Comprehensive Local Plan
CMHP	Community Mental Health Provider
CNA	Certified Nursing Assistant
CPMS	Client Process Monitoring System
CRCI	Columbia River Correctional Institution
CSG	Council of State Governments
CSWA	Clinical Social Work Associate
DHS	Department of Human Services
DMAP	Division of Medical Assistance Programs
DO	Doctor of Osteopathic Medicine
DOC	Department of Corrections
DSM	Diagnostic and Statistical Manual of Mental Disorders
DSSURS	Decision Support Surveillance and Utilization Review System
DUII	Driving Under the Influence of Intoxicants
FCJI	Frequent Criminal Justice Involvement
FDA	Food and Drug Administration
FFS	Medicaid Fee-For-Service
FTE	Full-Time Equivalent
GIA	Grant-In-Aid
GPMS	Gambling Participant Monitoring System
HPCDP	Health Promotion and Chronic Disease Prevention Program
HSD	OHA's Health Systems Division
HSRI	Human Services Research Institute
HWRP	Healthcare Workforce Reporting Program
ICD	International Classification of Diseases
IMPACTS	Improving People's Access to Community-Based Treatment, Supports, and Services
LCSW	Licensed Clinical Social Worker
LMFT	Licensed Marriage and Family Therapist
LMHA	Local Mental Health Authority
LPC	Licensed Professional Counselor
MAT	Medication-Assisted Treatment
MD	Doctor of Medicine
MH	Mental Health
MHACBO	Mental Health & Addiction Certification Board of Oregon
MHO	Mental Health Organization
MMIS	Medicaid Management Information System
MOTS	Measures and Outcomes Tracking System
MOUD	Medication for Opioid Use Disorders
NP	Nurse Practitioner
NSDUH	National Survey on Drug Use and Health
OAT	Opioid Agonist Therapy

OCBH	Oregon Council for Behavioral Health
OCPG	Oregon Council on Problem Gambling
OHA	Oregon Health Authority
OHP	Oregon Health Plan
OHSU	Oregon Health & Sciences University
OSCI	Oregon State Correctional Institution
OD	Opioid Use Disorder
OYA	Oregon Youth Authority
PA	Physician's Assistant
PDMP	Prescription Drug Monitoring Program
PHD	OHA's Public Health Division
PMPM	Per Member Per Month
PNR	Provider to Need Ration
PRCF	Powder River Correctional Facility
QMHP	Qualified Mental Health Professional
RHEC	Regional Health Equity Coalitions
SAMHSA	Substance Abuse and Mental Health Services Administration
SB 1041	Senate Bill 1041
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SUD	Substance Use Disorder
WHO	World Health Organization

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**APPENDIX J:**  
**OHSU’S CENTER FOR HEALTH SYSTEMS EFFECTIVENESS MEDICAID ANALYSIS**

June 26, 2019

# Oregon Health Plan Spending for Substance Use Disorder Treatment Services, 2010-2017

Results from this summary of alcohol and drug treatment services and associated costs incurred by Oregon's Medicaid program will be provided to the Oregon Criminal Justice Commission for inclusion in its report to the Oregon State Legislature, as required by Oregon Senate Bill 1041.

## Approach

This descriptive, longitudinal analysis used administrative claims data from the Oregon Health Authority's Health Systems Division to describe substance use disorder (SUD) treatment services and spending for Oregon Medicaid enrollees. The analysis includes enrollees aged 12 years and older who are not dually eligible for Medicare.

We used definitions from the National Committee for Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) to identify members with an active SUD. Only diagnoses and services rendered and billed via administrative claims are represented in these results; actual prevalence of substance use disorders and treatment may be higher.

Our spending estimates include service costs on medical claims where the primary diagnosis indicates an SUD. Claims do not always capture associated service costs; we imputed missing costs following the approach of Renfro, Lindner and McConnell<sup>1</sup> by substituting the average cost of the service (for inpatient stays billed on a DRG-basis) or substituting Oregon's fee schedule rate (for non-DRG-based services). Pharmacy costs are not included in this summary.

The Institutional Review Board at Oregon Health & Sciences University determined that this analysis did not constitute research, and thus no IRB review was necessary.

This document includes the following tables summarizing SUD treatment services and associated spending:

- **Table 1** characterizes the number of Oregon Medicaid enrollees with an active SUD by age, gender and substance use disorder in 2017. Similar results for years 2010-2016 are available in Appendix A. We also provide results for the population dually eligible for Medicaid and Medicare during 2010-2017 (Appendix B); however, these results are based on Medicaid claims only and likely underrepresent actual prevalence. "Dual eligibles" are excluded from the remainder of analyses.
- **Table 2** describes the number of Medicaid enrollees with an active SUD who received psychosocial services in specialty residential/detoxification, specialty outpatient and primary care settings.
- **Table 3** summarizes the number of Medicaid enrollees with an active opioid use disorder who received pharmacotherapy including buprenorphine, methadone, and naltrexone.
- **Table 4** summarizes annual medical spending for substance use disorder treatment.

## Results

**Table 1. Count of enrollees with active substance use disorder (SUD), 2017**

Age (years)	12 to 17		18-24		25-44		45-64		65+		Total
Gender	M	F	M	F	M	F	M	F	M	F	
Alcohol	604	412	1,970	1,257	9,353	6,447	7,690	4,455	80	29	32,297
Opioid	75	53	969	967	7,114	6,861	2,698	2,883	39	29	21,688
Cannabis	1,544	915	2,308	1,575	5,632	4,388	2,004	1,167	13	10	19,556
Cocaine	33	29	187	130	569	415	381	220	*	*	1,964
Hallucinogen	68	35	88	27	59	36	*	*	*	*	313
Sedative	61	32	126	60	435	426	141	297	*	*	1,578
Other	384	283	1,608	1,533	8,517	7,921	4,172	2,689	17	13	27,137
Any SUD	1,807	1,184	4,464	3,573	20,211	17,195	12,712	8,958	129	71	70,304

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**Table 2. Count of members with substance use disorder (SUD) receiving psychosocial services**

	2010	2011	2012	2013	2014	2015	2016	2017
Total enrollees	351,062	394,893	403,647	399,417	765,922	899,925	916,575	858,190
Enrollees with SUD (% of total)	25,114 (7.2)	31,326 (7.9)	31,816 (7.9)	31,642 (7.9)	62,679 (8.2)	72,590 (8.1)	71,478 (7.8)	70,304 (8.2)
Specialty residential/ detox	405	610	1,902	2,913	5,950	7,280	8,213	8,148
Specialty outpatient	5,582	7,833	7,875	9,440	17,881	20,521	20,613	19,254
Primary care	958	753	814	898	2,814	3,517	4,917	5,289
Any psychosocial service	6,553	8,864	9,901	12,063	23,957	28,031	29,537	28,214

Based on administrative claims data. Members may receive more than one type of psychosocial service.

**Table 3. Count of members with opioid use disorder (OUD) receiving pharmacotherapy**

	2010	2011	2012	2013	2014	2015	2016	2017
Total enrollees	351,062	394,893	403,647	399,417	765,922	899,925	916,575	858,190
Enrollees with OUD (% of total)	5,696 (1.6)	7,382 (1.9)	7,799 (1.9)	8,289 (2.1)	15,592 (2.0)	19,456 (2.2)	20,891 (2.3)	21,688 (2.5)
Buprenorphine (mono)	48	123	204	300	604	705	776	1,207
Buprenorphine (w/ Naloxone)	298	444	477	548	1,299	1,935	2,413	3,670
Methadone	2,518	3,050	3,137	3,136	4,791	5,337	5,565	5,799
Naltrexone (oral)	*	20	34	44	114	228	400	644
Naltrexone (extended-release)	*	*	71	148	515	874	1,213	1,353
Any pharmacotherapy	2,826	3,546	3,784	3,958	6,773	8,241	9,315	11,059

Based on administrative claims data. Members may receive more than one type of pharmacotherapy treatment.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**Table 4. Medical spending for substance use disorder (SUD)**

Year	Total enrollees	Member years	Annual expenditures, total	Annual expenditures, per capita
2010	351,062	249,002	\$33,446,569	\$134
2011	394,893	310,426	\$42,654,858	\$137
2012	403,647	326,102	\$49,194,230	\$151
2013	399,417	326,711	\$55,607,448	\$170
2014	765,922	674,192	\$105,068,285	\$156
2015	899,925	747,166	\$127,607,180	\$171
2016	916,575	732,246	\$145,008,410	\$198
2017	858,190	666,352	\$141,947,705	\$213

Based on administrative claims data. Member years calculated as enrolled months / 12.

<sup>1</sup> Renfro S, Lindner S, McConnell KJ. Decomposing Medicaid Spending During Health System Reform and ACA Expansion: Evidence from Oregon. *Medical Care* 56(7):589-595. 2018. PMID: 29762274.

#### CENTER FOR HEALTH SYSTEMS EFFECTIVENESS

This summary was produced for John Fitzgerald and the Oregon Criminal Justice Commission.

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## Appendix A. Enrollees with an active SUD, 2010-2017

### A1. Count of enrollees with active substance use disorder (SUD), 2010

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	850	743	812	1,078	1,796	2,776	2,315	1,600	17	10
Opioid	76	56	259	430	848	2,086	883	1,048	*	*
Cannabis	1,605	820	931	1,053	751	1,435	384	289	*	*
Cocaine	42	20	44	64	85	241	147	150	*	*
Hallucinogen	39	22	21	14	*	*	*	*	*	*
Sedative	*	*	15	23	55	164	38	66	*	*
Other	344	294	388	962	1,146	3,094	848	1,011	*	*
Any SUD	2,057	1,349	1,720	2,576	3,456	6,979	3,671	3,263	25	18

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

### A2. Count of enrollees with active substance use disorder (SUD), 2011

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	857	659	968	1,107	2,570	3,358	3,135	2,048	24	11
Opioid	95	83	344	533	1,327	2,612	1,084	1,284	10	10
Cannabis	1,921	875	1,105	1,191	1,178	1,857	564	454	*	*
Cocaine	20	25	47	76	144	269	168	175	*	*
Hallucinogen	46	22	37	20	18	23	*	*	*	*
Sedative	*	*	26	29	98	198	54	111	*	*
Other	451	379	516	1,067	1,771	3,859	1,181	1,290	*	*
Any SUD	2,434	1,414	2,103	2,792	4,990	8,533	4,797	4,202	36	25

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

### A3. Count of enrollees with active substance use disorder (SUD), 2012

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	778	635	956	1,094	2,467	3,384	2,945	2,043	26	11
Opioid	91	90	364	587	1,341	2,897	1,067	1,339	11	12
Cannabis	1,895	910	1,184	1,239	1,310	2,120	642	481	*	*
Cocaine	31	19	65	64	103	271	169	175	*	*
Hallucinogen	31	26	37	16	18	10	*	*	*	*
Sedative	10	14	27	29	93	208	77	128	*	*
Other	469	454	646	1,149	1,806	4,099	1,332	1,406	10	*
Any SUD	2,333	1,477	2,184	2,875	4,979	8,938	4,715	4,244	42	29

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**A4. Count of enrollees with active substance use disorder (SUD), 2013**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	693	528	832	913	2,105	3,178	2,779	1,947	30	13
Opioid	77	63	338	631	1,426	3,161	1,134	1,428	14	17
Cannabis	1,795	928	1,214	1,291	1,338	2,222	661	522	*	*
Cocaine	32	33	36	40	110	223	148	167	*	*
Hallucinogen	39	30	30	20	17	23	*	*	*	*
Sedative	19	*	25	32	96	248	92	147	*	*
Other	443	396	693	1,172	1,815	4,368	1,349	1,518	10	*
Any SUD	2,217	1,359	2,140	2,833	4,790	9,147	4,708	4,363	50	35

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**A5. Count of enrollees with active substance use disorder (SUD), 2014**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	620	533	1,747	1,331	7,832	5,697	7,343	4,170	47	28
Opioid	82	60	931	1,000	4,388	4,820	2,042	2,223	18	28
Cannabis	1,708	1,047	2,107	1,680	4,241	3,606	1,648	1,068	10	*
Cocaine	32	20	87	79	342	350	338	248	*	*
Hallucinogen	46	19	45	22	30	32	*	10	*	*
Sedative	17	12	36	45	282	330	140	263	*	*
Other	470	449	1,484	1,676	6,061	6,753	3,178	2,569	22	16
Any SUD	2,087	1,510	4,361	4,007	15,994	14,928	11,439	8,206	79	68

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**A6. Count of enrollees with active substance use disorder (SUD), 2015**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	663	551	1,961	1,379	9,496	6,524	8,423	4,768	62	34
Opioid	84	81	1,120	1,099	5,818	5,872	2,478	2,858	23	23
Cannabis	1,767	1,076	2,469	1,910	5,563	4,325	2,166	1,361	*	*
Cocaine	34	20	122	91	423	321	371	247	*	*
Hallucinogen	53	27	62	23	77	41	16	10	*	*
Sedative	21	18	65	53	347	427	175	316	*	*
Other	457	428	1,689	1,746	7,615	7,650	3,845	3,018	27	15
Any SUD	2,118	1,507	4,897	4,288	19,667	17,006	13,351	9,590	95	71

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**A7. Count of enrollees with active substance use disorder (SUD), 2016**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	600	467	1,914	1,306	9,573	6,422	8,236	4,710	70	24
Opioid	79	59	1,000	1,061	6,518	6,480	2,668	2,959	33	34
Cannabis	1,581	957	2,447	1,715	5,640	4,234	2,012	1,240	*	*
Cocaine	38	31	118	81	472	362	358	237	*	*
Hallucinogen	58	41	71	29	69	33	17	*	*	*
Sedative	37	36	100	64	426	414	184	316	*	*
Other	429	342	1,642	1,600	8,033	7,467	3,969	2,732	16	16
Any SUD	1,866	1,280	4,666	3,833	20,098	16,969	13,188	9,392	115	71

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**A8. Count of enrollees with active substance use disorder (SUD), 2017**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	604	412	1,970	1,257	9,353	6,447	7,690	4,455	80	29
Opioid	75	53	969	967	7,114	6,861	2,698	2,883	39	29
Cannabis	1,544	915	2,308	1,575	5,632	4,388	2,004	1,167	13	10
Cocaine	33	29	187	130	569	415	381	220	*	*
Hallucinogen	68	35	88	27	59	36	*	*	*	*
Sedative	61	32	126	60	435	426	141	297	*	*
Other	384	283	1,608	1,533	8,517	7,921	4,172	2,689	17	13
Any SUD	1,807	1,184	4,464	3,573	20,211	17,195	12,712	8,958	129	71

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

## Appendix B. Dual-eligible enrollees with an active SUD, 2010-2017

### B1. Count of dual-eligible enrollees with active substance use disorder (SUD), 2010

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	26	13	400	201	683	403	388	215
Opioid	*	*	*	*	132	164	262	381	64	87
Cannabis	*	*	30	*	194	88	133	112	23	12
Cocaine	*	*	*	*	35	31	48	41	*	*
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	*	15	14	35	*	*
Other	*	*	14	10	276	241	301	388	58	69
Any SUD	*	*	59	33	741	555	1,161	1,087	502	366

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

### B2. Count of dual-eligible enrollees with active substance use disorder (SUD), 2011

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	30	15	399	227	771	447	400	203
Opioid	*	*	*	*	152	203	270	437	99	131
Cannabis	*	*	32	*	203	111	150	123	16	19
Cocaine	*	*	*	*	38	25	61	50	*	*
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	*	17	26	35	*	14
Other	*	*	28	15	328	262	369	408	56	77
Any SUD	*	*	73	33	821	621	1,331	1,196	542	416

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

### B3. Count of dual-eligible enrollees with active substance use disorder (SUD), 2012

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	34	17	448	231	798	509	435	225
Opioid	*	*	12	*	163	198	293	431	114	152
Cannabis	*	*	32	18	246	143	182	147	29	24
Cocaine	*	*	*	*	28	24	44	42	*	*
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	10	16	21	56	*	14
Other	*	*	25	16	361	303	416	456	67	112
Any SUD	*	*	73	37	902	682	1,393	1,309	609	485

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**B4. Count of dual-eligible enrollees with active substance use disorder (SUD), 2013**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	18	15	425	246	812	531	496	232
Opioid	*	*	*	*	175	221	313	521	155	247
Cannabis	*	*	28	20	282	158	216	173	40	24
Cocaine	*	*	*	*	31	17	46	43	*	*
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	20	37	21	56	12	30
Other	*	*	21	23	397	370	476	500	103	125
Any SUD	*	*	53	38	932	756	1,485	1,473	738	610

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**B5. Count of dual-eligible enrollees with active substance use disorder (SUD), 2014**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	23	13	464	246	895	576	556	313
Opioid	*	*	*	*	215	259	372	585	199	315
Cannabis	*	*	34	16	338	190	287	214	75	37
Cocaine	*	*	*	*	31	10	47	37	*	*
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	19	27	39	69	17	35
Other	*	*	24	17	432	358	521	514	134	146
Any SUD	*	*	63	39	1,041	791	1,696	1,646	866	773

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**B6. Count of dual-eligible enrollees with active substance use disorder (SUD), 2015**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	22	*	490	241	1003	631	697	349
Opioid	*	*	*	10	251	259	471	811	267	489
Cannabis	*	*	40	15	364	193	358	257	101	64
Cocaine	*	*	*	*	28	15	45	41	13	11
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	20	27	39	75	13	49
Other	*	*	22	17	490	353	581	636	161	167
Any SUD	*	*	58	32	1,143	772	1,981	1,973	1,087	1,002

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**B7. Count of dual-eligible enrollees with active substance use disorder (SUD), 2016**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	18	13	416	225	991	610	678	336
Opioid	*	*	*	*	241	268	511	867	329	575
Cannabis	*	*	27	19	345	180	297	219	96	75
Cocaine	*	*	*	*	23	17	35	36	14	*
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	26	36	43	71	19	66
Other	*	*	19	16	436	344	539	506	133	103
Any SUD	*	*	52	33	1,036	763	1,974	1,878	1,099	1,052

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.

**B8. Count of dual-eligible enrollees with active substance use disorder (SUD), 2017**

Age (years)	12 to 17		18-24		25-44		45-64		65+	
Gender	M	F	M	F	M	F	M	F	M	F
Alcohol	*	*	*	12	404	214	912	597	723	387
Opioid	*	*	*	*	240	271	539	877	372	626
Cannabis	*	*	37	15	337	188	287	201	97	66
Cocaine	*	*	*	*	20	17	44	46	20	10
Hallucinogen	*	*	*	*	*	*	*	*	*	*
Sedative	*	*	*	*	19	22	39	79	20	69
Other	*	*	17	12	419	313	523	471	148	110
Any SUD	*	*	53	32	974	742	1,882	1,874	1,224	1,149

Based on administrative claims data. SUD categories are not mutually exclusive.

(\*) Indicates result suppressed due to small cell size, <10 cases.