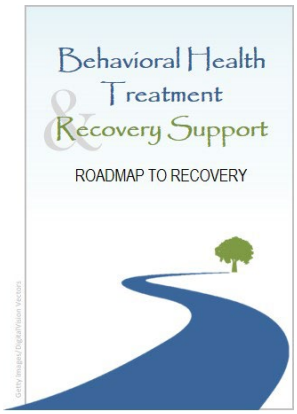

Synthetic Estimates of Substance Use Treatment Need in Washington State

SUPPORT ACT §1003 Roadmap to Recovery Planning Grant

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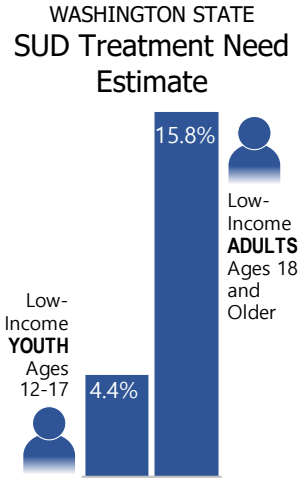
Report to the Health Care Authority §1003 SUPPORT ACT Roadmap to Recovery Planning Grant Steering Committee Co-Chairs, Dr. Charissa Fotinos and Dr. Keri Waterland.

IN SEPTEMBER 2019, the Centers for Medicare and Medicaid Services (CMS) awarded the Washington State Health Care Authority (HCA) over $3.9 million under the §1003 SUPPORT ACT.[1] Under this Phase 1 Planning Grant, HCA is developing an implementation strategy for improving substance use disorder (SUD) treatment and recovery services, including developing an alternative payment model.[2] An accurate assessment of state and county SUD treatment need is essential to the successful planning of treatment services. This report provides synthetic estimates of SUD treatment need among the Medicaid population as well as the low-income population not enrolled in Medicaid in Washington State. We present the estimates by county and age group. The rate of need among the non-Medicaid population living above 200 percent FPL as a reference group is also discussed.

Key Findings

1. **About 4.4 percent of low-income youth (ages 12-17) in Washington State had SUD treatment need.** Based on the 2019 population, we estimated that 11,741 low-income youth were in need of SUD treatment.
2. **About 15.8 percent of low-income adults (ages 18 and older) in Washington State had SUD treatment need.** Based on the 2019 population, we estimated that 256,380 low-income adults were in need of SUD treatment.
3. **There is variability in SUD treatment need across counties.** In 2019, the rates of SUD treatment need among low-income youth ranged from 3.9 percent in Kitsap County to 5.9 percent in Ferry County. Rates of SUD treatment need among low-income adults ranged from 13.5 percent in Columbia County to 18.1 percent in Grays Harbor County.



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[1] More information about the CMS §1003 SUPPORT ACT grant can be found at: https://www.medicaid.gov/medicaid/benefits/behavioral-health-services/substance-use-disorder-prevention-promotes-opioid-recovery-and-treatment-for-patients-and-communities-support-act-section-1003/index.html.

[2] More information about the SUPPORT ACT implementation in Washington can be found at: https://www.hca.wa.gov/about-hca/apple-health-medicaid/support-act.

Data and Methods

This report provides estimates of SUD treatment need among Washington State's low-income population by age and county groups. We defined "low-income population" as individuals enrolled in Medicaid, or those not enrolled in Medicaid but living at or below 200 percent of the federal poverty line (FPL). Based on this definition, we adopted a two-pronged method to estimate the SUD treatment need.

First, the SUD treatment need among Medicaid enrollees was estimated directly from administrative data retrieved from the Department of Social and Health Services Integrated Client Databases (ICDB). This part of the analysis was focused on individuals enrolled in Medicaid in any month during calendar year (CY) 2019, including those dually enrolled in Medicare and Medicaid. An individual was identified as having SUD treatment need if the individual had any SUD diagnosis, received any SUD treatment, or was arrested for any substance-related offenses during CY 2018 or CY 2019. We created a matrix of SUD treatment need rates by county, age, gender, race, and ethnicity groups. The results were converted to a monthly caseload basis by applying a weight representing the number of months an individual was enrolled in Medicaid as a proportion of CY 2019.

Second, the SUD treatment need for the low-income population not enrolled in Medicaid was estimated using a synthetic method. No existing data sources allowed us to directly estimate the SUD treatment need among individuals without Medicaid data at the county level. While representative survey data such as those collected by the National Survey of Drug Use and Health (NSDUH) were available to estimate the statewide prevalence of substance use disorder by age groups, the limited sample size of NSDUH from Washington State precluded its use for generating county-level estimates, or estimates by income levels. To address this challenge, we developed a synthetic estimation method by calibrating SUD treatment need estimates derived from administrative data for Medicaid enrollees to SUD treatment need among the non-Medicaid population derived from NSDUH estimates. The synthetic estimation process followed the steps below:

- We retrieved Washington State's SUD prevalence rates from the 2018/2019 NSDUH state reports, which contain rates by age group. We also retrieved the NSDUH national data set, which included information on SUD prevalence as well as demographic information and Medicaid status. Using these data elements, we estimated the Washington statewide SUD treatment need rate for the non-Medicaid low-income population by age group.
- We then calculated the ratio of the NSDUH statewide SUD treatment need rate in the non-Medicaid low-income population to that of Medicaid enrollees at the state level.
- Based on the assumption the variability of SUD treatment need among the Medicaid enrollees approximated that of the low-income population not enrolled in Medicaid, we created a matrix of SUD treatment need among non-Medicaid low-income population by applying the adjustment ratio to the Medicaid SUD treatment need matrix estimated from administrative data.

A blended SUD treatment need matrix was created by combining the Medicaid and non-Medicaid matrices using population weights for each county and demographic group. Projections of future SUD treatment need were produced based on projected trends in population demographics and income changes.

SUD Treatment Need in the Low-income Population

This section presents estimated SUD treatment need in Washington's low-income population, which includes individual enrolled in Medicaid, and individuals not enrolled in Medicaid but living in households with income at or below 200 percent FPL. We present the base year (CY 2019) estimates of SUD treatment need for both populations and forecasts for years between CY 2020 and CY 2030.

Because long-range, demographically detailed forecasts of Medicaid coverage are not available, we do not present a separate forecast of SUD treatment need specific to the Medicaid population.

Base Year SUD Treatment Need (CY 2019)

Estimated past year SUD treatment need among low-income youth and adults in CY 2019 at the state level are presented in Table 1. The results indicate the following:

- In 2019, 4.3 percent of low-income youth (age 12-17) enrolled in Medicaid and 5.6 percent not enrolled in Medicaid had SUD treatment need in the past year. We estimated that a total of 11,741 youth were in need of SUD treatment in 2019.
- In 2019, 20.5 percent of low-income adults (ages 18 and older) enrolled in Medicaid and 9.8 percent not enrolled in Medicaid had SUD treatment need in the past year. We estimated that 256,370 low-income adults were in need of SUD treatment in 2019.

TABLE 1

Past year SUD treatment need among the low-income Washington population

Calendar Year 2019

Age Group	Enrolled in Medicaid		Not Enrolled in Medicaid		Total Estimated People in Need of Treatment
	Estimated Percent in Need of Treatment	Estimated People in Need of Treatment	Estimated Percent in Need of Treatment	Estimated People in Need of Treatment	
12-17	4.3%	10,064	5.6%	1,677	11,741
18 and older	20.5%	186,737	9.8%	69,633	256,370

Estimated past-year SUD treatment need at the county level are presented in Table 2. When Medicaid and non-Medicaid low-income populations are combined, the rates of SUD treatment need among low-income youth ranged from 3.9 percent in Kitsap County to 5.9 percent in Ferry County. The rates of SUD treatment need among low-income adults ranged from 13.5 percent in Columbia County to 18.1 percent in Grays Harbor County in 2019.

TABLE 2

Past year SUD treatment need among the Washington low-income population

Calendar Year 2019

County	Enrolled in Medicaid		Not Enrolled in Medicaid		Total	
	Ages 12-17	Ages 18 and older	Ages 12-17	Ages 18 and older	Ages 12-17	Ages 18 and older
WA STATE	**4.3%**	**20.5%**	**5.6%**	**9.8%**	**4.4%**	**15.8%**
Adams	4.5%	20.8%	4.4%	10.6%	4.5%	15.2%
Asotin	4.8%	20.8%	4.3%	9.0%	4.7%	14.1%
Benton	4.2%	20.2%	6.0%	9.7%	4.4%	16.2%
Chelan	4.5%	20.9%	6.0%	10.0%	4.7%	15.4%
Clallam	5.0%	22.4%	6.6%	9.8%	5.2%	16.3%
Clark	4.3%	21.4%	5.9%	9.8%	4.5%	16.3%
Columbia	4.8%	20.6%	4.2%	8.5%	4.8%	13.5%
Cowlitz	4.5%	22.0%	5.9%	9.1%	4.6%	16.5%
Douglas	4.2%	20.8%	5.9%	10.3%	4.3%	15.6%
Ferry	5.8%	24.0%	7.4%	10.2%	5.9%	17.4%
Franklin	4.2%	20.0%	5.5%	10.2%	4.3%	16.2%

County	Enrolled in Medicaid		Not Enrolled in Medicaid		Total	
	Ages 12-17	Ages 18 and older	Ages 12-17	Ages 18 and older	Ages 12-17	Ages 18 and older
Garfield	4.6%	20.6%	4.2%	8.4%	4.6%	13.6%
Grant	3.9%	20.7%	8.7%	10.4%	4.4%	15.4%
Grays Harbor	4.7%	23.3%	4.6%	9.4%	4.7%	18.1%
Island	4.2%	20.6%	3.8%	9.0%	4.1%	15.2%
Jefferson	4.9%	21.7%	7.0%	8.9%	5.2%	15.2%
King	3.9%	18.6%	5.3%	9.1%	4.1%	14.4%
Kitsap	3.8%	21.8%	4.6%	10.3%	3.9%	16.8%
Kittitas	4.1%	18.8%	8.0%	11.5%	4.5%	14.9%
Klickitat	4.8%	21.6%	4.9%	10.0%	4.8%	16.0%
Lewis	4.7%	21.7%	4.6%	10.3%	4.7%	16.5%
Lincoln	4.8%	20.3%	4.4%	8.9%	4.8%	14.2%
Mason	4.6%	23.0%	4.8%	9.1%	4.7%	17.7%
Okanogan	5.6%	23.9%	6.2%	10.1%	5.6%	17.5%
Pacific	4.7%	21.9%	5.8%	8.3%	4.8%	15.1%
Pend Oreille	5.1%	22.4%	5.6%	9.1%	5.1%	16.1%
Pierce	4.1%	20.9%	5.2%	9.7%	4.3%	16.5%
San Juan	4.4%	20.2%	4.9%	8.3%	4.5%	14.1%
Skagit	4.3%	21.1%	4.6%	9.3%	4.3%	15.4%
Skamania	4.9%	21.8%	4.8%	10.2%	4.9%	16.9%
Snohomish	4.3%	20.0%	6.6%	9.6%	4.5%	15.4%
Spokane	4.4%	21.7%	5.6%	9.9%	4.5%	16.9%
Stevens	4.9%	22.7%	5.4%	9.5%	5.0%	16.8%
Thurston	5.3%	22.8%	6.0%	10.6%	5.4%	17.1%
Wahkiakum	5.3%	21.7%	6.0%	7.7%	5.3%	14.9%
Walla Walla	4.5%	19.3%	5.9%	9.9%	4.6%	15.3%
Whatcom	4.3%	21.2%	7.0%	11.1%	4.6%	16.2%
Whitman	4.5%	18.1%	4.1%	12.2%	4.5%	14.3%
Yakima	4.1%	19.4%	6.0%	9.9%	4.2%	15.8%

Projections of SUD Treatment Need (CY 2020 – CY 2030)

Based on projected population trends among Medicaid and non-Medicaid low-income populations, we were able to extrapolate the SUD treatment need from the base year of 2019 to 2030 using the synthetic estimation process. Table 3 presents the projections of SUD treatment for low-income youth not enrolled in Medicaid in Washington counties. Table 4 presents the projections of SUD treatment need among Medicaid and non-Medicaid low-income adults.

- At the state level, we estimated that the rates of SUD treatment need among low-income youth would slowly rise from 4.4 percent to 4.6 percent over the next decade.
- We estimated that the SUD treatment need among adults would decrease from 15.8 percent in 2019 to 15.0 percent in 2030.

TABLE 3

Past year SUD treatment need among low-income youth ages 12-17 (2019 – 2030)

County	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
WA STATE	**4.4%**	**4.4%**	**4.4%**	**4.4%**	**4.4%**	**4.5%**	**4.5%**	**4.5%**	**4.5%**	**4.5%**	**4.5%**	**4.6%**
Adams	4.5%	4.5%	4.5%	4.5%	4.6%	4.6%	4.6%	4.6%	4.7%	4.7%	4.7%	4.8%
Asotin	4.7%	4.7%	4.7%	4.7%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.9%
Benton	4.4%	4.3%	4.4%	4.4%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Chelan	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.8%
Clallam	5.2%	5.1%	5.2%	5.2%	5.2%	5.2%	5.1%	5.1%	5.1%	5.2%	5.2%	5.2%
Clark	4.5%	4.5%	4.5%	4.5%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
Columbia	4.8%	4.6%	4.6%	4.7%	4.7%	4.7%	4.7%	4.6%	4.6%	4.5%	4.5%	4.5%
Cowlitz	4.6%	4.7%	4.7%	4.7%	4.7%	4.7%	4.8%	4.7%	4.7%	4.8%	4.8%	4.8%
Douglas	4.3%	4.3%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
Ferry	5.9%	5.9%	5.9%	5.9%	6.0%	6.0%	6.0%	6.0%	6.0%	5.9%	5.9%	5.9%
Franklin	4.3%	4.3%	4.3%	4.4%	4.4%	4.5%	4.5%	4.5%	4.6%	4.6%	4.7%	4.7%
Garfield	4.6%	4.5%	4.5%	4.6%	4.6%	4.7%	4.7%	4.6%	4.6%	4.7%	4.7%	4.7%
Grant	4.4%	4.2%	4.3%	4.4%	4.4%	4.5%	4.5%	4.5%	4.6%	4.6%	4.6%	4.7%
Grays Harbor	4.7%	4.4%	4.4%	4.4%	4.5%	4.5%	4.5%	4.5%	4.5%	4.6%	4.6%	4.7%
Island	4.1%	4.0%	3.9%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.1%
Jefferson	5.2%	5.1%	5.2%	5.2%	5.2%	5.3%	5.3%	5.2%	5.2%	5.2%	5.2%	5.3%
King	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%	4.2%	4.2%	4.2%
Kitsap	3.9%	4.1%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Kittitas	4.5%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.1%	4.1%	4.1%	4.1%	4.1%
Klickitat	4.8%	4.9%	4.9%	4.9%	5.0%	5.0%	5.0%	4.9%	4.9%	4.9%	4.9%	4.9%
Lewis	4.7%	4.7%	4.7%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.9%	4.9%	5.0%
Lincoln	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.7%	4.7%	4.7%	4.6%
Mason	4.7%	4.5%	4.5%	4.5%	4.6%	4.6%	4.6%	4.6%	4.6%	4.7%	4.7%	4.8%
Okanogan	5.6%	5.5%	5.6%	5.6%	5.7%	5.7%	5.7%	5.7%	5.7%	5.8%	5.8%	5.9%
Pacific	4.8%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.8%
Pend Oreille	5.1%	5.1%	5.1%	5.1%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.1%
Pierce	4.3%	4.3%	4.2%	4.3%	4.3%	4.3%	4.3%	4.3%	4.4%	4.4%	4.4%	4.5%
San Juan	4.5%	4.5%	4.4%	4.5%	4.5%	4.5%	4.5%	4.4%	4.4%	4.4%	4.4%	4.4%
Skagit	4.3%	4.2%	4.2%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.4%	4.4%
Skamania	4.9%	4.9%	5.0%	5.0%	5.1%	5.1%	5.2%	5.1%	5.1%	5.1%	5.1%	5.1%
Snohomish	4.5%	4.4%	4.5%	4.6%	4.6%	4.6%	4.7%	4.6%	4.7%	4.7%	4.7%	4.8%
Spokane	4.5%	4.4%	4.4%	4.4%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Stevens	5.0%	4.9%	5.0%	5.1%	5.1%	5.2%	5.3%	5.3%	5.3%	5.3%	5.4%	5.4%
Thurston	5.4%	5.2%	5.3%	5.3%	5.3%	5.4%	5.4%	5.3%	5.3%	5.4%	5.4%	5.4%
Wahkiakum	5.3%	5.3%	5.4%	5.5%	5.6%	5.7%	5.8%	5.7%	5.7%	5.7%	5.7%	5.7%
Walla Walla	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
Whatcom	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
Whitman	4.5%	4.5%	4.4%	4.5%	4.5%	4.5%	4.4%	4.4%	4.4%	4.4%	4.4%	4.5%
Yakima	4.2%	4.0%	4.2%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.4%	4.4%

TABLE 4

Past year SUD treatment need among low-income adults 18 and older (2019 – 2030)

County	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
WA STATE	**15.8%**	**15.8%**	**15.6%**	**15.6%**	**15.5%**	**15.4%**	**15.3%**	**15.2%**	**15.1%**	**15.1%**	**15.0%**	**15.0%**
Adams	15.2%	15.2%	15.1%	15.0%	15.0%	15.0%	14.9%	14.9%	14.9%	14.8%	14.8%	14.8%
Asotin	14.1%	14.0%	13.8%	13.7%	13.6%	13.5%	13.4%	13.3%	13.2%	13.2%	13.1%	13.1%
Benton	16.2%	16.2%	15.9%	15.9%	15.8%	15.7%	15.7%	15.6%	15.5%	15.5%	15.4%	15.4%
Chelan	15.4%	15.5%	15.2%	15.1%	15.0%	14.9%	14.8%	14.7%	14.6%	14.5%	14.4%	14.3%
Clallam	16.3%	16.4%	16.4%	16.2%	16.2%	16.1%	16.0%	16.0%	15.9%	15.9%	15.9%	15.9%
Clark	16.3%	16.4%	16.2%	16.2%	16.1%	16.0%	16.0%	15.9%	15.8%	15.8%	15.7%	15.7%
Columbia	13.5%	13.3%	13.0%	12.8%	12.6%	12.5%	12.3%	12.2%	12.1%	11.9%	11.8%	11.7%
Cowlitz	16.5%	16.6%	16.4%	16.3%	16.2%	16.1%	16.0%	16.0%	15.9%	15.9%	15.9%	15.8%
Douglas	15.6%	15.7%	15.4%	15.3%	15.2%	15.1%	15.0%	15.0%	14.9%	14.8%	14.7%	14.6%
Ferry	17.4%	17.5%	17.4%	17.2%	17.0%	16.9%	16.8%	16.8%	16.7%	16.7%	16.7%	16.7%
Franklin	16.2%	16.1%	15.9%	15.9%	15.8%	15.8%	15.7%	15.6%	15.6%	15.5%	15.5%	15.4%
Garfield	13.6%	13.6%	13.4%	13.3%	13.2%	13.1%	13.0%	12.9%	12.8%	12.6%	12.6%	12.5%
Grant	15.4%	15.2%	15.1%	15.0%	14.9%	14.8%	14.8%	14.7%	14.6%	14.6%	14.5%	14.5%
Grays Harbor	18.1%	18.2%	17.9%	17.9%	17.8%	17.7%	17.6%	17.5%	17.4%	17.4%	17.3%	17.2%
Island	15.2%	15.0%	14.9%	14.9%	14.8%	14.7%	14.7%	14.6%	14.6%	14.5%	14.5%	14.5%
Jefferson	15.2%	15.2%	15.2%	15.0%	14.9%	14.8%	14.8%	14.7%	14.7%	14.6%	14.6%	14.6%
King	14.4%	14.4%	14.2%	14.1%	14.0%	13.9%	13.8%	13.7%	13.6%	13.6%	13.5%	13.5%
Kitsap	16.8%	16.9%	16.6%	16.6%	16.4%	16.3%	16.2%	16.1%	16.1%	16.0%	16.0%	15.9%
Kittitas	14.9%	14.8%	14.7%	14.6%	14.5%	14.4%	14.3%	14.3%	14.2%	14.2%	14.2%	14.1%
Klickitat	16.0%	16.1%	16.0%	15.8%	15.6%	15.5%	15.4%	15.3%	15.1%	15.0%	15.0%	14.9%
Lewis	16.5%	16.7%	16.6%	16.5%	16.4%	16.3%	16.3%	16.2%	16.1%	16.1%	16.0%	16.0%
Lincoln	14.2%	14.1%	13.8%	13.7%	13.6%	13.5%	13.4%	13.3%	13.2%	13.2%	13.1%	13.1%
Mason	17.7%	17.8%	17.5%	17.4%	17.3%	17.2%	17.1%	17.0%	16.9%	16.9%	16.8%	16.8%
Okanogan	17.5%	17.5%	17.4%	17.3%	17.1%	17.0%	16.9%	16.9%	16.8%	16.7%	16.7%	16.6%
Pacific	15.1%	15.2%	15.0%	14.9%	14.8%	14.7%	14.7%	14.6%	14.6%	14.5%	14.5%	14.5%
Pend Oreille	16.1%	16.1%	15.9%	15.8%	15.7%	15.6%	15.5%	15.4%	15.3%	15.2%	15.1%	15.1%
Pierce	16.5%	16.6%	16.3%	16.3%	16.2%	16.1%	16.0%	15.9%	15.8%	15.8%	15.7%	15.7%
San Juan	14.1%	14.0%	13.8%	13.7%	13.6%	13.5%	13.4%	13.4%	13.3%	13.2%	13.2%	13.1%
Skagit	15.4%	15.2%	15.1%	15.0%	14.9%	14.9%	14.8%	14.7%	14.6%	14.6%	14.5%	14.5%
Skamania	16.9%	17.0%	16.8%	16.7%	16.5%	16.4%	16.3%	16.2%	16.1%	16.0%	15.9%	15.9%
Snohomish	15.4%	15.4%	15.2%	15.1%	15.0%	14.9%	14.8%	14.7%	14.7%	14.6%	14.5%	14.4%
Spokane	16.9%	17.0%	16.9%	16.8%	16.7%	16.6%	16.5%	16.5%	16.4%	16.3%	16.3%	16.3%
Stevens	16.8%	16.8%	16.6%	16.5%	16.4%	16.3%	16.1%	16.1%	16.0%	16.0%	16.0%	16.0%
Thurston	17.1%	17.1%	17.1%	17.0%	16.9%	16.8%	16.7%	16.7%	16.6%	16.6%	16.5%	16.5%
Wahkiakum	14.9%	14.5%	14.2%	14.1%	14.0%	13.9%	13.8%	13.8%	13.7%	13.6%	13.6%	13.6%
Walla Walla	15.3%	15.4%	15.1%	15.1%	15.0%	15.0%	14.9%	14.8%	14.8%	14.8%	14.7%	14.7%
Whatcom	16.2%	16.4%	16.2%	16.2%	16.1%	16.0%	16.0%	15.9%	15.8%	15.8%	15.8%	15.7%
Whitman	14.3%	14.4%	14.3%	14.3%	14.2%	14.1%	14.1%	14.0%	14.0%	14.0%	14.0%	14.0%
Yakima	15.8%	15.8%	15.7%	15.6%	15.5%	15.4%	15.4%	15.3%	15.2%	15.2%	15.1%	15.1%

SUD Treatment Need among the Middle- and Higher-Income Populations

Administrative data regarding SUD treatment utilization are not available for the Washington population living above 200 percent FPL who are not enrolled in Medicaid. As a result, we are unable to provide county-level estimates of SUD treatment need for this population. At the state level, we estimated the past year SUD treatment need for this group from NSDUH state reports and national data; results are presented in Table 5 below. We estimated that, among the non-Medicaid population living above 200 percent FPL, 4.6 percent of youth ages 12 to 17, 17.1 percent young adults ages 18 to 25, and 7.5 percent adults ages 26 and older had SUD treatment need. These prevalence rates translate into 13,840 youth, 75,337 young adults, and 279,374 adults in need of SUD treatment in 2019.

TABLE 5

Past year SUD treatment need among Washington non-Medicaid population living above 200 percent FPL

Calendar Year 2019

Age Group	Percent with SUD Treatment Need	Estimated People in Need of Treatment
12-17	4.6%	13,840
18-25	17.1%	75,337
26 and older	7.5%	279,374

Discussion

Reports of SUD treatment need among the low-income population often focus on Medicaid enrollees because of the lack of data for those not enrolled in Medicaid at sub-state geographic levels. By calibrating need estimates to SUD prevalence and receipt of treatment measured in the NSDUH, this report supplements previous analyses and addresses the limitations of using exclusively administrative data for this estimation. Prevalence estimates derived from administrative data often do not measure need for individuals who have treatment needs but do not seek or receive publicly funded medical and behavioral health treatment services, especially those who are living in poverty but not enrolled in Medicaid. The synthetic estimation process allowed us to produce an estimate of need regardless of Medicaid enrollment status, and present data at the state and county levels.

There are several limitations to the synthetic estimation process. First, NSDUH is a nationally representative survey of the civilian non-institutionalized population. As such, its sample does not include the homeless population who are not using shelters, active duty military personnel, or individuals living in institutional settings such as jails, residential treatment facilities, nursing homes, or long-term care facilities (SAMHSA, 2020c). Calibrating SUD treatment need to NSDUH state SUD rates may underestimate the needs by omitting these populations. Second, while the treatment community has adopted the standards of the Diagnostic and Statistical Manual V (DSM-V) after its publication in 2013, NSDUH did not update its definition of SUD to DSM-V standards until its 2020 survey (SAMHSA, 2021). The 2018/2019 NSDUH data, which we used in this analysis, identified individuals with SUD disorder based on DSM-IV definitions. Third, the SUD treatment need and population projections that we used in this analysis, namely the 2018/2019 NSDUH and the 2019 American Community Survey, were conducted prior to the COVID-19 pandemic. As the pandemic affected SUD prevalence, poverty rates and Medicaid enrollment patterns, our projections of SUD treatment need will need adjusting as more data become available. Future studies should revisit the projections of SUD need from 2020 and beyond to ensure that the most accurate and recent demographic and SUD treatment need information possible is reflected in the estimation process.

TECHNICAL NOTES

STUDY FUNDING

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DATA SOURCES AND METHODOLOGY

The **Integrated Client Databases (ICDB)** are data repositories maintained in the Department of Social and Health Services. The ICDB contains data from several state administrative data systems, including the state's ProviderOne MMIS data system that contains Medicaid claims and encounter data (Mancuso, 2020). The ICDB allows for the examination of a broad set of measures for Medicaid beneficiaries. In this report, substance use disorder treatment need by county and age groups in Medicaid enrollees were derived from administrative data from the ICDB.

The **National Survey on Drug Use and Health (NSDUH)** is a nationwide household survey sponsored by the Substance Abuse and Mental Health Services Administration. The survey measures substance use, substance use disorder, mental illness, and receipt of treatment for these disorders in the civilian non-institutionalized population ages 12 and older (SAMHSA, 2020c). The data used in this report included the 2019 NSDUH national public use file and the 2018-2019 model-based state-level estimates published by SAMHSA (SAMHSA, 2020a, SAMHSA, 2020b). The NSUDH publishes state-level estimates of SUD prevalence by three age groups. It does not, however, break down the estimates by income levels or include estimates of SUD treatment rates. Both of these data points are available in the NSDUH national data set. We estimated the Washington statewide SUD treatment need, i.e. any identified SUD, receipt of SUD treatment, or detox services, by income level as follows:

$$\frac{\text{NSDUH WA SUD prevalence in general population} * \text{NSDUH national SUD treatment need by income, age and Medicaid status}}{\text{NSDUH national SUD prevalence in general population}} = \text{NSUDH statewide SUD treatment need in low/high income population}$$

To estimate the SUD treatment need for non-Medicaid low income population, the treatment need rates of the Medicaid population derived from ICDB was calibrated to the NSDUH SUD treatment need rates as follows:

$$\frac{\text{ICDB Medicaid group SUD treatment need} * \text{NSUDH statewide non-Medicaid low-income SUD treatment need}}{\text{ICDB Medicaid statewide SUD treatment need}} = \text{Non-Medicaid low income group SUD treatment need}$$

Population estimates and projections used in this report came from the Washington State Office of Financial Management, which provided estimated county population counts by age, gender, race/ethnicity, income levels, and Medicaid enrollment status from 2019 – 2030. These population estimates and projections were based on the 2019 American Community Survey. The population counts were used as weights to calculate SUD treatment need for sub-state demographic and geographic groups.

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