

Current State Assessment

Report 4: Frequency of Substance Use Disorder-Related Acute Events among Medicaid Beneficiaries SFY 2019–2022

Katie Bittinger, PhD • Frank Angelo, PhD • Kevin Campbell • Barbara Felver, MES, MPA

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N SEPTEMBER 2019, the Centers for Medicare and Medicaid Services (CMS) awarded the Washington State Health Care Authority (HCA) a grant under the §1003 SUPPORT ACT.¹ Under this Phase 1 Planning Grant, HCA developed an implementation strategy for improving treatment and recovery services, including developing an alternative payment model for substance use disorder (SUD) treatment and recovery services. To support this effort, a current state assessment was conducted in state fiscal year (SFY) 2017–2019² to gain insight into the prevalence of SUD diagnoses, utilization of treatment services, and physical health and social outcomes among Medicaid beneficiaries with behavioral health diagnoses. However, the COVID-19 pandemic and subsequent public health emergency (PHE) may have impacted prevalence rates, treatment utilization, and use of acute SUD-related services. This report is one of a set of four updated reports that covers an updated time frame including the peak of the pandemic, SFY 2019–2022. Each report addresses a core question about behavioral health treatment and recovery support services in Washington and the potential impact of the COVID-19 PHE on those services.

PRIOR REPORTS:

- What is the prevalence of substance use disorder and opioid use disorder among Medicaid beneficiaries? Does the prevalence vary across the Medicaid population? Has this changed during the COVID-19 PHE? (See Report 9.130.)
- What is the behavioral health treatment rate? Does the rate vary across the Medicaid population? Has this changed during the COVID-19 PHE? (See Report 9.130A.)
- What types of substance use disorder treatment services are Medicaid beneficiaries using? Does treatment utilization vary across the Medicaid population? Has this changed during the COVID-19 PHE? (See Report 9.130B.)

SUBSEQUENT REPORT:

• What types of acute SUD-related services are Medicaid beneficiaries using? Do the types of acute SUD-related services used vary across the Medicaid population? Has this changed during the COVID-19 PHE?

² Prior reports can be found at https://www.dshs.wa.gov/ffa/rda/research-reports/washington-state-behavioral-health-treatment-and-recovery-support-services-utilization.



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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.

In this report, we examined data collected from Medicaid beneficiaries with a SUD diagnosis who had a SUD-related acute event in SFY 2019–2022. SUD-related acute events were categorized as emergency department outpatient visits, inpatient hospitalization, medically managed withdrawal services (MMWS), and inpatient SUD treatment. This report shows the relative rates of these events across various demographic categories and describes how the prevalence of these events may have been impacted by the COVID-19 pandemic. The lack of large fluctuations in acute SUD treatment rates (variations were primarily only by 1 to 2 percentage points across demographics) suggests that public health efforts to support and sustain consistent access to acute behavioral health care services were highly effective. Among Medicaid beneficiaries with SUD diagnoses, SUD-related acute medical services experienced little or no interruption during the COVID-19 PHE. However, rates of SUD-related acute medical services (e.g., inpatient hospitalizations and emergency department visits) have increased slightly across most demographic groups and geographic regions.

Data and Methods

To better understand the prevalence of individuals with Medicaid coverage experiencing a SUD-related acute event, and the potential impacts of the COVID-19 PHE on these types of events, we conducted a retrospective, cross-sectional descriptive analysis using Washington State administrative data. All data were drawn from the Department of Social and Health Service's Integrated Client Databases (ICDB). The ICDB contains data from several state administrative data systems, including the state's ProviderOne data system that contains Medicaid claims and encounter data.³

The study population was restricted to Medicaid beneficiaries with continuous Medicaid enrollment within each SFY. Medicaid beneficiaries with non-Medicaid primary health care coverage (also referred to as third-party liability) were excluded from the analyses because complete health care information may not be available for these beneficiaries. Medicaid beneficiaries who were dually eligible for Medicaid and Medicare ("duals") are included.

For each SFY, we looked for beneficiaries with any SUD or OUD⁴ diagnoses in the measurement year or the year prior to the measurement year. We then looked for acute events occurring within the SFY measurement year. Four types of SUD-related events were identified as acute events (see Table 1)—receipt of MMWS, inpatient SUD treatment, SUD-related emergency department (ED) visits (outpatient), and SUD-related inpatient hospitalizations (transfer to inpatient hospitalization from ED).

TABLE 1.

SUD-Related Acute Event Category Definitions

| Type of Acute Event* | Medicaid beneficiaries with a SUD diagnosis who had |
|--|---|
| Medically Managed Withdrawal Services (MMWS) | A medically managed withdrawal service, previously known as "withdrawal management". |
| Inpatient or Residential SUD Treatment (IP SUD) | An inpatient or residential SUD treatment service. |
| SUD-Related Emergency Department Visit – Outpatient (SUD ED-OP) | An outpatient ED visit with any SUD-related diagnosis (the visit did not result in a transfer to a general medical inpatient hospitalization). |
| SUD-Related Inpatient Hospitalization (SUD IP-HOSP) | An ED visit with any SUD-related diagnosis that resulted in a transfer to a general medical ED inpatient hospitalization (not inpatient SUD treatment). |

^{*}Categories are not mutually exclusive. Medicaid beneficiaries with a SUD or OUD diagnosis can experience more than one type of acute event.

³ See, DSHS Integrated Client Databases, DSHS Research and Data Analysis Division, Mancuso, December 2021.

⁴OUD diagnoses are a subset of SUD diagnoses. All individuals with an OUD diagnosis are also included in the SUD diagnosis group.

Numbers and Rates of Acute SUD-Related Events

As shown in Table 2, for Medicaid beneficiaries with a SUD diagnosis, SUD ED-OP visits were the most common type of acute event across all measurement years, about 43 to 46 percent of total acute events in each year. The next most prevalent type of acute event was SUD IP-HOSP, ranging from about 30 to 33 percent of total events per year across the different measurement years. IP SUD events were 3rd most common and the least common were MMWS events. This pattern was consistent for Medicaid beneficiaries with an OUD diagnosis.

TABLE 2.

Acute SUD-Related Events among Medicaid Beneficiaries with a SUD or OUD Diagnosis SFY 2019–2022, By Type of Acute Event in Measurement Year

| | Num | ber of Ac | | ts among d Diagno | | | iaries wit | h the |
|--|------------|-----------------------------------|------------|----------------------|------------|------------|------------|------------|
| | SFY | SFY 2019 SFY 2020 SFY 2021 SFY 20 | | | | | | |
| Acute Event Category* | N (SUD) | N (OUD) | N (SUD) | N (OUD) | N (SUD) | N (OUD) | N (SUD) | N (OUD) |
| Medically Managed Withdrawal Services (MMWS) | 8,744 | 5,506 | 7,489 | 4,656 | 8,225 | 5,263 | 8,401 | 5,624 |
| Inpatient or Residential SUD Treatment (IP SUD) | 12,385 | 6,871 | 13,565 | 7,820 | 13,929 | 7,940 | 13,671 | 8,257 |
| SUD-related ED Visit – Outpatient (SUD ED-OP) | 42,162 | 15,392 | 40,389 | 15,046 | 40,002 | 14,825 | 39,143 | 14,387 |
| SUD-related Inpatient Hospitalization (SUD IP-HOSP) | 27,497 | 10,822 | 28,825 | 11,981 | 30,634 | 12,429 | 30,163 | 12,351 |

^{*}Acute Event categories are not mutually exclusive.

As a measure of utilization of acute SUD-related services, we determined the percentage of Medicaid beneficiaries with a SUD or OUD diagnosis who had an acute event of a particular category at least once in the measurement year. We further examined the distribution of these SUD-related acute yearly event rates across a variety of sociodemographic characteristics. These include age, race/ethnicity, gender, Medicaid coverage category, Apple Health integrated managed care (IMC) regions, and counties. Demographic characteristics were identified for the individual as of the first month in which they experienced an acute event of each measurement year. We also compared rates in SFY 2019, as a baseline prior to the COVID-19 PHE, to rates observed in SFY 2020 and subsequent years. Additional information is included in the Technical Notes section at the end of the report.

Medically Managed Withdrawal Services (MMWS). A slight drop in utilization of MMWS can be seen across many of the geographic and demographic beneficiary characteristics in SFY 2020 compared to SFY 2019, but the rate returned to SFY 2019 levels or slightly higher by SFY 2022 (Table 3). The decrease in SFY 2020 may have been due to interruptions caused by COVID-19 PHE protocols. Beneficiaries with SUD diagnoses utilized MMWS at the highest rate between the ages of 25 to 34; those with an OUD diagnosis tended to utilize MMWS slightly younger, ages 18 to 34. MMWS were generally used at a higher rate amongst beneficiaries with an OUD diagnosis as opposed to those with a SUD diagnosis. Male beneficiaries utilized MMWS at a consistently slightly higher rate than female beneficiaries.

There were smaller differences in utilization of MMWS by race/ethnicity with American Indian/Alaskan Native and White, non-Hispanic beneficiaries with an SUD diagnosis having slightly higher rates of utilization compared to other categories. Interestingly, this pattern is different among those with an OUD diagnosis. In particular, Hispanic/Latino(a) Medicaid beneficiaries had the highest

rate of MMWS events in SFY 2019, but Asian Medicaid beneficiaries had the highest rate in SFY 2022. Among Medicare beneficiaries with differing coverage types, the New Adult and Classic, non-disabled groups utilized MMWS at the highest rate, this is especially true amongst beneficiaries with an OUD diagnosis. A fair amount of geographic variability, both in the IMC regions (Table 3) and the counties (Table A1 in the Appendix) can be seen in utilization of MMWS. This is likely due to issues surrounding access to care and availability of MMWS.

TABLE 3
Medically Managed Withdrawal Services Event Rates by Demographic, Year and Diagnosis Type

| | | Medicaid Beneficiaries with a % Medicaid Beneficiaries UD Diagnosis with MMWS OUD Diagnosis with M | | | | | | |
|-------------------------------------|-------------|--|-------------|-------------|-------------|-------------|-------------|-------------|
| | SFY 2019 | SFY 2020 | SFY 2021 | SFY 2022 | SFY 2019 | SFY 2020 | SFY 2021 | SFY 2022 |
| Total | 6% | 5% | 6% | 6% | 10% | 8% | 9% | 10% |
| Age | | | | | | | | |
| 17 or Younger | <1% | <1% | 1% | <1% | 2% | 2% | 3% | 3% |
| 18 to 24 | 5% | 4% | 5% | 5% | 15% | 13% | 16% | 17% |
| 25 to 34 | 8% | 7% | 8% | 8% | 13% | 11% | 12% | 13% |
| 35 to 44 | 6% | 6% | 6% | 6% | 8% | 7% | 8% | 9% |
| 45 to 54 | 6% | 5% | 5% | 5% | 7% | 5% | 6% | 7% |
| 55 to 64 | 4% | 4% | 4% | 4% | 4% | 3% | 4% | 4% |
| 65 to 74 | 2% | 2% | 3% | 2% | 3% | 2% | 3% | 2% |
| Race/Ethnicity | | | | | | | | |
| American Indian or Alaskan Native | 6% | 6% | 6% | 6% | 10% | 9% | 9% | 10% |
| Asian | 5% | 5% | 5% | 6% | 10% | 9% | 10% | 12% |
| Black or African American | 5% | 4% | 5% | 5% | 9% | 8% | 10% | 11% |
| Hispanic/Latino(a) | 5% | 4% | 5% | 5% | 11% | 8% | 11% | 11% |
| Native Hawaiian or Pacific Islander | 5% | 4% | 6% | 5% | 10% | 8% | 11% | 11% |
| White, Non-Hispanic | 6% | 6% | 6% | 6% | 10% | 8% | 9% | 9% |
| Gender | | | | | | | | |
| Female | 6% | 5% | 5% | 5% | 9% | 7% | 8% | 8% |
| Male | 6% | 6% | 6% | 6% | 10% | 9% | 10% | 11% |
| Medicaid Coverage Type | | | | | | | | |
| Classic, Non-Disabled | 4% | 4% | 5% | 4% | 10% | 9% | 9% | 10% |
| Disabled | 4% | 3% | 4% | 3% | 5% | 4% | 5% | 5% |
| New Adult | 7% | 6% | 7% | 7% | 11% | 9% | 10% | 11% |
| Dual (Medicaid and Medicare) | 3% | 3% | 3% | 3% | 4% | 3% | 4% | 5% |
| Integrated Managed Care Region | | | | | | | | |
| Great Rivers | 5% | 4% | 6% | 6% | 8% | 6% | 9% | 11% |
| Greater Columbia | 5% | 5% | 5% | 5% | 9% | 8% | 10% | 10% |
| King | 4% | 3% | 5% | 5% | 6% | 5% | 7% | 8% |
| North Central | 5% | 5% | 4% | 4% | 8% | 7% | 7% | 7% |
| North Sound | 8% | 6% | 6% | 7% | 12% | 8% | 9% | 10% |
| Pierce | 6% | 6% | 6% | 5% | 10% | 9% | 9% | 9% |
| Salish | 9% | 6% | 5% | 6% | 13% | 9% | 8% | 11% |
| Southwest | 7% | 9% | 10% | 9% | 13% | 15% | 17% | 14% |
| Spokane | 7% | 7% | 6% | 6% | 11% | 10% | 9% | 9% |
| Thurston-Mason | 7% | 6% | 6% | 6% | 14% | 10% | 11% | 10% |

^{*}Suppressed due to small numbers of beneficiaries in the event/demographic category (n<11)

Inpatient or Residential SUD Treatment (IP SUD). Among Medicaid beneficiaries with a SUD diagnosis, rates mostly increased in SFY 2020 or 2021 from SFY 2019. From SFY 2021, rates mostly either stayed the same or decreased slightly in SFY 2022 (Table 4). For most demographic groups among Medicaid beneficiaries with OUD, there was an incremental increase during this time period; the largest increases in IP SUD utilization can be seen among 18- to 34-year-old beneficiaries with a diagnosed OUD. IP SUD management services were generally used at a higher rate amongst beneficiaries with an OUD diagnosis as opposed to those with an SUD diagnosis. American Indian or Alaska Native beneficiaries had the highest rate of IP SUD events in SFY 2019 (16 percent of those with an OUD diagnosis) compared to other race/ethnic categories and had the same rate for SFY 2022. Rates for beneficiaries of other races were lower in SFY 2019 (11 to 13 percent) but this increased to 16 or 17 percent for all but non-Hispanic White beneficiaries who only increased from 11 to 13 percent over the same time period. Male beneficiaries consistently utilized IP SUD treatment at a higher rate than female beneficiaries. Among Medicare beneficiaries with differing coverage types, the New Adult and Classic, non-disabled groups utilized SUD IP treatment services at the highest rate, this was especially true amongst beneficiaries with an OUD diagnosis. There was geographic variability in rates by IMC region (Table 4) and by county (Table A2), with North Sound, Salish, Southwest, and Spokane IMC regions having the highest rates of utilization of IP-SUD events.

TABLE 4
Inpatient or Residential SUD Treatment Event Rates by Demographic, Year and Diagnosis Type
Among Medicaid beneficiaries with a SUD or OUD diagnosis (SFY 2019–2022)

| | % Medicaid Beneficiaries with a % Medicaid Beneficiaries with | | | | | | | with an |
|-------------------------------------|---|----------|-----------|------|------|----------|-----------|---------|
| | SUD | Diagnosi | s with IP | SUD | OUD | Diagnosi | s with IP | SUD |
| | SFY | SFY | SFY | SFY | SFY | SFY | SFY | SFY |
| | 2019 | 2020 | 2021 | 2022 | 2019 | 2020 | 2021 | 2022 |
| Total | 8% | 9% | 10% | 9% | 12% | 13% | 14% | 14% |
| Age | | | | | | | | |
| 17 and Younger | 5% | 5% | 5% | 3% | 23% | 17% | 24% | 18% |
| 18 to 24 | 8% | 9% | 9% | 8% | 20% | 23% | 25% | 25% |
| 25 to 34 | 11% | 12% | 12% | 12% | 15% | 17% | 17% | 19% |
| 35 to 44 | 9% | 10% | 11% | 11% | 11% | 13% | 13% | 13% |
| 45 to 54 | 8% | 9% | 9% | 9% | 9% | 9% | 10% | 10% |
| 55 to 64 | 5% | 6% | 6% | 6% | 5% | 6% | 6% | 6% |
| 65 to 74 | 3% | 3% | 5% | 2% | 2% | 2% | 5% | 3% |
| 75 and Older | * | * | * | * | * | * | * | * |
| Race/Ethnicity | | | | | | | | |
| American Indian or Alaskan Native | 11% | 12% | 11% | 11% | 16% | 16% | 15% | 16% |
| Asian | 7% | 9% | 9% | 9% | 12% | 14% | 15% | 17% |
| Black or African American | 7% | 8% | 9% | 9% | 11% | 13% | 15% | 16% |
| Hispanic/Latino(a) | 7% | 9% | 9% | 9% | 13% | 14% | 16% | 17% |
| Native Hawaiian or Pacific Islander | 8% | 9% | 10% | 8% | 13% | 14% | 16% | 16% |
| White, Non-Hispanic | 9% | 10% | 10% | 9% | 11% | 13% | 13% | 13% |
| Gender | | | | | | | | |
| Female | 7% | 8% | 8% | 8% | 11% | 12% | 11% | 11% |
| Male | 9% | 10% | 11% | 11% | 13% | 15% | 16% | 17% |
| Medicaid Coverage Type | | | | | | | | |
| Classic, Non-Disabled | 8% | 8% | 8% | 7% | 13% | 15% | 14% | 14% |
| Disabled | 5% | 6% | 6% | 6% | 6% | 7% | 7% | 8% |
| New Adult | 10% | 11% | 11% | 11% | 13% | 15% | 15% | 16% |
| Dual (Medicaid and Medicare) | 5% | 5% | 5% | 5% | 5% | 5% | 6% | 7% |

| | | dicaid Ben Diagnosi | | | % Medicaid Beneficiaries with an OUD Diagnosis with IP SUD | | | | |
|--------------------------------|-------------|------------------------|-------------|-------------|--|-------------|-------------|-------------|--|
| | SFY 2019 | SFY 2020 | SFY 2021 | SFY 2022 | SFY 2019 | SFY 2020 | SFY 2021 | SFY 2022 | |
| Integrated Managed Care Region | | | | | | | | | |
| Great Rivers | 7% | 8% | 9% | 9% | 10% | 11% | 12% | 13% | |
| Greater Columbia | 9% | 9% | 9% | 8% | 14% | 14% | 14% | 14% | |
| King | 6% | 7% | 8% | 8% | 7% | 9% | 11% | 12% | |
| North Central | 8% | 8% | 7% | 7% | 13% | 12% | 12% | 12% | |
| North Sound | 10% | 11% | 11% | 11% | 14% | 16% | 15% | 15% | |
| Pierce | 7% | 9% | 9% | 9% | 11% | 13% | 13% | 13% | |
| Salish | 11% | 10% | 11% | 11% | 17% | 14% | 15% | 17% | |
| Southwest | 11% | 12% | 12% | 11% | 16% | 18% | 18% | 17% | |
| Spokane | 10% | 11% | 11% | 11% | 15% | 16% | 15% | 16% | |
| Thurston-Mason | 8% | 9% | 10% | 10% | 13% | 14% | 16% | 16% | |

^{*}Suppressed due to small numbers of beneficiaries in the event/demographic category (n<11)

SUD-Related Emergency Department Outpatient Events (SUD ED-OP). The utilization of SUD ED-OP was the highest among the four types of acute events examined. Notable trends in these data suggest that younger beneficiaries (ages 0–17) with an OUD diagnosis received SUD ED-OP services at a much higher rate than young beneficiaries with any SUD diagnosis. In addition, where most age groups had a slight drop in SUD ED-OP rates in SFY 2020 (likely due to the COVID-19 PHE), older adults ages 65 to 74 saw a 4-percentage point increase in SUD ED-OP, from 19 percent to 23 percent. Non-Hispanic White beneficiaries utilized SUD ED-OP services at a lower rate than most other racial and ethnic categories of beneficiaries. This was true among both beneficiaries with SUD and OUD diagnoses. Male beneficiaries tended to utilize SUD ED-OP services at a slightly higher rate than female beneficiaries. There was a fair amount of geographic variability in SUD ED-OP rates, both among the IMC regions (Table 5) and the counties (Table A3), with the King IMC region generally having the highest rates of utilization and Great Rivers and Thurston-Mason IMC regions having the lowest rates of utilization.

TABLE 5

SUD-Related Emergency Department Outpatient Event Rates by Demographic, Year and Diagnosis Type

Among Medicaid beneficiaries with a SUD or OUD diagnosis (SFY 2019–2022)

| | | dicaid Ben iagnosis v | | | % Medicaid Beneficiaries with OUD Diagnosis with SUD ED- | | | |
|----------------|------|--------------------------|------|------|--|------|------|------|
| | SFY | SFY | SFY | SFY | SFY | SFY | SFY | SFY |
| T | 2019 | 2020 | 2021 | 2022 | 2019 | 2020 | 2021 | 2022 |
| Total | 29% | 28% | 28% | 27% | 27% | 26% | 25% | 25% |
| Age | | | | | | | | |
| 17 and Younger | 24% | 26% | 26% | 25% | 46% | 46% | 50% | 48% |
| 18 to 24 | 35% | 35% | 36% | 35% | 36% | 38% | 39% | 38% |
| 25 to 34 | 29% | 28% | 28% | 28% | 28% | 27% | 27% | 26% |
| 35 to 44 | 28% | 27% | 26% | 26% | 25% | 24% | 23% | 23% |
| 45 to 54 | 29% | 28% | 27% | 26% | 26% | 25% | 24% | 23% |
| 55 to 64 | 25% | 24% | 24% | 23% | 22% | 21% | 21% | 20% |
| 65 to 74 | 19% | 23% | 23% | 21% | 16% | 19% | 20% | 19% |
| 75 and Older | * | * | * | * | * | * | * | * |

| | | | eficiaries with SUD | | | icaid Bene Piagnosis v | | |
|-------------------------------------|-------------|-------------|------------------------|-------------|-------------|---------------------------|-------------|-------------|
| | SFY 2019 | SFY 2020 | SFY 2021 | SFY 2022 | SFY 2019 | SFY 2020 | SFY 2021 | SFY 2022 |
| Race/Ethnicity | | | | | | | | |
| American Indian or Alaskan Native | 31% | 31% | 30% | 30% | 30% | 28% | 28% | 28% |
| Asian | 27% | 27% | 27% | 27% | 28% | 26% | 28% | 27% |
| Black or African American | 31% | 31% | 32% | 32% | 31% | 31% | 31% | 33% |
| Hispanic/Latino(a) | 29% | 30% | 30% | 29% | 28% | 29% | 29% | 28% |
| Native Hawaiian or Pacific Islander | 29% | 28% | 30% | 28% | 30% | 27% | 30% | 27% |
| White, Non-Hispanic | 28% | 27% | 26% | 25% | 26% | 25% | 24% | 23% |
| Gender | | | | | | | | |
| Female | 28% | 27% | 26% | 25% | 25% | 23% | 22% | 22% |
| Male | 29% | 29% | 29% | 28% | 29% | 28% | 28% | 27% |
| Medicaid Coverage Type | | | | | | | | |
| Classic, Non-Disabled | 25% | 24% | 24% | 24% | 22% | 21% | 21% | 21% |
| Disabled | 30% | 29% | 28% | 26% | 28% | 26% | 26% | 25% |
| New Adult | 29% | 29% | 28% | 28% | 28% | 27% | 27% | 26% |
| Dual (Medicaid and Medicare) | 27% | 26% | 24% | 23% | 25% | 23% | 23% | 22% |
| Integrated Managed Care Region | | | | | | | | |
| Great Rivers | 23% | 23% | 25% | 23% | 20% | 19% | 21% | 19% |
| Greater Columbia | 31% | 30% | 30% | 28% | 27% | 27% | 27% | 24% |
| King | 31% | 31% | 30% | 30% | 32% | 31% | 30% | 30% |
| North Central | 29% | 30% | 28% | 29% | 27% | 24% | 26% | 27% |
| North Sound | 29% | 27% | 27% | 25% | 27% | 25% | 25% | 23% |
| Pierce | 28% | 27% | 27% | 27% | 24% | 23% | 23% | 25% |
| Salish | 29% | 27% | 24% | 23% | 29% | 26% | 21% | 22% |
| Southwest | 27% | 30% | 28% | 27% | 24% | 27% | 26% | 23% |
| Spokane | 30% | 28% | 28% | 27% | 27% | 25% | 25% | 25% |
| Thurston-Mason | 24% | 23% | 25% | 23% | 24% | 22% | 24% | 22% |

^{*}Suppressed due to small numbers of beneficiaries in the event/demographic category (n<11)

SUD-Related Emergency Department Inpatient Events (SUD IP-HOSP). The utilization of SUD IP-HOSP is the second highest among the four types of acute events examined. In addition, unlike the other three types of acute events, there was an increase in SUD IP-HOSP events from SFY 2019 to SFY 2020 across almost all demographic categories. The oldest adults (ages 55 and over) had the highest rates of SUD IP-HOSP utilization, with utilization rates increasing as individuals age. Female beneficiaries tended to utilize SUD IP-HOSP services at a slightly higher rate than male beneficiaries in SFY 2019. However, by SFY 2021, male and female beneficiaries had similar rates of utilization. There was a fair amount of geographic variability of event rates both in the IMC regions (Table 6) and the counties (Table A4), with the King, Pierce, and Southwest regions having the highest rates and the Greater Columbia IMC region having the lowest rates of utilization.

TABLE 6

SUD-Related Emergency Department Inpatient Hospitalization Event Rates by Demographic, Year and Diagnosis Type

Among Medicaid beneficiaries with a SUD or OUD diagnosis (SFY 2019–2022)

| | | % Medicaid Beneficiaries with a SUD Diagnosis with SUD IP-HOSP OUD Diagnosis with SUD IP-H | | | | | | |
|-------------------------------------|------|--|------|------|------|------|------|------|
| | SFY | SFY | SFY | SFY | SFY | SFY | SFY | SFY |
| | 2019 | 2020 | 2021 | 2022 | 2019 | 2020 | 2021 | 2022 |
| Total | 19% | 20% | 21% | 21% | 19% | 20% | 21% | 21% |
| Age | | | | | | | | |
| 17 and Younger | 17% | 18% | 24% | 22% | 20% | 24% | 30% | 21% |
| 18 to 24 | 16% | 17% | 19% | 17% | 19% | 23% | 25% | 26% |
| 25 to 34 | 16% | 18% | 19% | 19% | 17% | 20% | 21% | 22% |
| 35 to 44 | 17% | 18% | 19% | 18% | 17% | 18% | 19% | 18% |
| 45 to 54 | 21% | 22% | 23% | 23% | 21% | 22% | 23% | 21% |
| 55 to 64 | 26% | 26% | 26% | 26% | 26% | 25% | 25% | 25% |
| 65 to 74 | 28% | 30% | 31% | 30% | 28% | 28% | 33% | 31% |
| 75 and Older | * | * | * | * | * | * | * | * |
| Race/Ethnicity | 1 | | | | ' | | | |
| American Indian or Alaskan Native | 20% | 21% | 22% | 22% | 20% | 22% | 23% | 23% |
| Asian | 19% | 21% | 22% | 21% | 19% | 22% | 23% | 24% |
| Black or African American | 20% | 22% | 25% | 24% | 23% | 23% | 27% | 27 |
| Hispanic/Latino(a) | 15% | 17% | 18% | 18% | 18% | 19% | 21% | 21% |
| Native Hawaiian or Pacific Islander | 19% | 21% | 23% | 22% | 20% | 21% | 24% | 24% |
| White, Non-Hispanic | 19% | 20% | 21% | 21% | 18% | 20% | 21% | 20% |
| Gender | 1 | | | | ' | | | |
| Female | 20% | 20% | 21% | 20% | 21% | 21% | 22% | 21% |
| Male | 18% | 20% | 21% | 21% | 17% | 20% | 21% | 21% |
| Medicaid Coverage Type | | | | | | | | |
| Classic, Non-Disabled | 18% | 19% | 21% | 20% | 18% | 20% | 21% | 20% |
| Disabled | 26% | 26% | 26% | 26% | 28% | 28% | 28% | 27% |
| New Adult | 17% | 19% | 20% | 20% | 17% | 19% | 20% | 20% |
| Dual (Medicaid and Medicare) | 26% | 26% | 26% | 26% | 30% | 29% | 30% | 29% |
| Integrated Manage Care Region | | | | | 1 | | | |
| Great Rivers | 16% | 16% | 20% | 20% | 16% | 16% | 19% | 20% |
| Greater Columbia | 15% | 16% | 16% | 15% | 15% | 16% | 15% | 14% |
| King | 22% | 24% | 25% | 24% | 24% | 26% | 27% | 27% |
| North Central | 16% | 15% | 15% | 14% | 18% | 17% | 17% | 16% |
| North Sound | 18% | 20% | 21% | 21% | 17% | 19% | 20% | 21% |
| Pierce | 21% | 22% | 24% | 24% | 21% | 21% | 23% | 22% |
| Salish | 16% | 16% | 18% | 18% | 14% | 16% | 19% | 19% |
| Southwest | 25% | 25% | 25% | 25% | 29% | 30% | 30% | 28% |
| Spokane | 16% | 18% | 19% | 18% | 16% | 18% | 17% | 16% |
| Thurston-Mason | 17% | 20% | 22% | 22% | 16% | 21% | 23% | 22% |

 $^{{}^\}star Suppressed$ due to small numbers of beneficiaries in the event/demographic category (n<11)

Summary

The goal of the current analysis was to examine changes in the utilization of SUD-related acute medical services among Medicaid beneficiaries with SUD or OUD diagnoses across SFY 2019 to SFY 2022, during the COVID-19 PHE. Three of the four acute event types had decreased utilization from SFY 2019 to SFY 2020, however, SUD IP-HOSP utilization increased from SFY 2019 to SFY 2020. This change in acute service utilization is likely due to the COVID-19 pandemic and its impact on both how individual access services and the workforce available in these acute settings.

TABLE A1.

Medically Managed Withdrawal Services Event Rates by County, State Fiscal Year, and Diagnosis Type

| | | Medicaid I Diagnosi | | | | Medicaid JD Diagno | | |
|--------------|------|------------------------|------|------|------|-----------------------|------|------|
| | SFY | SFY | SFY | SFY | SFY | SFY | SFY | SFY |
| | 2019 | 2020 | 2021 | 2022 | 2019 | 2020 | 2021 | 2022 |
| Total | 6% | 5% | 6% | 6% | 10% | 8% | 9% | 10% |
| County | 407 | 20/ | 40/ | 20/ | 70/ | 00/ | 20/ | 60/ |
| Adams | 4% | 2% | 4% | 2% | 7% | 8% | 8% | 6% |
| Asotin | 2% | 2% | 3% | 2% | 4% | 3% | 5% | 4% |
| Benton | 6% | 4% | 5% | 3% | 8% | 7% | 8% | 6% |
| Chelan | 6% | 6% | 6% | 4% | 9% | 8% | 8% | 8% |
| Clallam | 10% | 5% | 4% | 4% | 16% | 8% | 6% | 6% |
| Clark | 8% | 9% | 10% | 9% | 13% | 15% | 17% | 14% |
| Columbia | 1% | 3% | 2% | 3% | 0% | 7% | 4% | 7% |
| Cowlitz | 5% | 5% | 7% | 8% | 8% | 7% | 10% | 12% |
| Douglas | 6% | 5% | 4% | 4% | 7% | 7% | 6% | 7% |
| Ferry | 3% | 4% | 4% | 4% | 2% | 8% | 11% | 7% |
| Franklin | 4% | 3% | 3% | 3% | 5% | 5% | 7% | 5% |
| Garfield | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Grant | 4% | 4% | 3% | 3% | 8% | 6% | 7% | 6% |
| Grays Harbor | 5% | 4% | 6% | 6% | 8% | 6% | 8% | 8% |
| Island | 5% | 4% | 5% | 5% | 9% | 8% | 10% | 9% |
| Jefferson | 7% | 4% | 5% | 6% | 10% | 10% | 7% | 11% |
| King | 4% | 3% | 5% | 5% | 6% | 5% | 7% | 8% |
| Kitsap | 8% | 7% | 6% | 8% | 12% | 9% | 10% | 13% |
| Kittitas | 6% | 5% | 4% | 5% | 13% | 7% | 9% | 9% |
| Klickitat | 3% | 3% | 7% | 5% | 8% | 9% | 12% | 12% |
| Lewis | 5% | 3% | 4% | 6% | 11% | 5% | 10% | 13% |
| Lincoln | 4% | 4% | 4% | 6% | 4% | 6% | 6% | 12% |
| Mason | 7% | 5% | 6% | 5% | 15% | 10% | 10% | 9% |
| Okanogan | 5% | 4% | 4% | 3% | 7% | 6% | 6% | 7% |
| Pacific | 2% | 3% | 5% | 4% | 4% | 5% | 9% | 8% |
| Pend Oreille | 4% | 5% | 5% | 2% | 5% | 11% | 8% | 4% |
| Pierce | 6% | 6% | 6% | 5% | 10% | 9% | 9% | 9% |
| San Juan | 5% | 5% | 4% | 5% | 5% | 5% | 2% | 9% |
| Skagit | 6% | 5% | 4% | 6% | 10% | 7% | 7% | 9% |
| Skamania | 4% | 3% | 6% | 8% | 6% | 4% | 11% | 10% |
| Snohomish | 8% | 6% | 7% | 7% | 12% | 9% | 10% | 11% |
| Spokane | 7% | 7% | 6% | 6% | 11% | 10% | 9% | 9% |
| Stevens | 5% | 3% | 3% | 4% | 10% | 5% | 5% | 8% |
| Thurston | 7% | 6% | 6% | 6% | 14% | 11% | 12% | 11% |
| Wahkiakum | 3% | 3% | 3% | 5% | 0% | 6% | 6% | 13% |
| Walla Walla | 3% | 2% | 3% | 3% | 5% | 3% | 7% | 5% |
| Whatcom | 8% | 4% | 5% | 6% | 12% | 7% | 8% | 10% |
| Whitman | 2% | 3% | 2% | 2% | 5% | 8% | 2% | 4% |
| Yakima | 6% | 6% | 7% | 7% | 12% | 11% | 13% | 15% |

TABLE A2.

Inpatient or Residential SUD Treatment Event Rates by County, State Fiscal Year, and Diagnosis Type

| | | Medicaid I Diagnosi | | | Percent Medicaid Beneficiaries wi an OUD Diagnosis with IP SUD | | | | |
|--------------|------|------------------------|------|------|---|------|-------|------|--|
| | SFY | SFY | SFY | SFY | SFY | SFY | SFY | SFY | |
| Takal | 2019 | 2020 | 2021 | 2022 | 2019 | 2020 | 2021 | 2022 | |
| Total | 8% | 9% | 10% | 9% | 12% | 13% | 14% | 14% | |
| County | 40/ | 70/ | 70/ | F0/ | 100/ | 270/ | 1.00/ | 120/ | |
| Adams | 4% | 7% | 7% | 5% | 10% | 27% | 16% | 12% | |
| Asotin | 5% | 5% | 7% | 6% | 8% | 7% | 8% | 8% | |
| Benton | 8% | 8% | 8% | 8% | 11% | 13% | 14% | 14% | |
| Chelan | 8% | 8% | 8% | 8% | 13% | 11% | 13% | 14% | |
| Clallam | 12% | 10% | 12% | 9% | 18% | 14% | 15% | 13% | |
| Clark | 11% | 13% | 12% | 11% | 16% | 19% | 18% | 17% | |
| Columbia | 4% | 7% | 4% | 4% | 6% | 14% | 4% | 7% | |
| Cowlitz | 7% | 9% | 9% | 10% | 10% | 12% | 12% | 14% | |
| Douglas | 7% | 8% | 7% | 7% | 10% | 10% | 9% | 11% | |
| Ferry | 11% | 10% | 10% | 8% | 16% | 20% | 21% | 16% | |
| Franklin | 6% | 7% | 7% | 5% | 9% | 12% | 13% | 9% | |
| Garfield | 6% | 0% | 3% | 3% | 6% | 0% | 5% | 5% | |
| Grant | 7% | 7% | 8% | 6% | 15% | 14% | 14% | 12% | |
| Grays Harbor | 7% | 9% | 9% | 8% | 9% | 12% | 12% | 12% | |
| Island | 8% | 10% | 8% | 7% | 13% | 17% | 13% | 11% | |
| Jefferson | 15% | 9% | 9% | 12% | 24% | 17% | 15% | 23% | |
| King | 6% | 7% | 8% | 8% | 7% | 9% | 11% | 12% | |
| Kitsap | 11% | 10% | 11% | 12% | 15% | 13% | 15% | 19% | |
| Kittitas | 10% | 9% | 9% | 8% | 16% | 15% | 14% | 13% | |
| Klickitat | 7% | 6% | 11% | 8% | 14% | 12% | 19% | 19% | |
| Lewis | 6% | 6% | 8% | 7% | 10% | 10% | 14% | 15% | |
| Lincoln | 6% | 8% | 12% | 12% | 8% | 13% | 15% | 20% | |
| Mason | 9% | 9% | 9% | 10% | 12% | 13% | 13% | 15% | |
| Okanogan | 8% | 6% | 6% | 6% | 13% | 13% | 10% | 12% | |
| Pacific | 6% | 6% | 8% | 7% | 10% | 10% | 14% | 13% | |
| Pend Oreille | 5% | 8% | 10% | 6% | 6% | 17% | 16% | 8% | |
| Pierce | 7% | 9% | 9% | 9% | 11% | 13% | 13% | 13% | |
| San Juan | 9% | 9% | 8% | 8% | 11% | 9% | 6% | 17% | |
| Skagit | 10% | 11% | 11% | 10% | 14% | 15% | 15% | 13% | |
| Skamania | 7% | 8% | 9% | 12% | 7% | 7% | 12% | 17% | |
| Snohomish | 10% | 12% | 12% | 11% | 13% | 16% | 16% | 16% | |
| Spokane | 10% | 12% | 11% | 11% | 15% | 17% | 15% | 16% | |
| Stevens | 8% | 7% | 7% | 8% | 14% | 12% | 9% | 12% | |
| Thurston | 8% | 10% | 10% | 10% | 13% | 14% | 17% | 16% | |
| Wahkiakum | 4% | 5% | 6% | 13% | 6% | 9% | 9% | 27% | |
| Walla Walla | 8% | 7% | 8% | 7% | 10% | 9% | 13% | 10% | |
| Whatcom | 11% | 11% | 9% | 10% | 16% | 15% | 13% | 14% | |
| Whitman | 7% | 9% | 6% | 5% | 11% | 16% | 10% | 7% | |
| Yakima | 11% | 11% | 10% | 10% | 19% | 18% | 17% | 19% | |

TABLE A3.
SUD-Related Emergency Department Outpatient Event Rates by County, State Fiscal Year, and Diagnosis Type

| | | Percent Medicaid Beneficiaries with a SUD Diagnosis with SUD ED-OP | | | | | Percent Medicaid Beneficiaries with an OUD Diagnosis with SUD ED-OP | | | | |
|-------------------|-------------|--|-------------|-------------|-------------|-------------|---|-------------|--|--|--|
| | | | | | | | | | | | |
| | SFY 2019 | SFY 2020 | SFY 2019 | SFY 2020 | SFY 2019 | SFY 2020 | SFY 2019 | SFY 2020 | | | |
| Total | 29% | 28% | 29% | 28% | 29% | 28% | 29% | 28% | | | |
| County | 2570 | 2070 | 2370 | 2070 | 2370 | 2070 | 2370 | 2070 | | | |
| Adams | 34% | 32% | 35% | 29% | 21% | 39% | 27% | 34% | | | |
| Asotin | 30% | 27% | 24% | 24% | 19% | 15% | 19% | 30% | | | |
| Benton | 28% | 29% | 31% | 27% | 24% | 25% | 27% | 28% | | | |
| Chelan | 26% | 28% | 26% | 27% | 25% | 26% | 28% | 26% | | | |
| Clallam | 32% | 28% | 24% | 22% | 33% | 26% | 20% | 32% | | | |
| Clark | 27% | 30% | 28% | 27% | 24% | 27% | 26% | 27% | | | |
| Columbia | 22% | 28% | 31% | 26% | 14% | 21% | 27% | 22% | | | |
| Cowlitz | 21% | 21% | 24% | 20% | 18% | 17% | 21% | 21% | | | |
| Douglas | 25% | 25% | 25% | 25% | 27% | 20% | 29% | 25% | | | |
| Ferry | 25% | 30% | 24% | 35% | 21% | 28% | 22% | 25% | | | |
| Franklin | 36% | 41% | 42% | 37% | 24% | 30% | 27% | 36% | | | |
| Garfield | 33% | 28% | 23% | 27% | 19% | 22% | 24% | 33% | | | |
| Grant | 32% | 30% | 28% | 29% | 30% | 25% | 23% | 32% | | | |
| Grays Harbor | 21% | 23% | 23% | 19% | 19% | 21% | 19% | 21% | | | |
| Island | 29% | 28% | 29% | 24% | 28% | 25% | 29% | 29% | | | |
| Jefferson | 32% | 26% | 24% | 21% | 34% | 25% | 24% | 32% | | | |
| King | 31% | 31% | 30% | 30% | 32% | 31% | 30% | 31% | | | |
| Kitsap | 28% | 26% | 23% | 24% | 26% | 25% | 21% | 28% | | | |
| Kittitas | 35% | 27% | 26% | 26% | 36% | 29% | 26% | 35% | | | |
| Klickitat | 25% | 26% | 28% | 26% | 25% | 26% | 34% | 25% | | | |
| Lewis | 30% | 26% | 29% | 29% | 25% | 19% | 24% | 30% | | | |
| Lincoln | 31% | 27% | 32% | 36% | 39% | 34% | 29% | 31% | | | |
| Mason | 26% | 26% | 27% | 25% | 23% | 23% | 25% | 26% | | | |
| Okanogan | 29% | 37% | 35% | 33% | 25% | 24% | 28% | 29% | | | |
| Pacific | 26% | 27% | 26% | 30% | 23% | 25% | 22% | 26% | | | |
| Pend Oreille | 26% | 36% | 29% | 33% | 23% | 26% | 24% | 26% | | | |
| Pierce | 28% | 27% | 27% | 27% | 24% | 23% | 23% | 28% | | | |
| San Juan | 24% | 23% | 26% | 22% | 17% | 15% | 15% | 24% | | | |
| Skagit | 30% | 27% | 29% | 27% | 31% | 25% | 27% | 30% | | | |
| Skamania | 25% | 24% | 27% | 25% | 21% | 14% | 28% | 25% | | | |
| Snohomish | 30% | 27% | 26% | 26% | 27% | 25% | 24% | 30% | | | |
| Spokane | 30% | 28% | 28% | 26% | 28% | 25% | 25% | 30% | | | |
| Stevens | 24% | 26% | 26% | 28% | 24% | 27% | 21% | 24% | | | |
| Thurston | 23% | 23% | 24% | 22% | 24% | 22% | 23% | 23% | | | |
| Wahkiakum | 18% | 17% | 26% | 18% | 25% | 22% | 24% | 18% | | | |
| | 22% | 20% | 23% | 22% | 18% | 17% | 18% | 22% | | | |
| Walla Walla | 25% | 27% | 27% | 24% | 24% | 27% | 27% | 25% | | | |
| Whatcom | | | | | | | | | | | |
| Whitman Yakima | 37% 31% | 29% 31% | 27% 30% | 26% 29% | 29% 33% | 25% 34% | 23% 31% | 37% 31% | | | |

TABLE A4.

SUD-Related Emergency Department Inpatient Event Rates by County, State Fiscal Year, and Diagnosis Type

| | | | Beneficiari vith SUD II | | an OUD Diagnosis with SUD IP-He | | | |
|--------------|------|------|----------------------------|------|---------------------------------|------|------|------|
| | SFY | SFY | SFY | SFY | SFY | SFY | SFY | SFY |
| | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 |
| Total | 19% | 20% | 19% | 20% | 19% | 20% | 19% | 20% |
| County | | | | | ı | | | |
| Adams | 14% | 16% | 17% | 16% | 18% | 26% | 26% | 18% |
| Asotin | 15% | 16% | 15% | 15% | 11% | 12% | 11% | 14% |
| Benton | 16% | 16% | 17% | 15% | 13% | 16% | 15% | 13% |
| Chelan | 16% | 15% | 16% | 15% | 18% | 20% | 18% | 19% |
| Clallam | 15% | 15% | 17% | 15% | 15% | 16% | 17% | 16% |
| Clark | 26% | 26% | 26% | 25% | 30% | 30% | 30% | 28% |
| Columbia | 14% | 18% | 13% | 20% | 3% | 21% | 19% | 23% |
| Cowlitz | 16% | 16% | 20% | 21% | 16% | 15% | 18% | 21% |
| Douglas | 14% | 12% | 14% | 14% | 16% | 16% | 15% | 16% |
| Ferry | 20% | 13% | 22% | 16% | 20% | 20% | 25% | 17% |
| Franklin | 13% | 13% | 15% | 13% | 12% | 13% | 14% | 13% |
| Garfield | 22% | 2% | 13% | 7% | 19% | 6% | 24% | 5% |
| Grant | 17% | 16% | 17% | 14% | 22% | 18% | 19% | 14% |
| Grays Harbor | 17% | 18% | 21% | 19% | 15% | 17% | 20% | 17% |
| Island | 19% | 22% | 22% | 18% | 17% | 22% | 24% | 19% |
| Jefferson | 18% | 15% | 19% | 18% | 14% | 15% | 23% | 24% |
| King | 22% | 24% | 25% | 24% | 24% | 26% | 27% | 27% |
| Kitsap | 15% | 16% | 19% | 20% | 13% | 15% | 19% | 21% |
| Kittitas | 13% | 13% | 16% | 14% | 17% | 17% | 18% | 18% |
| Klickitat | 18% | 20% | 20% | 17% | 23% | 22% | 24% | 20% |
| Lewis | 17% | 16% | 18% | 20% | 17% | 16% | 19% | 24% |
| Lincoln | 18% | 18% | 20% | 16% | 22% | 21% | 26% | 18% |
| Mason | 16% | 18% | 19% | 20% | 13% | 19% | 19% | 19% |
| Okanogan | 15% | 13% | 14% | 13% | 15% | 14% | 16% | 16% |
| Pacific | 13% | 15% | 17% | 19% | 14% | 15% | 17% | 19% |
| Pend Oreille | 12% | 15% | 15% | 13% | 10% | 14% | 14% | 9% |
| Pierce | 21% | 22% | 24% | 24% | 21% | 21% | 23% | 22% |
| San Juan | 19% | 18% | 15% | 21% | 20% | 15% | 10% | 24% |
| Skagit | 18% | 21% | 21% | 20% | 17% | 19% | 21% | 21% |
| Skamania | 20% | 20% | 22% | 24% | 24% | 23% | 21% | 22% |
| Snohomish | 17% | 20% | 21% | 22% | 17% | 19% | 20% | 22% |
| Spokane | 16% | 18% | 19% | 19% | 16% | 18% | 17% | 16% |
| Stevens | 15% | 18% | 16% | 17% | 15% | 16% | 15% | 16% |
| Thurston | 18% | 21% | 24% | 23% | 17% | 21% | 25% | 23% |
| Wahkiakum | 15% | 13% | 17% | 26% | 14% | 18% | 21% | 23% |
| Walla Walla | 13% | 14% | 16% | 14% | 11% | 13% | 16% | 13% |
| Whatcom | 18% | 19% | 19% | 19% | 19% | 20% | 20% | 21% |
| Whitman | 16% | 15% | 14% | 12% | 15% | 14% | 9% | 11% |
| Yakima | 15% | 17% | 16% | 15% | 19% | 20% | 15% | 16% |

STUDY POPULATION

Adults of ages 18 to 64 years and Youth of ages 0 to 17 years enrolled in Title XIX Medicaid via Fee-For-Service or a Managed Care Organization are the focus of these analyses. Medicaid beneficiaries with non-Medicaid primary health care coverage (also referred to as third-party liability) were excluded from the analyses, as complete health care information may not be available for these individuals. Those who were dually eligible for Medicare and Medicaid or "duals" were included. Analyses were further restricted to Medicaid beneficiaries with continuous Medicaid enrollment within each measurement year.

This report focuses on individuals who have been diagnosed with substance use disorder (SUD) or opioid use disorder (OUD):

- 1. **Substance Use Disorder Diagnosis** is defined as the presence of a SUD diagnosis within the measurement year (SFY 2019, 2020, 2021, or 2022) or the year prior to the measurement year. Example SUD diagnoses include diagnoses related to alcohol, amphetamines (including methamphetamine), cocaine and other stimulants, heroin and other opioids (including synthetic opioids), and cannabis. It does not include diagnoses related to tobacco use disorder.
- 2. **Opioid Use Disorder Diagnosis** is defined as the presence of an OUD diagnosis within the measurement year (SFY 2019, 2020, 2021, or 2022) or the year prior to the measurement year. Example OUD diagnoses include diagnoses related to synthetic and non-synthetic opioids, such as heroin and fentanyl. OUD diagnoses are a subset of SUD diagnoses (all individuals with an OUD diagnosis will also be identified as having a SUD diagnosis).

Variables used in these analyses include:

- Demographic characteristics included age, gender, and race/ethnicity. Age is defined as of the last day of the measurement year. Gender is defined as male or female due to the limitations of state administrative data systems that generally allow for only two responses for gender, 'male' or 'female'. Race/ethnicity is self-reported and measured using a mutually inclusive approach. As such, an individual is included in all of the race/ethnicity categories that they self-reported. Medicaid coverage information included four different categories of Medicaid coverage: New Adults covered by Medicaid Expansion under the Affordable Care Act, Disabled Adults, "Classic" non-disabled Medicaid adults enrolled in coverage categories that existed prior to Medicaid Expansion, and Duals who are enrolled in both Medicaid and Medicare.
- **Regional attribution** was based on county of residence. Medicaid beneficiaries were attributed to the state, an integrated managed care (IMC) region, and a county based on their county of residence for the majority of the measurement year.

ACUTE EVENTS

Four types of acute events were evaluated. These categories are not mutually exclusive. Medicaid beneficiaries with a SUD diagnosis who had more than one type of acute event in the year are included in each type of acute event category.

- Medically managed withdrawal services. Medicaid beneficiaries with a SUD diagnosis who had a SUD medically managed withdrawal services in the measurement year.
- Inpatient/residential SUD treatment. Medicaid beneficiaries with a SUD diagnosis who had an inpatient SUD treatment service in the measurement year.
- Emergency department visit outpatient. Medicaid beneficiaries with a SUD diagnosis who had an outpatient ED visit with any SUD-related diagnosis (the visit did not result in a transfer to a general medical inpatient hospitalization) in the measurement year. A SUD diagnosis in any diagnosis field (primary and other) qualifies the ED visit as SUD-related.
- Inpatient SUD-related hospitalization. Medicaid beneficiaries with a SUD diagnosis who had an ED visit with any SUD-related diagnosis that resulted in a transfer to a general medical inpatient hospitalization (not inpatient SUD treatment) in the measurement year. A SUD diagnosis in any diagnosis field (primary and other) qualifies the ED visit as SUD-related.

DATA SOURCES

Data used in this report came from the integrated administrative data maintained in the Department of Social and Health Services' Integrated Client Databases (ICDB). 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. The ICDB allows for the examination of a broad set of measures for Medicaid beneficiaries.

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REPORT CONTACT: Alice Huber, PhD, 360.902.0707 VISIT US AT: https://www.dshs.wa.gov/rda

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