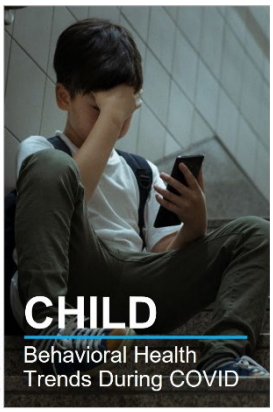

The Well-Being of Washington State's Children During the COVID-19 Pandemic

Behavioral Health Trends

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THE COVID-19 pandemic has impacted many aspects of life for people across the globe. Children in particular have experienced uncertainty and isolation because of the pandemic. In Washington State, schools were closed for months and many younger children were pulled from child care due to closures, staff shortages, and COVID concerns. As a result, most children had to adjust to online schooling and to spending much of their time at home as well as to the confusion and uncertainty of the era, which likely had an effect on behavioral health. This report uses Medicaid claims data to examine trends in children's behavioral health diagnoses and services before and during the COVID-19 pandemic in Washington State.

Key Findings

1. **Mental health outpatient services for children under 18 declined at the outset of COVID but had spikes in October 2020 and March 2021 before declining over the rest of 2021.** After the initial decline, fall 2020 saw a modest increase in outpatient services, but the largest spike was observed in March 2021, around the time schools began reopening. Thereafter, mental health outpatient service levels declined to the lowest level observed during in the three-year study period by the end of 2021. The trend over the three years was similar for claims with specific mental health diagnoses. Initial pandemic-related declines in outpatient mental health services and specific mental health diagnoses may have been limited in scale because of increased access to telehealth services; the reason for the large decline over 2021 is unclear.

2. **Unlike mental health outpatient services and claims with specific diagnoses, claims associated with acute or crisis events did not decline over calendar year 2021.** Mental health-related emergency department visits declined initially but then increased before leveling out over 2021; suicide or self-harm claims declined and then rebounded to the highest level in the study period in March of 2021 and rebounded again in fall 2021. When taken together, the marked decline in outpatient mental health services in 2021 and lack of decline in indicators of acute behavioral health need suggest that the outpatient service declines in 2021 were likely driven by capacity or access issues and not by a decline in need for those services.

3. **Gender differences in utilization emerged after the onset of the pandemic while sizable race/ethnicity differences in utilization were maintained over the study period.** Girls and boys had similar levels of utilization prior to the pandemic, while after the pandemic utilization for girls became higher relative to boys.

Study Design

To examine trends in behavioral health measures before and during the ongoing COVID-19 pandemic, we used ProviderOne data contained in the DSHS Integrated Client Databases (ICDB; Mancuso and Huber 2021) to identify health claims for children under 18 years old with service dates between January 1, 2019 and December 31, 2021. We then counted the number of claims in each month during the study period that met the definition of each behavioral health measure. Since the COVID-19 pandemic also corresponded with expanded Medicaid caseloads as more people became Medicaid-eligible, we express each measure as the number of claims per 1,000 Medicaid-enrolled children in the month. The behavioral health measures examined include the following types of claims:

- **Mental health outpatient claims.** Count of claims in each month for youth under age 18 that were delivered in an office or clinical setting or via telehealth (i.e. not requiring an overnight stay, as in inpatient services) and had billing codes indicating a mental health service divided by the number of Medicaid-enrolled youth under 18 in that month and multiplied by 1,000.
- **Claims with a specific mental health diagnosis**. Count of claims in each month for youth under age 18 that contained a diagnosis code indicative of one of the following specific conditions divided by the number of Medicaid-enrolled youth under 18 in that month and multiplied by 1,000.
  - Psychotic disorder
  - Mania/bipolar disorder
  - Anxiety
  - Depression
  - ADHD
  - Adjustment disorder
  - Conduct/impulse disorder
- **Claims with a suicide or self-harm diagnosis**. Count of claims in each month for youth under age 18 that contained a diagnosis code indicative of suicide attempt or self-harm event divided by the number of Medicaid-enrolled youth under 18 in that month and multiplied by 1,000.
- **Mental health-related emergency department claims**. Count of claims in each month for youth under age 18 where the revenue or procedure code indicates an emergency department service and a diagnosis code indicating the visit was mental health-related divided by the number of Medicaid-enrolled youth under 18 in that month and multiplied by 1,000.
- **Substance use-related emergency department claims**. Count of claims in each month for youth aged 12 to 17 where the revenue or procedure code indicates an emergency department service and a diagnosis code indicating the visit was substance use-related divided by the number of Medicaid-enrolled youth under age 12 to 17 in that month and multiplied by 1,000.

Medicaid Claims for Children Under Age 18 Jan 2019 – Dec 2021

2019												2020												2021											
J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D

$$\frac{\text{Monthly Claims with Behavioral Health Indicator}}{\text{Number of Medicaid Enrolled Children in Month}} \times 1{,}000 = \textbf{Claims per 1,000 Medically Enrolled Children}$$

Trends in Behavioral Health Measures for Children

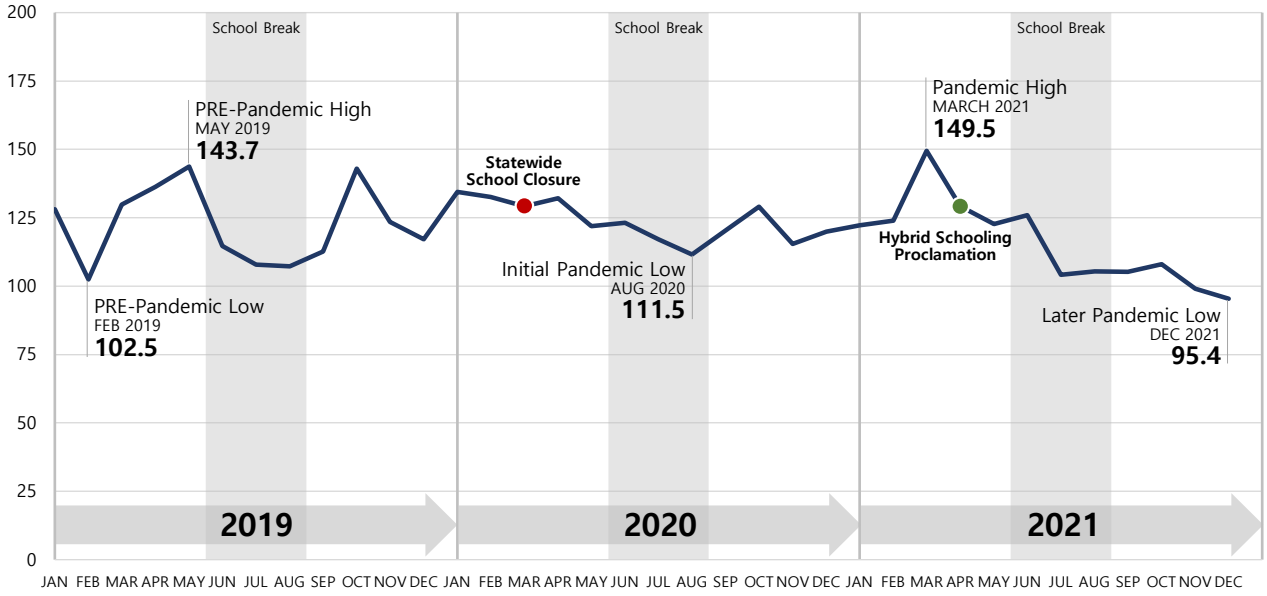
Mental Health Outpatient Claims

Figure 1 displays monthly trends in mental health outpatient claims per 1,000 Medicaid-enrolled youth from January 2019 to December 2021. Prior to the COVID-19 pandemic, mental health outpatient claims peaked in fall 2019 and spring 2019 with a decline in the summer when children were out of school. After the start of the pandemic and statewide school closure in March 2020, outpatient claims declined starting in May 2020 before reaching an initial low in August 2020. When compared to 2019 (and to previous years not included in the figure) the decline in outpatient mental health service during the summer break was less pronounced in 2020. Subsequently, outpatient mental health claims increased modestly in fall 2020 and then remained relatively steady until peaking in March 2021. Claims then returned to levels seen earlier in the pandemic before declining over summer 2021 and continuing to decline in fall 2021 to the lowest levels observed during the entire 2019 to 2021 period.

FIGURE 1

Mental Health Outpatient Claims

Per 1,000 Children Under Age 18 with Medical Assistance



Overall, mental health outpatient claims did not decline as much as might be expected in the first year of the pandemic. This is likely because of the rapid shift to telehealth for outpatient mental health services (see forthcoming report, Pavelle et al.). The shift to telehealth may also explain higher utilization over summer 2020 when compared to summer 2019 and the less pronounced spike in fall 2020. Mental health outpatient claims spiked in March 2021. This spike may have been related to the phased-in reopening of schools for partial in-person instruction and school staff making referrals to mental health services. Governor Inslee issued a proclamation[1] requiring hybrid instruction with opportunities for students to engage in both remote and in-person instruction in April 2021, though some schools and districts began phasing in hybrid schedules, especially for younger grades, starting in early 2021.[2] The increase in claims expected in October 2020 due to back-to-school-related referrals

[1] Emergency Proclamation of the Governor Amending Proclamation 21.05 (Washington State): https://www.governor.wa.gov/sites/default/files/proclamations/proc_21-05.1.pdf.

[2] The Washington Office of the Superintendent of Public Instruction collected data on the percent of students receiving in person instruction between January 2021 and May 2021 available here: https://www.k12.wa.us/about-ospi/press-releases/novel-coronavirus-covid-19-guidance-resources/school-reopening-data.

was less pronounced than earlier years; those referrals may have been delayed until March 2021 when more children were returning to school for in person instruction at least a few days a week.

The decline in mental health outpatient claims over summer 2021 corresponds to expected seasonal dips in mental health services for youth. However, the continued decline into fall 2021 was not expected. This decline may have been due to a behavioral health workforce shortage that was exacerbated during the pandemic. It is important to note that the decline in outpatient mental health services during fall 2021 was driven by declines in telehealth; in-person encounters remained relatively flat over that period.

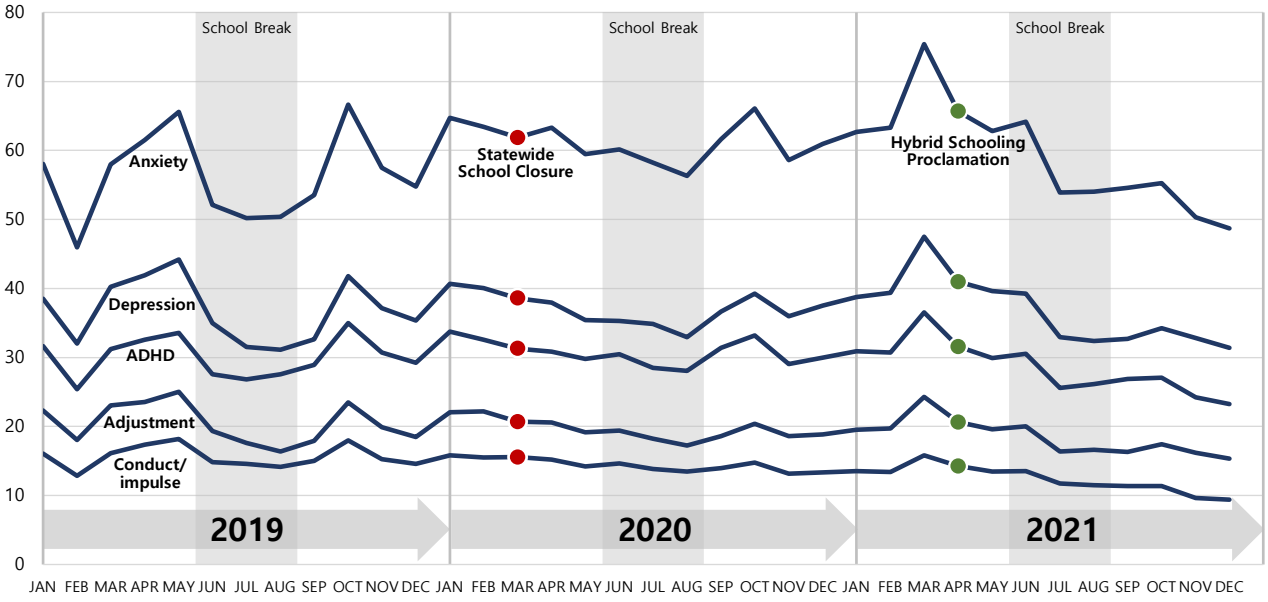
Claims with Specific Mental Health Condition Diagnoses

Figure 2 displays monthly trends in the number of claims with the most common mental health condition diagnoses (anxiety, depression, ADHD, adjustment, and conduct/impulse), displayed separately, per 1,000 Medicaid-enrolled youth between January 2019 and December 2021. This measure is different from the outpatient mental health claims both because the specific conditions are separated and because the claims in this measure could come from any type of encounter, not just encounters that qualified as outpatient mental health services (e.g., primary care visit, emergency department visit).

FIGURE 2

Claims for the Most Common Mental Health Diagnoses

Per 1,000 Children and Youth Under Age 18 with Medical Assistance



Overall, the most prevalent claims for this age group were for anxiety, followed by depression, ADHD, adjustment, and conduct/impulse diagnoses. The trends before and during the COVID-19 pandemic map on to the trends observed for outpatient mental health claims. In 2019, prior to the pandemic, claims were high in the start of the calendar year, declined in February and then steadily increased before a drop over the summer, increased again with the start of school and then decline somewhat during the winter holidays.

In March 2020, the characteristic increase in claims before summer break was not observed for any of the common mental health diagnoses. However, the large summer decrease was also not observed during summer 2020, again likely due to the uptake of telehealth in this population.

During the 2020-2021 school year, claims increased at the start of the year similar to the increase in fall 2019. A large spike in claims is clear in March 2021 across all diagnoses, which may be associated with the return to in person schooling and increased mental health referrals. Claims declined in summer 2021 as expected but claims in fall 2021 did not increase during back-to-school. Instead, claims stayed near summertime lows and then declined to the lowest levels observed during the study period. The declines from the peak in March 2021 to the low in December 2021 ranged from 34 percent for depression to 41 percent for conduct/impulse disorder.

FIGURE 3

Claims for Less Common Mental Health Diagnoses

Per 1,000 Children Under Age 18 with Medical Assistance

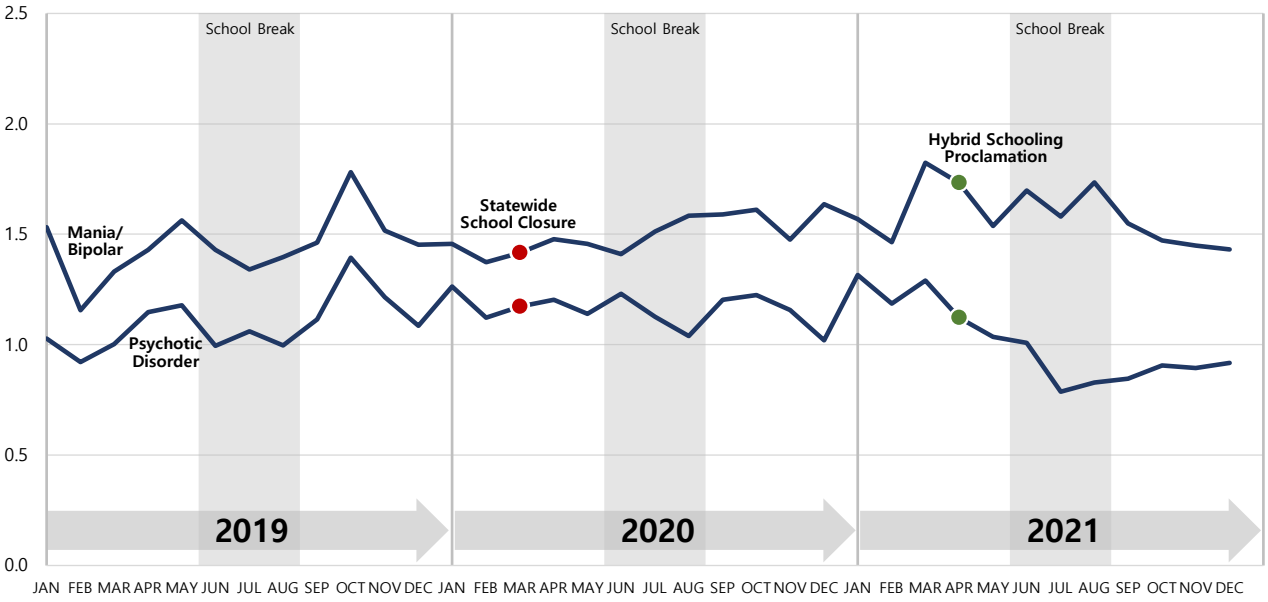


Figure 3 displays monthly trends in the number of claims with less common mental health condition diagnoses (psychotic and mania/bipolar), displayed separately, per 1,000 Medicaid-enrolled youth between January 2019 and December 2021. Claims per 1,000 youth were much lower than for the previous set of more common mental health diagnoses; during the entire study period the number of claims never reach above 2 per 1,000. In contrast to what was observed for the most common mental health diagnoses, claims with psychotic or mania/bipolar diagnoses did not show a marked decline after the statewide school closure or during summer 2020, perhaps due to a quick transition to telehealth for children with previously diagnosed conditions and connections to providers.

Additionally, the increase in claims associated with back-to-school was not observed in fall 2020. Instead, claims spiked later in March 2021 for mania/bipolar disorders and in January 2021, with a secondary spike in March 2021, for claims with psychotic disorder diagnoses. This may be explained by a delay in new referrals until schools reopened for some in person instruction. Claims then declined over summer 2021, especially those with a psychotic disorder diagnosis and remained low through fall 2021. The lack of increase in fall 2021 is concerning, since back-to-school is usually associated with increased identification of mental health concerns and connection with mental health services.

Claims with a Suicide or Self-Harm Diagnosis

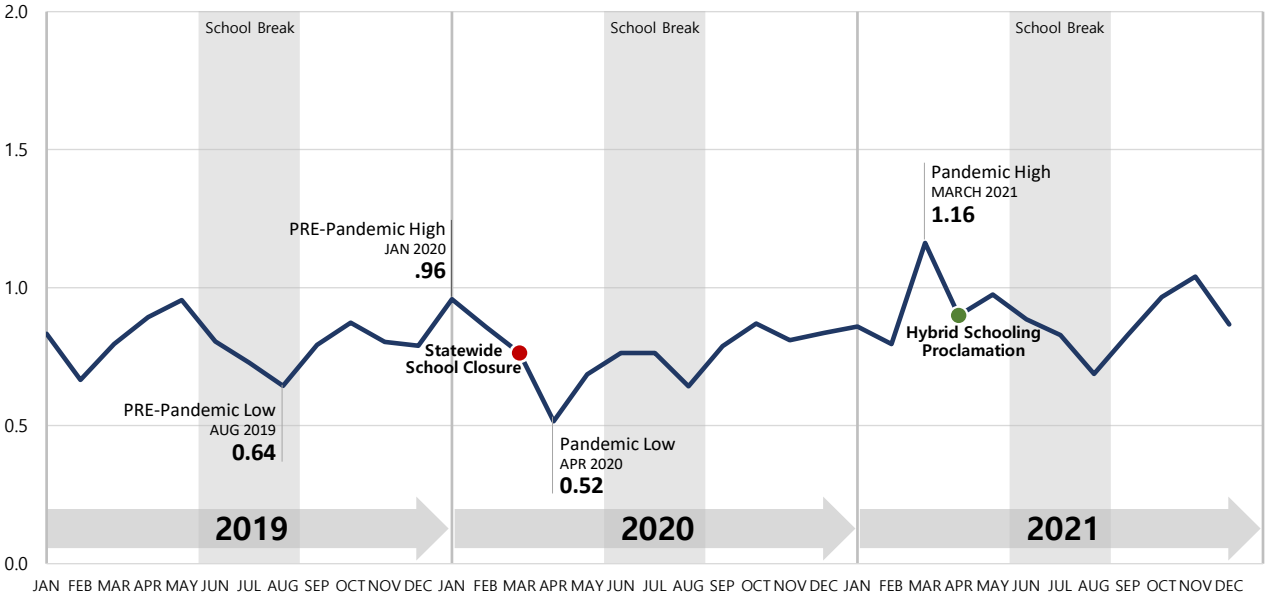
Figure 4 displays monthly trends in the number of claims with a suicide or self-harm related diagnosis per 1,000 youth enrolled in Medicaid for the period from January 2019 to December 2021. This measure shows a similar seasonality to previous measures. In 2019, suicide or self-harm claims

reached peaks in January, in May before the summer break, and in October during back-to-school. Lows in suicide self-harm claims were observed during the summer break, notably in August.

FIGURE 4

Claims with a Suicide or Self-Harm Diagnosis

Per 1,000 Children Under Age 18 with Medical Assistance



After March 2020, suicide or self-harm claims declined in April 2020 and rebounded by June 2020 to a level similar to summer 2019. Starting the 2020-2021 school year, the pattern was similar to the baseline year, with a rise in claims in October 2020 corresponding to back-to-school. Thereafter the level of claims stayed consistent through February 2021 before a spike in March 2021. The March 2021 spike was seen across behavioral health measures, including outpatient treatment, claims with specific mental health diagnoses, and claims with a suicide or self-harm diagnosis.

In addition to corresponding with back-to-school, the spike could also be related to the anniversary of the onset of the COVID pandemic. Previous literature indicates that disaster anniversaries can be a significant event for many.[3] After the spike in March 2021, suicide or self-harm claims returned to levels similar to summer 2019 before increasing in October and November 2021. It is worth noting that while outpatient mental health claims and claims with specific mental health diagnoses fell during fall 2021 to very low levels, the same was not true of claims with suicide or self-harm diagnoses, suggesting that the decline in the former may have been due to capacity issues in the system rather than declining need for mental health services.

Mental Health and Substance Use-Related Emergency Department Claims

Figure 5 displays the monthly trends in mental health and substance use-related emergency department claims per 1,000 youth enrolled in Medicaid for the period between January 2019 and December 2021. In the 2019 baseline year, mental health-related emergency department claims remained at a consistent level throughout much of the year, with a smaller drop in February 2019 and a large drop over the summer of 2019 that is typical of most behavioral health measures among children because of summer break from school.

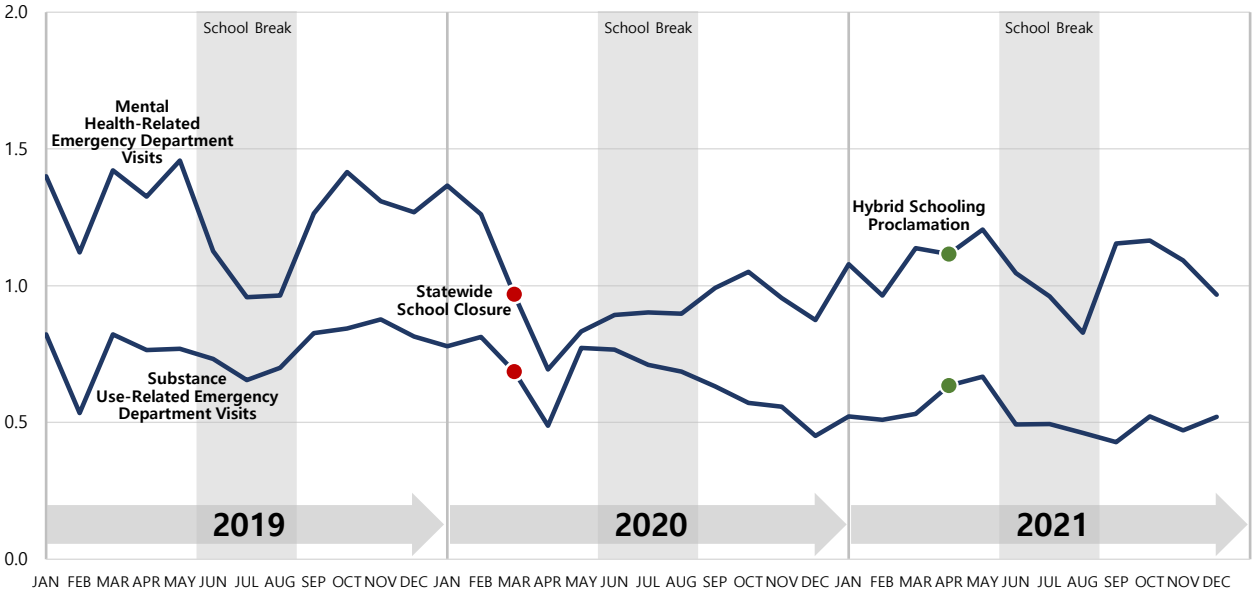
[3] Knight, A., & Liu, J. (2015, August 14). *Disaster Anniversaries*. [Presentation slides]. SAMHSA. https://www.samhsa.gov/sites/default/files/dtac/webcast_disaster_anniversaries.pdf.

In March 2020, mental health-related emergency department claims declined substantially, with the level in April 2020 below typical summer levels. The number of claims increased and peaked in May of 2021, but the level was well below the peak observed in May 2019 and was also below typical non-summer levels. Mental health-related claims then dropped in summer 2021 before increasing in fall 2021.

FIGURE 5

Mental Health and Substance Use-Related Emergency Department Claims

Per 1,000 Children Under Age 18 with Medical Assistance (Age 12-17 for SUD-related)



Substance use-related emergency department claims showed a somewhat lower rate per 1,000 in the study period, though the population numerator and denominator were limited to children ages 12-17 for the substance use-related measure. As with mental health-related emergency department claims, substance use-related emergency department claims declined in April 2020 below typical summer levels, but then almost immediately rebounded to typical levels by May 2020 and over summer 2020. Thereafter substance use claims again fell before increasing to a secondary peak in May 2021, though this peak was below both the earlier May 2020 peak and the pre-pandemic highs. The volume of substance use-related claims then fell over summer 2021 and into fall 2021, reaching a pandemic low in September 2021. Claims hovered just above that level through the end of the study period in December 2021. Declining prevalence of youth substance use during COVID-19 has been documented elsewhere and may be due to a lack of access to peers and to alcohol, tobacco, and other substances due to stay-at-home orders.[4]

As with suicide and self-harm claims, mental health-related emergency department claims did not exhibit the declines seen in outpatient mental health services or claims with mental health diagnoses in fall of 2021, indicating the decline in outpatient claims was likely due to capacity issues and not to declines in need for mental health services. The reason that substance use-related claims reached their lowest level in fall 2021 and remained stable at that low level is unclear.

The patterns observed in mental health-related emergency department claims were consistent with trends for overall emergency department claims among youth for any reason and with national

[4] Layman, H. et. al (2022) Substance Use Among Youth During the COVID-19 Pandemic: a Systematic Review *Child and Family Disaster Psychiatry.*

trends in emergency department visits for mental health conditions among youth.[5] After the start of the pandemic, data suggested that individuals, including youth, avoided the emergency room in all but the most emergent cases because of stay-at-home orders. Even after these orders were lifted, use of emergency services did not return to pre-pandemic levels during by the end of 2021.[6]

Trends in Behavioral Health Measures by Gender and Race/Ethnicity

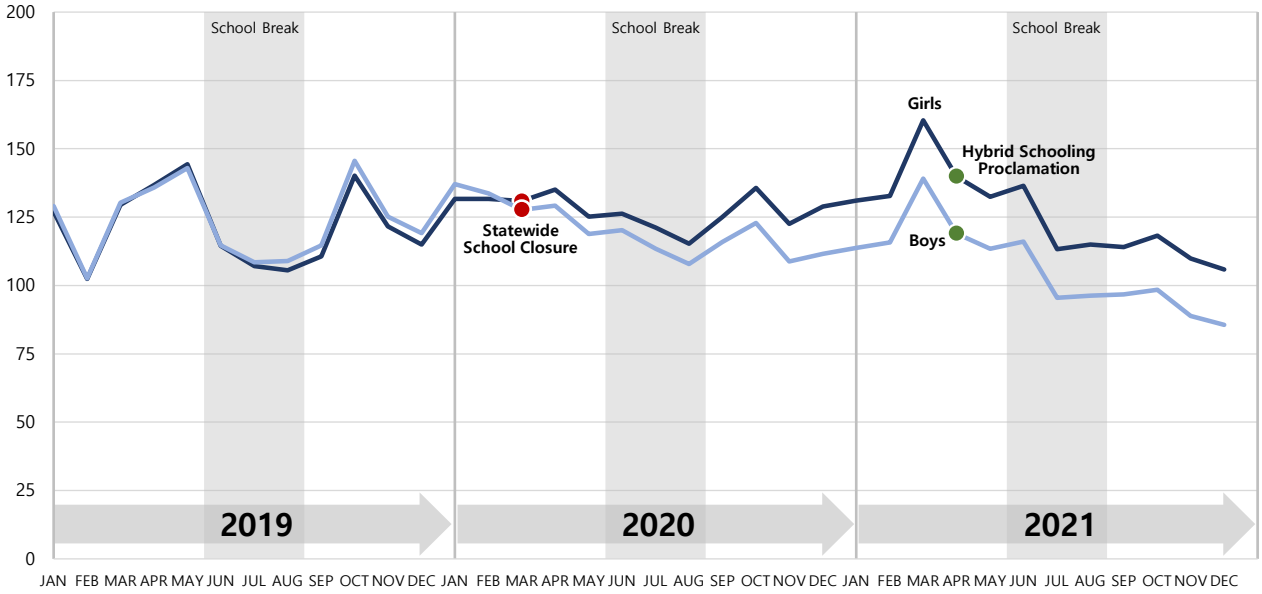
Diverging Mental Health Trends by Gender

Figure 6 displays monthly trends in mental health outpatient claims per 1,000 Medicaid-enrolled youth from January 2019 to December 2021 by gender.[7] Prior to the COVID-19 pandemic the number of claims per 1,000 girls and per 1,000 boys were very close. However, after the start of the pandemic claims for boys and girls diverged with boys utilizing fewer mental health outpatient services than girls.

FIGURE 6

Mental Health Outpatient Claims by Gender

Per 1,000 Girls and Boys Under Age 18 with Medical Assistance



While the trends were somewhat parallel after the initial divergence, with a small increase in claims in October 2020 and a larger spike in March 2021, the divergence is notable. In terms of specific diagnoses, trends for boys and girls for claims with most major diagnoses remained parallel and did not diverge except for claims with an adjustment disorder diagnosis (not shown).

Adjustment disorder is defined as an excessive reaction to a stressful or traumatic event. Prior to COVID, the volume of claims with an adjustment disorder diagnosis were similar for boys and girls.

[5] Centers for Disease Control and Prevention (2022) *Pediatric Emergency Department Visits Associated with Mental Health Conditions Before and During the COVID-19 Pandemic — United States, January 2019–January 2022* accessed at https://www.cdc.gov/mmwr/volumes/71/wr/mm7108e2.htm.

[6] See the Child Welfare and Health Services Trends in Washington State dashboard for trends in outpatient emergency department visits among youth.

[7] RDA uses self-reported gender information recorded in administrative data systems, which generally allows for only two responses 'male' or 'female.'

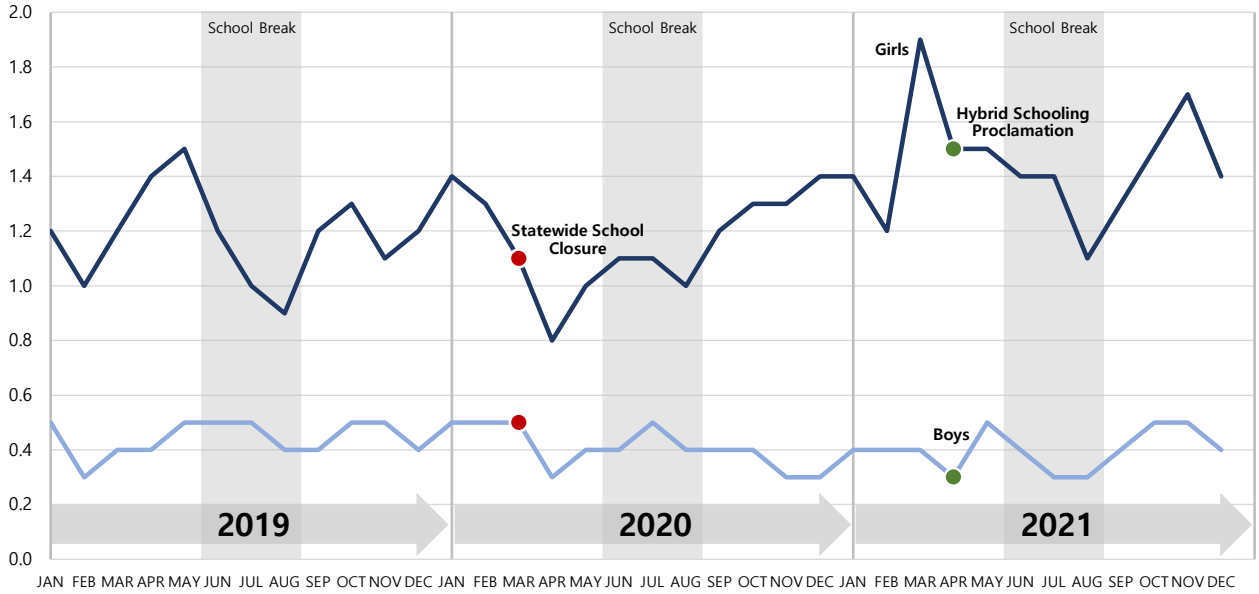
After the start of the pandemic, the volume of claims with this diagnosis was higher for girls than for boys and this divergence was maintained through December 2021.

Figure 7 displays monthly trends in claims with a suicide or self-harm diagnosis per 1,000 Medicaid-enrolled youth from January 2019 to December 2021 by gender. Suicide and self-harm diagnosis claims were more prevalent among girls than boys prior to the pandemic with notable peaks in May 2019, October 2019, and January 2020. After the onset of the pandemic the volume of claims declined for both boys and girls.

FIGURE 7

Claims with a Suicide or Self-Harm Diagnosis by Gender

Per 1,000 Girls and Boys Under Age 18 with Medical Assistance



The claims returned to pre-pandemic levels for both girls and boys in summer 2020. However, the March 2021 and November 2021 spikes in overall suicide and self-harm claims were driven by claims from girls. This is not to suggest that boys did not experience similar poor mental health around the same time. Instead, it could suggest that boys' poor mental health was not exhibited through attempted suicide or self-harming behavior. Since boys are more likely to externalize than internalize, measures of conflict or violence during this time period could be important for a fuller picture of the health struggles among boys, though we are unable to include such measures in this report. Additionally, boys have been found be more likely to use lethal methods such as firearms and to complete suicide than girls; the picture may be different if suicide deaths were examined.

Mental Health Disparities by Race

Figure 8 displays monthly trends in mental health outpatient claims per 1,000 Medicaid-enrolled youth from January 2019 to December 2021 by race/ethnicity. While the trends do not diverge after COVID-19 and remain parallel during the entire study period, it is worth noting that the pattern of greatest utilization for white youth, followed by American Indian or Alaska Native youth, and Black youth, and with relatively low utilization among Hispanic, Asian, and Native Hawaiian or Pacific Islander youth was consistent for most behavioral health measures examined in this analysis. These disparities were not unique to Washington state; similar disparities were found using national data.[8]

[8] See for example: ASPE Office of Behavioral Health, Disability, and Aging Policy (2022) Issue Brief: Racial and Ethnic Differences in Children's Mental Health Services in Medicaid Before and During the COVID-19 Pandemic available here.

FIGURE 8

Mental Health Outpatient Claims by Race/Ethnicity

Per 1,000 Children Under Age 18 from Each Race/Ethnicity Category with Medical Assistance

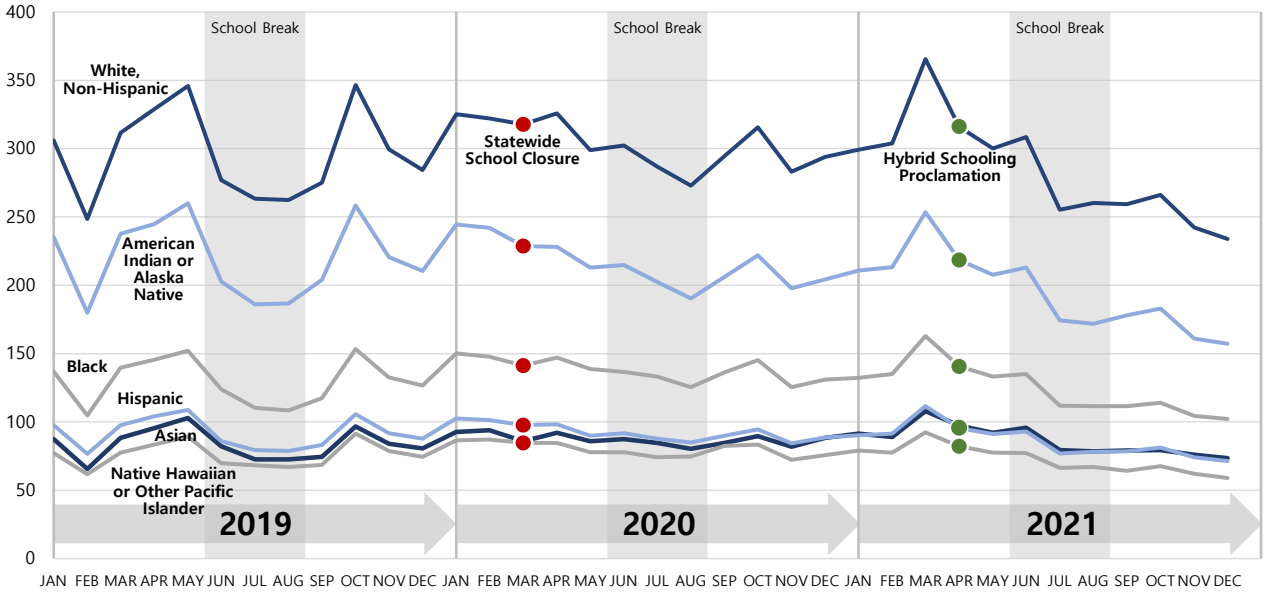


Figure 9 displays the percent of children under 18 with a mental health diagnosis by race/ethnicity. There is variation in the underlying prevalence of mental health diagnoses among the different groups, but it is not consistent with differences observed in Figure 8. For example, American Indian or Alaska Native children have the highest prevalence of mental health diagnoses but receive fewer services per 1,000 than white children. Black and Hispanic children have a somewhat lower prevalence of mental health diagnoses than white children, but the difference is not large enough to explain utilizing less than half of the volume of outpatient services when compared to white children. Asian children and Native Hawaiian or Pacific Islander children have the lowest prevalence of mental health diagnoses, but the difference is not large enough to explain utilizing around one-quarter of the volume of outpatient services when compared to white children.

FIGURE 9

Percent of Children with a Mental Health Diagnosis by Race

Children Under 18 with Medical Assistance in CY 2021, Mental Health Diagnoses Measured in CY 2020 or 2021

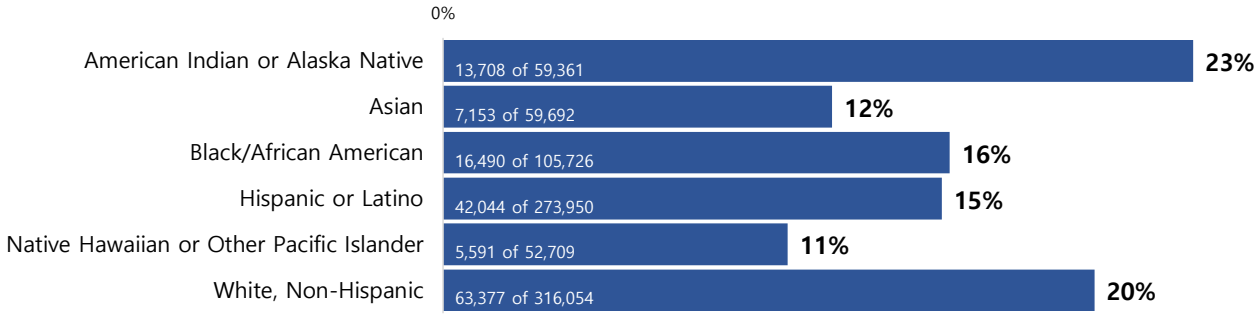


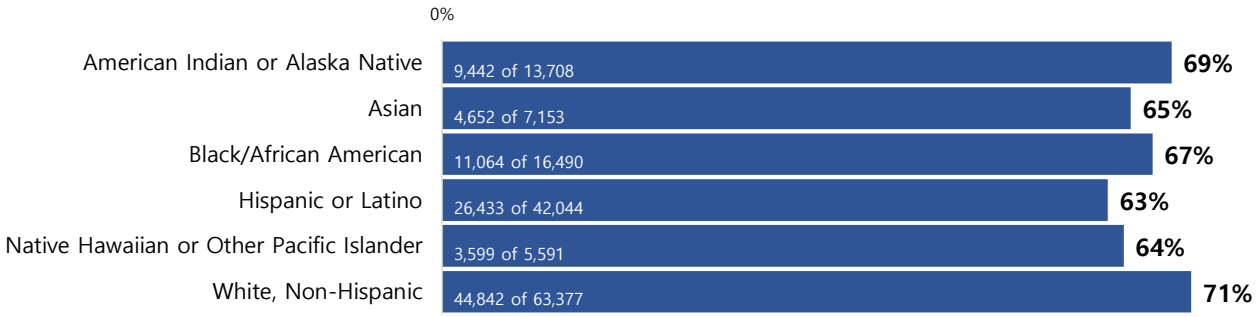
Figure 10 displays the percent of children with any mental health diagnosis who received outpatient mental health services in the year. While there is some variation between the lowest treatment rate (63 percent for Hispanic children) and the highest treatment rate (71 percent for non-Hispanic white children), it is not enough to explain such different levels of utilization of outpatient services across groups.

The difference between overall treatment rate (Figure 10) and the treatment utilization measures (Figure 8) indicate that while children of different races with an identified mental health condition may be similarly likely (with some variation) to receive some treatment in a given time period, the volume or frequency of that treatment is highest for non-Hispanic white youth. Therefore, there may be barriers to continued or ongoing utilization for children of color that explain the lower volume of claims that is consistent throughout the study period.

FIGURE 10

Percent of Children who Received Any Mental Health Outpatient Service by Race/Ethnicity

Children Under 18 with a Mental Health Diagnosis in CY 2020 or 2021 who Received Outpatient Services in CY 2021



Discussion

This study examined trends behavioral health diagnoses and services before and during the COVID-19 pandemic. We found that outpatient mental health services and claims with a mental health diagnosis declined somewhat during the early months of the pandemic but, likely due to the switch to telehealth, the decline was not large. We found that outpatient mental health services and claims with a mental health diagnosis did not spike to typical levels in fall of 2020 during the back-to-school time, perhaps because children were still primarily attending school remotely.

The spike occurred later in March 2021, which may have been due to a return to in-person schooling, before a decline over summer 2021 which is typical of most summers, and then a continued decline in fall 2021. The decline in outpatient services and diagnoses in fall 2021 is concerning, since comparable declines were not observed for acute behavioral health events (suicide and self-harm claims, behavioral health-related emergency department claims). The decline in services may have been related to capacity issues caused by the behavioral health workforce shortage that was exacerbated during the pandemic.

Diverging trends were observed for boys and girls over the pandemic. Once the pandemic hit, the volume of claims for boys fell below the volume of claims for girls, whereas previous to the pandemic, the trends for both groups were quite similar. In terms of claims with specific diagnoses, girls and boys diverged in the volume of claims with adjustment disorder as a diagnosis. Suicide and self-harm diagnoses were more prevalent among girls prior to the pandemic, but the volatility and spikes in these claims in March 2021 and November 2021 were also more extreme for girls.

Directions for Future Research

We observed differences in utilization of behavioral health services and claims between racial/ethnic groups that did not appear to diverge due to the pandemic. Even though there were no pandemic-related changes, a deeper study of the large differences in volume of service across racial ethnic groups, without corresponding large differences in diagnosed mental health conditions or static treatment rates, is likely warranted.

A future review of variations in behavioral health services and claims across managed care regions could also be useful to assess any regional differences in spikes and declines across the state.

HCA should also monitor trends in these measures in winter and spring 2022 to assess whether utilization returned to expected levels and whether the decline in service use was temporary or carried on past the end of 2021.

Since this analysis was limited to examining trends in the number of claims or encounters, future work should also incorporate measures of service intensity by examining trends in service hours during this time period.

It will be especially important to assess longer-term impacts on behavioral health and related functional impairment for children following the onset of the COVID-19 pandemic. Juvenile justice involvement, school success and employment may all be impacted by the unstable, disconcerting, and isolative experiences during the worst of the pandemic.

STUDY OVERVIEW

To examine trends in behavioral health measures before and during the ongoing COVID-19 pandemic, we used ProviderOne data contained in the DSHS Integrated Client Databases (ICDB) to identify health claims for children under 18 years old with service dates between January 1, 2019 and December 31, 2021. We then counted the number of claims in each month during the study period that met the definition of each behavioral health measure. Since the COVID-19 pandemic also corresponded to expanded Medicaid caseloads as more people became Medicaid-eligible, we express each measure as the number of claims per 1,000 Medicaid-enrolled children in the month. The behavioral health measures examined include the following types of claims for Medicaid-enrolled children and youth (under age 18 unless otherwise indicated):

- **Mental health outpatient claims.** Count of claims in each month that were delivered in an office or clinical setting or via telehealth (i.e. not requiring an overnight stay, as in inpatient services) and had billing codes indicating a mental health service divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with an anxiety diagnosis**. Count of claims in each month that contained a diagnosis code indicative of anxiety divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with a depression diagnosis**. Count of claims in each month that contained a diagnosis code indicative of depression divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with an ADHD diagnosis**. Count of claims in each month that contained a diagnosis code indicative of ADHD divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with an adjustment diagnosis**. Count of claims in each month that contained a diagnosis code indicative of adjustment disorder divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with a conduct/impulse diagnosis**. Count of claims in each month that contained a diagnosis code indicative of conduct or impulse disorder divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with a mania/bipolar diagnosis**. Count of claims in each month that contained a diagnosis code indicative of mania or bipolar disorder divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Claims with a psychotic diagnosis**. Count of claims in each month that contained a diagnosis code indicative of psychotic disorder divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Mental health-related emergency department claims**. Count of claims in each month where the revenue or procedure code indicates an emergency department service and billing codes indicate the visit was mental health-related divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.
- **Substance use-related emergency department claims**. Count of claims in each month where the revenue or procedure code indicates an emergency department service and billing codes indicate the visit was substance use-related divided by the number of Medicaid-enrolled youth age 12-17 in that month and multiplied by 1000.
- **Claims with a suicide or self-harm diagnosis**. Count of claims in each month that contained a diagnosis code indicative of a suicide attempt or self-harm event divided by the number of Medicaid-enrolled children under 18 in that month and multiplied by 1000.

Other Measures

- **Gender:** Gender was identified using administrative records in the ICDB. Administrative records contain self-reported gender information recorded in data systems, which generally allows for only two responses 'male' or 'female'.
- **Race/ethnicity:** Race/ethnicity was identified using service records in the ICDB. Race/ethnicity was not mutually exclusive with the exception of White, non-Hispanic.

CITATIONS

Mancuso, D. and Huber, A. (2021). Washington State Health and Human Services Integrated Client Databases. Washington State Department of Social and Health Services, Research and Data Analysis Division, Report 11.205. https://www.dshs.wa.gov/sites/default/files/rda/reports/research-11-205.pdf.

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