Week of October 5, 2020
Behavioral Health Impact Situation Report

This situation report presents the potential behavioral health impacts of the COVID-19 pandemic for Washington to inform planning efforts. The intended audience for this report includes response planners and any organization that is responding to or helping to mitigate the behavioral health impacts of the COVID-19 pandemic.

Purpose

This report summarizes data analyses conducted by the COVID-19 Behavioral Health Group's Impact & Capacity Assessment Task Force. These analyses assess the likely current and future impacts of the COVID-19 pandemic on mental health and potential for substance use issues among Washingtonians.

Key Takeaways

- For this reporting period (CDC Week 39: week of September 26), 3 of 5 syndromic indicators fell below 2019 levels.
- Public sentiment was at a lower level than previous weeks, following a cyclical trend of low sentiment preceding and following the first of the month.
- Census data indicates a potential rise in anxiety and depression symptoms, reversing the trend of the previous 4 weeks.

Impact Assessment

This section summarizes data analyses that show the likely current and future impacts of the COVID-19 pandemic on mental health and potential for substance use issues among Washingtonians.

Syndromic Surveillance

Syndromic surveillance data are collected in near real-time from hospitals and clinics across Washington, and are always subject to updates. Key data elements reported include patient demographic information, chief complaint, and coded diagnoses. This system is the only source of emergency department (ED) data for Washington. Statistical warnings (yellow dots) and alerts (red dots) are displayed when a Centers for Disease Control and Prevention (CDC)

algorithm detects a weekly count at least three standard deviations[1] above a 28-day average count, ending three weeks prior to the week with a warning or alert.

Relative to 2019, there was a 40-50% decline in volume of visits across care settings that corresponds to the "Stay Home, Stay Healthy" order implemented on March 23 (CDC Week 13 in graphs below).[2] Although total ED visit counts appear to have returned to pre-pandemic levels, the below indicators are presented as counts of ED visits, rather than percentages of ED visits, to account for unstable denominators. Data for past weeks are subject to updates.

Additionally, as of Situation Report 12, there are secondary sets of graphs for each Syndromic Surveillance Indicator. These graphs represent a common epidemiological measure of visits of interest per 10,000 Emergency Department visits, which can help provide insights into the effect of the "Stay Home, Stay Healthy" order from March 23 (CDC Week 13) onwards, as well as the relative frequency of these indicators for 2019 and 2020. An additional feature of these graphs is the "average weekly difference" in the lower right hand corner, which allows readers to compare both the yearly week-over-week average, as well as the weekly visit fluctuations to better assess demand for care, as well as care-seeking behaviors.

Psychological Distress

CDC Week 39 (week of September 26) had an ED visit count for psychological distress[3] that had decreased as compared to week 38, but not significantly different than August, the first weeks of September, or the same time period in 2019.
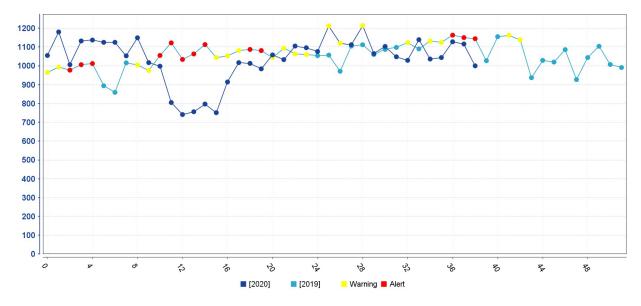
No warnings were triggered for any age group during this time period.

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[1] Standard deviation: A measure of the amount of variation or dispersion of a set of values. Standard deviation is often used to measure the distance of a given value from the average value of a data set.

[2] Hartnett K. P., Kite-Powell A., DeVies J., et al. Impact of the COVID-19 Pandemic on Emergency Department Visits — United States, January 1, 2019–May 30, 2020. MMWR Morb Mortal Wkly Rep 2020;69:699–704. DOI: http://dx.doi.org/10.15585/mmwr.mm6923e1
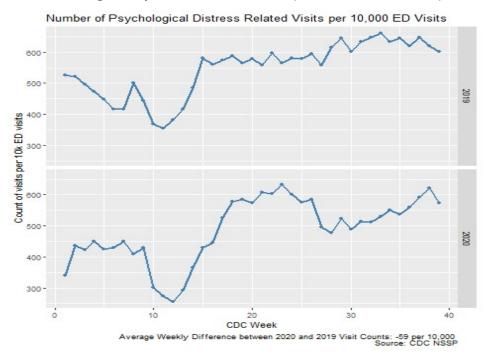
[3] Psychological distress in this context is considered a disaster-related syndrome comprised of panic, stress, and anxiety. It is indexed in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) platform as Disaster-related Mental Health v1. Full details are available at https://knowledgerepository.syndromicsurveillance.org/disaster-related-mental-health-v1-syndrome-definitioncommittee.

Graph 1.a: Count of emergency department visits for psychological distress[3] in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)
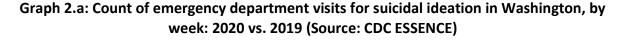

Legend: ■ [2020] ■ [2019] ■ Warning ■ Alert

Graph 1.b: Relative Count of emergency department visits for psychological distress[3] in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

Number of Psychological Distress Related Visits per 10,000 ED Visits

Count of visits per 10k ED visits

CDC Week

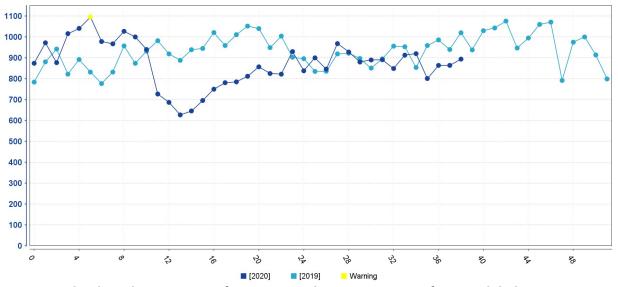Average Weekly Difference between 2020 and 2019 Visit Counts: -59 per 10,000
Source: CDC NSSP

Suicidal Ideation and Suicide Attempts

For CDC Week 39, there has been a continuation of lower reported ED visits for suicidal ideation (Graph 2.a). Although, it appears that the past several weeks of visits are fluctuating around a new average after a steep drop and subsequent climb in CDC Week 13. This count data should
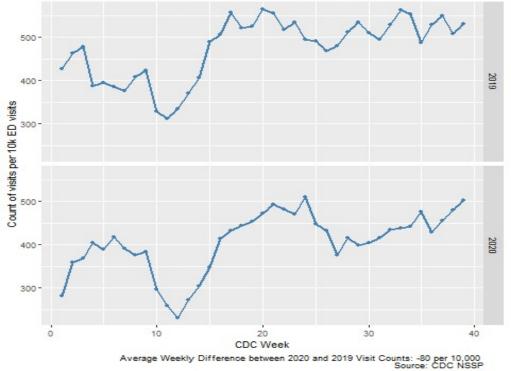
be interpreted with caution as overall ED visit data has continued to fluctuate since the March 2020 decline in ED visits.
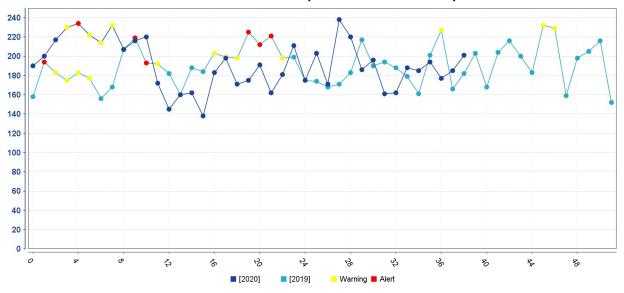
Graph 2.a: Count of emergency department visits for suicidal ideation in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

Graph 2.b: Relative Count of emergency department visits for suicidal ideation in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

Number of Suicide Ideation Related Visits per 10,000 ED Visits

Average Weekly Difference between 2020 and 2019 Visit Counts: -80 per 10,000
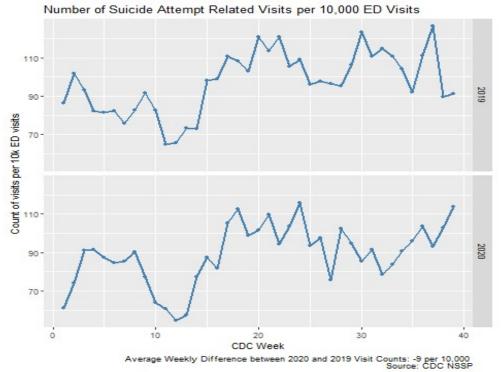Source: CDC NSSP

For suicide attempts, the pattern of fluctuations has continued, with a marked increase in Emergency Department visits for suicide attempts throughout the state. For week 39, those under 18 and those aged 45-64 have triggered statistical alerts.
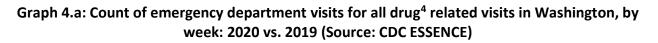
Graph 3.a: Count of emergency department visits for suicide attempts in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)
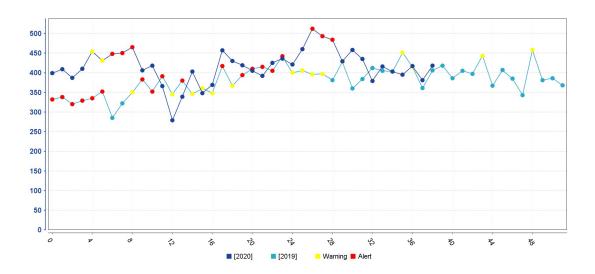

Graph 3.b: Relative Count of Emergency Department visits for suicide attempts in Washington by week: 2020 vs. 2019 (Source: CDC ESSENCE)

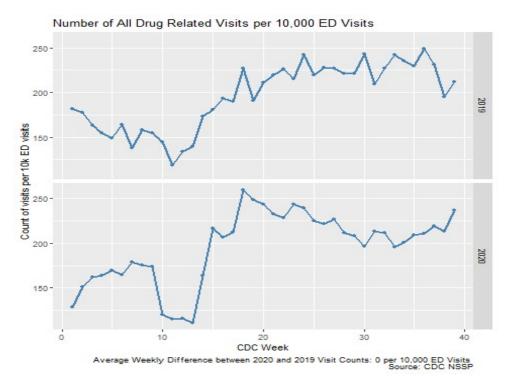## Substance Use: Drug Overdose and Alcohol-Related Emergency Visits

For CDC Week 39, there has been a very slight increase in visits for all drug related visits as compared to last year (Graph 4.a). All age groups are trending down in opioid usage over the past four weeks, **other drug visits has shown slight increases in younger demographics**. No race or ethnicity category experienced a warning or alert regarding all drug[4] visits for this period.
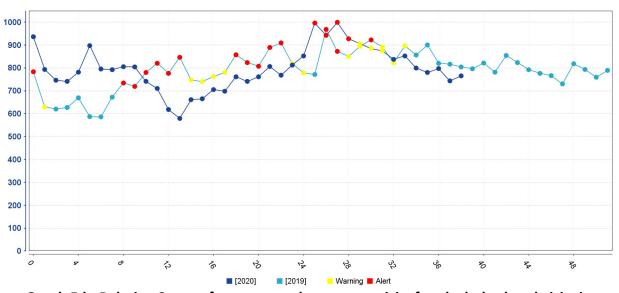
Graph 4.a: Count of emergency department visits for all drug[4] related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

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[4] All drug: This definition specifies overdoses for any drug, including heroin, opioid, and stimulants. It is indexed in the Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) platform as CDC All Drug v1. Full details available at https://knowledgerepository.syndromicsurveillance.org/cdc-all-drug-v1.
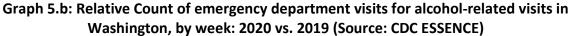
Graph 4.b: Relative Count of emergency department visits for all drug[4] related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

Number of All Drug Related Visits per 10,000 ED Visits

Average Weekly Difference between 2020 and 2019 Visit Counts: 0 per 10,000 ED Visits
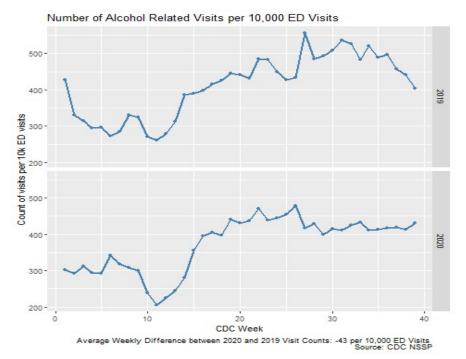Source: CDC NSSP

Similar to previous weeks, **alcohol-related visits for Week 39 show a slight decrease** as compared to 2019, and a significant drop from peak visit rates in Weeks 23-28 of this year (Graph 5.a). No group warranted a warning.

Graph 5.a: Count of emergency department alcohol-related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)
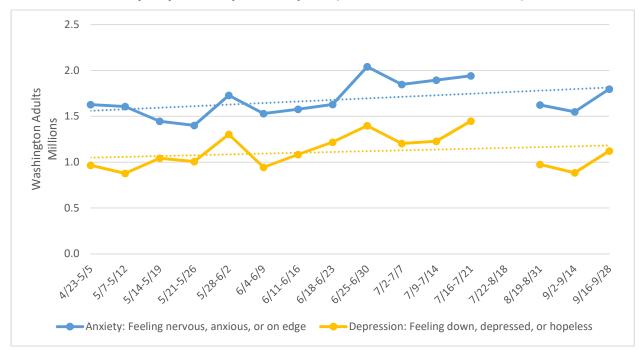

Graph 5.b: Relative Count of emergency department visits for alcohol-related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

General Surveillance – Symptoms of Anxiety and Depression

Survey data collected by the U.S. Census Bureau[5] during September 16—28 suggest an **increase of 16% in anxiety, and 36% in feelings of depression**, respectively, among Washington adults (Graph 6). **Just under 1.8 million reported experiencing symptoms of anxiety on at least most days, and over 1.1 million reported experiencing symptoms of depression on at least most days.** In these measures, the estimated standard error indicates that both upper and lower bound estimates limit how inaccurate this estimate may be by around 7% above or below the numbers previously mentioned. This survey data is not in any way related to the data presented in a previous section.

Graph 6: Estimated Washington adults with feelings of anxiety and depression at least most days, by week: April 23–Sept 28 (Source: U.S. Census Bureau)

Note: For the period of 7/21–8/19, census data was not available and thus, any trends during this point are an artifact of analysis.

Further analysis of the depression measure for September 2–14 survey data indicate marked disparities across demographic groups. As with the anxiety measure, there is an inverse relationship between age and frequency of depression symptoms. In other words, as age increases, frequency of depression symptoms decreases. **Over one in three (38%) 18–29 year-**

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[5] In May, the U.S. Census Bureau began measuring the social and economic impacts during the COVID-19 pandemic with a weekly Household Pulse survey of adults across the country. Four questions ask survey respondents how often they have experienced specific symptoms associated with anxiety and depression over the past week.
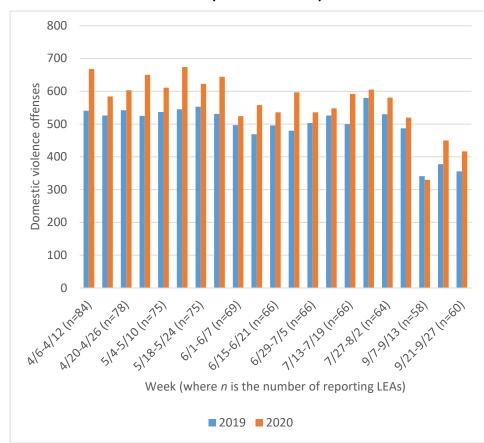
olds reported feeling down, depressed, or hopeless at least most days, compared to less than one in five (16%) adults age 50+ with those over 80 at one in twenty (5%).

A similar inverse relationship can be seen between household income and frequency of depression symptoms. Individuals in a household that experienced a loss of employment income were 10% more likely to report feeling depressed at least most days, compared to those who have not experienced such a loss (28% and 18%, respectively). Additionally, **over 1 in 4 (32%) identifying as multiracial (non-Hispanic) reported feeling depressed at least most days, compared to 22% of the rest of adults surveyed.** The frequency of depression symptoms wasn't significantly greater among men or women as it was with anxiety, for which women reported more frequent symptoms.

Crime – Domestic Violence

While the 9/21–9/27 reporting period has kept the trend of the previous period in terms of decreased domestic violence offenses being reported, **year-over-year[6] reports continue to increase (14.4%)** according to survey data from the Washington Association of Sheriffs and Police Chiefs (WASPC).[7]

This survey has also detected **a double-digit decrease (32%) in other offenses during the 9/21–9/27 period, which in the previous measured week were down by 24% from last year.** This is despite an increase in animal cruelty (4 in 2020 from 0 in 2019) and murder (2 in 2020 from 0 in 2019).

Graph 7: Domestic violence offenses reported, by week for April 6–September 27: 2020 vs. 2019 (Source: WASPC)

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[6] Year-over-year: The comparison of two years, specifically 2020 to 2019.
[7] WASPC began conducting a weekly survey to all Washington law enforcement agencies (LEAs) in April to understand the likely impact of the COVID-19 pandemic on common crimes. Between 24–31% of the 275 LEAs respond each week. It should be noted that despite varying numbers of law enforcement agencies reporting offenses week-over-week, all values for each week are tied strictly to that week's reporting number for both 2019 and 2020. A smaller or larger number of reporting agencies does not affect year-over-year comparisons.
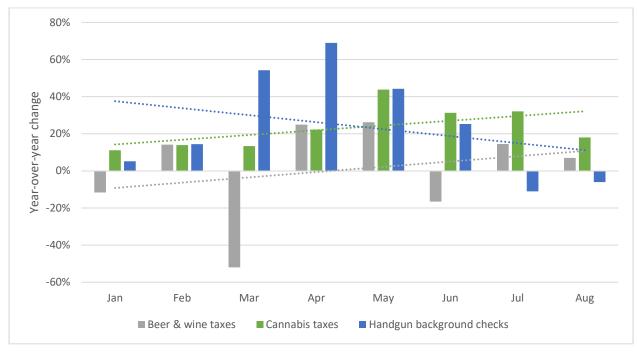
Product Sales – Alcohol and Cannabis Taxes & Handgun Background Checks

The Liquor and Cannabis Board (LCB) summarizes monthly beer, wine, and cannabis tax collections, which may be used as a representation of sales of legal recreational substances and by extension, potential for substance use issues. Additionally, federal background checks for handgun sales[8] may represent access to firearms,[9] which is a risk factor for suicide and other gun violence.[10]

Monthly cannabis tax collections in the first half of 2020 were consistently higher than in 2019. They have continued to rise in July and August with an approximate 18% increase in purchases, as indicated by revenue. While changes in year-over-year[6] monthly beer and wine tax collections (combined) have fluctuated, they are generally increasing.

Additionally, federal background checks, while fluctuating over the last several months, have seen a 6% decrease for the month of July, with a two-month trend that has led to an 11% decrease as compared to the same period last year.

Graph 8: Year-over-year change in select product sales indicators, by month: 2020 vs. 2019 (Sources: LCB, Federal Bureau of Investigation)

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[8] From the Federal Bureau of Investigation: "It is important to note that the statistics within this chart represent the number of firearm background checks initiated through the NICS [National Instant Criminal Background Check System]. They do not represent the number of firearms sold. Based on varying state laws and purchase scenarios, a one-to-one correlation cannot be made between a firearm background check and a firearm sale."
[9] Nemerov, Howard Ross. Estimating Guns Sold by State (January 11, 2018). Available at SSRN: http://dx.doi.org/10.2139/ssrn.3100289
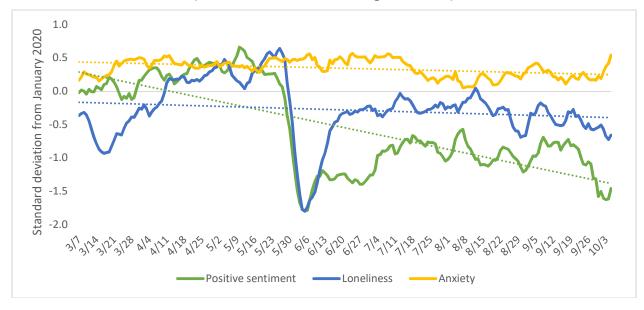[10] Anglemyer, A., Horvath, T., Rutherford, G. The accessibility of firearms and risk for suicide and homicide victimization among household members: a systematic review and meta-analysis [published correction appears in Ann Intern Med. 2014 May 6;160(9):658-9]. Ann Intern Med. 2014;160(2):101-110. doi:10.7326/M13-1301

Social Media – Expressions of Positive Sentiment, Loneliness, and Anxiety

Social media data continue to plateau after stabilizing from events around July 6. Tweets related to COVID-19 and geotagged to Washington[11,12] suggest that since late June, all three measures have fluctuated around new averages, with positive sentiment remaining the most variable measure. As to be expected given the pattern previous months, positive sentiment dropped, and anxiety rose near the start of October.

Graph 9: 7-day moving averages of deviations in select expression measures[11,12] relative to January 2020 baseline: March 7, 2020–Oct 5, 2020 (Source: Penn Center for Digital Health)

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[11] Since January 2020, researchers at the Penn Center for Digital Health have been tracking "tweets" about the COVID-19 pandemic, analyzing language used by Twitter users to quantify the extent to which they reflect expressions of positive sentiment, loneliness, and anxiety. Although these measures have been made publicly available, the researchers included a disclaimer, stating that "the data are still being validated and are not ready for public policy decision making."

[12] Guntuku, S.C., Sherman, G., Stokes, D.C., et al. Tracking Mental Health and Symptom Mentions on Twitter During COVID-19. J GEN INTERN MED (2020). https://doi.org/10.1007/s11606-020-05988-8