

Week of December 14, 2020

COVID-19 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.

Please note that this report is based on the most recent available data from various sources. As such, different sections may present information for different reporting periods.

Key Takeaways

- For this reporting period ([CDC Week 49](#)¹: week of November 29), 5 of 5 syndromic indicators (psychological distress, suicidal ideation, suspected suicide attempts, all drugs, and alcohol) exceeded 2019 levels. It should be noted that people in need of both behavioral and physical healthcare may have changed their care-seeking behaviors due to concerns about COVID-19.
- Two statistical alerts were issued based on syndromic surveillance measures: suspected suicide attempts for youth ages 5–17 and suspected suicide attempts for those who identified as *other race*.
- Overall, anxiety and depression fluctuations are similar to known behavioral health trends during disasters. Those who identify as African American or Multiracial report more frequent symptoms of anxiety and depression.
- Social media data show increased fluctuation in expressions of anxiety, loneliness, and positive sentiment. These greater fluctuations began in early November after months of hovering near newly emerged averages.

¹ <https://wwwn.cdc.gov/nndss/document/2020.pdf>

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

The Department of Health collects syndromic surveillance data in near real-time from hospitals and clinics across Washington. The data are always subject to updates. Key data elements reported include patient demographic information, chief complaint, and coded diagnoses. This [data collection system](#)² is the only source of emergency department (ED) data for Washington. Statistical warnings and alerts are raised when a Centers for Disease Control and Prevention (CDC) algorithm detects a weekly count at least three standard deviations³ above a 28-day average count, ending three weeks prior to the week with a warning or alert. These warnings or alerts will be mentioned within each respective syndrome section.

As of the Week of October 12 Situation Report (Situation Report 13), *visits of interest per 10,000 ED visits* replaced *visit count* graphs. This new measure can help provide insights into: behavioral health impacts since the implementation of the “Stay Home, Stay Healthy” order from March 23 (CDC Week 13), seasonal shifts year-over-year,⁴ new visit trends due to COVID-19 symptoms and diagnosis, perceptions of disease transmission and risk, 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. This feature is a measure of the variation in the weekly volume of visits, and allows readers to compare both the year-over-year⁴ averages for a particular week, along with the weekly visit fluctuations, to better assess demand for care and care-seeking behaviors. In scenarios where a statistical warning or alert is issued, such events will be mentioned within the syndrome description text.

Because the volume of visits across care settings varied widely during 2020, rates presented in this report may not reflect the true magnitude and direction of trends for behavioral health conditions and should be interpreted cautiously.

² <https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/HealthcareProfessionsandFacilities/PublicHealthMeaningfulUse/RHINO>

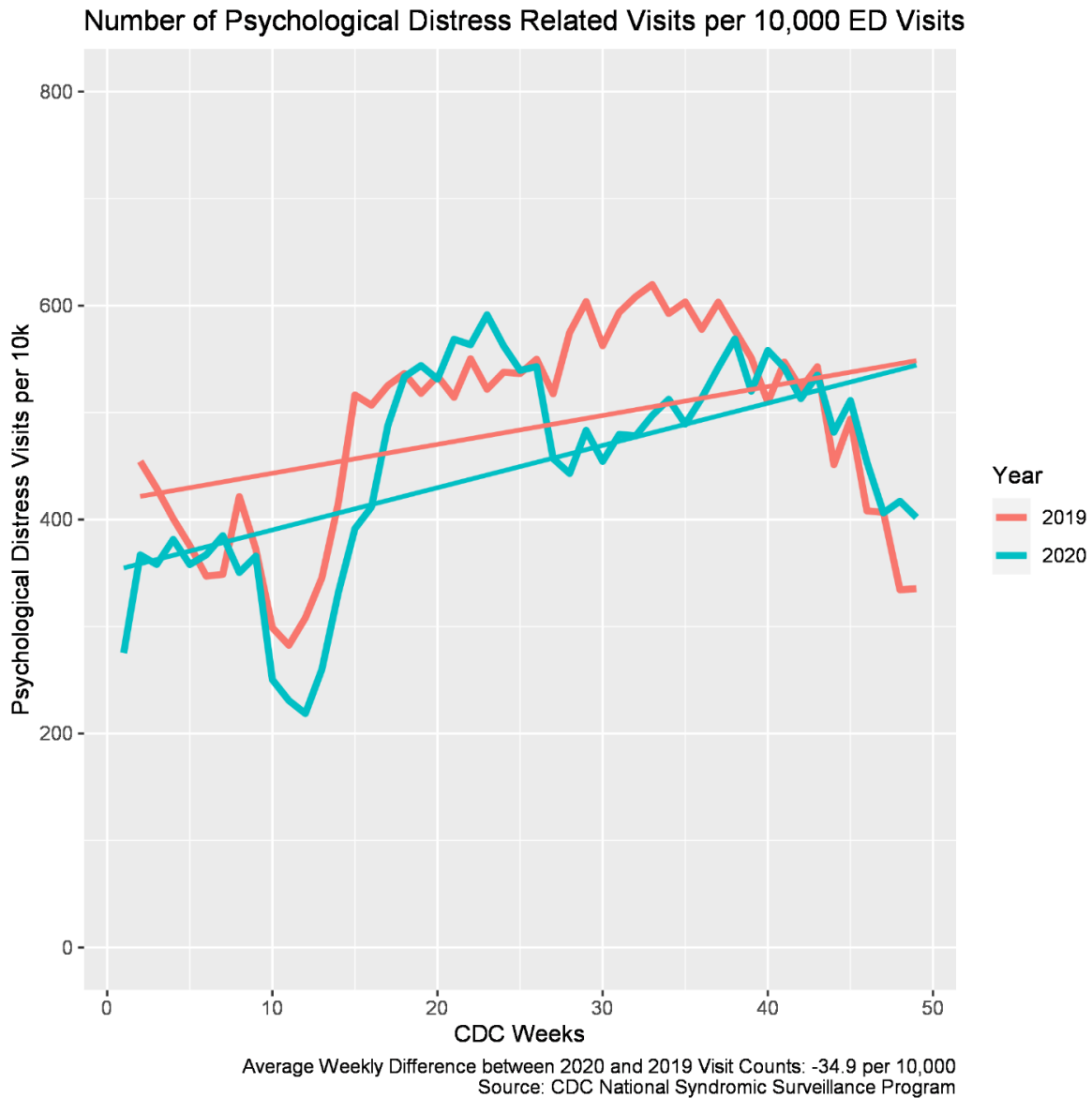
³ Standard deviation: A measure of the amount of variation or dispersion of a set of values. Standard deviation is often used to measure the distance of a given value from the average value of a data set.

⁴ Year-over-year: The comparison of two years, specifically 2020 to 2019.

Psychological Distress

CDC Week 49 (week of November 29) had an ED visit relative count for psychological distress⁵ that was slightly lower than the previous week, but higher than the 2019 relative count. This count continues a trend very similar to 2019 in both volume and direction (Graph 1).

Graph 1: Relative count of ED visits for psychological distress⁵ in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

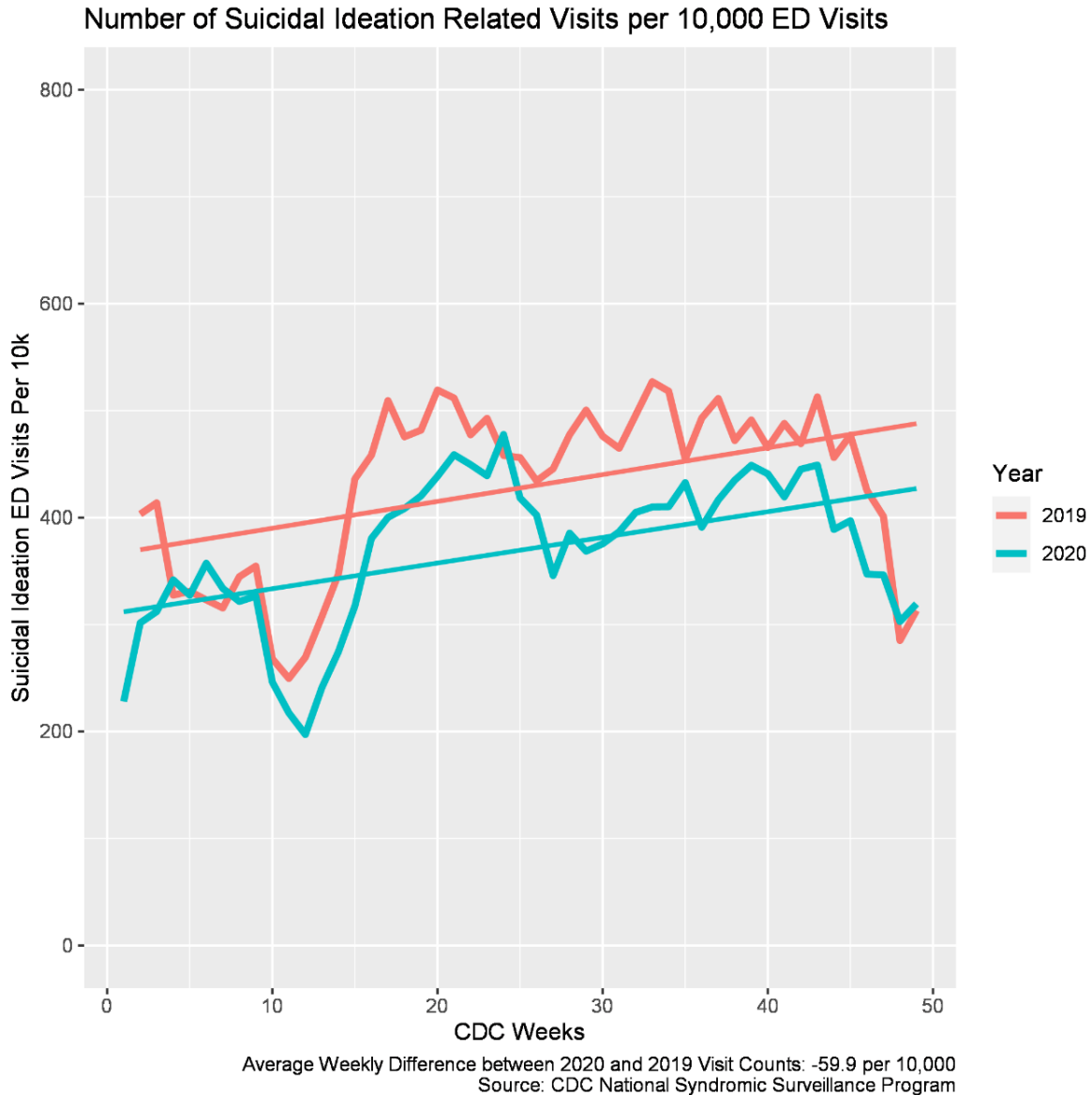


⁵ Psychological distress in this context is considered a disaster-related syndrome comprised of panic, stress, and anxiety. It is indexed in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) platform as Disaster-related Mental Health v1. Full details are available at <https://knowledgerepository.syndromicsurveillance.org/disaster-related-mental-health-v1-syndrome-definitioncommittee>.

Suicidal Ideation and Suspected Suicide Attempts

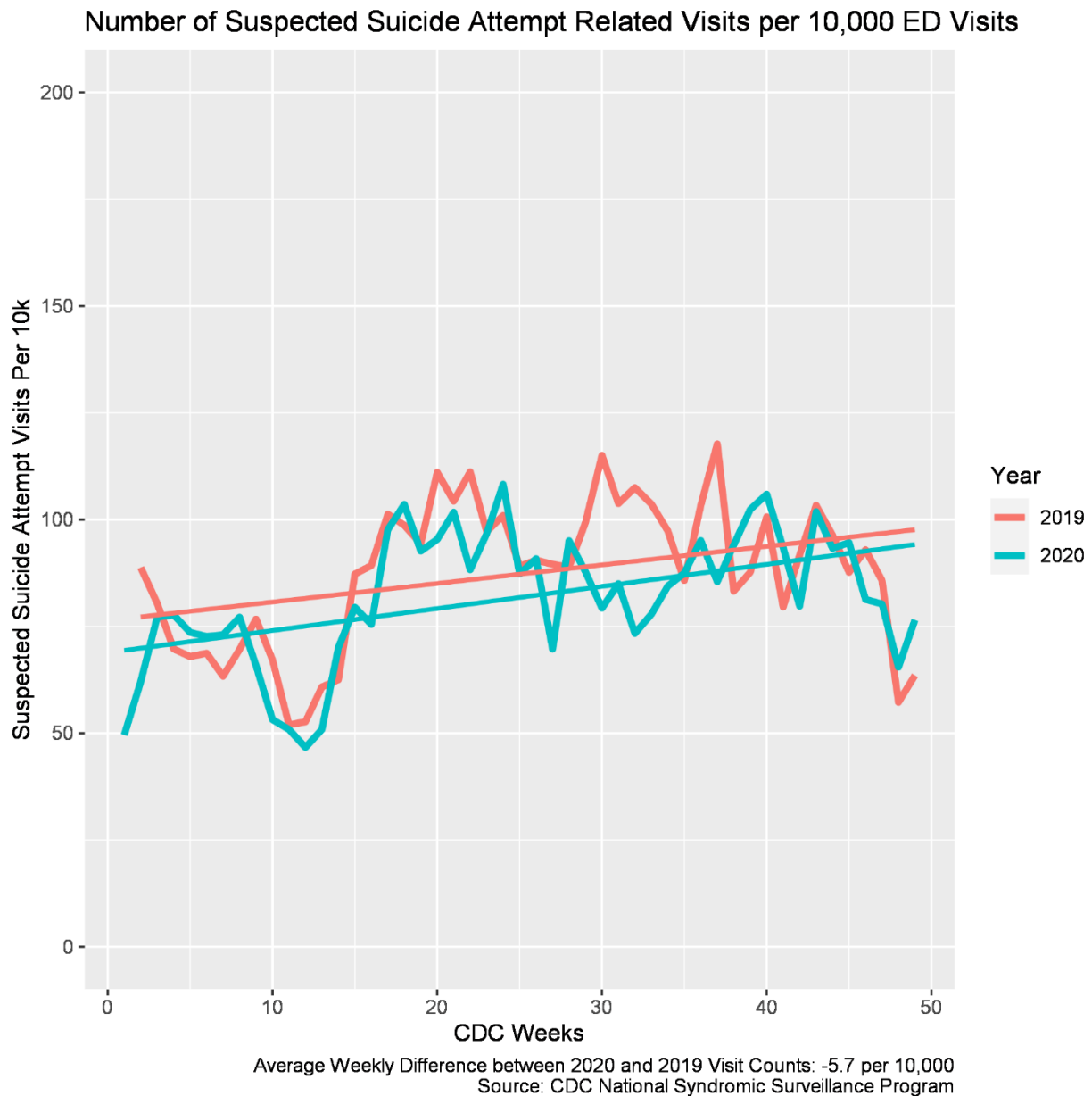
For **CDC Week 49 (week of November 29)**, there has been an increase in relative reported ED visits for suicidal ideation (Graph 2), with the number of visits emerging higher than the same period in 2019. There are no alerts or warnings for suicidal ideation for this period, a trend which has continued for several weeks.

Graph 2: Relative count of ED visits for suicidal ideation in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)



Following a few weeks of decreases, **ED visits reported for suspected suicide attempts in CDC Week 49 (week of November 29)** increased and exceeded 2019 rates (Graph 3). There were two statistical alerts issued for CDC Week 47: for youth ages 5–17 and for those who identified as *other race*.

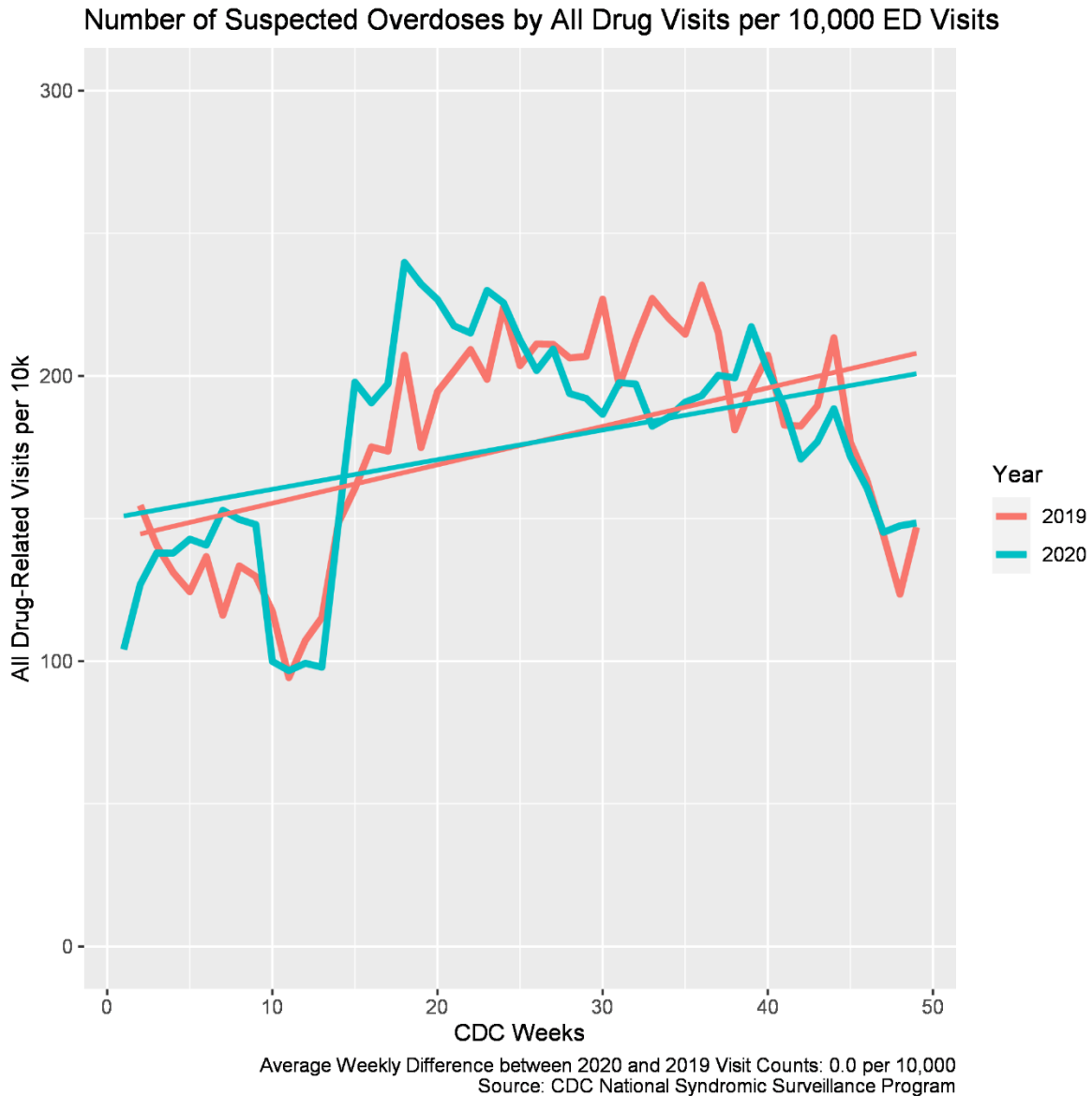
Graph 3: Relative count of ED visits for suspected suicide attempts in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)



Substance Use – Drug Overdose and Alcohol-Related Emergency Visits

During CDC Week 49 (week of November 29), relative reports for all drug⁶-related visits increased slightly (Graph 4), and the rate of visits in 2020 exceeded 2019 rates.

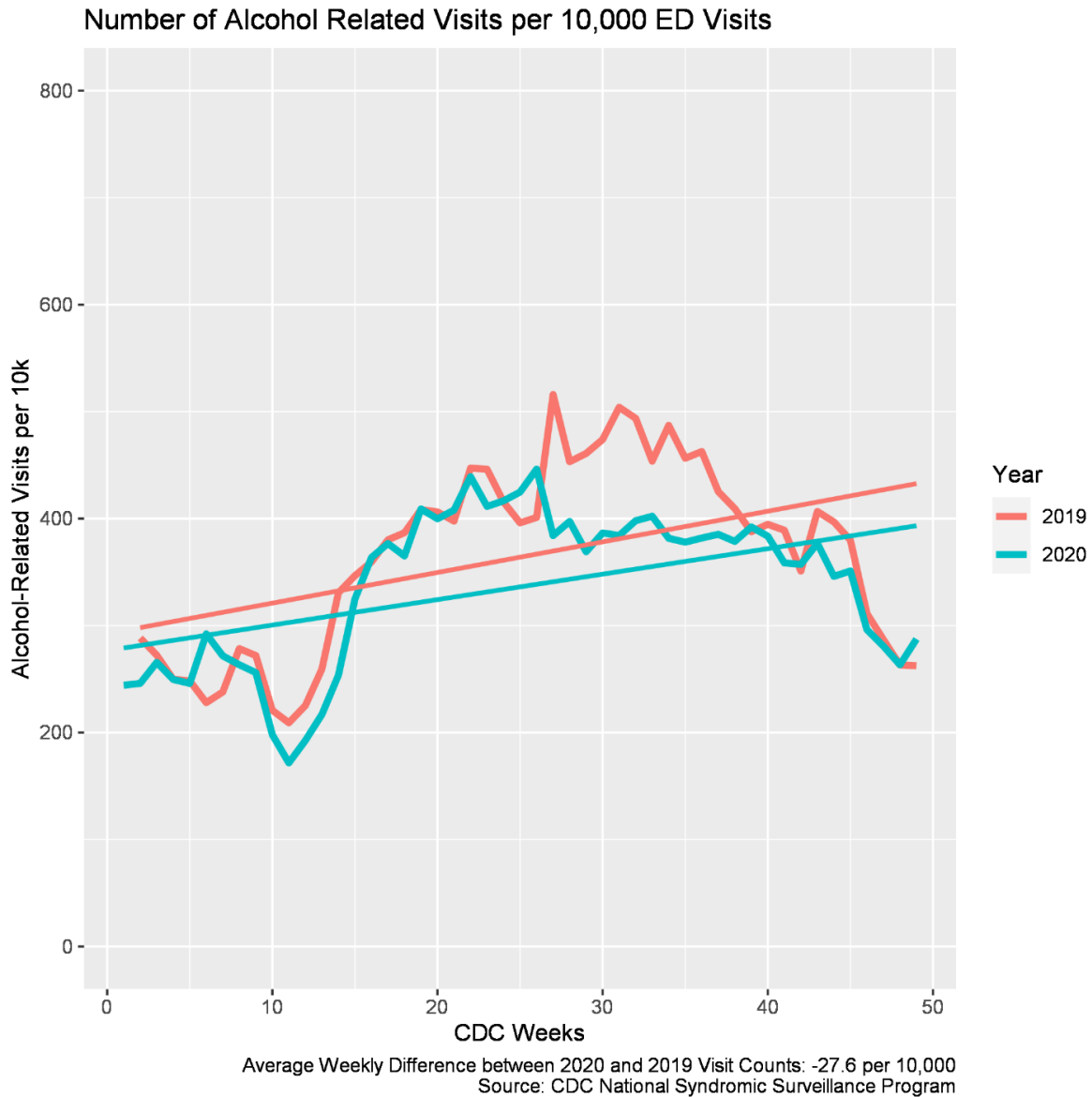
Graph 4: Relative ED count for all drug⁶-related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)



⁶ 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>.

Following a period of overall decline, the proportion of alcohol-related visits for CDC Week 49 (week of November 29) increased. The visits are lower than the peak visit rates in CDC Weeks 23–28 of this year (Graph 5), but higher than CDC Week 49 in 2019. It should be noted that visits per 10,000 for alcohol have remained somewhat stable for 2020, while there was a several week period of sustained decreases in visits in 2019. This has resulted in a slight convergence in visit counts between 2019 and 2020 data.

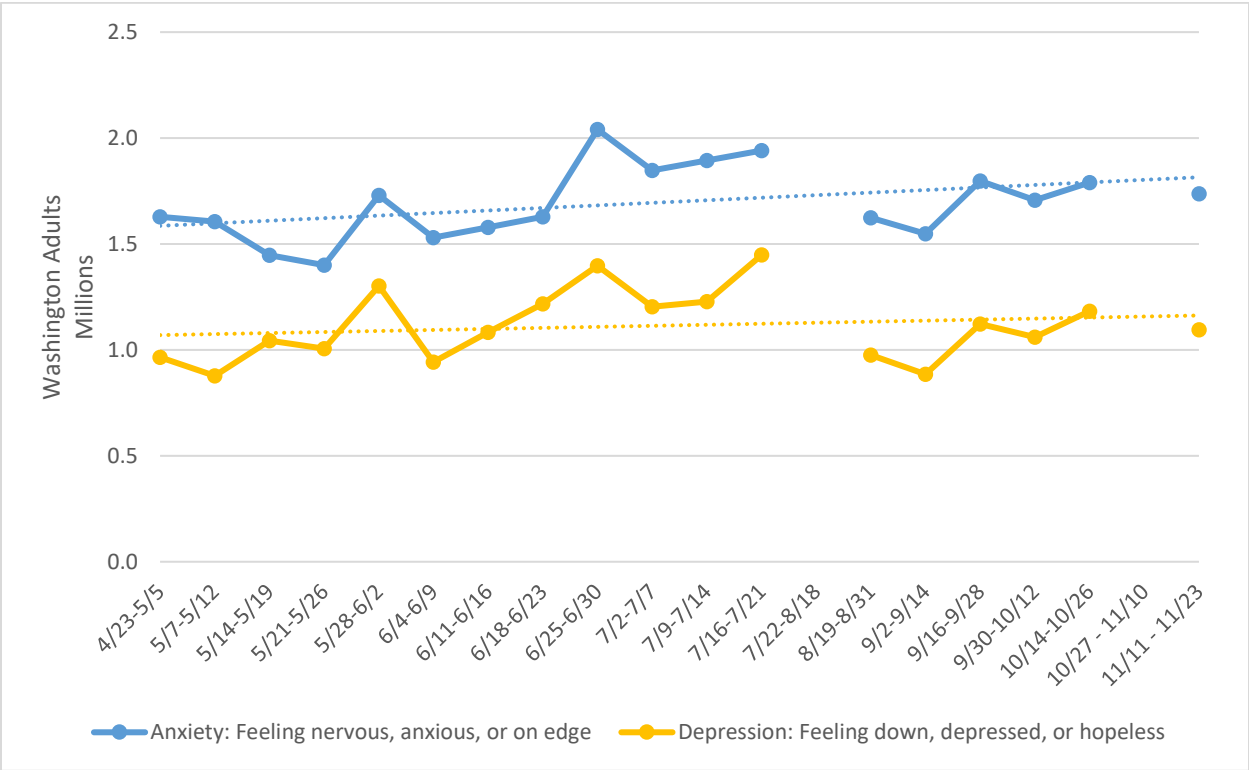
Graph 5: Relative ED count for alcohol-related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)



General Surveillance – Symptoms of Anxiety and Depression

[Survey data](#)⁷ collected by the U.S. Census Bureau for November 11–23 suggest a **3% decrease in feelings of anxiety and 7.4% in feelings of depression** among Washington adults (Graph 6). **Just under 1.8 million reported experiencing symptoms of anxiety on at least most days, and just under 1.1 million reported experiencing symptoms of depression on at least most days.** For these measures, the standard error suggests that the inaccuracy of estimates may be around 7.1% 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–Nov 23 (Source: U.S. Census Bureau)



Note: For the periods of 7/21–8/19 and 10/27–11/10, census data was not available and thus, any trends during this point are an artifact of analysis.

⁷ 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. The survey asks four questions related to how often survey respondents have experienced specific symptoms associated with diagnoses of generalized anxiety disorder or major depressive disorder over the past week. Additional details about the survey can be found at <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>.

In the November 11–23 survey data, depression measures indicate marked disparities among demographic groups. As with the anxiety measure, there is an inverse relationship between age and frequency of depression symptoms. In other words, the younger someone is, the greater their frequency of experiencing depression and anxiety symptoms.

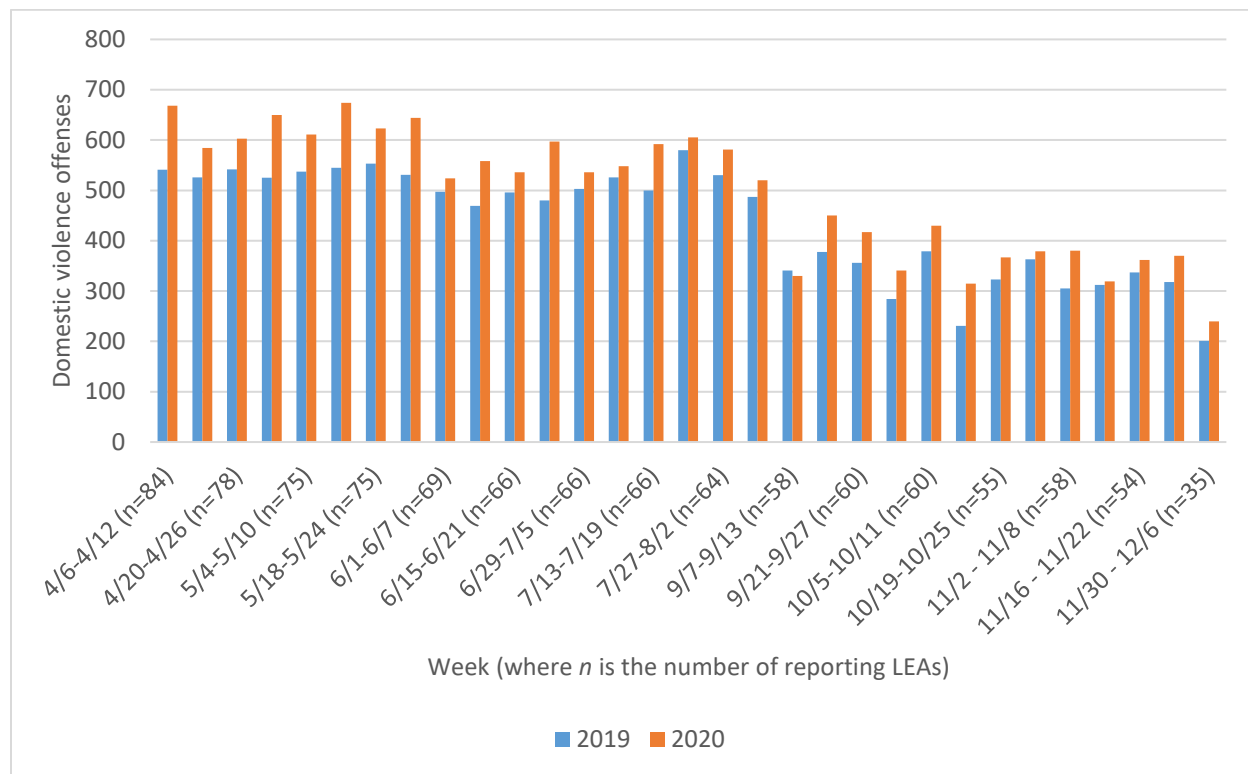
The frequency of depression symptoms appears to decrease as household income increases, with those in households earning less than \$25,000 per year reporting the highest rate (39%). That relationship does not appear to hold for anxiety and household income. The six lowest categories of annual household income (from \$25,000 to \$150,000) reported experiencing symptoms of anxiety more than half the days or nearly every day at rates that ranged from 35% to 39%. Only those whose annual household income is higher than \$150,000 reported rates below 30%, and no income group reported rates lower than 20%.⁷

African American and Multiracial (non-Hispanic) individuals have the highest symptom reporting for both depression (27% and 38%, respectively) and anxiety (45% for both groups). Lastly, those who identified as female have an increased symptom reporting rate for depression (27% for females, compared to 23% for males) and anxiety (40% for females, compared to 31% for males).

Crime – Domestic Violence

The November 30–December 6 reporting period (in which 35 agencies reported, $n^8=35$) saw a continued increase in the number of domestic violence offenses being reported (Graph 7), according to survey data from the Washington Association of Sheriffs and Police Chiefs (WASPC).⁹ This survey has also detected **double-digit decreases in other offenses during the week of November 30–December 6 (15%)**. The only notable exception to this trend was a slight increase in animal cruelty (from 0 in 2019 to 2 in 2020) for the agencies reporting during this period.

Graph 7: Domestic violence offenses reported, by week for April 6–December 6: 2020 vs. 2019 (Source: WASPC)^{8,9}



⁸ n is for both 2019 and 2020, specifying only those agencies reporting in both 2020 and 2019.

⁹ 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.

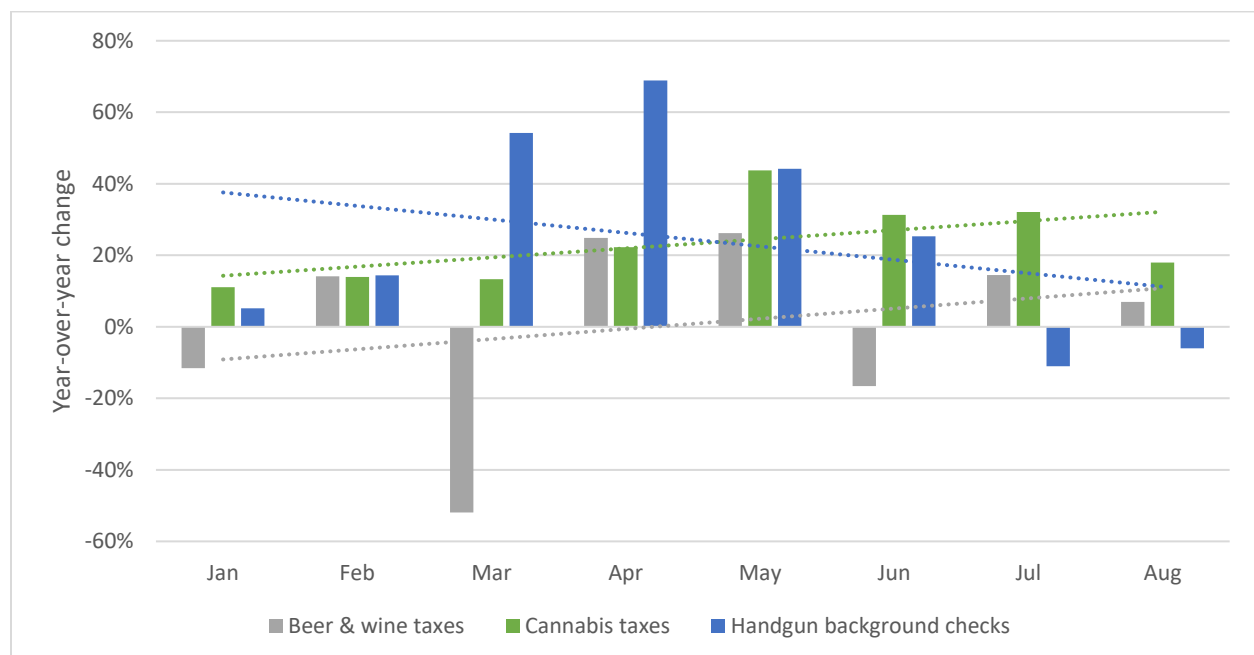
Product Sales – Alcohol and Cannabis Taxes & Handgun Background Checks

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 sales¹⁰ may represent access to firearms,¹¹ which is a risk factor for suicide and other gun violence.¹²

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

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-year⁴ monthly beer and wine tax collections (combined) have fluctuated, they are generally increasing.

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



¹⁰ 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.”

¹¹ Nemerov, H.R. (2018). Estimating Guns Sold by State. SSRN: <http://dx.doi.org/10.2139/ssrn.3100289>

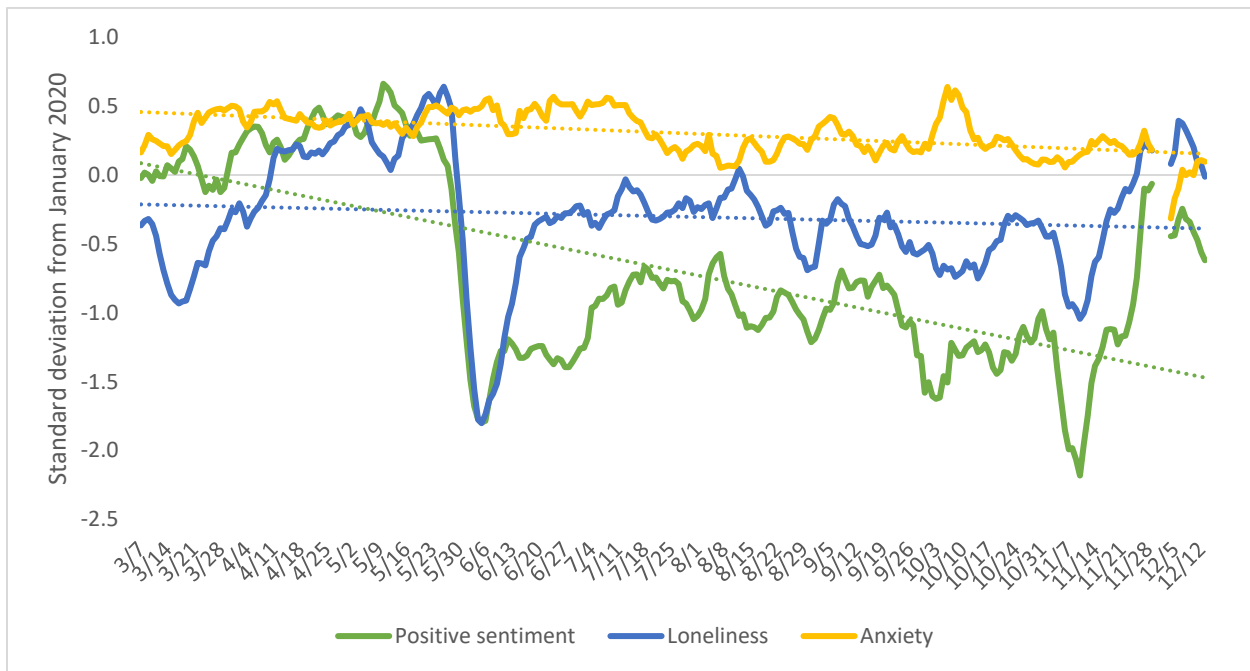
¹² Anglemeyer, A., Horvath, T., & Rutherford, G. (2014). The accessibility of firearms and risk for suicide and homicide victimization among household members: a systematic review and meta-analysis [published correction appears in *Ann Intern Med*. 2014 May 6. 160(9), 658-9]. *Ann Intern Med*, 160(2), 101-110. doi:10.7326/M13-1301

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

From mid-June until early November, tweets related to COVID-19 and geotagged to Washington^{13,14} for positive sentiment, loneliness, and anxiety fluctuated around average values shown by the dotted lines (Graph 9). The solid line at 0.0 shows baseline content, as of March 2020.

Since early November, all three measures have shown greater variation than in the previous months. In particular, positive sentiment (green line) had deviated from its average that emerged in mid-2020. It is possible that the U.S. election and the fall/winter holiday season are influencing these expressions via social media.

Graph 9: 7-day moving averages of deviations in select expression measures^{13,14} relative to January 2020 baseline: March 7, 2020–December 12, 2020
(Source: Penn Center for Digital Health)



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¹³ 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.”

¹⁴ Guntuku, S.C., Sherman, G., Stokes, D.C., et al. (2020). Tracking Mental Health and Symptom Mentions on Twitter During COVID-19. *J GEN INTERN MED*. <https://doi.org/10.1007/s11606-020-05988-8>