Week of November 2, 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[1] 43: week of October 18), 5 of 5 syndromic indicators (psychological distress, suicidal ideation, suicide attempts, all drugs, and alcohol) fell below 2019 levels. This is despite youth groups continuing to warrant concern for nearly every indicator.
- Social media data indicate declines in positive sentiment and loneliness throughout the week that included Election Day. Levels of anxiety expressed via social media continued to fluctuate around a new average.
- Overall, census data indicate anxiety and depression closely match known behavioral health trends during disasters. However, there is also a fairly significant increase in symptoms of depression and anxiety for those who identify as African American or Multiracial (Non-Hispanic; 40% and 37% reporting depression symptoms, respectively).

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.

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[1] https://wwwn.cdc.gov/nndss/document/2020.pdf

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 deviations[3] 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 allows readers to compare both the year-over-year[4] averages for a particular week and 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.

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[2] https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/HealthcareProfessionsandFacilities/ PublicHealthMeaningfulUse/RHINO
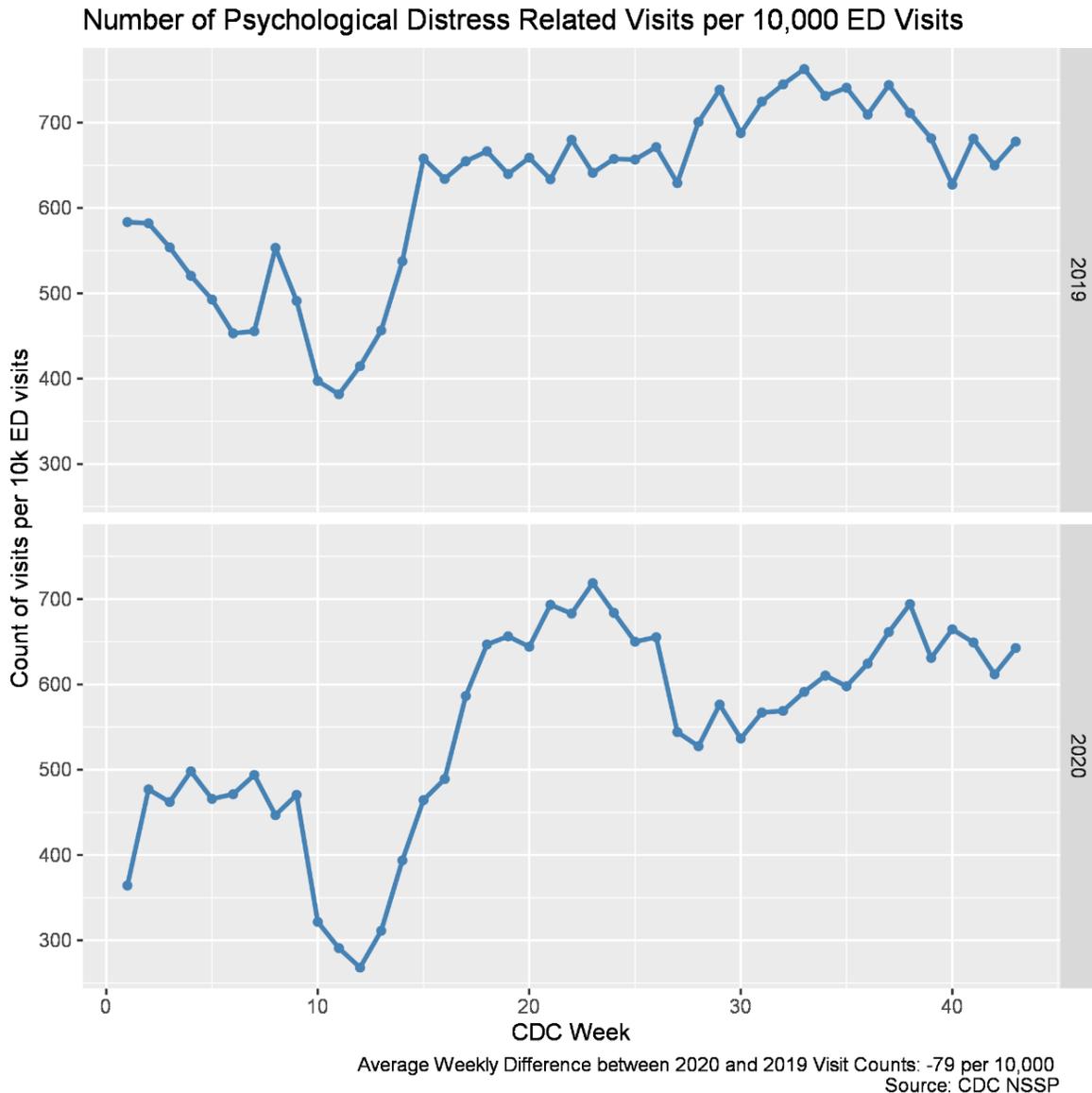
[3] Standard deviation: A measure of the amount of variation or dispersion of a set of values. Standard deviation is often used to measure the distance of a given value from the average value of a data set.

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

Psychological Distress

CDC Week 43 (week of October 18) had an ED visit relative count for psychological distress[5] that was more than CDC Week 42. This count continues a trend very similar to 2019 in both volume and direction. No statistical alert was issued for any race/ethnicity category.

Graph 1: Relative count of ED visits for psychological distress[5] in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

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

Average Weekly Difference between 2020 and 2019 Visit Counts: -79 per 10,000
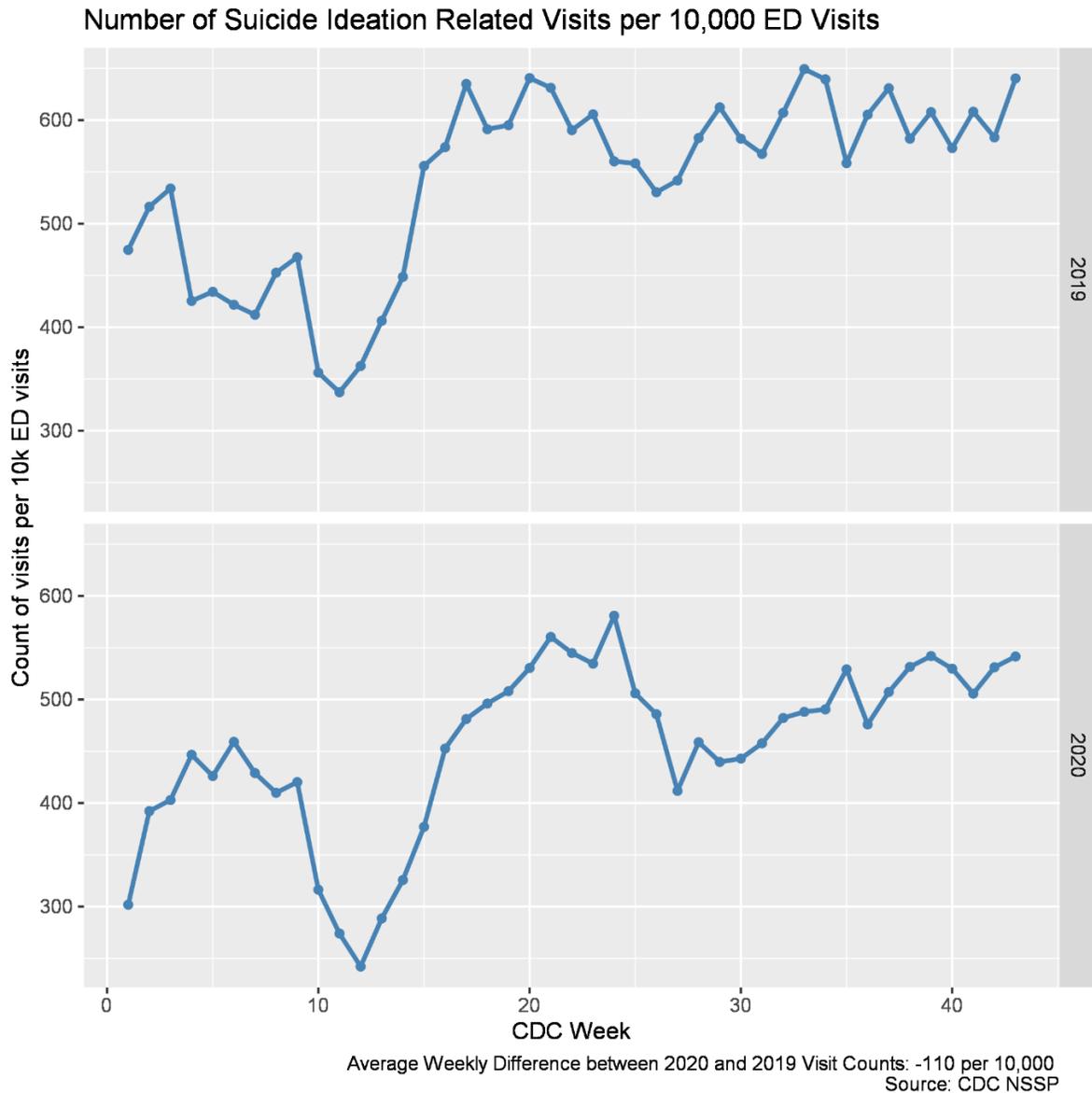Source: CDC NSSP

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[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.
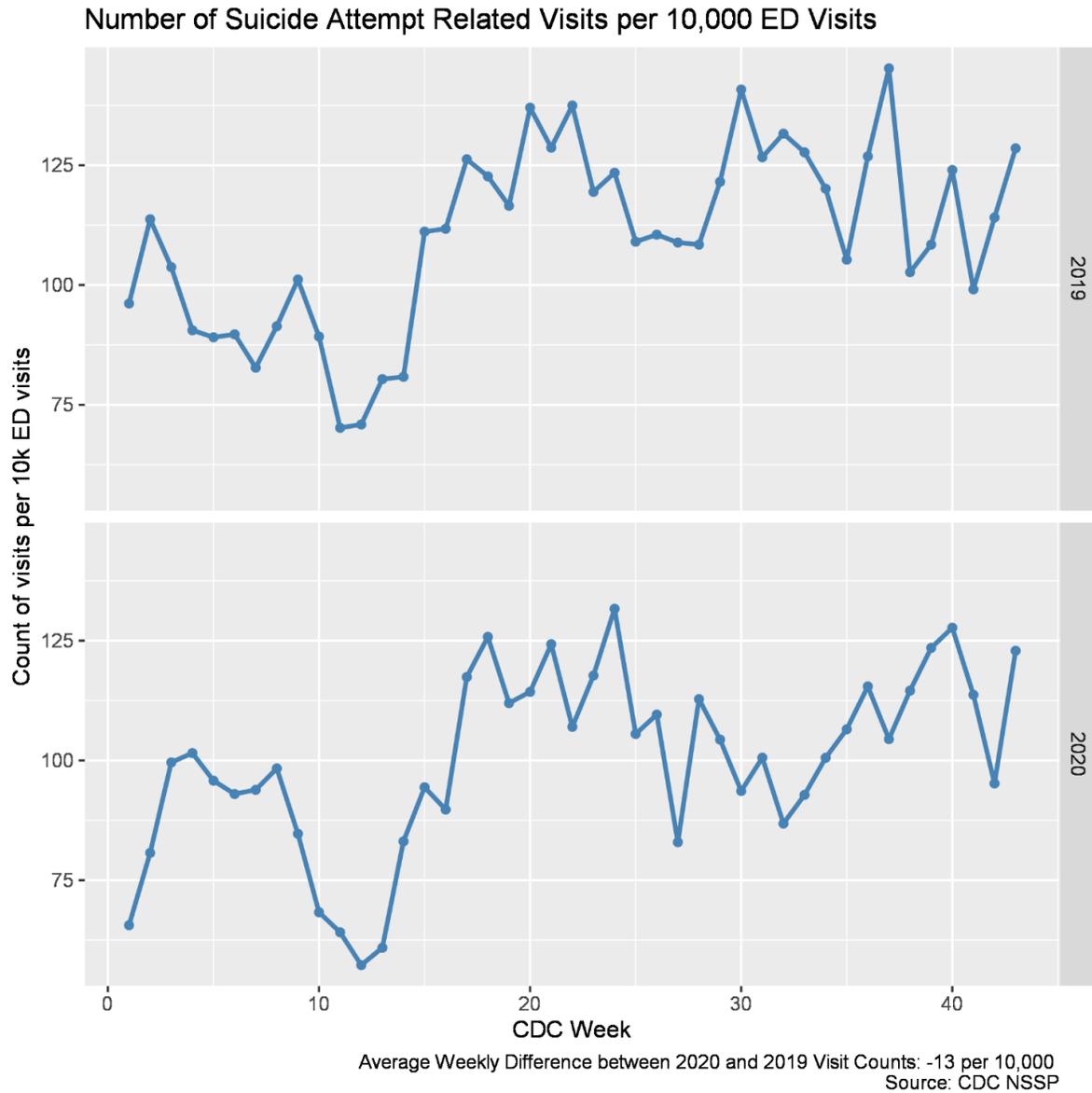
Suicidal Ideation and Suicide Attempts

For CDC Week 43, there has been a slight increase in relative reported ED visits for suicidal ideation (Graph 2). There are no alerts or warnings for this week, 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)

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

Average Weekly Difference between 2020 and 2019 Visit Counts: -110 per 10,000
Source: CDC NSSP

For ED visits for suicide attempts, the pattern of fluctuations has continued, with a significant increase in CDC Week 43 (Graph 3). Despite this increase, there are no alerts or warnings for any age or racial/ethnic category.
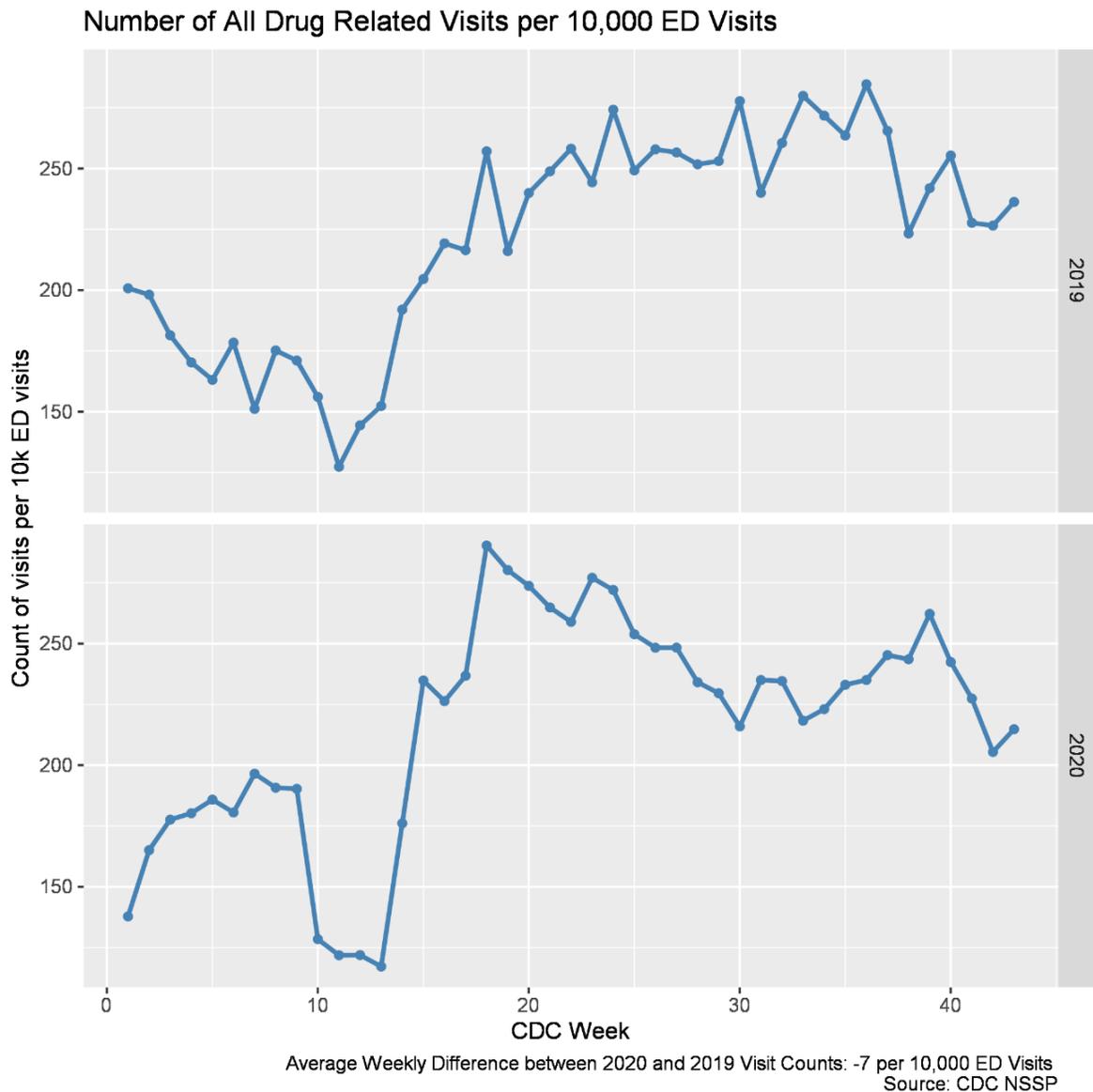
Graph 3: Relative count of ED visits for suicide attempts in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

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

Average Weekly Difference between 2020 and 2019 Visit Counts: -13 per 10,000
Source: CDC NSSP

Substance Use – Drug Overdose and Alcohol-Related Emergency Visits

For CDC Week 43, there has been a slight increase in relative visits for all drug[6]-related visits as compared to CDC Week 42, and the number of visits continues to be lower compared to this period last year (Graph 4). Visits for those under the age of 18 are on the rise, but no warnings or alerts were issued for this age group. No race or ethnicity category experienced a warning or alert regarding all drug visits for this period.
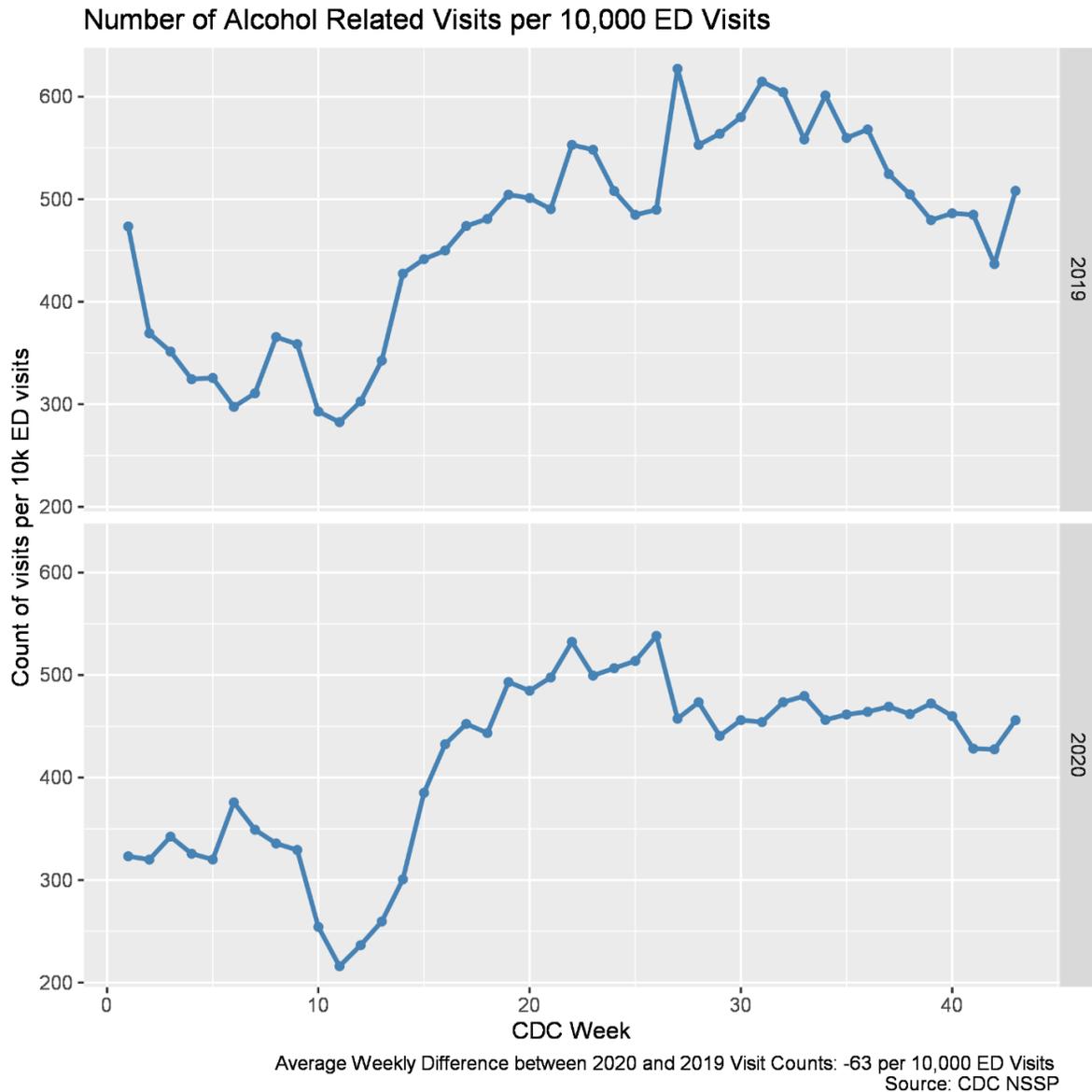
Graph 4: Relative count of ED visits for all drug[6]-related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

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

Average Weekly Difference between 2020 and 2019 Visit Counts: -7 per 10,000 ED Visits
Source: CDC NSSP

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[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.

Alcohol-related relative visits for CDC Week 43 show a slight increase after a period of steady decline. The visits continue to show a significant drop from peak visit rates in CDC Weeks 23-28 of this year (Graph 5). 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.
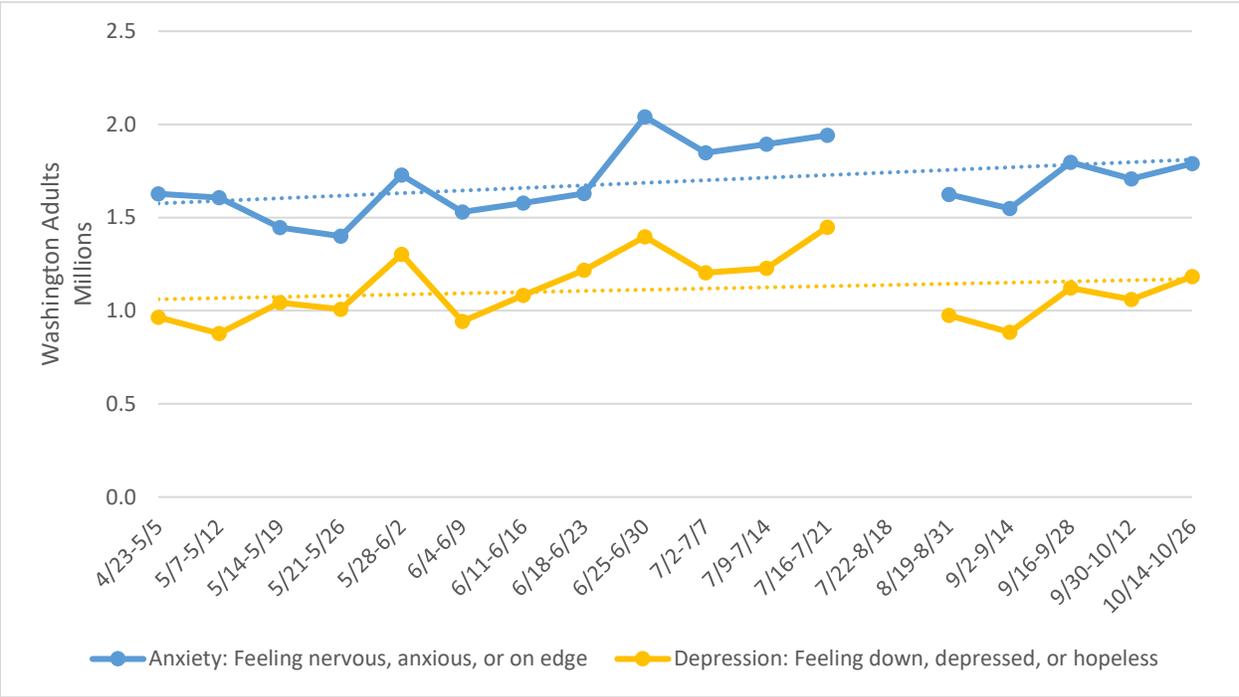
Graph 5: Relative count of ED visits for alcohol-related visits in Washington, by week: 2020 vs. 2019 (Source: CDC ESSENCE)

Number of Alcohol Related Visits per 10,000 ED Visits

Average Weekly Difference between 2020 and 2019 Visit Counts: -63 per 10,000 ED Visits
Source: CDC NSSP

General Surveillance – Symptoms of Anxiety and Depression

Survey data collected by the U.S. Census Bureau[7] for October 14–October 26 suggest a **5% increase in feelings of anxiety and 10% 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 1.2 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 9.3% 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–Oct 26 (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 October 14–October 26 survey data indicates 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 symptoms. One notable observation is that, unlike previous months, household income and anxiety have a

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[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.

broader relationship. Individuals earning $25,000–$35,000 appear to be displaying nearly equal amounts of anxiety as those earning under $25,000. Both groups are showing at least a 10% increase in symptom reporting than the second most anxious economic group (earning $50,000–$74,999).

African American and Multiracial (non-Hispanic) individuals have the highest symptom reporting for both depression and anxiety. Those who completed high school have the highest symptom reporting rate for the measured week. Lastly, those who identified as female have an increased symptom reporting rate for depression of roughly 4% (28% for females, compared to 24% for males).
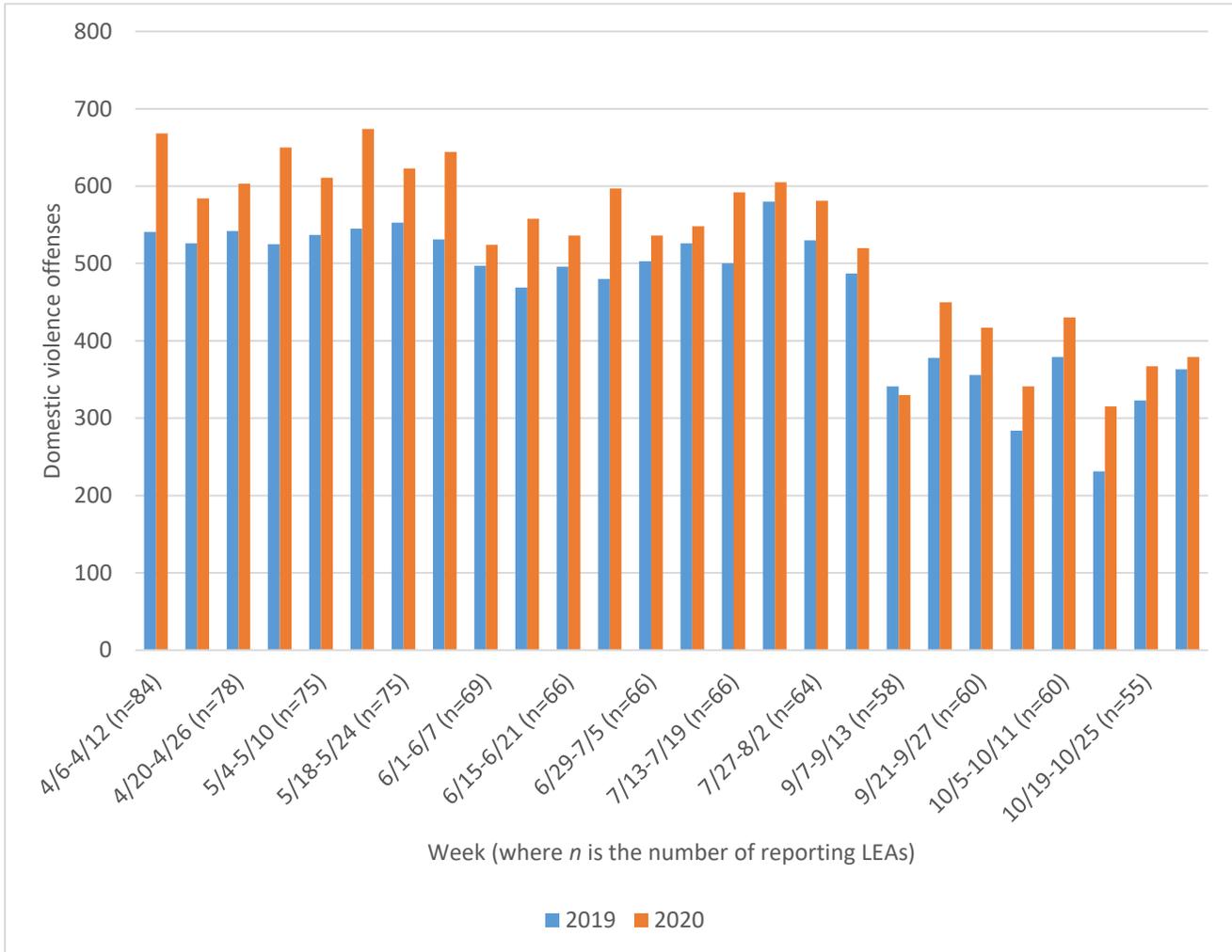
Crime – Domestic Violence

The October 26–November 1 reporting period saw both an increase in the number of domestic violence offenses being reported, as well as a **continued year-over-year[4] increase in the number of reports (4.4%)**, according to survey data from the Washington Association of Sheriffs and Police Chiefs (WASPC).[8]

This survey has also detected **a double-digit decrease (21%) in other offenses during the October 26–November 1 period, though a smaller decrease than in the previous reporting period (27%).** The only exception to this trend was a slight increase in animal cruelty offenses (from 0 in 2019 to 2 in 2020) for the agencies that reported during this period (n=55).

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[8] 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.

Graph 7: Domestic violence offenses reported, by week for April 6–October 25: 2020 vs. 2019 (Source: WASPC)[9]

Week (where *n* is the number of reporting LEAs)

■ 2019 ■ 2020

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[9] *n* is for both 2019 and 2020, specifying only those agencies reporting in both 2020 and 2019.
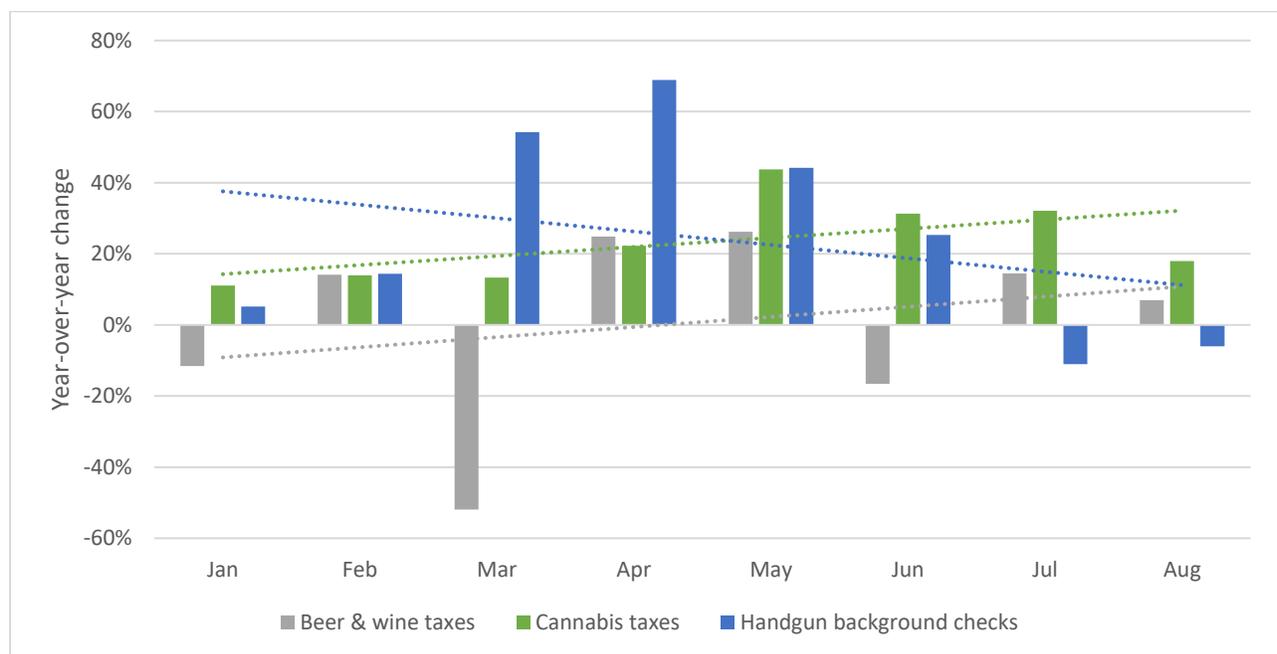
Product Sales – Alcohol and Cannabis Taxes & Handgun Background Checks

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[10] 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-year[4] 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)

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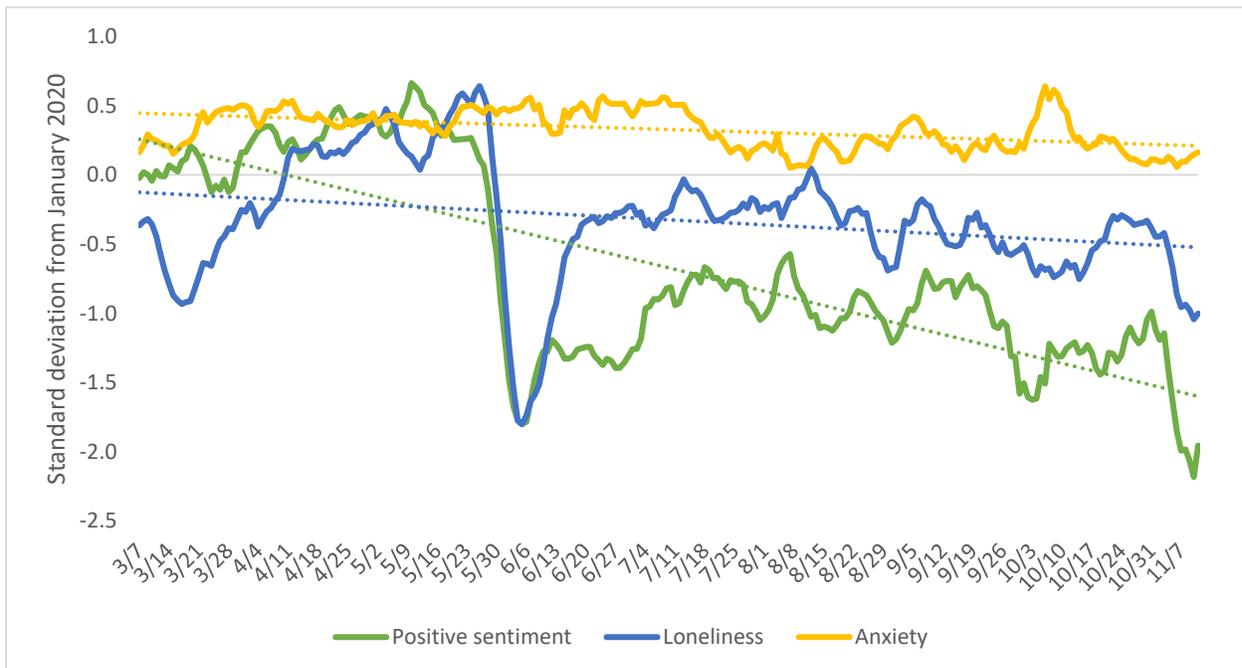
[11] Nemerov, H.R. (2018). Estimating Guns Sold by State. SSRN: http://dx.doi.org/10.2139/ssrn.3100289

[12] Anglemyer, 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

Social media data continue to plateau after stabilizing from events around June 6. Tweets related to COVID-19 and geotagged to Washington[13,14] suggest that since late June, all three measures have fluctuated around new averages, with positive sentiment remaining the most variable measure. There were marked declines in both positive sentiment and loneliness from around November 1 through 7.

Graph 9: 7-day moving averages of deviations in select expression measures[13,14] relative to January 2020 baseline: March 7, 2020–Nov 7, 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