

K1 The Effect of COVID-19 and Texas’s Phased Reopening Plan on Ethanol Concentrations in Driving While Intoxicated (DWI) Cases in Harris County, Texas

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Learning Overview: After attending this presentation, attendees will understand the impact that COVID-19 and Texas’s phased reopening plan had on ethanol concentrations in DWI cases in Harris County, TX.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing insight on the effect that Texas’s phased reopening plan had on ethanol concentrations in DWI cases as Texas was one of the first states to begin reopening following a statewide shutdown due to COVID-19.

Objective: To compare the results from alcohol-only DWI cases from the same time frames in 2018, 2019, and 2020 to show the effects of COVID-19 and the county’s shutdown and phased re-opening plan on ethanol concentrations in DWI cases in Harris County.

Background: On February 11, 2020, the World Health Organization named the novel coronavirus that was first identified in Wuhan, China, COVID-19. On March 6, 2020, Harris County, TX, had its first two confirmed COVID-19 positive cases. To help stop the spread of the virus, Harris County’s chief executive, Judge Lina Hidalgo, issued a “Stay Home, Work Safe” order on March 24, 2020, which was followed by an executive order from Texas Governor Greg Abbott on March 31, closing non-essential businesses, including bars, and encouraging drive-thru, pickup, and delivery from restaurants. On April 27, Gov. Abbott began the phased re-opening of Texas, becoming one of the first states to re-open. On June 26, due to an increase in COVID-19 cases, Gov. Abbott again limited certain businesses, such as restaurants, to operating at 50% of the total listed occupancy of the establishment and prohibited businesses selling mostly alcohol beverages, such as bars and breweries, from opening.

Method: Alcohol-positive DWI cases from the same time frames in 2018, 2019, and 2020 were compared in order to determine the effects of COVID-19, and the county’s shutdown and phased re-opening plan on concentrations of ethanol present, number of cases, and age of suspects.

Results: There was a significant decrease in cases submitted to the Harris County Institute of Forensic Sciences for DWI offenses during the “Stay Home, Work Safe” order. The Harris County Institute of Forensic Sciences received approximately 35% fewer cases during this time frame in 2020 when compared to 2018 and 2019. Even though the number of cases decreased, the average ethanol concentration remained consistent at $0.169 \pm 0.059\text{g}/100\text{mL}$. As the county began phased re-opening at the end of April 2020, submissions rapidly returned to normal.

Conclusion: While the “Stay Home, Work Safe” order and state executive order limiting the state of Texas to only essential functions was in place, the overall caseload for DWI cases decreased. However, the concentrations of ethanol remained consistent with results from 2018 and 2019 during the same time period, indicating COVID-19 and Texas’s phased reopening had no effect on ethanol concentrations.

DWI, COVID-19, Ethanol