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## Analysis of $\Delta 9$ -tetrahydrocannabinol driving under the influence of drugs cases in Colorado from January 2011 to February 2014.

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### Author information

#### Abstract

Driving under the influence (DUI) and DUI drugs (DUID) law enforcement (LE) cases (n = 12,082) where whole blood samples were submitted to ChemaTox Laboratory, Inc. in Boulder, CO, for testing were examined. Of these 12,082 cases, there were 4,235 cannabinoid screens (CS) requested. Samples that yielded a positive CS (n = 2,621) were further analyzed. A total of 1,848 samples were confirmed for  $\Delta 9$ -tetrahydrocannabinol (THC) after a positive CS. Due to a decrease in the confirmation limit of detection (LOD) for THC from 2 to 1 ng/mL, samples that were confirmed for THC and quantitated below 2 ng/mL (n = 250) were considered negative. After this normalization, there were 1,598 samples that were confirmed positive for THC and included in the analysis. The percentage of LE cases with requests for CS for all years was 35%, increasing from 28% in 2011 to 37% in 2013. The positivity rate of CS overall was 62% (range: 59-68% by year) with no significant change over the time frame examined. The percentage of positive CS in which THC was confirmed positive at or above 2 ng/mL (n = 1,598) increased significantly from 28% in 2011 to 65% in 2013. The mean and median THC concentrations were 8.1 and 6.3 ng/mL, respectively (range: 2-192 ng/mL, n = 1,367). The data presented illustrate a statistically significant increase in CS that result in positive THC confirmations. Although the specific cause of this increase is not known at this time, possible ties to ongoing developments in Colorado's marijuana legislation merit further analysis.

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PMID:25217549[PubMed - in process]

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