

Community Illicit Drug Use Patterns After Cannabis Legalization

Background

Amendment 64, which legalized the production, sale, and use of recreational marijuana in Colorado, was implemented statewide on January 1, 2014.

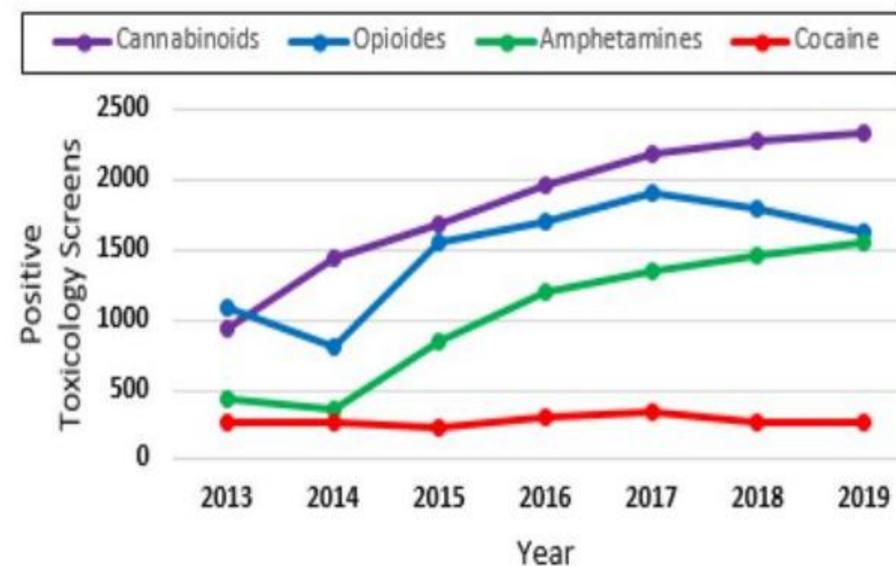
Following cannabis legalization, drug use among patients seeking emergency medical and mental health evaluation in a community has increased for other illicit drug types in addition to cannabinoids.

Objectives

This study aims to examine trends in community illicit drug use before and after legalization of cannabis, such as:

- Types of illicit drugs that are producing positive urine toxicology results
- Emergency department visits for opioid complications
- Emergency department visits for suicidal and homicidal ideation

Positive Toxicology Screens By Drug Type for Patients 21 & Older



Methodology

Urine toxicology reports between 2013, one year before cannabis legalization, and September of 2020 were analyzed for patients 21 and older who presented to a hospital emergency department for:

- Altered mental status
- Psychiatric evaluation
- Trauma

Results

The number of urine toxicology screens that were positive for cannabinoids and/or illicit drugs per toxicology screen performed increased by 14.5% between 2013 and 2020.

A 22% increase in the number of positive urine toxicology tests for opiate metabolites was shown within the first 3 years of cannabis legalization.

Methamphetamine positives nearly quadrupled within the first 5 years and continue to rise through 2020.

The number of patient presentations to the emergency department for suicidal ideation and opioid use complications, such as cellulitis, endocarditis, and overdose has also shown an increase since 2013.

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Future Directions

- Records from other Colorado emergency departments that predate legalization should be examined to further assess the patterns of drug use leading up to legalization for possible correlations between communal drug use and acceptance as factor to legalization, as data for emergency department toxicology records was limited to 2013 in this study
- Patient charts for emergency department visits should be further examined for trauma patients to assess the relationship between positive urine toxicology reports and the mechanism of injury to analyze possible drug use dependent-causation

Conclusions

The results of this study suggest that legalization of cannabis in Colorado has given rise to illicit drug use in a community over time.

Amphetamine use has specifically become more prevalent among patients presenting for altered mental status, psychiatric evaluation, and trauma. Illicit drug use in these patients has also been connected to increases in suicidal ideation as well as opioid complications.

These findings reinforce the importance of further examination of the potential long-term ramifications to public health that coincide with a shift in communal attitude regarding the general acceptance and normalization of substance use, abuse, and dependence.

Acknowledgements

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