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Potential impact of COVID-19 on drugs of abuse consumption

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LETTER TO THE EDITOR

Potential impact of COVID-19 on drugs of abuse consumption

To the Editors,

Tzeferakos et al. highlighted that drugs of abuse consumption may have substantially varied during the coronavirus disease 2019 (COVID-19) pandemic.¹ To provide additional insights on this matter, we accessed Google Trends (Google Inc. Mountain View, CA, US) using the keywords “cannabis,” “cocaine,” and “heroin” under the specification “drug” (and thereby overcoming potential language differences), setting the geographical location to either “United States” (US) or “worldwide”, within the past 5 years (i.e., from July 2017 to July 2022). The weekly Google Trends score for these search terms, thus reflecting their Web popularity and consumption,² was downloaded into a Microsoft Excel file (Microsoft, Redmond, WA, United States). We divided the search period into “pre-COVID” (between July 2017 and February 2020) and COVID (between March 2020 and July 2022). The weekly Google Trends scores, mirroring the weekly local volume of Google search for the given terms, were reported as median and interquartile range (IQR), whilst their differences were compared with Mann-Whitney test (Analyse-it Software Ltd, Leeds, UK). The study was conducted in accordance with the Declaration of Helsinki, under the terms of relevant local legislation.

The results of this infodemiological analysis are shown in figure 1. During the COVID-19 pandemic, the volume of Google searches for all the three terms “cannabis,” “cocaine,” and “heroin” decrease substantially compared to the pre-COVID period both in the US and worldwide. Specifically, the weekly Google Trends score in the US declined from 64 (IQR, 60-66) to 62 (IQR, 58-64; -3%, $p=0.003$) for cannabis, from 57 (IQR, 54-60) to 46 (IQR, 45-48; -19%, $p<0.001$) for cocaine, and from 39 (IQR, 35-43) to 27 (IQR, 25-28; -32%, $p<0.001$) for heroin, respectively. An even sharper decline in the weekly Google Trends score for cannabis was noted setting the location to “worldwide”, since the median weekly Google Trends score declined from 61 (IQR, 58-63) to 54 (IQR, 51-56; -11%; $p<0.001$), whilst the variation of the other two search terms exactly mirrored that seen in the use, i.e., from 63 (IQR, 61-66) to 51 (IQR, 49-53; -19%, $p<0.001$) for cocaine and from 44 (IQR, 38-48) to 30 (IQR, 27-33; -32%, $p<0.001$) for heroin, respectively.

Several lines of evidence now attest that COVID-19 is generating a dramatic psychological burden, increasing the risk of developing important threat appraisals,³ and thus potentially paving the way to enhanced use of drugs of abuse. Unlike this preamble, however, the results of our infodemiological analysis seemingly attest that the use of the three mostly widespread addictive drugs may have instead significantly declined both worldwide and in the US during the COVID-19 pandemic. Besides the objective problems of obtaining these drugs during periods of social restrictions and lockdown,⁴ the availability of several drugs and medicines has been jeopardized throughout the ongoing COVID-19 pandemic, thus providing a possible explanation to our findings.

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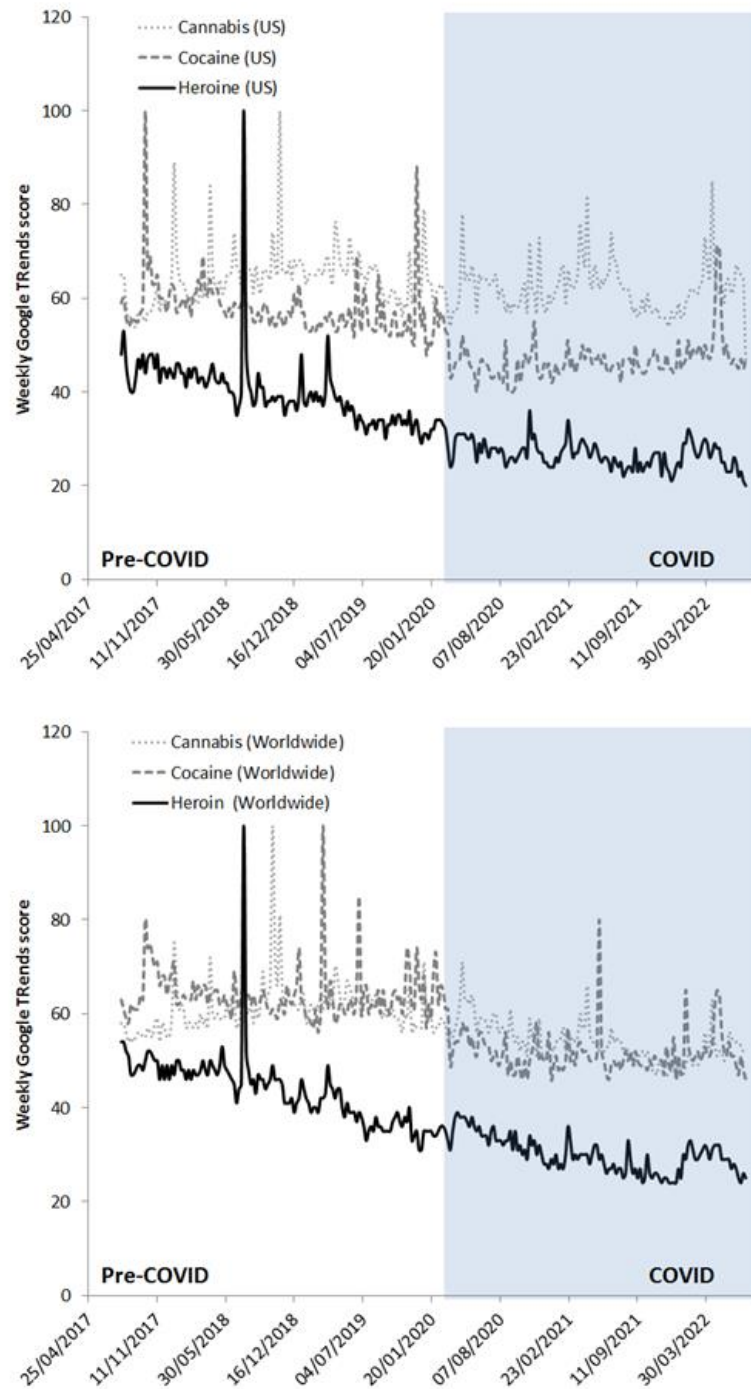


Figure 1. Weekly Google Trend score for “cannabis”, “cocaine”, and “heroin” in the US and worldwide before and during the coronavirus disease 2019 (COVID-19) pandemic