



News release

from the EU drugs agency in Lisbon

NEW STUDY ON WASTEWATER ANALYSIS PUTS CITY DRUG USE IN THE SPOTLIGHT

Latest wastewater data reveal drug-taking habits in a record 82 European cities

(18.5.2021, LISBON) The 2020 findings from the largest European project in the science of wastewater analysis are revealed today in [Wastewater analysis and drugs — a European multi-city study](#), published by the **Europe-wide SCORE** group, in association with the **EU drugs agency (EMCDDA)** ⁽¹⁾⁽²⁾. The project analysed wastewater in 82 European cities (18 countries) to explore the drug-taking behaviours of their inhabitants. This is the highest number of cities participating to date, despite COVID-19 disruption in the study period concerned. While the 2019 results pointed to an overall rise in the detection of stimulants, the 2020 findings are more mixed, with diverse geographical and temporal patterns seen across the study locations. Samples in 2020 may have been collected during lockdowns, which could have impacted on drug availability and patterns of use.

From **Zagreb** to **Lisbon** and **Helsinki** to **Istanbul**, the study analysed daily wastewater samples in the catchment areas of wastewater treatment plants over a one-week period between March and May 2020. Wastewater from some 25 million people was analysed for traces of four illicit stimulant drugs (cocaine, amphetamine, methamphetamine, MDMA/ecstasy) as well as cannabis. The **SCORE group** has been conducting annual wastewater monitoring campaigns since 2011, when 19 cities participated.

Alexis Goosdeel, EMCDDA Director says: 'Over the last decade, wastewater analysis has established itself as an important tool for monitoring illicit drug use in Europe. By delivering almost real-time data on consumption patterns, both geographically and over time, this novel approach can offer a valuable snapshot of drug use in key cities and locations and an insight into emerging changes in behaviour. As we look ahead, today's study explores the exciting potential for wastewater research in the future, from identifying new psychoactive substances to assessing the outcome of interventions targeting drug supply'.

Key findings 2020

- **MDMA:** The highest residues of MDMA were found in cities in Belgium, Germany, the Netherlands and Slovenia. Almost half of the cities with data for 2020 and 2019 (24 of 49) reported a decrease in detections in 2020, possibly due to the closure of nightlife venues during the pandemic, where this drug is often consumed.
- **Cocaine:** Cocaine residues in wastewater were highest in western and southern European cities, particularly in Belgium, the Netherlands and Spain. Very low levels were found in the majority of eastern European cities, although some increases are seen in the latest data. Overall, the picture is mixed: of the 49 cities with data for 2020 and 2019, 19 reported increases and 16 decreases.
- **Amphetamine:** The level of amphetamine residues varied considerably across the cities, with the highest reported in cities in the north and east of Europe and much lower levels in cities in the south. Of the 48 cities with data for 2019 and 2020, 20 cities reported an increase and 19 a decrease.

Methamphetamine: Traditionally concentrated in Czechia and Slovakia, this drug is now present in Cyprus, the east of Germany, Spain and several northern European countries (e.g. Denmark, Lithuania, Finland, Norway). Unlike the other three stimulants, residues were very low to negligible in most locations.

- **Cannabis:** The highest loads of the cannabis metabolite (THC-COOH) were found in cities in Croatia, France and the Netherlands. Use appears to have been less affected by COVID-19 lockdowns than other drugs.
- **City variations:** The study revealed differences between cities in the same country, which may be partly explained by their different social and demographic characteristics (age distribution, universities, nightlife). In most countries with multiple study sites, residues were higher in large cities compared to smaller locations for three of the stimulants. No such differences were detected for amphetamine and cannabis.
- **Weekly patterns:** Wastewater analysis can detect fluctuations in weekly patterns of drug use. More than three-quarters of the cities showed higher residues of the typically recreational drugs, cocaine and MDMA, at the weekend (Fri–Mon) than on weekdays, despite much of the night-time economy being closed in Europe in 2020. In contrast, residues of the other three drugs were distributed more evenly throughout the week.

New interactive features

Today's study includes an innovative interactive map allowing the user to look at geographical and temporal patterns and to zoom in on results per city and per drug. This interactive feature has been redesigned this year to be more accessible and user-friendly and to perform better on mobile and desktop devices. For the first time, and in line with the **EMCDDA's** commitment to open data, all of the source tables behind the tool can be easily downloaded by researchers, data journalists or anyone interested in using the data in their work.

(¹) Study: www.emcdda.europa.eu/topics/pods/waste-water-analysis

Motion graphic (wastewater methodology): <https://youtu.be/SbdiuEL2r4k>

FAQs: www.emcdda.europa.eu/publications/topic-overviews/content/wastewater-faq_en

Guidelines: www.emcdda.europa.eu/publications/html/manuals-and-guidelines/communicating-the-results-of-wastewater-based-epidemiology_en

Topics page: www.emcdda.europa.eu/topics/wastewater_en

(²) The Sewage analysis CORE group — Europe (SCORE) <http://score-cost.eu/>

<p>To find out more on the broader picture of the drug situation in Europe, read our European Drug Report 2021: Trends and Developments to be launched on 9 June — www.emcdda.europa.eu/edr2021</p>
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