



News release

from the EU drugs agency in Lisbon

NEW STUDY ON WASTEWATER ANALYSIS SHINES LIGHT ON CITY DRUG USE

Latest data reveal drug-taking habits in close to 60 European cities

(7.3.2018, LISBON — **EMBARGO 11:00 Central European Time/10.00 Lisbon time**) The latest findings from the largest European project in the emerging science of wastewater analysis are presented today by the Europe-wide **SCORE** group, in association with the **EU drugs agency (EMCDDA)**⁽¹⁾. The project analysed wastewater in 56 European cities in 19 European countries in March 2017 to explore the drug-taking behaviours of their inhabitants.

From **Berlin** to **Vilnius** and from **Helsinki** to **Barcelona**, the study analysed daily wastewater samples in the catchment areas of wastewater treatment plants (WWTPs) over a one-week period. Wastewater from approximately 43 million people was analysed for traces of four illicit drugs: amphetamine, cocaine, MDMA (ecstasy) and methamphetamine.

Wastewater based epidemiology is a rapidly developing scientific discipline with the potential for monitoring close to real-time, population-level trends in illicit drug use⁽²⁾. By sampling a known source of wastewater, such as a sewage influent to a wastewater treatment plant, scientists can now estimate the quantity of drugs used in a community by measuring the levels of illicit drugs and their metabolites excreted in urine (see motion graphic for method)⁽³⁾.

The **SCORE** group has been conducting annual wastewater monitoring campaigns since 2011. Twenty-one cities have participated in five or more of the seven campaigns run so far, which allows for time-trend analysis of drug consumption based on wastewater testing.

The 2017 results are released today in '**Wastewater analysis and drugs — a European multi-city study**', an updated edition in the **EMCDDA Perspectives on Drugs (POD)** series. The POD includes an innovative interactive map and a chart-based tool allowing the user to look at geographical and temporal patterns and to zoom in on results per city. The findings offer a valuable snapshot of the drug situation in the cities involved, revealing marked regional variations in drug use patterns:

- Methamphetamine use remains generally low. Traditionally concentrated in the **Czech Republic** and **Slovakia**, it now appears to be present in **Cyprus**, the east of **Germany** and northern Europe (e.g. **Finland** and **Norway**).
- Traces of cocaine in wastewater suggest that cocaine use is highest in western and southern European cities, particularly in cities in **Belgium**, the **Netherlands**, **Spain** and the **UK**. The analysis points to very low to negligible cocaine use in the majority of eastern European cities. In cities with wastewater data for 2016 and 2017, the latest figures reveal increases in traces of cocaine, confirming the upward trend reported in 2016.
- Most of the cities observing sharp increases in traces of MDMA in the period 2011–16 reported a stabilising trend in 2017.

- The loads of amphetamine detected in wastewater varied considerably across the study locations, with the highest levels reported in cities in the north and east of Europe. Amphetamine was found at much lower levels in cities in the south of Europe.

When weekly patterns of drug use were examined, cocaine and MDMA (ecstasy) levels rose sharply at weekends in most cities, while amphetamine use appeared to be more evenly distributed throughout the week.

In this project, **SCORE** uses a standard protocol and a common quality-control exercise in all locations, making it possible to directly compare illicit drug loads in Europe over a one-week period over seven consecutive years.

The **EMCDDA** adopts a multi-indicator approach to drug monitoring on the principle that no single measure can provide a full picture of the drug situation. It views wastewater analysis as a valuable additional tool in its epidemiological toolkit and one which can provide timely information on a wide spectrum of substances.

Notes

⁽¹⁾ The Sewage analysis CORE group — Europe (SCORE) <http://score-cost.eu/>
For the study results and the cities involved, see Perspectives on Drugs (POD), 'Wastewater analysis and drugs — a European multi-city study' at www.emcdda.europa.eu/topics/pods/waste-water-analysis (7 March 2018).
The POD is currently available in English. It will be available in Spanish, German, French and Portuguese in the coming weeks.

⁽²⁾ For more on wastewater analysis, see www.emcdda.europa.eu/activities/wastewater-analysis and www.emcdda.europa.eu/publications/insights/assessing-drugs-in-wastewater

⁽³⁾ A wastewater motion graphic is available in English (with sub-titles in: ES, DE, FR, IT, NL and PT) at <https://youtu.be/SbdiuEL2r4k>