News release

from the EU drugs agency in Lisbon

NEW REPORT: ASSESSING ILLICIT DRUGS IN WASTEWATER

EMCDDA presents latest advances in monitoring illicit drugs in wastewater

(15.3.2016, LISBON) The latest advances in the science of wastewater analysis are presented by the **EU drugs agency (EMCDDA)** today in a new report *Assessing illicit drugs in wastewater* ([1]). The report is being presented in **Vienna** at an event — 'Use of wastewater analysis to understand drug markets' — being held in the margins of the annual meeting of the **UN Commission on Narcotic Drugs (CND)**([2]).

Wastewater analysis is a rapidly developing scientific discipline with the potential for monitoring near-real-time data on geographical and temporal trends in illicit drug use. By sampling a known source of wastewater (e.g. a sewage influent to a wastewater treatment plant), scientists can estimate the quantity of drugs used in a community by measuring the levels of illicit drugs and their metabolites excreted in urine.

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.

Alexis Goosdeel, EMCDDA Director says: 'Wastewater-based epidemiology has demonstrated its potential to become a useful complement to established drug monitoring tools. Its ability to deliver almost real-time data on drug use patterns is particularly relevant against the backdrop of an ever-shifting drugs problem. By detecting changes in drug use patterns, both geographically and over time, it can help health and treatment services respond better to emerging trends and changing treatment needs'.

The report explores the latest findings from the worldwide application of wastewater-based epidemiology and the advances that have occurred in since 2008. These include developments to reduce uncertainties and to standardise procedures, including a best practice protocol, developed by the Sewage analysis CORe group Europe (SCORE) network ([3]).

Two case studies (Norway, Italy) show the first attempts to compare cocaine-use estimates obtained through wastewater analysis with conventional epidemiological data gathered through population surveys. Also described are three new approaches for dealing with new psychoactive substances (NPS). These include using pooled urine samples from nightclubs and music festivals to provide timely data on which NPS are being used and where. Detecting and estimating the use of NPS presents a particular challenge for drug epidemiology due to the rapid rise in their number and availability (101 NPS were detected in 2014).

Finally, the report highlights gaps and requirements for future research, including the need for addressing the ethical aspects of wastewater-based epidemiology. Better integration of this novel methodology with existing epidemiological indicators will allow for a better understanding of the drug situation in Europe.

([1]) Available in English at www.emcdda.europa.eu/publications/insights/assessing-drugs-in-wastewater. This report updates the first edition published in 2008. See also www.emcdda.europa.eu/activities/wastewater-analysis
([2]) Organised by the Governments of Italy and Switzerland, UNODC and the EMCDDA. For more on the CND session, see www.unodc.org/unodc/en/commissions/CND/session/59_Session_2016/CND-59-Session_Index.html
([3]) For more, see http://score-cost.eu