

# **Comparison of drugs used by nightclub patrons and criminal offenders in Oslo, Norway**

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## **Abstract**

The aim of this study was to investigate psychoactive drug use among nightclub patrons by analysing samples of oral fluid and compare with findings in blood samples from criminal suspects. We hypothesized that the profile of illicit drug use among nightclub patrons is different from what we observe in those forensic cases. Research stations were established outside nine popular nightclubs with different profiles and patron-characteristics in downtown Oslo. Data and sample collection was conducted on Fridays and Saturdays in March and May 2014. Individuals and groups who entered defined recruitment zones from 23:00 to 03:30 were invited to participate in this voluntary and anonymous study. Oral fluid was collected using the Intercept Oral Fluid Sampling Device. Methanol was added to increase the recovery of cannabinoids from the device. Sample preparation was performed using liquid-liquid extraction with ethyl acetate/heptane (4:1) after adding internal standards, ammonium carbonate buffer pH 9.3 and Triton X100. The first 80 samples were analysed for 122 substances, which included psychoactive medicinal drugs, classical illicit drugs and new psychoactive substances (NPS). Based on the findings

and discussions with police and customs authorities, the remaining oral fluid samples were analysed for 46 substances. Among the 500 samples collected during the study period, we found illicit drugs in 25.4% and medicinal drugs in 4.2% of the samples. The most prevalent substances were: cocaine 14.6%, THC 12.4%, amphetamine/methamphetamine 2.8%, diazepam 1.2% and clonazepam 1.0%. Various NPS were found in 1.4% of the samples. The prevalence of drugs in blood samples from criminal suspects were for cocaine 3.4%, THC 34.7%, amphetamine/methamphetamine 37.0%, diazepam 12.0%, and clonazepam 29.3%. Multi-drug use was more common among criminal suspects (41.3%) than among club patrons (6.8%). The results showed that the drug use pattern among nightclub patrons was substantially different from the drug use pattern manifested by individuals apprehended by the police suspected for criminal conduct.

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