

CDEWS-3 STUDY SHOWS CHANGING COMPOSITION OF SYNTHETIC CANNABINOIDS IN WASHINGTON, D.C.

The first two Community Drug Early Warning System (CDEWS) studies conducted in 2013 and 2015 uncovered the rise of synthetic cannabinoids (SCs) in Washington, D.C., and documented the variety of specific SC metabolites that users tested positive for. The metabolites were found to be rapidly changing as new chemicals were developed and introduced into the products being sold.

The third CDEWS study (CDEWS-3) introduced a new laboratory that used more sensitive testing technology capable of detecting a larger number of licit and illicit drugs. The new test panel of more than 150 drugs included tests for 27 SC metabolites, adding six newly developed SC tests that were unavailable for inclusion in the prior CDEWS studies. The CDEWS-3 results, therefore, document the changing nature of the SC metabolites used by this high-risk population of adult probationers and parolees in Washington, D.C.

Table 1 includes the 15 SC metabolites that were detected in at least one specimen from any of the three CDEWS studies since 2013. Several of the older generation cannabinoids that were tested for in the earlier CDEWS studies, such as UR-144 and XLR-11, were detected in all three studies. The most common metabolite detected in CDEWS-3 (77%) was AB-CHMINACA (metab. 4), a newly added metabolite that was not available for testing in the prior studies. Striking increases were found among the newer metabolites first introduced in CDEWS-2 (2015): AB-PINACA (0% to 65%) and 5F-PB-22 (10% to 52%). Four metabolites were detected in the CDEWS-1 study, 5 in CDEWS-2, and 12 in CDEWS-3. This increase was expected, given the addition of new metabolites to the SC test panel adopted for each subsequent CDEWS study.

Table 1: Metabolites Detected in Specimens That Tested Positive for SCs From Adult Probationers/Parolees in Washington, D.C., by CDEWS Study

Percentage Positive by CDEWS Laboratory for:	CDEWS-1 2013 (N=45)	CDEWS-2 2015 (N=67)	CDEWS-3 2017 (N=31)
UR-144	91%	99%	42%
XLR-11	40%	5%	26%
JWH-018	7%	0%	0%
JWH-073	2%	0%	0%
AB-PINACA	Not Tested	0%	65%
5F-PB-22	Not Tested	10%	52%
PB-22	Not Tested	40%	10%
5F-AB-PINACA	Not Tested	0%	10%
ADB-PINACA	Not Tested	0%	7%
AKB-48	Not Tested	2%	0%
AB-CHMINACA (metab. 4)	Not Tested	Not Tested	77%
AB-CHMINACA (Parent)	Not Tested	Not Tested	32%
ADB-FUBINACA (Parent)	Not Tested	Not Tested	29%
AB-CHMINACA (metab. 6)	Not Tested	Not Tested	10%
AB-FUBINACA (Parent)	Not Tested	Not Tested	3%

Our results suggest that newly available SC chemicals are being marketed along with older ones rather than replacing them. This notion runs contrary to the widely held belief that once an SC chemical is scheduled and prohibited, manufacturers simply abandon it and replace it with newly created chemicals. It is also possible that people are consuming old and new batches of SCs together. Regardless, it is not possible for users to know what they are consuming or to predict the effects. See *CDEWS News*, Issue 1, for an overview of the CDEWS methodology (<https://go.umd.edu/cdews-news>).

Source: *CDEWS-3: Washington, DC – Site 3 of 4 (2017)*

available at: <https://go.umd.edu/cdews-reports>