

Annex 1: Report on WHO Questionnaire for Review of Psychoactive Substances for the 42nd ECDD: Evaluation of synthetic cannabinoids (APINACA (AKB-48), AB-FUBINACA, 5F-AMB (5F-AMB-PINACA, 5F-MMB-PINACA), 5F-MDMB-PICA (5F-MDMB-2201), 4-F-MDMB-BINACA)

Data was obtained from 81 Member States (11 AFR, 5 EMR, 35 EUR, 12 PAH, 5 SEAR and 13 WPR) for the WHO Questionnaires for the Review of Psychoactive Substances.

A total of Member States started the questionnaire regarding synthetic cannabinoids. Of these, 36 respondents had information on the substances.

Region	Number of countries responded	Number of countries with information on each substance				
		AB-FUBINACA	5F MDMB-PICA (5F-MDMB-2201)	APINACA (AKB-48)	5F-AMB (5F-AMB-PINACA, 5F-MMB-PINACA)	4-F-MDMB-BINACA
AFR	1	1	1	1	1	1
EMR	1	1	0	0	0	0
EUR	26	23	19	18	16	13
PAH	1	1	1	1	0	0
SEAR	1	1	1	1	1	0
WPR	6	3	3	3	2	2
TOTAL	36	30	25	24	20	16

LEGITIMATE USE

No countries reported any approved human medical products containing synthetic cannabinoids.

Australia, France and Latvia reported that the synthetic cannabinoids are used for industrial or other non-medical/ non-scientific purposes. Australia referred to scientific use:

“Forensic laboratories, university research, law enforcement standards and reference materials”, imported.”

France and Latvia cited recreational usage.

No countries reported any approved veterinary products containing synthetic cannabinoids.

No countries reported the use of synthetic cannabinoids for any cultural, religious or ceremonial purposes.

EPIDEMIOLOGY OF NON-MEDICAL/NON-SCIENTIFIC USE – USE FOR PSYCHOACTIVE PURPOSES OR RECREATIONAL DRUG USE

Twenty-nine member states reported that synthetic cannabinoids are being misused for their psychoactive properties (as a recreational drug).

By far the most common route of administration reported was smoking, followed by oral administration and inhalation (Table 1), with “vaping” mentioned by one country and two indicating that there may be other routes as well.

Route of administration	Number of countries
Smoking	20
Oral	7
Inhalation	5
Sniffing	3
Injection	1
Other (please specify)	3
Do not know	8
Total	29

Table 1: Common routes of administration

For all five of the synthetic cannabinoids, the vast majority of the countries specified “smoking” as the most common route of administration.

The most common formulations of synthetic cannabinoids reported were powder and solution (with respondents often referring to the substances being mixed with or sprayed onto plant/herbal materials for smoking) (refer to Table 2).

Formulation	Number of countries reporting formulations
Powder	20
Mixed with or sprayed onto plant/herbal material (for smoking)	18
Liquid or solution for oral administration/use	6
Tablets/Capsules	2
Solution for injection	0
Other (please specify)	3
Total	29

Table 2: Common formulations reported by countries

Smuggling (from other countries) was by far the main source of the synthetic cannabinoids for non-medical/non-scientific use, cited by sixteen of the eighteen countries who could give an answer (refer to Table 3), with “by mail” and “purchasing through internet” each cited in one country.

Source	Number of countries reporting sources
Smuggling (from other countries)	16
Illegal manufacturing	5
Diversion (from legal supply chain)	1
Legal manufacturing	0
Legal trade	0
Other (please specify)	2
Do not know	11
Total	29

Table 3: Sources of substance for non-medical or non-scientific use

Six member states (Belgium, Estonia, Greece, Japan and the United Kingdom of Great Britain and Northern Ireland, and another member state which did not wish to be identified) indicated that there are specific subpopulations known to misuse any of the synthetic cannabinoids, which could mostly be categorised as young drug users and people in prison (along with the “Yakuza (The Japanese mafia)”.

Answers regarding the extent and magnitude of public health problems or social harm caused by the use of the synthetic cannabinoids painted a mixed picture, as illustrated by the following comments from different countries:

“Negligible”

“Limited”

“Antisocial behaviours and mental disorders”

“Two of the formulations have increased in circulation in recent months—5F-MDMB-PICA and FMDMB-BINACA—with claims that they are stronger than, and have differing effects to, other SCRA. A 2019 study of 2,000 urine samples from criminal justice settings found that positivity rates for 5F ADB (MDMB PINACA), AMB FUBINACA and MDMB CHMICA were declining and detected two new compounds—4F MDMB BUTINACA and 5F MDMB PICA—showing transitions in pattern of use.”

“Over the last few years NPS (especially synthetic cannabinoids) have established themselves in the German drug scene and become an alarming phenomenon. There are hardly any reliable data on long-term health damage, addictive potential, and other aspects of these scientifically unexplored substances. Those cases of intoxication and death which have become known are alarming. As a rule, the mostly young consumers do not know what substance they are taking and in what concentration, thus exposing themselves to incalculable health risks and consequences.”

“contexte de polyconsommation depuis 2015 : 8 signalements avec AB-FUBINACA 2019 : 1 signalements avec 5F-MDMB-PICA”

“The NZ Chief Coroner has reported that 24 people have died as a result of synthetic cannabis since June 2017, and there were 50 other cases where synthetic cannabis toxicity appears to be the cause of death - a total of 70-75 deaths.”

The level of negative health-impact originating from these substances’ non-medical consumption was reported as:

Serious	Substantial	Negligible	Don’t Know
7	6	8	8

The seven member states who reported a serious level of negative health-impact are Germany, Indonesia, Italy, Lithuania, Sweden and the United Kingdom, with one other member state which wished not to be named. Among member states that reported a serious or substantial level of negative health-impact, single examples were sometimes cited:

“AB-FUBINACA is the only one of the 5 cannabinoids that has been detected to date”

“AB-FUBINACA causes hallucinations and serious health damages”

“Significant number of related cases of 5F-MDMB-PICA. 104 cases in 2018.”

Other member states mentioned all the synthetic cannabinoids included in the assessment:

“All the above 5 synthetic cannabinoids, including APINACA, AB-FUBINACA, 5F-AMB, 5F-MDMB-PICA and 4-F-MDMB-BINACA”

“All of them are potent and dangerous”.

Germany shared this observation:

“Experience gained so far has shown that manufacturers of these substances react immediately to inclusions in the Narcotic Drugs Act/NPS Act and put new substances on the market which are chemically similar to the known substances but not (yet) subject to the Narcotic Drugs Act/NPS Act”.

Seven member states (France, Germany, Italy, Russian Federation, Sweden, United Kingdom and one other member state which wished not to be named) reported emergency room/department visits related to the non-medical use of synthetic cannabinoids. All 5 of the listed synthetic cannabinoids were cited (along with several other variants), led by AB-FUBINACA (mentioned by 5 countries) and APINACA (mentioned by 3 countries). Germany provided a detailed feedback covering three of the substances included in the questionnaire, sometimes in combination with other chemicals:

“ non-fatal intoxication in 2014 (unconscious, convulsing), forensic analysis: AB-CHMINACA, 5-Fluor-AMB und MXP - non-fatal intoxication in 2015 (riot, hospitalisation); forensic analysis: 5F-AMB - non-fatal intoxication in 2015 (intensive unit care) after the consumption of 5F-AMB and MDMB-CHMICA - Collapse of 2 youth on a

party after the consumption of ABCHMINACA, 5F-AMB, 5-MAPB, APDB, AMB, 4-Methyl-Nethylnorpentedrone in 2015 - Collapse of a 15 years old boy after the consumption of 5FAMB in 2015 - Collapse of a 17-years old boy in 2016 after taking twice (herbal mixture "Skull"); Forensic analysis: 5F-AMB, ADBCHMINACA, SDB-006, EG-018 - One non-fatal intoxication in 2016 with AB-FUBINACA (in combination with MDMB-CHMICA, AB-CHMINACA, ADBCHMINACA, AM-2201, ADB-FUBINACA) - One non-fatal intoxication in 2016 (2 persons convulsing, foam, vomiting, hospitalisation); Forensic analysis: 5F-AMB and 5F-ADB - Several cases of emergency in 2016 in an imprisonment in Germany in context with the consumption of synthetic cannabinoids (via trips) - One non-fatal intoxication in 2016 (5F-MDMB-PICA confirmed, no further data available) - 16 cases of hospital treatment on one day (same city) in 2016 with AB-FUBINACA (in combination with 5F-ABICA, 5FPB- 22) - 8 cases of rescue service of young people after smoking the herbal mixture "K2" via a pipe in 2016. Analysis of the blood: AB-FUBINACA and AB-CHMINACA - One case with a road accident in 2016 (write-off) while the accident perpetrator smoked the herbal mixture "Mr. Nice Guy"; blood analysis: AB-CHMINACA, AB-FUBINACA, 5F-PB- 22, MDMB-CHMICA and ADB-CHMINACA - 2018: One non-fatal intoxication with AMB-FUBINACA, 5FMDMB- PINACA and AB-FUBINACA mixed with creatinmonohydrate - One case with 5F-MDMB-PICA used as KO-drops (date rape drug) in 2019."

Many adverse effects (cardiovascular, neurological, psychological and metabolic) such as agitation, aggressive behaviour, anxiety, arrhythmia, fever, hallucinations, hyperglycemia, hypertension, hypokalemia, loss of consciousness, mydriasis, paranoia, seizures, tachycardia and vomiting (among others) were listed.

Eight member states (Finland, Germany, Latvia, Spain, Sweden, United Kingdom and two others which wished not to be named) reported a total of 100 deaths where the 5 synthetic cannabinoids were involved. Among these, United Kingdom reported 60 deaths in 2018 where the synthetic cannabinoid was the only substance involved, and two other countries accounted for 32 deaths (22 from Latvia and 10 from Germany) where other substances were involved.

Only one member state (Republic of Moldova) reported that they are aware of people presenting to drug dependence treatment centres due to the use of synthetic cannabinoids, and the substances cited were AB-FUBINACA and "[APINACA] AKB-48".

STATUS OF NATIONAL CONTROL AND POTENTIAL IMPACT OF INTERNATIONAL CONTROL

Twenty-nine member states reported that at least one of the synthetic cannabinoids was under national control. The legislation that the control is based upon included the Controlled Substances Act (21 member states), Criminal Law Act (4 member states) Medicines Act (2 member states), and other legislation 10 member states).

The scope of the controls includes distribution and importing (28 out of 29 member states), manufacturing (26 out of 29 member states), possession (25 out of 30 member states), production and use (23 out of 29 member states), and exporting (22 out of 29 member states).

None of the twenty-eight member states reported that the provisions were temporary.

Three of the twenty-nine member states (Belgium, Indonesia and another member state which wished not to be named) reported challenges to implementing national controls, citing

“analytical challenge posed by the New Psychoactive Substances”

“lack of synthetic cannabinoids reference standard material, method analysis for synthetic cannabinoids identification in biological specimens”

“In September 2017, Belgium activated a generic legislation for most classes of current synthetic cannabinoids. This was difficult and challenging to implement because of the chemical complexity. In addition, we now see that new classes of cannabinoids have appeared; as a result our generic definitions are in need of an update.”

Reported illicit activities involving synthetic cannabinoids were (Table 4):

Illicit Activities	Number of countries reporting
Trafficking	17
Sales to people who use synthetic cannabinoids	10
Internet sales (other or location of sellers and website unknown)	8
Internet sales (from abroad to buyers in your country)	7
Production of consumer products (dosage forms, packaging)	4
Internet sales (seller or website located in your country)	4
Diversion	2
Manufacture of the substance by extraction from other products	1
Manufacture of the substance by chemical synthesis	0
Other (please specify)	3
Do not know	6
Total	29

Table 4: Reported illicit activities involving synthetic cannabinoids

The following other comments were made regarding illicit activities involving any of the five synthetic cannabinoids under consideration:

“Achat sur Internet sans plus d'informations”

“Personal use”

“There was seizure of 5-Fluoro-MDMB PINACA or 5F-ADB;f-Fluoro-MDMB PICA according to PDEA record 2019”.

Fourteen member states gave answers re: the number of seizures of the synthetic cannabinoids. 5F MDMB-PICA was the most seized 57 (2016), 205 (2017) and 470 (2018) and would seem to be rising, followed by AB-FUBINACA with 101 (2016), 71 (2017) and 71 (2018), and 5F-AMB (5f-AMB-PINACA, 5F-MMB-PINACA with 98 (2016), 35 (2017) and 31 (2018), with both on the decline. In contrast, only one member state (which wished not to be named) gave seizure numbers for 4-F-MDMB-BINACA of 28 in total, but only from 2019.

If any of the synthetic cannabinoids were placed under international control, thirty-one (out of thirty-four) member states confirmed that they would have the capacity to enforce the control at the national level – and the same thirty-one countries responded that they would have the forensic laboratory capacity to analyse the substance. One member state (which did not wish to be named) doubted that they would have either capacity:

“I do not think we have facilities and technical human resources available in our country.”