



GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF THE CHIEF MEDICAL EXAMINER

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Washington, DC 20024



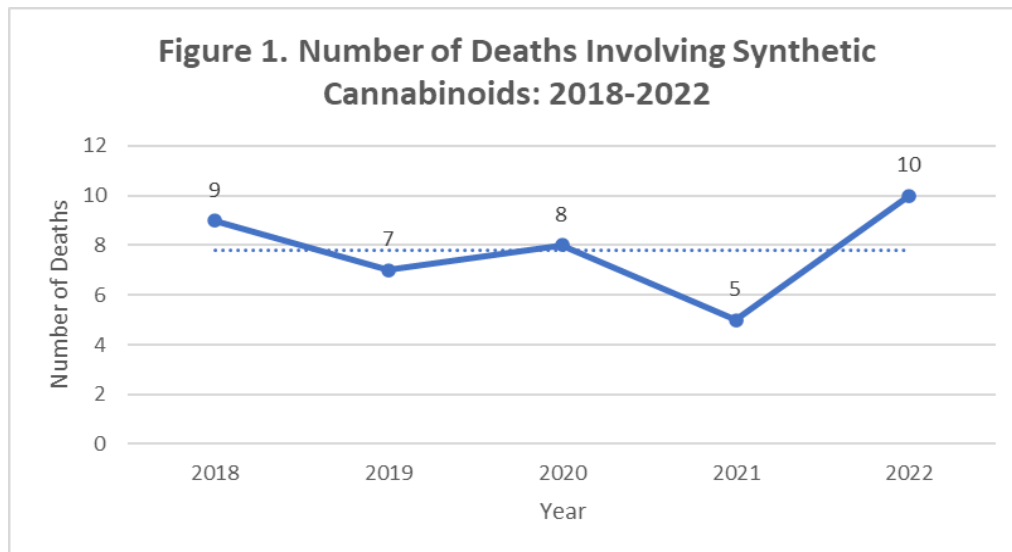
Synthetic Cannabinoid-Related Fatal Overdoses: January 1, 2018 to December 31, 2022

Report Date: March 8, 2023

The DC Office of the Chief Medical Examiner (OCME) identified a total of **39** deaths in which the use of synthetic cannabinoids contributed to the cause of death from January 1, 2018 through December 31, 2022. Overall, 9 types of synthetic cannabinoids and 3 types of synthetic cannabinoid metabolites were detected through toxicology testing. The synthetic cannabinoid with the highest prevalence detected among decedents was 5F-ADB (also known as 5F-MDMB-PINACA). The data presented within this report represents deaths occurring exclusively within the District of Columbia for which the OCME has jurisdiction. The data does not represent ALL deaths of DC residents.

Trends in Deaths due to Synthetic Cannabinoid Use

OCME previously observed a steady increase in the number of deaths involving synthetic cannabinoids between 2016 and 2018¹. On average, from 2018 to 2022 there were **8** synthetic cannabinoid-related deaths per year (Fig. 1). Despite observing a **38%** decrease in 2021, the number of synthetic cannabinoid-related-deaths increased **100%** in 2022.



¹ DC OCME Epidemiology and Surveillance Report “Synthetic Cannabinoid-related Fatal Overdoses: January 1, 2014 to June 30, 2019”

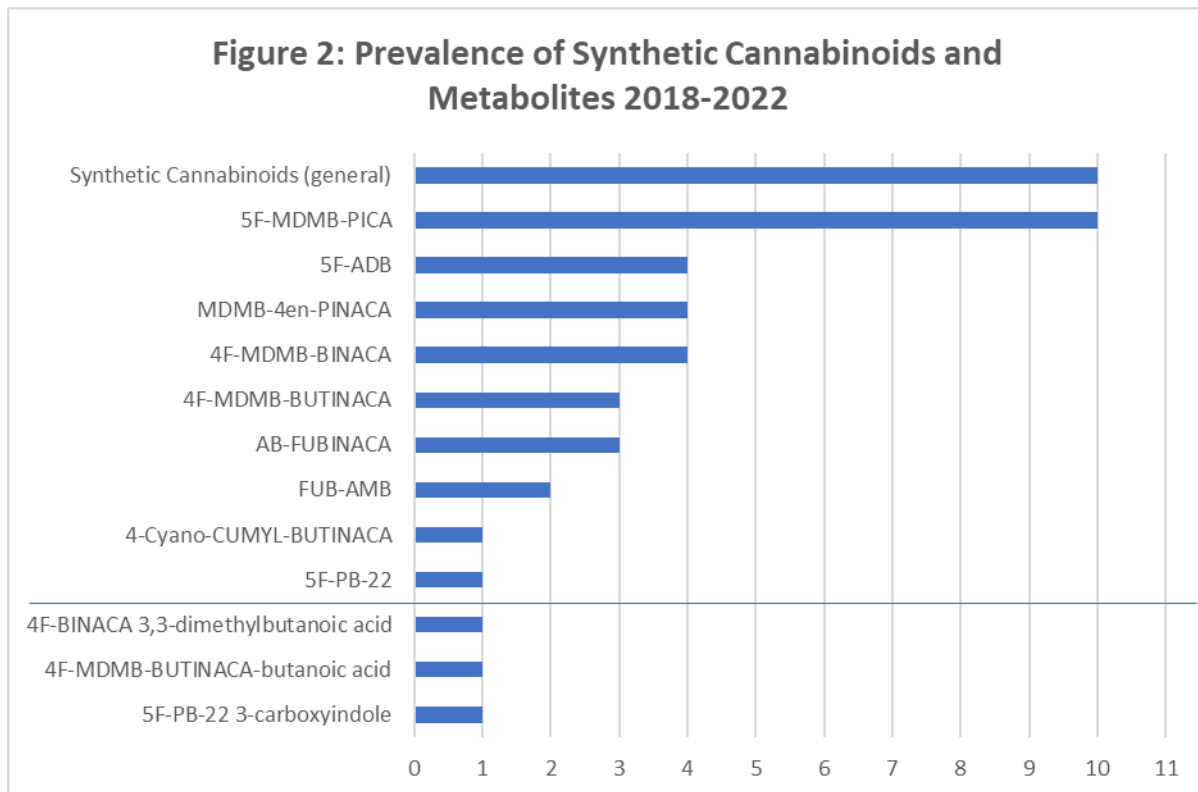


Polysubstance

The number of substances contributing to cause of death ranged from 1 to 5, although there are variations across years. On average, 2 drugs were identified among synthetic cannabinoid-related fatal overdoses. More than one drug was detected in **62%** (n=24) of decedents. **88%** (n=21) of polysubstance synthetic cannabinoid-related fatal overdoses also detected phencyclidine and/or ethanol through toxicology testing of the decedents². Synthetic opioids, primarily fentanyl, were detected in **29%** (n=7) of polysubstance synthetic cannabinoid-related deaths.

Prevalence of Synthetic Cannabinoids and Metabolites³

9 types of synthetic cannabinoids and **3** types of synthetic cannabinoid metabolites were detected through toxicology testing of the decedents (Fig. 2). The synthetic cannabinoid with the highest prevalence detected during this period was 5F-ADB (also known as 5F-MDMB-PINACA). The presence of synthetic cannabinoid metabolites is a reliable indicator that the decedent used the “parent” drug of that metabolite.



² Presence of phencyclidine and ethanol are not mutually exclusive.

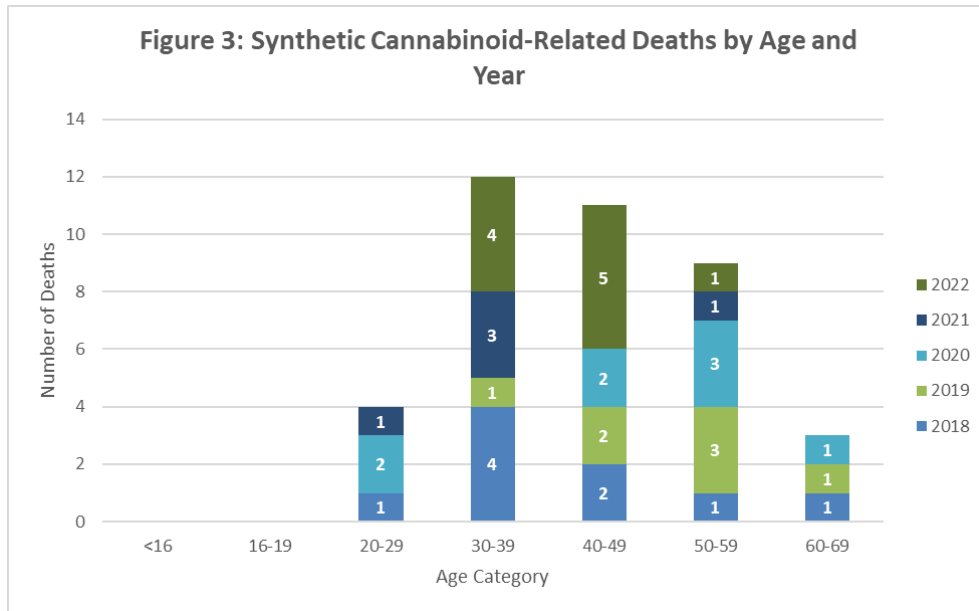
³ Toxicology testing was performed at a hospital, not allowing for detection of specific type of synthetic cannabinoid.



Demographics

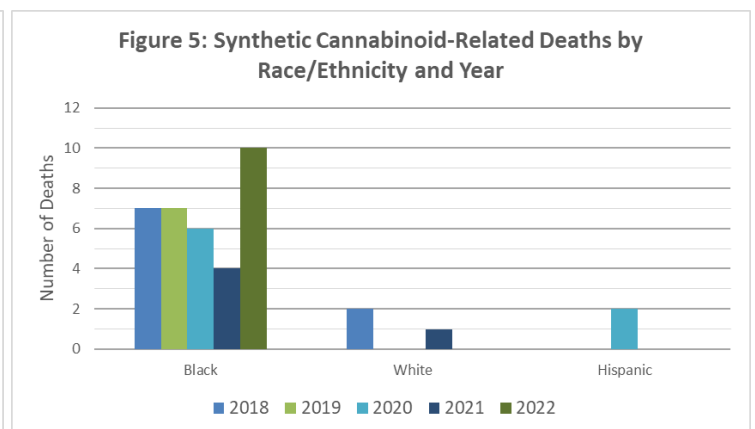
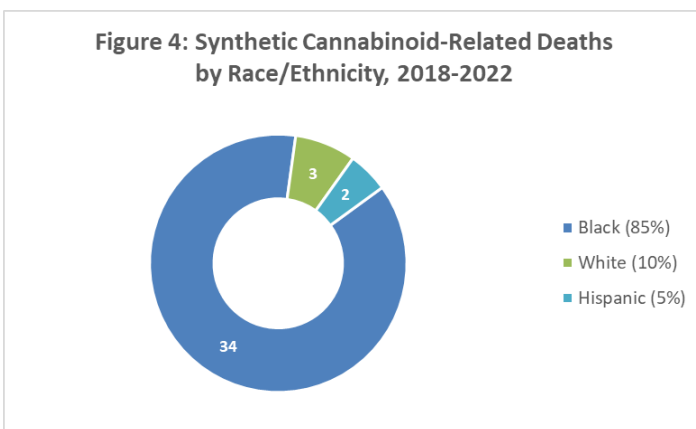
Age

Approximately **82%** of all synthetic cannabinoid-related deaths from 2018 to 2022 occurred among adults between the ages of 30-59 years old (Fig. 3). **31%** of all synthetic cannabinoid-related deaths during this period occurred among those aged between 30-39 years old.



Race/Ethnicity

Overall, **34** or **85%** of synthetic cannabinoid-related deaths were among Blacks (Fig. 4). In 2022, the race/ethnicity among **all** synthetic cannabinoid-related deaths was Black (Fig. 5).



Gender

Synthetic cannabinoid-related deaths were more common among males across all years (Fig. 6a & 6b). Overall, **82%** (n=32) of synthetic cannabinoid-related deaths occurred among males and **18%** (n=7) occurred in females (Fig. 7). In 2021, all synthetic cannabinoid-related deaths occurred in males.

Figure 6a: Percentage of Synthetic Cannabinoid-Related Deaths by Gender and Year

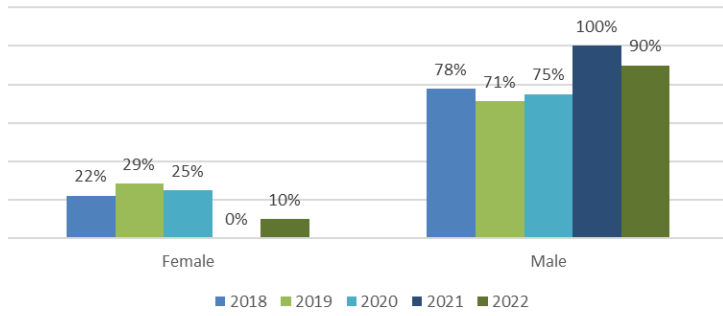


Figure 6b: Synthetic Cannabinoid-Related Deaths by Gender and Year

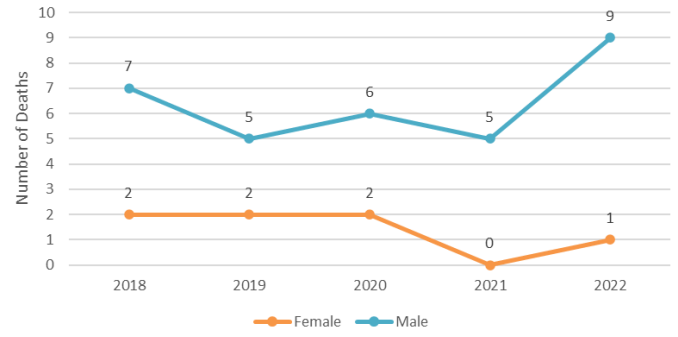
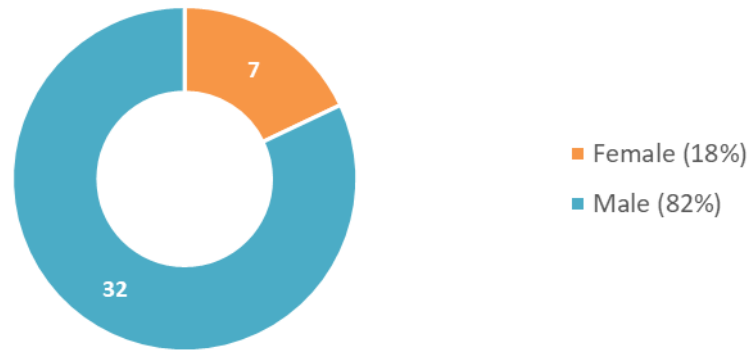


Figure 7: OCME Synthetic Cannabinoid-Related Deaths by Gender, 2018-2022



Jurisdiction of Residence

From 2018 through 2022, **54%** of deaths occurred among DC residents (Table 1). Of all DC resident cases, ward 8 experienced the greatest number of synthetic cannabinoid-related deaths (n=9, **43%**).

Table 1: Synthetic Cannabinoid-Related Deaths by Jurisdiction of Residence and Year							
		2018	2019	2020	2021	2022	Total
DC	Ward 1	0	0	0	0	0	0
	Ward 2	0	0	0	0	0	0
	Ward 3	0	0	0	0	0	0
	Ward 4	0	0	0	0	0	0
	Ward 5	1	0	1	0	2	4
	Ward 6	0	0	1	1	1	3
	Ward 7	2	1	0	0	2	5
	Ward 8	2	2	2	0	3	9
MD		2	0	0	0	0	2
VA		0	0	0	0	0	0
Other		0	0	0	0	0	0
Unknown		0	0	0	3	0	3
Homeless/Undomiciled		2	4	4	1	2	13
Total		9	7	8	5	10	39

