The Special Testing and Research Laboratory’s Emerging Trends Program compiled the data for this report through a query of archived seizure and analysis information from drug evidence analyzed by the Drug Enforcement Administration’s laboratory system. This data is representative of drug evidence seized and analyzed in the date ranges annotated. This is not a comprehensive list of all new psychoactive substances and is not representative of all evidence analyzed by DEA. This data presents an annual summary of the new psychoactive substance market in the United States.

The term new psychoactive substance (NPS) describes a recently emerged drug that may pose a public health threat. This includes synthetic cannabinoids, substituted cathinones, phenethylamines, opioids, tryptamines, benzodiazepines, and a variety of other chemical classes. Due to the recent increase in seizures, fentanyl and related compounds are also included in this report.

## Summary

Together, NPS, fentanyl, and fentanyl-related compounds account for 8% of the exhibits seized in 2016 and analyzed by the DEA laboratory system in 2016.

Fentanyl and furanyl fentanyl were the most commonly reported opioids.

Dibutylone and ethylone were the most commonly reported cathinones.

FUB-AMB and 5F-UR-144 were the most commonly reported synthetic cannabinoids.

There were 21 substances reported for the first time in CY 2016, meaning they have not been encountered for at least the last two years. This equates to one new substance approximately every two and a half weeks. It should be noted that as backlogged samples are analyzed, the date of the first encounter may change.

Most notably, 60% of the opioids identified in CY 2016 were identified for the first time in CY 2016.

## OPIOIDS/
## ANALGESICS

There were 1299 identifications of fentanyl, fentanyl-related substances, and other new opioids. Fentanyl accounted for approximately 68% of the identifications. The next most prominent opioid, furanyl fentanyl, accounted for 11% of the identifications. Of the 877 fentanyl identifications, fentanyl was found as the only controlled substance in 46.5% of the identifications and was found in combination with heroin in approximately 42% of the identifications. Other controlled substances routinely seen with fentanyl include heroin, methamphetamine, cocaine, alprazolam, and fentanyl-related compounds. Furanyl fentanyl replaced acetylfentanyl as the second most prominent fentanyl-related substance during the second quarter of 2016.

Of the 15 substances identified, nine of these substances (60%) were reported for the first time in 2016. The following compounds were seized and reported for the first time in 2016: furanyl fentanyl, U-47700, 4-fluorobutyrylfentanyl, acrylfentanyl, acetyl fentanyl, 4-florobutyrylfentanyl, benzylfentanyl, p-fluorobutyrylfentanyl, 3-methylfentanyl, and acetyl norfentanyl.

## CATHINONES

There were 347 cathinone identifications in CY 2016. Dibutylone accounted for approximately 22% of the identifications. Of the 24 substances identified, five of these substances (~20%) were reported for the first time in 2016. The following compounds were seized and reported for the first time in 2016: 4-CEC, 3-CMC, 3-MEC, 4-fluoro-α-PHP, and 4-methoxy-α-PVP.

An identification is made when authenticated reference material is available for comparison. When reference material is not available, the drug evidence is identified as “substance unconfirmed.” A single unit of drug evidence may have multiple sub-units. For the purposes of this document, each unit of drug evidence counts as one identification regardless of the number of sub-units. Some seized drug evidence contains more than one active ingredient; therefore, more than one identification can be made for a single unit.
SYNTHETIC CANNABINOIDs

There were 984 synthetic cannabinoid identifications in CY 2016. FUB-AMB and SF-UR-144 were the most commonly reported synthetic cannabinoids, accounting for approximately 34% of the synthetic cannabinoid identifications during the reporting period. Of the 37 different synthetic cannabinoids identified, three (~8%) of these substances, PX-2, MMB-CHMICA, and AB-CHMICA, were seized and reported for the first time in 2016.

OTHER

The "other" category includes substances that could not be confirmed, psychoactive plants, PCP-related substances, benzofurans, benzodiazepines, piperizines, and amphetamines.

There were 43 instances of unconfirmed substances during this reporting period. There were 4 benzofurans and 4 piperazines reported in CY 2016. Additionally, there were 9 identifications of mitragynine, 8 identifications of deschloroketamine, 3 identifications each of 3-fluorophenmetrazine and 4-fluoroamphetamine, 2 identifications each of MDMA methylene homolog, methoxetamine (MXE), and W-18, and 1 identification each of ethylphenidate, MDPT (tBuONE), and N-ethyl-N-methyl-1,2-diphenylethan-1-amine.

The following compounds were seized and reported for the first time in 2016: 5-EAPB, 3-fluorophenmetrazine, MDPT (tBuONE), and N-ethyl-N-methyl-1,2-diphenylethan-1-amine.

HALLOCINOGENS

There were 3 identifications of 25I-NBOME, 1 identification of 25C-NBOME, and 1 identification of 2C-B during the reporting period.

TRYP TAMINES

There were 3 identifications of 5-MeO-DiPT and 1 identification of 5-MeO-MiPT during the reporting period.

This completes the 2016 series of reports.

Stay tuned for the First Quarter 2017 Emerging Threat Report!

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Questions about this data are welcome and may be directed to the DEA Emerging Trends Program at 703-668-3300 or DEA.Emerging.Trends@usdoj.gov.