

Real-Time Communication Synth-Opioids Network (Synth-Opioids)

**2020 ANNUAL
REPORT**

About

The Drug Enforcement Administration's (DEA's) Real-Time Communication Synth-Opioids Network (Synth-Opioids) is designed to create opportunities for swift information exchange and permanent, searchable storage of important discussions that happen between the forensic community and relevant stakeholders. Synth-Opioids recently partnered with DEA's National Forensic Laboratory Information System (NFLIS) to strengthen and expand the power and reach of collective scientific knowledge.

With approximately 230 members from 34 States and 8 countries, Synth-Opioids is bringing together Federal, State, local, and private sectors and facilitating communication among the areas of forensic chemistry, toxicology, pathology, jurisprudence, research, public health, and law enforcement.

2020 Accomplishments

- Moved from an e-mail-based communication network to a NFLIS discussion platform.
- During 2020, members assisted each other in attempting to identify nine unknown substances and discussed more than a dozen other substances or classes of compounds across the United States and in other countries.
- Disseminated 20 reports, including publications from DEA, the Center for Forensic Science Research & Education, the Virginia Department of Forensic Science, and the Fredric Rieders Family Foundation, in conjunction with the Colombo Plan and JMJ Technologies.

Figure 1. 2020 Synth-Opioids Participation

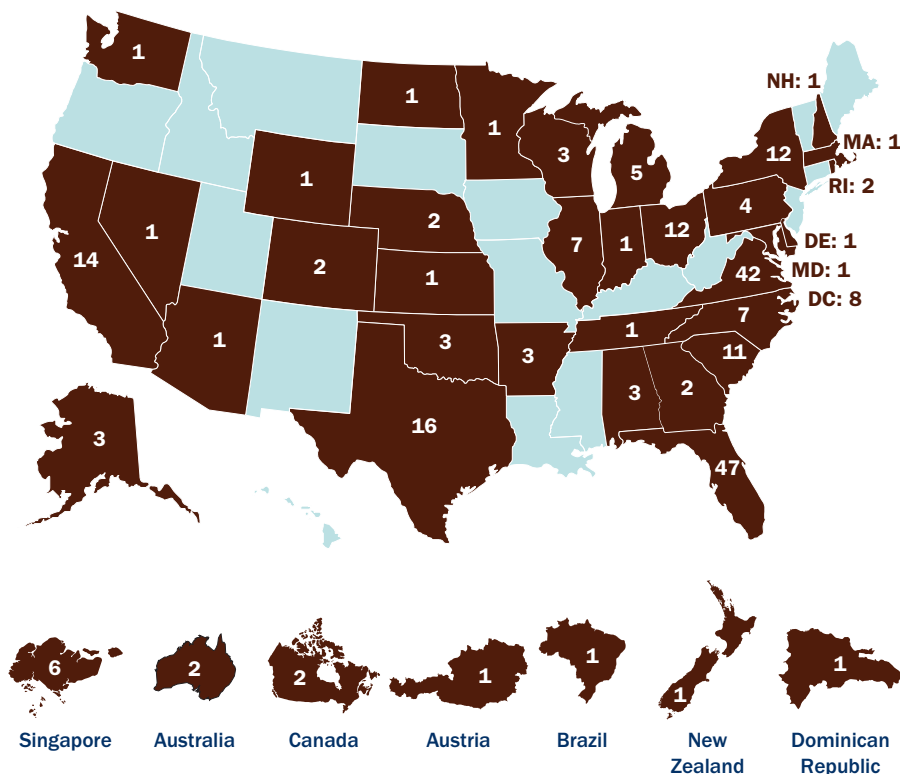


Figure 2. Participation by Affiliation

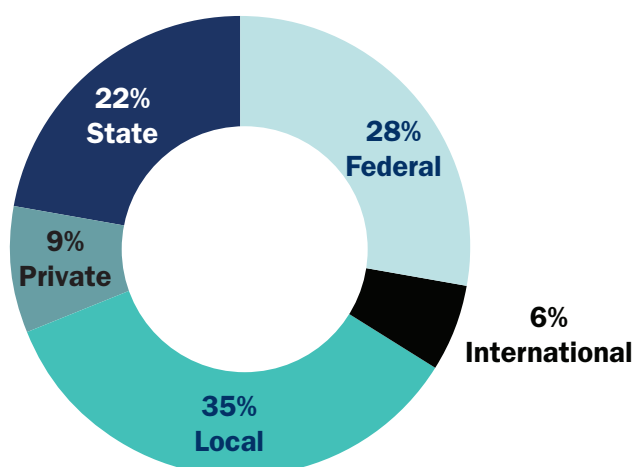


Table 1. Participation by Discipline

Number	Discipline
155	Chemistry
32	Toxicology
19	Research
8	Pathology
5	Jurisprudence
4	Biology
3	Public Health
3	Law Enforcement
1	Information Technology
3	Other

2020 Forum Discussion Highlights

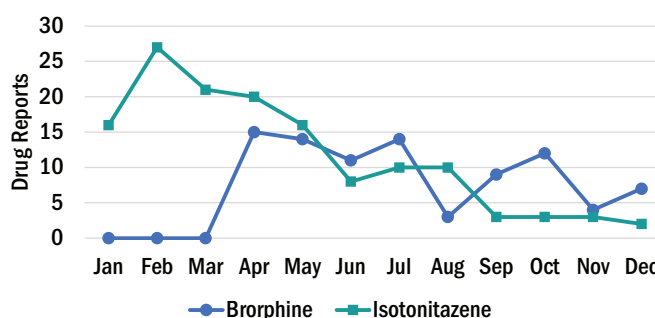
During 2020, members discussed nine unknown substances, including the following:

- Unknown substance presenting as residue on paper samples; possible new synthetic cannabinoid 4F-MDMB-BICA seen in some drug samples and in at least 8 forensic toxicology samples around the United States.
 - In 2020, 187 reports of 4F-MDMB-BUTICA and 96 reports of fluoro-MDMB-BUTICA submitted to NFLIS-Drug by participating laboratories.
- New cathinone—4F-3-methyl- α -PVP—being seen in Europe, Canada, Australia, and the United States.
 - In 2020, 50 reports of 4F-3-methyl- α -PVP and 27 reports of fluoro-methyl- α -PVP submitted to NFLIS-Drug by participating laboratories.
- Unknown with base peak (BP) 126—similar to 4-fluoro-3-methyl- α -PVP and possible derivative of AH-7563.
- Unknown substance with BP 353 in illicit alprazolam tablets.
- Unknown substance—possibly 4F-3-methyl- α -PVP—found in Florida, Australia, and Canada.
- Counterfeit alprazolam tablets with unknown BP 128 and BP 142 seen in Alaska, Arizona, California, Kentucky, Louisiana, Missouri, New Hampshire, Ohio, Pennsylvania, Washington, and Canada. Members discussed the substance as potentially *N*-(1-methylpentyl)-3,4-DMA, *N*-(1,4-dimethylpentyl)-3,4-DMA, *N*-(1,4-dimethylpentyl)-4-methoxyamphetamine.
- Unknown with BP 329—a possible rearrangement product of *N*-methyl clonazepam.

Other discussion topics included the following:

- Florida had two submissions of S903 tablets: one containing adinazolam and flualprazolam and the other containing cocaine, adinazolam, and flualprazolam.
- Florida shared data about 4F-MDMB-BICA.
- A new synthetic cannabinoid—4F-MDMB-BUTICA—was identified in a sample from Indiana.
- Questions about Captagon (fenethylamine) in the United States (which was first analyzed by DEA in samples from the Middle East in 2018).
- U-10 with etizolam seen in Australia and in Florida by medical examiners.
- Questions on 4F-adamantyl BUTINACA advertised as 4F-AKB48 or 4F-APINACA from Australia.
- Supplementary information on U- and A- compounds.
- Analytical challenges for thiofentanyl and thiafentanyl.
- Members identified new synthetic opioids buporphine and isotonitazene appearing as replacements for fentanyl and fentanyl-related compounds and other synthetic opioids.

Figure 3. Buporphine and Isotonitazene Reports in NFLIS-Drug in 2020, by Date Submitted to Laboratory



2020 IMPACT STORY

In August 2020, an unknown substance in crystalline form was being seen in Palm Beach County, Florida. The local laboratory was trying to identify the substance. Within 3 days of posting the question in the Synth-Opioids forum, the San Diego County Sheriff's Crime Laboratory and Queensland Health in Australia responded to the inquiry. The data and information shared helped the local crime laboratory identify the emerging substance as 4-fluoro-3-methyl-alpha-pyrrolidinovalerophenone (4F-3-methyl- α -PVP). In addition, the Australian chemist shared that the emerging substance had also been tentatively seen in a Canadian laboratory that was also trying to identify the substance. This post also helped a DEA laboratory recognize 4F-3-methyl- α -PVP more quickly when analyzing samples with the substance for the first time a few months later.



Early 2021 Updates

With the full transition from an e-mail-based communication network to a permanent, secure Discourse communication platform, Synth-Opioids members can take advantage of searchable storage of information organized by category. During the first quarter (January–March) of 2021, the forum continued to welcome new members and discussed the following topics:

- A public health alert for the positivity of a new synthetic cannabinoid, 4F-MDMB-BICA, which is increasing in the United States as the prevalence of 5F-MDMB-PICA is decreasing
- The discovery of a new benzodiazepine, deschloroetizolam

Future Enhancements

- Real-time dissemination of information on emerging drugs (formal announcements)
- Creation of a law enforcement-sensitive category
- Creation of a multi-language communication category (starting with Spanish-speaking participants)
- Increase in community and stakeholder outreach



How To Join the Discussion

DEA is pleased to continue to work with our partners in the forensic communities to address the challenges associated with the rapid evolution of the illicit drug market. Those interested in being a member of the Synth-Opioids community can visit the NFLIS DEA Synth-Opioids website at <https://synthopioids.nflis.deadiversion.usdoj.gov/> and request an account. Potential members will be asked to share their forensic discipline, affiliation, and curriculum vitae (CV) or résumé (which will be used for administrative purposes only).

For More Information

Questions about this information are welcome and can be directed to Agnes.D.Winokur@usdoj.gov.

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