## News From the Food and Drug Administration

## Youth e-Cigarette Use Drops, More Warnings Issued

Youth e-cigarette use fell by a third after 2 years of increases, according to the 2020 National Youth Tobacco Survey, conducted by researchers at the FDA and the Centers for Disease Control and Prevention.

The school-based survey was conducted between January 16 and March 16. It showed that 19.6% of high school students (3.02 million) reported e-cigarette use, down from 27.5% (4.11 million) in 2019. Among middle school students, 4.7% (550 000) reported e-cigarette use compared with 10.5% (1.24 million) in 2019.

Most students reported frequent use. Nearly 40% of high school users and 20% of middle school users reported using e-cigarettes on 20 or more of the past 30 days, while 22.5% of high school users and 9.4% of middle school users reported daily use.

Meanwhile, the FDA announced that it sent warning letters to 3 companies to stop selling unauthorized e-cigarette products that appeal to young people. In July the agency sent similar warnings to 10 companies.

The agency said its recent warnings underscore its concerns that not only have youth shifted to disposable e-cigarettes— 26.5% of high school students and 15.2% of middle school students reported using them—they're also using menthol-flavored products. Both types of products were exempted from a flavor ban implemented by the Trump administration at the beginning of this year.

This year's youth tobacco survey supports the FDA's concerns. It found that 37% of high school users and 23.5% of middle school users opted for a menthol product. A vast majority—82.9%—chose flavored products, most often fruit, mint, candy, and menthol.

Warning letters went to XL Vape LLC (doing business as Stig Inc), Flavour Warehouse LTD (Vampire Vape) and Pretty Women UK LTD (Coil2oil and Mad Kingdom Liquids), which the FDA said all used cartoon images.

The FDA also took note of a September 9 premarket review submission deadline for sellers to ensure that products meet marketing standards. The FDA called the deadline "a milestone for ensuring new tobacco products, including many already on the market, undergo a robust scientific evaluation."

## Illegal Online Opioids Are Targeted

The FDA has warned 17 online pharmacies to stop selling unapproved opioids to consumers without prescriptions or adequate directions for use.



Donald D. Ashley, JD, director of the Office of Compliance in the FDA's Center for Drug Evaluation and Research, said illegal opioid sellers "undermine the significant strides we have made to combat the opioid crisis."

The companies sold opioids such as tramadol and oxycodone, which present significant addiction risks that could lead to overdose and death, breathing problems, or withdrawal symptoms in newborns.

Unlike drugs that have undergone FDA approval, the illicit products had not been evaluated for effectiveness, dangerous adverse effects, or other safety concerns, FDA officials said.

In addition, the FDA warned that consumers who buy drugs from illegal online pharmacies face a host of risks. They include buying products that are counterfeit, contaminated, expired, or otherwise unsafe and falling prey to credit card fraud, identity theft, or computer viruses.

## Manufacturers Get Advice on Preventing Nitrosamine Impurities

The FDA issued guidance to curtail nitrosamine impurities following a spate of recalls due to unacceptable levels of the probable carcinogen in pharmaceutical products.

Many factors can contribute to nitrosamine formation including manufacturing processes and materials, a drug's chemical structure, storage conditions, and packaging, FDA officials said. The recent advisory applies to chemically synthesized active pharmaceutical ingredients and other drug products that may be at risk.

Recalls were issued this year for batches of extended-release metformin, an oral diabetes medication. In April, the FDA asked manufacturers to withdraw the heartburn medication ranitidine, marketed as Zantac. Nitrosamine impurities have been found in the antacid nizatidine and angiotensin II receptor blockers, used for hypertension.

The FDA noted that the most common nitrosamine, *N*-nitrosodimethylamine (NDMA), is ubiquitous at low levels in water and foods such as cured and grilled meats, dairy products, and vegetables. It's not considered harmful in small doses but may increase a person's cancer risk if consumed at high levels and over long periods.

The agency recommended that manufacturers complete risk assessments of products within 6 months, perform confirmatory tests as soon as a risk is identified, and submit any required amendments in drug applications pertaining to supply and manufacturing changes within 3 years.

The FDA also advised manufacturers to notify its Center for Drug Evaluation and Research if manufacturing changes or recalls are likely to disrupt the drug supply.

Drug evaluations should be prioritized based on factors such as maximum daily dose, duration of treatment, therapeutic indication, and the number of patients treated, FDA officials noted. They said patients should not stop taking medications with potential nitrosamine impurities but rather should consult their physician. – Mary Chris Jaklevic, MSJ

**Note:** Source references are available through embedded hyperlinks in the article text online.

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