

Corrections Facilities: Identifying a Synthetic Cannabinoid Imbedded in Paper

The increasing use of drugs in prisons has become a concerning issue worldwide, posing significant challenges for both correctional facilities and society at large. A primary factor contributing to the rise in drug use within prisons is the ingenuity of inmates and collaborators on the outside. Despite rigorous security measures, contraband substances such as synthetic cannabinoids, cathinones, and opioids find their way into correctional facilities through creative methods like drones or legal mail. The demand for these substances remains high among inmates.

The increasing prevalence of drugs in correctional facilities is well documented:

- There has been a 600% increase in inmate deaths in the United States due to drugs or alcohol from 2001-2018, according to the Bureau of Justice Statistics.¹ (See Figure 1)
- Contraband demands higher prices in prison than on the street and is a contributing factor to availability in correctional facilities. The profit that can be generated by drug sales in prisons is reported to be up to four times greater than that in the community.²
- The most abused drugs in prisons include cocaine, heroin, synthetic cannabinoids, marijuana, and prescription medications obtained illicitly.³

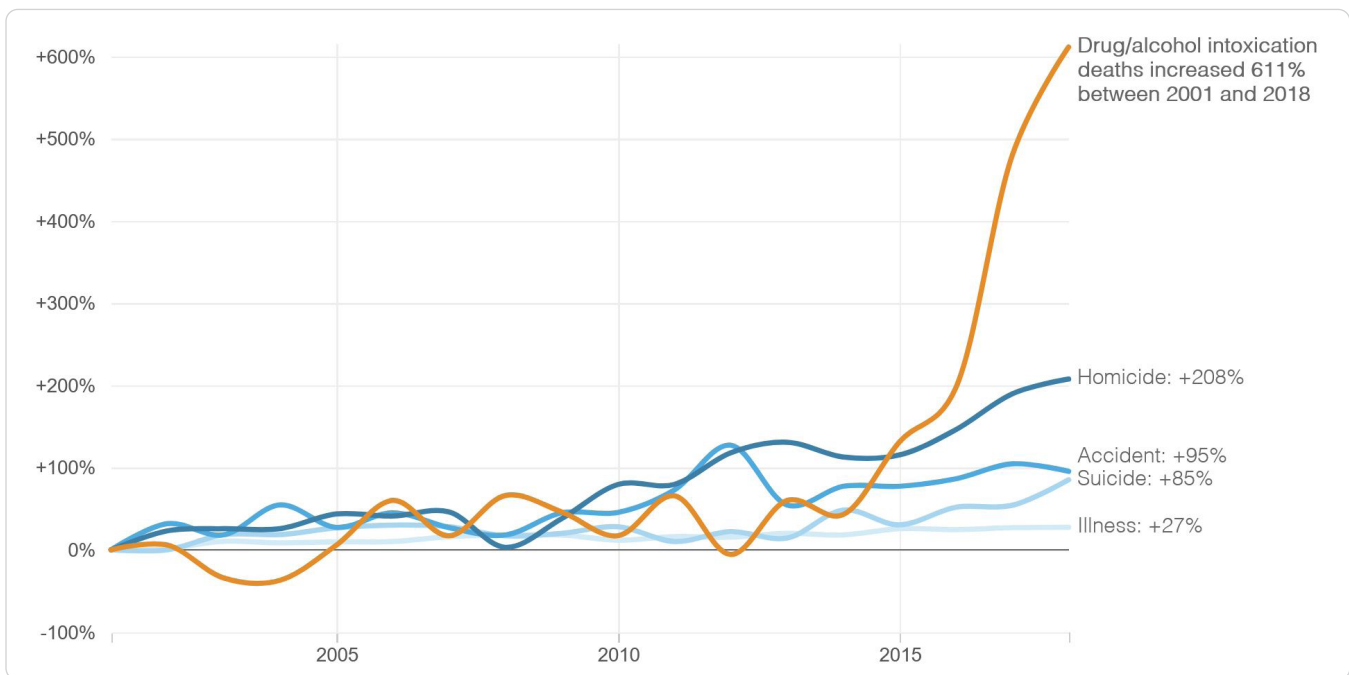


Figure 1. Prison Deaths From Drug/Alcohol Intoxication Have Risen Rapidly. In 2001, there were 35 deaths from drug/alcohol intoxication in state prisons. In 2018, there were 249 – a 611% change from 2001.

Situation

Correctional officers face numerous challenges when attempting to keep illicit substances and contraband out of their facilities. A combination of technologies are used to screen everything from visitors to packages and incoming mail. Mail can be particularly challenging to screen for several reasons. The sheer volume of mail coming into a facility makes searching every piece nearly impossible.

Collaborators on the outside are constantly developing new ways to smuggle contraband to inmates on the inside of these facilities. A tactic growing in popularity for smuggling synthetic cannabinoids and other drugs uses saturated paper. In this tactic, the drug is dissolved in a solvent and a letter, greeting card, or other piece of paper is soaked in the solution. Once the paper is completely saturated, it is allowed to dry, and packaged into an envelope as other normal pieces of mail. These drug saturated papers are often disguised as legal mail, which increases the risk of drug consumption in the prison population as correctional facilities are prohibited from opening and interrogating the contents of legal mail.

After the mail is received by the inmate inside the facility, it is often cut into smaller pieces which can then be consumed sublingually or via smoking. A single, one inch square of K2/Spice paper can be sold within the prison for as much as \$400 each. Meaning a single sheet of this saturated paper is worth over \$30,000.⁴

Solution

MX908 Identifying a Synthetic Cannabinoid Imbedded in Paper

At a correctional facility in the United States, officers processing incoming mail observed discoloration in different areas of paper, indicating a substance may have been dissolved into the paper. Officers flagged these pieces of mail on the suspicion of being impregnated with controlled substances and set them aside for further screening. While the officers possessed handheld Raman spectroscopy devices, these optical tools are not adept at identifying drugs imbedded in paper. The officers used trace sampling swabs from their MX908 to directly swab the discolored areas of the paper and envelope. No

sample preparation was necessary and officers analyzed the sample using the MX908 Drug Hunter Mission Mode. In less than a minute, the MX908 returned a result for MDMA-4en-PINACA, a synthetic cannabinoid. With this evidence, corrections officers were able to seize the incoming mail and prevent it from entering the facility and subsequently being consumed by inmates.



Results

About MX908 in Correctional Facilities

MX908 leverages high-pressure mass spectrometry to deliver dramatically enhanced sensitivity and broader threat category coverage and has proven to be an exceptionally effective tool for drug detection in correctional facilities. The device's capability to rapidly detect a wide range of narcotics, including synthetic drugs, allows correctional staff to proactively address the evolving landscape of illicit substances by identifying drugs at very low, nanogram levels on difficult samples, such as drugs imbedded in paper.

By enhancing security measures and reducing the prevalence of contraband, the MX908 not only ensures the safety of correctional facilities but also supports rehabilitation efforts, ultimately contributing to a more secure and controlled correctional environment.

References:

- <https://www.ojp.gov/library/publications/mortality-state-and-federal-prisons-2001-2018-statistical-tables>
- European Monitoring Centre for drugs and Drug Addiction
- National Institute on Drug Abuse (NIDA), "Substance Use in the US Prison Population," 2018.
- <https://www.boston25news.com/news/local/boston-mayors-finance-director-charged-with-money-laundering-prison-drug-smuggling-scheme/TO64T5C37ZFBNJ4WSKZIJMUKUA/>