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Fentanyl and xylazine on the Northern Border of Mexico: A New Challenge for Drug Health Policy

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The epicenter of fentanyl use in Mexico has been in Tijuana and Mexicali, two cities on the U.S. border characterized by drug use (Rafful et al., 2015; Goodman-Meza et al., 2022). In recent years, these cities have seen the largest seizures of fentanyl in the country (Comisión Nacional de Salud Mental y Adicciones, 2024a) as well as the exponential growth of its use and that of other adulterants such as xylazine.

Fentanyl is a much more potent synthetic opioid agonist than morphine and heroin, used for pain management in medical settings. Its illegal production in clandestine laboratories in liquid, pill or powder form has created a major opioid crisis in the United States, causing over 80,000 overdose deaths in 2023 (National Center for Health Statistics, 2023).

Xylazine is a non-opioid analgesic and sedative approved for veterinary use only. People exposed to this substance can develop skin abscesses and physiological dependence, present with symptoms compatible with a substance use disorder and experience severe withdrawal symptoms (such as irritability, anxiety, and dysphoria) after its abrupt discontinuation (Gupta et al., 2023). Its use has been detected in the United States, Puerto Rico, and the United Kingdom, with Mexico recently joining the list (Comisión Nacional de Salud Mental y Adicciones, 2024b).

The combination of the two substances has been recognized as a serious threat to human health and health alerts have been issued in the countries affected, together with recommendations to adjust medical treatments, implement harm reduction strategies and address health emergencies resulting from overdoses (Zhu et al., 2023).

In Mexico, the consequences of the modification of the drug supply, which has shifted from the use of heroin to fentanyl with xylazine, have been devastating for the most vulnerable communities on the northern border, Persons Who Inject Drugs (PWID), among whom overdose mortality has the greatest impact (Friedman et al., 2022).

In recent years, the Ramón de la Fuente Muñiz National Institute of Psychiatry (INPRFM), together with the Prevencasa, Programa Compañeros and Verter NGOs, the National Autonomous University of Mexico, the Tijuana Institute of Technology, the Center for Research and Advanced Studies and the Autonomous University of Baja California have monitored changes in the drug market, health consequences and the lived experience of people in Tijuana, San Luis Río Colorado, Mexicali and Ciudad Juárez:

- 2018. PWID mainly used black tar heroin, known as *chiva* in Mexican Spanish, without knowing it was heroin. They felt that the effects of white powder heroin, known as *china white*, were stronger. They got hooked more quickly[1] and experienced more overdoses. The main method for reversing an overdose was injecting salt and water. Only 1.6% had used naloxone[2] out of 600 people interviewed at rehab centers, where 2.7% had HIV and 80% HCV[3] (Fleiz-Bautista et al., 2019).
- 2020. For the first time, we found heroin adulterated with fentanyl through the technique known as drug checking. Using immunoassay test strips to analyze the contents of eighty samples of white powder heroin residue in used syringes, we

1 Term used by PWID to refer to a person who has been drug dependent or a heavy user for a long time.
2 Naloxone is a medicine that reverses opioid overdoses.
3 Project funded by the U.S. Department of State and the Ramón de la Fuente Muñiz National Institute of Psychiatry.

found that 93% of all the white powder samples contained fentanyl and that the population was being exposed to opioids without realizing it and without access to naloxone (Fleiz et al., 2020).

- 2023. For the first time, we detected the presence of xylazine in 20% of the 300 samples of heroin and fentanyl analyzed using mass spectroscopy. This same year we also found a rapid increase in fentanyl use, seven out of ten samples contained this opioid, polydrug use with methamphetamines, coupled with overdoses, which the population unsuccessfully tried to reverse with water and salt, and an increase in the HIV index from 4.5% to 11% among PWID who used fentanyl and/or methamphetamines and the development of skin abscesses that were more difficult to cure.[4]

These results revealed a complex, challenging reality: fentanyl consumption spread rapidly along the northern border, like no other adulterant or psychoactive substance ever recorded in Mexico and showed how xylazine contributed to this health crisis shared with the United States.

Several factors have played a crucial role in this growing trend: a porous border, the high availability on the streets of the combination of these two substances, the low cost of a dose (less than two dollars), the enhanced effects of well-being and relaxation that the population quickly identified, the social inequality that encourages these substances to reach the most vulnerable people, thereby exacerbating disparities in health, housing, food and education, stigma (Volkow, 2020) and social pain associated with the "psychological distancing from other people or social groups," processed in parts of the brain that handle negative emotional components and physical pain (Zhang et al., 2019), increasing the need to use substances.

The presence and production of fentanyl in Mexico has been a topic of intense debate that has focused on the substance rather than the people and context. The scientific evidence is overwhelming: fentanyl and xylazine, as well as their health consequences, are a worrying reality in a country that has created more unresolved controversies than actions, such as the failed attempts to declassify naloxone in the General Health Law, the uninterrupted support for harm reduction programs, the limited availability of drug-assisted therapies such as methadone that was temporarily unavailable, and the emotional pain of people that went unheard.

It is urgently required to address the perceived needs of PWID demanding access to a dignified life, which could represent a hopeful sign for the reconstruction of peace processes in a region affected by insecurity, violence, and for people's suffering.

4 Project funded by the National Council of Humanities, Sciences and Technologies.
With registration number: 3019. Fleiz C, Medina-Mora ME, López M, Cruz S, Rodríguez K, Acosta M, Vázquez F, Pinzón C, Miranda V, Chávez D, Mata J, Ángulo L, Slim S, Segovia L, Pachecho L, Rivera A, Urueta S, Ruiz C, Torres B, Nicolini H, Genis A, Martínez J. Garibaldi J, Tinoco Y, Mondragón V, Meza A, Juárez A, Tona J, Granillo J, Miramón D, Rodríguez G. Torres C, Gómez R. Tort G, Barrios A, Durán C. Drogas emergentes en la frontera norte de México. Del diagnóstico a la intervención comunitaria [Informe Ejecutivo]. CDMX: Instituto Nacional de Psiquiatría "Ramón de la Fuente Muñiz", Consejo Nacional de Humanidades, Ciencias y Tecnologías, Seminario de Estudios sobre la Globalidad. UNAM; 2023.

REFERENCES

Comisión Nacional de Salud Mental y Adicciones (Eds). (2024a). *Informe de la demanda y oferta de Fentanilo en México: generalidades y situación actual*. CDMX: Secretaría de Salud.

Comisión Nacional de Salud Mental y Adicciones (Eds.). (2024b). *Alerta para personal de salud y primeros respondientes de ciudades fronterizas de México*. Retrieved from https://www.gob.mx/salud/conadic/documentos/alerta-para-personal-de-salud-y-primeros-respondientes-de-ciudades-fronterizas-de-mexico - Access date August 12, 2024

Fleiz, C., Arredondo, J., Chavez, A., Pacheco, L., Segovia, L. A., Villatoro, J. A., Cruz, S. L., Medina-Mora, M. E., & de la Fuente, J. R. (2020). Fentanyl is used in Mexico's northern border: current challenges for drug health policies. *Addiction*, *115*(4), 778-781. https://doi.org/10.1111/add.14934

Fleiz-Bautista, C., Domínguez-García, M., Villatoro-Velázquez, J. A., Vázquez-Quiroz, F., Zafra-Mora, E., Sánchez-Ramos R., Resendiz-Escobar, E., Bustos-Gamiño M., & Medina-Mora M. E. (2019). *Cuqueando la Chiva: Contextos del consumo de heroína en la frontera norte de México…* Ciudad de México, México: INPRFM.

Friedman, J., Bourgois, P., Godvin, M., Chavez, A., Pacheco, L., Segovia, L. A., Beletsky, L., & Arredondo, J. (2022). The introduction of fentanyl on the US-Mexico border: An ethnographic account triangulated with drug checking data from Tijuana. *International Journal on Drug Policy*, *104*, 103678. https://doi.org/10.1016/j.drugpo.2022.103678

Goodman-Meza, D., Arredondo, J., Slim, S., Angulo, L., Gonzalez-Nieto, P., Loera, A., Shoptaw, S., Cambou, M. C., & Pitpitan, E. V (2022). Behavior change after fentanyl testing at a safe consumption space for women in Northern Mexico: A pilot study. *International Journal on Drug Policy*, *106*, 103745. https://doi.org/10.1016/j.drugpo.2022.103745

Gupta, R., Holtgrave, D. R., & Ashburn, M. A. (2023). Xylazine - Medical and Public Health Imperatives. *New England Journal of Medicine*, *388*(24), 2209-2212. https://doi.org/10.1056/NEJMp2303120

National Center for Health Statistics. (2023). *U.S. Overdose Deaths Decrease in 2023, First Time Since 2018*. Retrieved from https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2024/20240515.htm - Access date August 12, 2024

Rafful, C., Wagner, K. D., Werb, D., González-Zúñiga, P. E., Verdugo, S., Rangel, G., & Strathdee, S. A. (2015). Prevalence and correlates of neck injection among people who inject drugs in Tijuana, Mexico. *Drug and Alcohol Review*, *34*(6), 630-636. https://doi.org/10.1111/dar.12264

Volkow, N. D. (2020). Stigma and the Toll of Addiction. *The New England Journal of Medicine*, *382*(14), 1289-1290. https://doi.org/10.1056/NEJMp1917360

Zhang, M., Zhang, Y., & Kong, Y. (2019). Interaction between social pain and physical pain. *Brain Science Advances*, *5*(4), 265-273. https://doi.org/10.26599/BSA.2019.9050023

Zhu, D. T., Friedman, J., Bourgois, P., Montero, F., & Tamang, S. (2023). The emerging fentanyl-xylazine syndemic in the USA: challenges and future directions. *Lancet*, *402*(10416), 1949-1952. https://doi.org/10.1016/S0140-6736(23)01686-0