

## **MOUD Diversion Infrequent in Massachusetts' New Prison Opioid Treatment Programs**

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**Background:** Incarcerated persons have a high prevalence of substance use disorder and a risk of death from overdose post-release 120 times that of the general population. Given the critical need for opioid use disorder (OUD) treatment in jails and prisons, the Massachusetts CARE Act of 2018 mandated the provision of all FDA approved forms of medications for opioid use disorder (MOUD) to individuals with OUD in the Massachusetts Department of Correction. With the implementation of opioid treatment programs (OTPs) in correctional facilities, concerns have been voiced about the risk of diversion of orally-administered agonist medications, buprenorphine and methadone.

**Objective:** For process evaluation purposes, to assess the incidence of buprenorphine and methadone diversion within five newly established OTPs in the Massachusetts Department of Correction over 12 months.

**Methods:** We collected data on the total number of doses of crushed sublingual buprenorphine/naloxone tablets, liquid methadone, and oral naltrexone tablets administered in five prison OTPs operated by Spectrum Health Systems (Worcester, MA), as well as all diversion incidents detected in these programs between March 2021-2022.

**Results:** During the study period, 161,332 doses of MOUD were delivered to 995 persons with OUD. Of these doses, 79.4% were methadone, 19.9% were buprenorphine/naloxone, and 0.7% were naltrexone. There were 21 detected incidents of methadone diversion, and 57 incidents of buprenorphine diversion among 62 patients, of which 16 diverted more than once. No diversion was reported for naltrexone. Buprenorphine diversions comprised 1.78 per 1,000 buprenorphine doses administered. The rate of methadone diversion was 0.16 per 1,000 methadone doses administered. The overall agonist diversion rate was 0.49 per 1,000 agonist doses administered. Methadone had a lower rate of diversion than buprenorphine (relative risk 0.092, 95% CI 0.06 to 0.15; absolute risk difference 0.16%, 95% CI 0.12% to 0.21%;  $P < 0.0001$ ).

**Conclusions:** Within five newly established OTPs in Massachusetts prisons, the rate of detected medication diversion was low. Liquid methadone had a lower rate of diversion than crushed sublingual buprenorphine/naloxone tablets, but the clinical and policy significance of this difference depends on program size, security context, and other factors.

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