

## Data suggest chronic health conditions in incarcerated people in the US may be severely undertreated

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Chronic conditions such as type 2 diabetes, asthma, HIV infection, and mental illness may be greatly undertreated in the U.S. jail and prison



population, suggests a new study from researchers at the Johns Hopkins Bloomberg School of Public Health.

For their analysis, the researchers used national health survey data covering 2018 to 2020 to estimate rates of chronic conditions among recently incarcerated people, and a commercial prescription database to estimate the distribution of medication treatments to the jail and prison population. Their analysis suggests that for many common and serious conditions, incarcerated people are substantially less likely to be treated compared to the general U.S. population.

The study found that recently incarcerated individuals with type 2 diabetes represented about 0.44% of the U.S. burden of the condition, but got only 0.15% of oral anti-hyperglycemic medications—nearly a threefold difference. Incarcerated individuals with asthma accounted for 0.85% of the total U.S. asthma population, but just 0.15% of asthma treatment volume, a more than fivefold difference.

The study will be published online April 14 in JAMA Health Forum.

"Our findings raise serious concerns about the access to and quality of pharmacologic care for very common chronic health conditions among the incarcerated," says study senior author G. Caleb Alexander, MD, professor in the Department of Epidemiology at the Bloomberg School. "We knew going in that the U.S. incarcerated population has a higher prevalence of some chronic diseases. But we were really surprised by the extent of potential undertreatment that we identified."

Prior studies have found evidence that <u>health care</u> provided to the U.S. incarcerated population—roughly two million individuals—is often understaffed, underfunded, and of poor quality. Yet studying health care issues among the incarcerated involves many challenges. Few studies have examined treatment of common and chronic diseases such as



diabetes and asthma.

"Health care provided in jails and prisons is provided by a patchwork of health care providers, most commonly private contractors who do not widely share information about the services they provide to incarcerated people," says study co-author Brendan Saloner, Ph.D., an associate professor in the Bloomberg School's Department of Health Policy and Management. "The lack of transparency means that advocates and policymakers have a very incomplete picture of the medicines that are available during a stay in jail or prison."

The lack of transparency also makes it difficult to research. For their study, the researchers generated two sets of estimates: one for the prevalence of specific conditions among recently incarcerated inmates, the other on the percentage of common chronic illness prescriptions going to jails and state prisons.

For the disease prevalence estimates, the researchers used recent data from U.S. government-sponsored National Surveys on Drug Use and Health. These annual surveys don't cover prison and jail populations directly, but the researchers estimated condition prevalence among adult survey respondents who either had or had not reported being on parole or having been arrested and booked in the prior year. They combined these figures with U.S. Census data, and generated population estimates for state prisons and local jails to gauge the approximate numbers of incarcerated and non-incarcerated individuals with different conditions.

To get a sense of prescriptions dispensed to the incarcerated vs. the non-incarcerated populations, the researchers used data from the same time period from the health care technology company IQVIA. Because of the lack of data on federal prison inmates, the incarcerated population for the analysis included only individuals in local jails and state prisons. The authors made adjustments for the possibility of missing data, and note



that their numbers may underestimate disparities between incarcerated individuals and their counterparts.

The analysis yielded estimates for the prevalence of chronic conditions that suggested particularly heavy burdens of some illnesses in the incarcerated population—for example, hepatitis (6.08% prevalence among the incarcerated vs. 1.41 for the non-incarcerated), HIV infection (0.84% vs. 0.28%), depression (15.10% vs. 7.64%), and severe mental illness (13.12% vs. 4.89%).

As for prevalence-treatment differentials among the incarcerated, the study also found that incarcerated individuals with HIV represented about 2.2% of the U.S. burden of the condition, but got only 0.73% of HIV antivirals—a threefold difference. Incarcerated individuals with severe mental illness represented an estimated 1.97% of disease burden, but only 0.48% of treatment volume consisting of antipsychotics and mood stabilizers, a fourfold difference.

Alexander says that the findings may reflect not only institutional neglect but also factors such as the temporary nature of many local jail stays, and the high prevalence of mental illness—which tends to complicate treatment of other conditions—in the incarcerated population.

"We hope our results will motivate further investigations that continue to explore these vital matters using a variety of data sources," he says.

**More information:** Estimated Use of Prescription Medications Among Individuals Incarcerated in Jails and State Prisons in the US, *JAMA Health Forum* (2023). DOI: 10.1001/jamahealthforum.2023.0482

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## Health

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