

Chronic Medical Diseases Among Jail and Prison Inmates

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Jail and prison inmates are known to have a higher burden of infectious diseases, substance use disorders and psychiatric illness than the general, non-institutionalized population, but do they also have a higher burden of other chronic medical conditions, such as hypertension, diabetes, and asthma? The absolute prevalence of chronic medical conditions among inmates seems high. Over one third of inmates in federal prisons (39%), state prisons (43%) and local jails (39%) reported a chronic medical condition, as described in recent publications by Dr. Wilper and colleagues[1] and the Bureau of Justice Statistics.[2] In

which conditions was the prevalence among inmates higher than the general population? Since inmate populations and the general population differ so much in age, gender, race, education, employment, marital status and other factors known to impact health outcomes, are prevalence differences solely due to these underlying factors?

To answer these questions, we sought to compare inmates and the general population. Unfortunately, inmates are generally excluded from the large, nationally representative surveys of health conducted in the United States such as the National Health Interview Survey. These surveys exclude individuals in the military and in institutions, including jails, prisons and nursing homes; however, the Bureau of Justice Statistics does include a few health-related questions in their national surveys of jail and prison inmates. We used data from the responses to these questions in the Bureau of Justice Statistics Surveys and the National Health Interview Survey to compare the prevalence of chronic medical conditions among jail inmates, prison inmates and the general population. Our study, published in the *Journal of Epidemiology and Community Health*,[3] describes the burden of major medical conditions in jail inmates, compares jail inmates to prison inmates, and compares inmates to the general population. We were limited to examining conditions for which there were comparable data across the surveys: hypertension, obesity/overweight/underweight, asthma, diabetes, cancer, cervical cancer in particular, arthritis, and hepatitis (undifferentiated). We adjusted for age, gender, race, education, employment, marital status, the USA as birthplace and alcohol consumption. Our results and those of a related study we conducted on gender differences among jail inmates[4] form the basis of our findings below.

Findings

What were the most common chronic medical conditions among inmates?

As one would expect, the prevalence of chronic conditions among inmates vary by age, but among 34 to 49 year old men and women in prison, the leading condition was overweight, with a prevalence of 47% (Figure 1). After overweight, the leading medical conditions were:

1. Hypertension (24.7%)
2. Obesity (24.7)
3. Arthritis (23.1%)

4. Asthma (13.9%)
5. Hepatitis (12.9%)

Of the conditions we examined, cancer was reported by 3.1% of 34-49 year olds, and cervical cancer was reported by 6.3% of the women. In this age group, underweight (0.4%), myocardial infarction (0.9%) and angina (0.8%) were the least common conditions.

How did the prevalence of chronic medical conditions in inmates compare with the general population?

After adjustment for major confounders, jail and prison inmates had significantly higher adjusted odds of hypertension, asthma, arthritis, cervical cancer (for women), and hepatitis (data shown in Table 1 for jail inmates only). However, jail and prison inmates did not have increased odds of diabetes, angina or myocardial infarction. Obesity was less common among jail and prison inmates than the general population. Obesity was also less significantly less common among jail inmates than prison inmates.

Are there gender differences in chronic medical conditions?

We found important gender differences in chronic conditions which suggest that women are worse off than men in terms of chronic medical conditions. Among jail inmates, women reported a higher prevalence of all medical conditions than men, including cancer, hypertension, diabetes, arthritis, asthma, hepatitis, and cirrhosis.⁴

Implications for Correctional Physicians:

Our findings suggest that jail and prison inmates have a disproportionate burden of many chronic medical conditions compared to the general population, including hypertension, asthma, arthritis, cervical cancer and hepatitis. We found no differences in diabetes and that obesity was less common among jail and prison inmates. Differences in these conditions persist even after accounting for the effects of several important differences between inmates and the general population.

Our hope is that these results can be used to guide correctional health providers and administrators to allocate limited resources towards early detection and appropriate management of common chronic medical conditions among inmates. Hypertension, cervical cancer, and hepatitis could benefit from early detection and treatment. We also stress the importance of appropriate, evidence-based management of chronic medical conditions such as asthma and hypertension.

Cervical cancer and hepatitis warrant special attention. Inmates had a several fold increase in the odds of each of these conditions compared with the general population. Hepatitis was a catch-all term that could have included viral or alcoholic hepatitis; future surveys could be more specific. Efforts by correctional physicians to conduct cervical cancer screening in women and to screen and treat hepatitis should be supported.

Correctional physicians should provide input into the development of questions for national surveys of inmates that reflect their real data needs and the resource allocation problems they face in day-to-day practice. Furthermore, correctional physicians should advocate for coordinated data collection on the medical problems of jail and prison inmates. For instance, coordination of data collection efforts between the Bureau of Justice Statistics and the National Health Interview Survey could lead to improved data quality about the health problems of this significant population. Correctional physicians should provide quality care for chronic medical conditions among inmates and participate in quality improvement efforts at the local and national level. Appropriate management of many chronic conditions, such as asthma and hypertension, will require coordinating health services during incarceration, transition to the community and after release.^[5] We need to advocate for health care policies and financing that support these efforts at care coordination for chronic conditions. For more details about the medical problems of jail and prison inmates, the latest reports from the Bureau of Justice Statistics website www.ojp.usdoj.gov/bjs and the references listed below are a good starting place.

For more information on SCP view their website at www.corrdocs.org. [<http://www.corrdocs.org>]

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