

# Gender Differences in Chronic Medical, Psychiatric, and Substance-Dependence Disorders Among Jail Inmates

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Approximately 13 million individuals spent time in a US jail facility during 2007.<sup>1</sup> At midyear, 780 581 individuals were held in a jail.<sup>1</sup> Jails are facilities, generally operated by local city or county governments, that hold individuals before trial or sentencing (adjudication) or individuals serving short sentences.<sup>2</sup> Despite the explosive growth of the criminal-justice population over the last 30 years,<sup>3</sup> the exclusion of inmates from most national health surveys has made it difficult to systematically study the broad range of health conditions that inmates face. Estimates of disease prevalence among inmates in the United States have generally had to rely on data from individual cities or states,<sup>4</sup> use extrapolations from the general, noninstitutionalized population,<sup>5</sup> or focus on infectious diseases.<sup>6–8</sup> Even less epidemiological information is available about the health problems of female inmates and gender differences among jail inmates.

In the noninstitutionalized, general population, women report worse physical health and a higher prevalence than men of some mental-health disorders, such as depression and anxiety.<sup>9</sup> Among jail inmates in the United States, a higher proportion of women (53%) than men (35%) report a current medical problem.<sup>10</sup> In correctional facilities in New South Wales, Australia, a survey of inmates found that 81% of women and 65% of men had at least 1 chronic health condition.<sup>11</sup> In a nonrandom sample of individuals being released from a New York City jail, women reported a higher prevalence of depression, anxiety, and asthma than men, and women were more likely to have visited an emergency room or have had a hospital admission than men.<sup>12</sup> However, gender differences reported in these previous studies did not account for age, race, and education as possible confounders.

Many women in jail have a history of sexual and physical abuse,<sup>13</sup> psychiatric disorders,<sup>14,15</sup> psychological distress,<sup>16,17</sup> and substance dependence,<sup>18,19</sup> conditions that can complicate the

**Objectives.** We investigated whether there were gender differences in chronic medical, psychiatric, and substance-dependence disorders among jail inmates and whether substance dependence mediated any gender differences found.

**Methods.** We analyzed data from a nationally representative survey of 6982 US jail inmates. Weighted estimates of disease prevalence were calculated by gender for chronic medical disorders (cancer, hypertension, diabetes, arthritis, asthma, hepatitis, and cirrhosis), psychiatric disorders (depressive, bipolar, psychotic, posttraumatic stress, anxiety, and personality), and substance-dependence disorders. We conducted logistic regression to examine the relationship between gender and these disorders.

**Results.** Compared with men, women had a significantly higher prevalence of all medical and psychiatric conditions ( $P \leq .01$  for each) and drug dependence ( $P < .001$ ), but women had a lower prevalence of alcohol dependence ( $P < .001$ ). Gender differences persisted after adjustment for sociodemographic factors and substance dependence.

**Conclusions.** Women in jail had a higher burden of chronic medical disorders, psychiatric disorders, and drug dependence than men, including conditions found more commonly in men in the general population. Thus, there is a need for targeted attention to the chronic medical, psychiatric, and drug-treatment needs of women at risk for incarceration, both in jail and after release. (*Am J Public Health.* 2010;100:476–482. doi:10.2105/AJPH.2008.149591)

recognition of and provision of medical care for other chronic medical conditions. For instance, drug dependence can complicate the management of chronic medical conditions in the community (e.g., hypertension) because of competing needs for drug treatment, housing, employment, and income, and because of mistrust between drug users and medical providers. Drug and alcohol dependence, common in jail inmates,<sup>18</sup> also causes health problems, either directly via the toxic effects of the substance (e.g., overdose, alcoholic hepatitis) or indirectly via use practices (e.g., sharing syringes, which can cause blood-borne infections). Therefore, in jail inmates, substance dependence should be considered when assessing gender differences in other chronic medical and psychiatric conditions.

The complexity of conducting large surveys in correctional settings and the exclusion of inmates from other major health surveys in the United States (e.g., the National Health Interview Survey) have made national-level

comparisons of male and female inmates difficult. To understand and meet the needs of women who interact with the criminal justice system, there is a need for greater knowledge about the relationship between gender and the chronic health characteristics of jail inmates. Management of the wide range of chronic conditions among inmates is particularly important in light of inmates' increased risk of death after release from incarceration.<sup>20–30</sup> Although many deaths are related to drug use and suicide, there is also an excess risk of death related to cardiovascular disease, liver disease, and other diseases.

We examined whether there were gender differences in chronic medical conditions, psychiatric disorders, and drug and alcohol dependence among jail inmates at a national level. Our first aim was to determine whether the prevalence of chronic medical conditions, psychiatric disorders, and drug and alcohol dependence differed between male and female

jail inmates after differences in demographic and socioeconomic factors were accounted for. Our second aim was to determine whether gender differences in chronic medical conditions and psychiatric disorders persisted after adjusting for differences in drug and alcohol dependence. Our hypothesis was that female inmates would have a higher prevalence of chronic medical disorders, psychiatric disorders, and substance-dependence disorders than male inmates, even after other demographic and socioeconomic factors had been adjusted for. We further hypothesized that substance dependence would attenuate the differences in medical and psychiatric conditions between men and women in jail.

## METHODS

We used data from the most recent (2002) Survey of Inmates in Local Jails, a nationally representative survey of jail inmates.<sup>31</sup> US Census Bureau interviewers, under the supervision of the Bureau of Justice Statistics, conducted hour-long, structured, in-person, English-language interviews with jail inmates. Potential participants were told verbally and in writing that they were not required to participate and that the information they provided was confidential and only for statistical purposes. Jails were selected on the basis of the size of their male, female, and juvenile populations. All jails housing only females were selected, as were jails housing more than 1000 males, more than 50 females, or both (2 strata). A systematic sample of jails was selected in the remaining strata.<sup>31</sup> Of the 7750 inmates who were selected, 263 inmates declined to participate, 407 were released before their interview, and 98 could not be interviewed because of medical, security, or other constraints, resulting in a final sample size of 6982 inmates. The overall response rate was 84%, including non-response among sampled jails and inmates.<sup>32</sup>

### Variables and Measurement

The key dependent variables were self-reported medical conditions and psychiatric conditions. Medical conditions were assessed with a series of questions that asked, "Have you ever had [condition]?" The medical conditions specified in the interview were cancer, hypertension, diabetes, heart problems, arthritis, asthma, hepatitis, and cirrhosis. Psychiatric

conditions were assessed with a series of questions that asked, "Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had a [condition] disorder?" The psychiatric conditions specified were depressive, bipolar, psychotic, posttraumatic stress, other anxiety, and personality disorders.

Gender was the key independent variable. We also examined demographic and socioeconomic factors that are associated with gender, health, and risky behaviors.<sup>9,33,34</sup> Age was a continuous variable measured in years ranging from 13 to 82 (categorized for descriptive purposes only). Race was measured categorically as non-Hispanic White, non-Hispanic Black, Hispanic, or other. Age and race were both based on self-report and were included in all regression analyses because age and race are generally associated with medical and psychiatric conditions, such as hypertension<sup>35,36</sup> and depression.<sup>37,38</sup>

Marital status is an indicator of social support, although marriage may be adverse for women who have drug-using partners.<sup>34,39</sup> We compared those who were never married to those who had ever been married.

Education, employment, and homelessness are indicators of socioeconomic status with established ties to physical and mental health.<sup>33,40,41</sup> Education was measured categorically as eighth grade or less, some high school, high school completed, and any college or graduate school. Employment was coded dichotomously (no job or business in the month before incarceration vs otherwise). Respondents who reported living on the streets or in a shelter in the 12 months before arrest were considered homeless. Offense category and length of stay in jail during the current incarceration were included for descriptive purposes.

Substance abuse and dependence were measured separately for drugs and alcohol. Substance abuse (failure to meet major role obligations, continued use in hazardous situations, substance-related legal problems, recurrent social or interpersonal problems) and substance dependence (tolerance, withdrawal, compulsive use, impaired control, neglect of activities, continued use despite problems, and time spent in obtaining, using, and recovering)<sup>18</sup> were defined by an endorsement of symptoms derived from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*

(*DSM-IV*).<sup>42</sup> Inmates who responded affirmatively to at least 1 of the 4 abuse questions were classified as having substance abuse, and those who responded affirmatively to at least 3 of the 7 dependence questions were classified as substance dependent. Questions about substance abuse and dependence referred to the year before jail admission: "During the year before your admission to jail, did you lose a job because of your drug use?" (for abuse) and "During the year before your admission to jail, did you often use a drug in larger amounts or for longer periods than you meant to?" (for dependence).

Consistent with *DSM-IV* criteria, we classified inmates with both abuse and dependence as dependent. Substance-abuse characteristics were presented for descriptive purposes but were not used in subsequent multivariable regression models. To assess injection drug use history, participants were asked, "Have you ever used a needle to get any drug injected under your skin, into a muscle, or into a vein for nonmedical reasons?"

### Data Analysis

We estimated univariate statistics for the variables in the analyses, and we used the  $\chi^2$  and *t* test to compare differences between men and women. We used logistic regression models to estimate odds ratios (OR) and 95% confidence intervals (CI) for differences between men and women in medical conditions, psychiatric disorders, and drug and alcohol dependence. The first set of logistic regression models predicted each condition by gender while adjusting for age and race. The second set of models further adjusted for marital status, education, employment, and homelessness, variables that might give rise to the conditions and that may differ for men and women. Finally, a third set of models examined medical and psychiatric conditions that were further adjusted for drug dependence and alcohol dependence, to examine whether they mediated the relationship between gender and each of the conditions. When modeling hepatitis and cirrhosis as outcomes, we also adjusted for a history of injection drug use, a known risk factor for these conditions.

We used the SVY commands in Stata version 10.0 (StataCorp LP, College Station, TX) to estimate Taylor linearized standard errors that accounted for the stratified, multistage

sampling frame used by the survey, and to weight all of the estimates to the 2001 midyear population of US jail inmates (n=631 241).<sup>31,43</sup>

RESULTS

Table 1 describes the demographic and socioeconomic characteristics of the sample. Women represented 11.6% of US jail inmates

and had a mean age of 33.4 years (95% CI=33.0, 33.9), which was nearly 2 years older than the mean age of male inmates (31.7 years; 95% CI=31.4, 32.1). Jail inmates were relatively young—more than 60% were aged 35 years or younger—but they were disadvantaged on demographic and socioeconomic measures that are often associated with poor health. More than 40% of men and 36% of

women were non-Hispanic Black. Sixty-two percent of men and 48% of women were never married. More than half of inmates had less than a high school diploma. About one quarter of men and just less than one half of women had no job or business in the month before they were incarcerated. Twelve percent of men and 17% of women were homeless in the year before their arrest. The significant differences between men and women in age, race, marital status, education, employment, and homelessness support the importance of adjusting for these factors when examining gender differences in this population.

Table 2 compares medical conditions, psychiatric disorders, and drug and alcohol abuse and dependence among male and female inmates. In univariate comparisons, women were more likely than were men to report each of the medical and psychiatric conditions. Some of the conditions were highly prevalent in this relatively young sample: 17.3% of men and 21.9% of women reported hypertension, and 12.7% of men and 20.2% of women reported arthritis. Depression and bipolar disorders were exceptionally common among female inmates. Men were more likely to exhibit drug abuse alone, and women were more likely to exhibit drug dependence (with or without abuse). Men were more likely to exhibit alcohol abuse or dependence. Women reported a history of injection drug use more often than men.

Table 3 presents odds ratios comparing female inmates to male inmates after adjusting for other factors. Model 1, which was adjusted for age and race, demonstrates that women had significantly higher odds of reporting each of the medical conditions. Compared with men, women's odds of chronic medical conditions ranged from 1.24 for hypertension (95% CI=1.06, 1.45) to 2.14 for diabetes (95% CI=1.66, 2.78) and up to 7.74 for cancer (95% CI=5.59, 10.72). Differences in cancer by gender were no longer statistically significant after predominantly gender-specific cancers (breast, cervical, uterine, ovarian, prostate, and testicular) were removed from consideration (OR=1.52; 95% CI=0.90, 2.58). Women were more likely than were men to report each of the psychiatric disorders, after adjustment for age and race (model 1).

Gender differences in medical conditions persisted after adjustment for demographic and

TABLE 1—Demographic and Socioeconomic Characteristics of US Jail Inmates: Survey of Inmates in Local Jails, 2002

Characteristics	Unweighted Sample Size	% of Inmates <sup>a</sup>	% of Men <sup>a</sup>	% of Women <sup>a,b</sup>
Gender				
Male	4994	88.4	...	...
Female	1988	11.6	...	...
Age, y				
<25	2451	33.7	34.9	24.1
26–35	2097	31.0	30.7	33.5
36–45	1736	24.6	23.5	32.9
≥46	695	10.8	11.0	9.5
Race				
Non-Hispanic White	2548	36.0	35.0	43.4
Non-Hispanic Black	2768	40.1	40.5	36.7
Hispanic	1246	18.5	19.1	13.6
Other	397	5.5	5.4	6.3
Never married	4163	60.1	61.6	48.4
Education				
Eighth grade or less	737	10.5	10.6	9.3
Some high school	3200	45.2	45.9	40.1
High school completed	2008	29.6	29.5	30.3
Any college	1037	14.7	13.9	20.3
No job or business	2191	29.0	26.7	45.8
Homeless	856	12.7	12.1	17.4
Offense type				
Drug	1724	24.7	24.2	29.2
Property	1800	24.4	23.3	32.4
Violent	1699	25.4	26.5	17.1
Public order	1630	24.9	25.5	20.8
Other	43	0.5	0.5	0.6
Time held in jail before interview				
7 d or less	947	13.4	13.1	16.2
8–14 d	673	9.2	8.7	13.1
15–30 d	1031	14.9	14.6	16.9
31–60 d	1126	16.0	15.9	16.7
61–180 d	1949	28.6	29.0	26.1
181–364 d	723	11.3	11.9	7.3
≥1 y	392	6.5	6.9	3.7

<sup>a</sup>Weighted to represent the midyear national population of jail inmates in 2001 (n=631 241).  
<sup>b</sup>For differences between the weighted values for men and women, P<.001 for all characteristics.

**TABLE 2—Percentage of Inmates Reporting Chronic Medical Conditions, Psychiatric Disorders, Substance Abuse, or Substance Dependence, by Gender: Survey of Inmates in Local Jails, 2002**

	Men, Weighted %	Women, Weighted %	P
<b>Medical condition</b>			
Cancer	1.1	8.3	<.001
Diabetes	3.2	6.5	<.001
Hypertension	17.3	21.9	<.001
Heart problem	8.6	11.4	.002
Asthma	13.9	24.4	<.001
Arthritis	12.7	20.2	<.001
Hepatitis	4.9	9.6	<.001
Cirrhosis	1.2	2.1	.006
Any medical condition	40.0	56.8	<.001
<b>Psychiatric disorder</b>			
Depressive	17.4	35.5	<.001
Bipolar	8.7	20.7	<.001
Psychotic	4.4	6.0	.013
Posttraumatic stress	4.4	11.3	<.001
Other anxiety	6.1	18.5	<.001
Personality	4.7	8.7	<.001
Any psychiatric	21.6	43.6	<.001
<b>Drug-use disorder</b>			
Drug abuse	18.2	13.6	<.001
Drug dependence	34.5	45.7	<.001
Drug abuse or dependence	52.7	59.3	<.001
<b>Alcohol-use disorder</b>			
Alcohol abuse	24.6	18.0	<.001
Alcohol dependence	23.3	18.9	<.001
Alcohol abuse or dependence	47.9	36.9	<.001
History of injection drug use	17.1	24.4	<.001

socioeconomic factors, as demonstrated by model 2. For example, women were 7.41 times (95% CI=5.15, 10.66) more likely than were men to report any kind of cancer, after adjustment for demographic and socioeconomic factors (age, race, marital status, education, homelessness, and employment), just slightly higher than the odds in model 1, when only age and race were included (OR=7.74; 95% CI=5.59, 10.72). The single exception was cirrhosis: after adjusting for demographic and socioeconomic factors, the odds ratio comparing women to men for cirrhosis was no longer statistically significant. Gender differences in psychiatric disorders also persisted after adjustment for demographic and socioeconomic factors (model 2), although the difference in psychotic disorders was no longer statistically significant. Women

had 1.46 times the odds of drug dependence (95% CI=1.25, 1.70) and 0.69 times the odds of alcohol dependence (95% CI=0.60, 0.80) compared with men after adjustment for demographic and socioeconomic factors.

Adjusting for drug and alcohol dependence in model 3 did not eliminate the gender differences in the medical conditions or psychiatric disorders; in some cases, adjusting for drug and alcohol dependence marginally increased the differences. Although there were gender differences in drug and alcohol dependence, those differences did not mediate the relationship between gender and the medical or psychiatric disorders examined. We also found that women were no more likely to have received a medical examination during the current jail admission than were men.

## DISCUSSION

Women in US jails reported a substantially higher burden of chronic medical and psychiatric disorders than men in jails. Most of these gender differences persisted even after adjustment for demographic and socioeconomic factors. Drug and alcohol dependence did not account for gender differences in chronic medical or psychiatric conditions; nor did it substantially alter the sizes of the differences observed. Both male and female jail inmates had remarkably poor health, given their age, but our results suggest that incarcerated women were particularly disadvantaged and ill compared with their male counterparts. Our results suggest that epidemiological findings from the general, noninstitutionalized population cannot simply be applied to correctional institutions, because the incarcerated population is unique. If these findings are also applicable to state prisons, they might explain why women being released from prison have an extremely high risk of death compared with noninstitutionalized women.<sup>20</sup> The long-term health outcomes of chronic conditions, such as hospitalizations and mortality, are likely to occur after release from jail.

### Limitations

A strength of this study is its use of data from a nationally representative sample of US jail inmates, with large numbers of male and female inmates. Conducting research in numerous jails around the country is challenging and costly, and these representative data provide rare, valuable insight into the health of inmates in the United States. Still, several limitations must be noted. Conditions were assessed by self-report to interviewers, and validation studies on the medical histories of inmates are lacking. However, the interviews in our study were conducted by noncorrectional Census Bureau employees, so participants had little incentive to provide inaccurate information. In addition, the large number of positive answers to sensitive questions suggests that inmates felt reasonably comfortable revealing high-risk behaviors and potentially stigmatized conditions; nevertheless, we do not know the extent of underreporting.

We also do not know whether reporting differed by gender. Survey results from prisons

**TABLE 3—Association Between Female Gender and Medical Conditions, Psychiatric Disorders, and Drug and Alcohol Dependence, by Analytic Model: Survey of Inmates in Local Jails, 2002**

	Model 1, <sup>a</sup> OR (95% CI)	Model 2, <sup>b</sup> OR (95% CI)	Model 3, <sup>c</sup> OR (95% CI)
<b>Medical condition</b>			
Cancer	7.74 (5.59, 10.72)	7.41 (5.15, 10.66)	7.42 (5.15, 10.68)
Diabetes	2.14 (1.66, 2.78)	2.08 (1.58, 2.74)	1.99 (1.49, 2.65)
Hypertension	1.24 (1.06, 1.45)	1.20 (1.02, 1.42)	1.23 (1.04, 1.44)
Heart problem	1.26 (1.04, 1.53)	1.24 (1.01, 1.51)	1.25 (1.02, 1.54)
Asthma	2.06 (1.79, 2.38)	2.01 (1.72, 2.36)	2.05 (1.74, 2.40)
Arthritis	1.59 (1.34, 1.89)	1.46 (1.22, 1.74)	1.45 (1.21, 1.74)
Hepatitis	1.91 (1.51, 2.42)	1.67 (1.29, 2.17)	1.58 <sup>d</sup> (1.18, 2.10)
Cirrhosis	1.67 (1.09, 2.55)	1.28 (0.79, 2.08)	1.37 <sup>d</sup> (0.79, 2.36)
Any medical condition	1.87 (1.65, 2.11)	1.78 (1.56, 2.02)	1.82 (1.59, 2.07)
<b>Psychiatric disorder</b>			
Depressive	2.47 (2.14, 2.85)	2.18 (1.87, 2.54)	2.18 (1.87, 2.55)
Bipolar	2.56 (2.15, 3.06)	2.28 (1.87, 2.78)	2.23 (1.81, 2.74)
Psychotic	1.33 (1.02, 1.73)	1.13 (0.84, 1.51)	1.10 (0.81, 1.51)
Posttraumatic stress	2.59 (2.09, 3.22)	2.09 (1.65, 2.66)	2.10 (1.64, 2.70)
Other anxiety	3.27 (2.69, 3.98)	2.74 (2.19, 3.43)	2.81 (2.24, 3.52)
Personality	1.83 (1.42, 2.35)	1.55 (1.18, 2.02)	1.59 (1.20, 2.09)
Any psychiatric	2.66 (2.31, 3.06)	2.35 (2.02, 2.73)	2.34 (2.01, 2.73)
Drug dependence	1.57 (1.36, 1.80)	1.46 (1.25, 1.70)	...
Alcohol dependence	0.71 (0.62, 0.82)	0.69 (0.60, 0.80)	...

Note. OR = odds ratio; CI = confidence interval.

<sup>a</sup>Model 1 adjusts for age and race.

<sup>b</sup>Model 2 adjusts for age, race, marital status, education, homelessness, and employment.

<sup>c</sup>Model 3 adjusts for age, race, marital status, education, homelessness, employment, drug dependence, and alcohol dependence.

<sup>d</sup>Hepatitis and cirrhosis were also adjusted for injection drug use in model 3.

in New South Wales demonstrated that female prisoners reported more health-related symptoms, such as sleeplessness and headaches, than male prisoners.<sup>11</sup> Female inmates may seek acute health care at a higher rate than male inmates<sup>44</sup> and may therefore be diagnosed with chronic conditions more frequently. However, our analyses suggested that women were no more likely to have had a medical examination than men. Further research on whether gender differences in reported health conditions are related to access to health care or health-seeking behavior is indicated.

Interviews were conducted in English, which may limit applicability of the findings to non-English-speaking inmates. Further study of the applicability of our findings to Spanish-speaking jail inmates and to state and Federal prison inmates is warranted.

Finally, this study was cross-sectional, so we could not assess the long-term morbidity and mortality associated with inmates' reported health conditions. However, we assessed chronic medical and psychiatric conditions that are known to contribute to substantial morbidity and mortality in the general population.

### Conclusions

Our findings—that women in jail have a higher prevalence of chronic medical and psychiatric disorders, with adjustment for important covariates—have not been previously demonstrated. This information provides a solid basis for the next steps in addressing these differences. The increased odds of cancer among incarcerated women warrant particular attention. This finding likely relates to a high prevalence of cervical cancer among women in

jails. According to published reports, approximately 20% of female jail inmates reported having a pelvic examination during their incarceration.<sup>10</sup> Existing cervical cancer screening programs in jail settings should be sustained and expanded to include all women eligible for screening.<sup>45</sup> Vaccination for human papilloma virus should be considered for girls in juvenile detention facilities or young women in adult correctional facilities who have not been previously exposed to the virus.

Knowledge of the gender differences in these health conditions can be used to plan effective care-delivery systems and interventions to improve health among populations with high incarceration rates. Lewis<sup>46</sup> has suggested that male and female inmates may not respond similarly to equal services, and Sacks<sup>47</sup> has called for gender-specific treatment programming, especially for women with co-occurring substance use and mental disorders. Smaller studies of subpopulations of drug-involved prison inmates have suggested that gender affects drug treatment entry<sup>48</sup> and engagement.<sup>49</sup> Prison drug-treatment participants are not representative of the wider correctional population, but findings from these previous studies suggest that gender may affect medical and psychiatric care-seeking behavior and care delivery, issues that merit further study. Given the high prevalence of chronic conditions and comorbidity among women in jails, further investigation is warranted to determine the most effective care-delivery models for women at risk for incarceration, in jails, and during transitions back to the community. For instance, staffing of health services for women in jail settings likely requires more comprehensive services than routine gynecologic care alone, given the high prevalence of hypertension and asthma among female jail inmates.

For both men and women, incarceration may represent a sentinel event allowing health conditions to be identified and treatment initiated. Preventive care, screening, and appropriate management of inmates are likely to benefit public health, especially with regard to infectious diseases, because of the substantial number of people who interact with the criminal justice system.<sup>6</sup> Many inmates have multiple medical,<sup>10,11</sup> psychiatric, and substance-use disorders,<sup>46,47,50</sup> so greater integration of medical, psychiatric, and substance-dependence

care-delivery systems may be necessary to provide optimal care to currently and formerly incarcerated individuals.

Understanding the medical, psychiatric, and substance-dependence needs of jail inmates is important for health care providers, health administrators, and public health officials working in correctional and community settings. Medical providers working in jail facilities typically care for the routine and urgent needs of inmates during incarceration, but they rely on community providers and local health facilities for conditions requiring treatment that exceeds jail resources. Jail medical providers may be reluctant or unable to initiate therapies for chronic conditions, given that jail incarceration is generally short-term. Thus, the responsibility for managing chronic conditions often rests with community, university, and public health providers. Greater coordination of the transitions in care between correctional and community health settings is critical for improved health outcomes among individuals with chronic medical, psychiatric, and substance-dependence disorders.

Jail inmates have a high prevalence of reported medical and psychiatric needs and substance dependence. Correctional settings offer a critical opportunity to provide evidence-based screening, preventive care, and chronic care to a highly vulnerable population. Comprehensive, integrated primary health care services, appropriate referral avenues for inmates leaving jail, and additional training for correctional and community medical providers who interact with the criminal justice system may be helpful in addressing the wide range of chronic health problems reported by jail inmates. Improved screening, preventive care, and management of chronic conditions among jail inmates may subsequently reduce the morbidity and mortality of this population after they return to the community. ■

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### Contributors

I.A. Binswanger, J.O. Merrill, J.G. Elmore, and M.C. White conceptualized and designed the study. I.A. Binswanger acquired, analyzed, and interpreted the data, supervised the study, and drafted the article. P.M. Krueger assisted with data analysis. J.O. Merrill, P.M. Krueger, M.C. White, R.E. Booth, and J.G. Elmore critically reviewed several drafts of the article.

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### Human Participant Protection

Data were obtained from secondary sources. The protocol for data analysis was approved by the Colorado Multiple institutional review board and was considered exempt by the institutional review boards of the University of Washington, Seattle; the University of California, San Francisco; and the University of Texas Health Science Center at Houston.

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