PROC (BAYL UNIV MED CENT)
2021;34(1):76–80

https://doi.org/10.1080/08998280.2020.1826258

Taylor & Francis
Taylor & Francis Group

The evolution of health care in the Texas correctional system and the impact of COVID-19

Sanjana Rao, BS, Kiran Ali, BS, Gilbert Berdine, MD, Victor Test, MD, and Kenneth Nugent, MD

Department of Internal Medicine, Texas Tech University Health Sciences Center, Lubbock, Texas

ABSTRACT

Health care under the jurisdiction of the Texas Department of Criminal Justice has evolved over time to provide prisoners greater access to medical care, including psychiatric care and substance abuse assistance. Mental illness and chronic conditions, such as hypertension, chronic obstructive pulmonary disease, diabetes, and heart disease, are common in prisoners in Texas and across the nation and increase the cost of health care. The average annual health care cost per prisoner in Texas was $4077 in 2015. Although the Texas prison system has undergone changes, such as the use of telemedicine and protocols for preventive measures, to address the varying medical needs of prisoners in correctional facilities, there is still considerable criticism regarding prison policies and incomplete access to medical care. In addition, the ongoing COVID-19 pandemic has added significant stress to correctional health care in Texas and highlights the importance of organized health care for prisoners. This report reviews the history and evolution of health care delivery in Texas's correctional facilities, outlines ongoing efforts to improve medical care in prison facilities, and describes current policies to limit COVID-19 infections in Texas prisons.

KEYWORDS Correctional health care; COVID-19; prisoners; telemedicine; Texas Department of Criminal Justice

The Texas Department of Criminal Justice (TDCJ) houses over 100,000 inmates in its prison system in relatively small spaces. The severe acute respiratory syndrome coronavirus 2 has caused a pandemic throughout the world, and viral spread can occur easily in organizations with multiple people in small working and living areas, including prisoners and prison staff. Recent information from the TDCJ indicates that more than 21,000 prisoners have been infected, with more than 150 prisoner deaths.[1] This pandemic has clearly introduced significant stress into the system and raises important questions about correctional health care in Texas relevant to inmates, the public, and health care professionals. This review describes correctional health care in Texas and considers the impact of the COVID-19 pandemic on this system.

TEXAS PRISON HEALTH CARE HISTORY AND DELIVERY

Health care delivery in the Texas prison system is under the jurisdiction of the TDCJ. This organizational structure was established in the 1970s due to efforts of the court system and the American Public Health Association. These organizations collaborated to institute reforms to provide adequate care for prisoners and to establish health care standards. Carrying out these reforms became difficult when, in the 1980s, the prison population in the USA more than doubled and public funds decreased. To combat these changes and maintain adequate prison health care standards, Texas adopted an academic medicine and managed care strategy in 1994 to improve the health care of its prisoners.[2]

Prior to the establishment of the eight-story prison hospital at the University of Texas Medical Branch (UTMB) in Galveston in 1983, medical care in the Texas prison system was inadequately staffed, with poorly trained inmate aides and medical assistants. The lack of financial and professional incentives for medical workers and the drastic increase in the number of prisoners led to an insufficient number of health care providers due to lack of funding.[2] Subsequently, the Texas Legislature established the Correctional Managed Health Care Committee (CMHCC). This committee created a plan that was implemented in 1994 and integrated Texas's

Corresponding author: Kenneth Nugent, MD, Department of Internal Medicine, Texas Tech University Health Sciences Center, 3601 4th Street, Lubbock, TX 79430 (e-mail: Kenneth.nugent@ttuhsc.edu)
The authors report no conflicts of interest.
Sanjana Rao and Kiran Ali are co-first authors.
Received July 27, 2020; Revised September 13, 2020; Accepted September 17, 2020.

preexisting managed care network with two state medical schools (UTMB and Texas Tech University Health Sciences Center [TTUHSC] in Lubbock) to create a new health care delivery plan for Texas prisoners. The CMHCC, through UTMB and TTUHSC, delivers medical, dental, and psychiatric care to prisoners; it contracts with the TDCJ to coordinate and provide oversight statewide and solicits annual funds from the Texas State Legislature. The CMHCC leadership is composed of nine members from the TDCJ, UTMB, and TTUHSC, including five physicians, who convene to monitor the quality of health care and ensure proper implementation of managed care strategies.[2] The TDCJ also monitors the quality of care by providing biennial operational reviews and by reviewing prisoner deaths through its Health Services Quality Improvement Program. Physicians are evaluated through managed care by using an operational performance evaluation system.[2]

TTUHSC serves West Texas, which contains 22% of the prisoner population, and UTMB serves the remaining 78% of the prisoner population. These two institutions provide infirmaries, dental care, and mental health care in most of their correctional facilities. All facilities administer primary care though ambulatory clinics, and all of the facilities are accredited. Other services include group and individual psychotherapy, crisis intervention counseling, and monitoring for chronic diseases, such as AIDS, hepatitis C, diabetes, and hypertension.[2] The TTUHSC division developed a program for aggressive mentally ill prisoners using cognitive behavioral therapy to curb this behavior.

The combination of academic medicine and managed care has significantly improved health care in the Texas prison system.[2] Overall, there has been an increase in health care personnel working in prisons, an improvement in compliance for treatment of chronic diseases, and reduced mortality rates for these chronic diseases.[2] However, correctional health care continues to experience important organizational problems, including inadequate staffing, overcrowding, and constraints related to the overall physical and social environment. Staffing is a problem due to set market salaries in a generally undesirable working environment. For example, UTMB had to resort to nursing agencies to fill vacant spots, as 25% of nursing positions were left unstaffed. UTMB averages over 3100 full-time positions in the prison staff, and there is an average of 300 vacancies annually.[3]

DEMOGRAPHICS AND COMORBIDITIES

In 2019, there were 102 Texas prisons with 251,000 prisoners—a 3% decrease from 2018. In mid-2020, there were 105 prisons and 139,296 prisoners. Black individuals represented 13% of the state population in 2017 but made up 33% of the prison population and 27% of the jail population. The Hispanic population made up 38% of the state population but 55% of prisoners. Hispanic and Black minorities are overrepresented in jails and prisons and have a higher rate of incarceration.[4] This pattern of incarceration likely has several explanations but clearly demonstrates racial disparity and possibly systemic bias. The Vera Institute also provides incarceration demographics indicating that rural counties in Texas have the most prisoners in jail and send the most people to prison.

Between 1980 and 2017, the number of women in prisons increased by 951% (from 1005 to 12,834), and the number of women in jail increased by 986% (from 517 to 8751).[4] Women have different health care needs, including the management of pregnancy, certain malignancies, and sexually transmitted diseases.[5] They often have mental health disorders secondary to drug abuse and post-traumatic stress disorder related to abuse as children and/or as adults. Women also have more physical vulnerability and have higher rates of self-harm than male prisoners.[5] Some mothers have stress related to their children being in disrupted homes, and they often have financial insecurity following release from prison. Some authors describe these women as being "medically homeless" both in prison and out of prison.[6] In effect, the organization of health care and social welfare for women in prisons requires a substantially different approach than the organization needed for men.

The *Texas Tribune* reported that the Texas prisoner population is aging and that the demographics now include older and sicker inmates.[3] The proportion of prisoners aged 55 and older increased by 65% in the 2019 fiscal year. According to the TDCJ, inmates over 55 account for half of the hospitalization costs but only one-eighth of the prisoners. Prison health care costs have increased 53% from just below $500 million to $750 million between the years of 2012 and 2019—due not to an increase in inmate numbers but rather to an older inmate population.[3] Older prisoners often have several comorbidities and preexisting conditions.

Table 1 compares six common comorbidities in Texas prisoners and the general noninstitutionalized, nonelderly US population.[7] The frequencies in TDCJ prisoners are similar to those in the US population and clearly indicate that prisoners have significant comorbidity. In an earlier study, comorbidities of prisoners were determined in a survey undertaken between August 1997 and July 1998.[8] The five most common comorbidities in the TDCJ included tuberculosis infection (20.1%), hypertension (9.8%), asthma (5.2%), lower back pain (5.1%), and viral hepatitis (5.0%).

Studies in other countries provide additional insight into the health care needs of prisoners. Wangmo et al reported that older prisoners with a mean age of 59 years in Switzerland reported 2.3 times more somatic diseases than younger prisoners with a mean age of 34 years.[9] In addition, older prisoners visit general practitioners 1.4 times more frequently than younger prisoners during a 6-month period.[10] Older prisoners report three barriers to accessing health care in prison: psychological obstacles (reluctance), concern about possible negative consequences associated with health care utilization, and environmental hurdles related to limited on-site facilities.[11] Older prisoners take more medications than

Table 1. Top clinical diagnoses of Texas inmates and the US population[a]

Top clinical diagnoses	Texas prisoners with diagnosis	US population with diagnosis
Hypertension	22.3%	22.6%
Ischemic heart disease	2.6%	7.1%
Cerebral vascular disease	0.32%	1.1%
Asthma	5.3%	7.2%
COPD	1.4%	4.2%
Diabetes	5.5%	5.3%

[a]Percentages based on information collected from September 2006 to August 2007. Source: Harzke et al 2009.[7]
COPD indicates chronic obstructive pulmonary disease.

younger prisoners and are at increased risk for polypharmacy, defined as ≥5 medications a day.[12] Older prisoners have mental health disorders more frequently than younger prisoners and also abuse alcohol more frequently.[13] Finally, older female prisoners have a different set of concerns. They may experience three layers of vulnerability when in prison: being in prison, being a woman, and being elderly.[14] Clearly, the management of health care needs in older prisoners, both in Texas and throughout the world, requires expertise in geriatrics, women's health, and mental health.

Hepatitis C is particularly prevalent in prisoners.[7] The *Houston Chronicle* reported that the prisoner and nonprisoner hepatitis C rates in Texas were 12.9% and 1.5%, respectively.[15] Between 1994 and 2000, the number of Texas prison deaths due to hepatitis C increased sevenfold.[7] The management of hepatitis C requires expensive medications, and lawsuits have been filed against the TDCJ and UTMB claiming inadequate hepatitis C treatment for prisoners.[16] Infections with HIV are also frequent in prisoners, and the number of cases has increased from 1377 in 1996 to 2453 in 2009.[17] The increased HIV infection rate in prisoners is likely due to unprotected sexual activity and use of intravenous drugs prior to incarceration; 40% to 80% of inmates reportedly used drugs prior to incarceration.[8] To better manage HIV infections, the TDCJ started mandatory HIV testing in Texas prisons in 2007.[18] Better management of transmissible infectious diseases in prisoners has important benefits both for the prisoners and the community at large since treated prisoners are less likely to infect other members of the community following their release. Davis and coworkers have made recommendations for the care of incarcerated patients that include screening for HIV, hepatitis C, syphilis, latent tuberculosis, psychiatric conditions, and substance abuse.[19] Glaser and Griefinger described correctional health care as a public health opportunity and suggested that the criminal justice system should have an epidemiologic orientation and resources adequate for education, counseling, screening, and treatment of these diseases.[20] Rich et al also promoted the need for better correctional health care to improve public health.[21]

Prison statistics demonstrate that >50% of prisoners have a mental illness diagnosis, and >66% have a substance abuse disorder.[22] Texas prisons have several treatment programs for substance abuse, including the Substance Abuse Felony Punishment Facility, the Pre-Release Substance Abuse Program, and the Pre-Release Therapeutic Community.[23] These mental health services have been beneficial, but adequate data on outcomes do not exist due to the lack of widespread implementation and inadequate follow-up. Treating mental health conditions in prisoners is imperative; suicide attempts in Texas correctional facilities increased nearly threefold, from roughly 700 attempts to 2000 attempts between 2009 and 2018.[24] In Texas, some prisoners with mental illnesses are placed in solitary confinement; however, isolation of people with mental illnesses can lead to anxiety, self-harm, and depression.[25] The TDCJ has created a mental health therapeutic diversion program to address this issue and help inmates move back into normal housing, but this program is used in only a few facilities, and program assessment and improvement are necessary.[26] A more rigorous early enforcement of mental health initial evaluation and services in prisons could improve the mental health of inmates and could help decrease recurrent arrests and crime following release back into the community. These efforts might also reduce the acute drug-related mortality of people recently released from prison.[27]

TEXAS PRISON HEALTH CARE COSTS

In 2015, the average cost of annual health care per prisoner in the USA was $5720; the average annual cost in Texas was $4077.[2,28] According to the Texas Association of Counties, the approved Texas state budget has increased by 6.3% to $250.7 billion for the year of 2020–2021.[29] This budget increase will be funneled mostly to public schools, school district property taxes, the State Flood Plan, and Hurricane Harvey recovery. According to the operating budget for fiscal year 2020 published by the Texas Board of Criminal Justice, the budget for hospital and clinic care and health services has decreased compared to 2019 (*Table 2*).[30] Psychiatric care also has a lower budget in 2020 than in 2019. This decrease creates a disconnect, with an increase in psychiatric inpatient average daily census and in prison therapeutic community substance abuse treatment expected in 2020.[30] Texas has a projected budget deficit of $4.6 billion for the current fiscal biennium.[31] This will potentially require significant budget cuts that will impact multiple state functions, including prison management and correctional health care.

The increase in prison health care costs each year has led to the use of telemedicine, which allows physicians or health care professionals to use technology to treat prisoners remotely. This reduces staffing costs and increases efficiency

Table 2. Texas Department of Criminal Justice Budget 2019–2020[a]

Expense	General revenue funds ($) 2019	2020
Correctional security operations	1,187,290,876	1,247,843,268
Correctional support operations	90,310,659	84,134,214
Correctional training	6,358,299	5,811,838
Institutional goods	170,116,523	169,278,053
Offender services	14,491,461	14,377,492
Behavioral unit and psychiatric care	323,946,521	320,701,293
Hospital and clinical care	278,089,686	251,343,853
Health services	5,609,418	5,229,885
Managed health care—pharmacy	72,282,390	72,440,252
Total	2,148,495,833	2,171,160,148

[a]Source: Texas Department of Criminal Justice Operating Budget 2020.[31]

since health care workers do not need to be physically present to treat prisoners. Texas implemented telemedicine in 1998, and it has been a large-scale project. Texas prisons recorded 40,000 telemedicine visits in 2010–2011 and 140,000 patient visits in 2019.[3,32] Telemedicine has reduced the cost of health care visits by $780 million from 1994 to 2008, and Texas reportedly saves between $200 and $1000 with each telemedicine visit.[3]

Deslich et al reviewed the literature on telepsychiatry in correctional facilities and concluded that telepsychiatry improved access to mental health services for inmates and saved significant amounts of money.[33] Kaftarian also reviewed this literature and concluded that telepsychiatry was an effective mode of patient care delivery, especially considering the nationwide shortage of psychiatrists.[34] Senanayake et al concluded that telemedicine was a useful method to connect prisoners to essential health services.[35] However, there is still a need for periodic in-person, on-site care, as telemedicine falls short in several aspects, including the lack of direct physical examination.

Ahalt et al argued that there is a pressing need for more information on the quality of prison health care, the cost of prison health care, and outcomes associated with this care.[36] This information has a potential to improve program design and outcomes. As suggested above, better prison health care can provide important public health benefits.

ACTIVITIES DURING THE COVID-19 PANDEMIC

TDCJ statistics indicate that as of September 15, 2020, 201,004 inmates have been tested for COVID-19, 21,562 were infected, 155 have died with COVID-19 infections, and 39 have had possible COVID-related deaths.[1] The infection rate is 10.7%, and the mortality rate is 0.72%, which is lower than the global estimate provided by the World Health Organization at 4.2%.[37] Prison staff statistics include 66,359 employees tested, 4626 infected, and 20 deaths. Prisoner management policies include social isolation, medical restriction, and medical isolation. The facilities have a robust cleaning policy with 10% bleach on all surfaces.

The TDCJ has both advantages and disadvantages when dealing with this pandemic. The organizational structure provides an integrated system that can better respond to stress from situations like the COVID-19 pandemic. The use of telemedicine could allow infectious disease experts to evaluate patients with possible COVID-19 infections to help make triage decisions. Established mental health programs might reduce anxiety associated with isolation policies during the COVID-19 pandemic. However, overcrowding and inadequate sanitation can lead to a high risk of spreading this infection and could help explain prisoners' high infection rate with this virus. Older prisoners and prisoners with comorbidities are at increased risk for severe infection and poor outcomes when infected with coronavirus. Both hepatitis C with chronic liver disease and AIDS cause immunosuppression and increase the likelihood of infection and disease following exposures to microbial pathogens.

In summary, the COVID-19 pandemic has placed unprecedented stress on correctional health care in the state of Texas. However, the system has introduced widespread testing for infection, enforced isolation policies, and enhanced facility cleaning measures. Even though many prisoners have comorbidities and are at increased risk for poor outcomes following COVID-19, the overall mortality rate in Texas prisons is less than the global estimate provided by the World Health Organization. Therefore, it would seem that the correctional health care system in Texas is meeting the challenge of managing this pandemic even though there are inherent organizational difficulties in caring for multiple individuals in small spaces.

1. Texas Department of Criminal Justice. COVID-19 updates. https://txdps.maps.arcgis.com/apps/opsdashboard/index.html#/dce4d7da662945178ad5fbf3981fa35c. Accessed September 16, 2020.
2. Raimer BG, Stobo JD. Health care delivery in the Texas prison system: the role of academic medicine. *JAMA*. 2004;292(4):485–489. doi:10.1001/jama.292.4.485.
3. Rich D. Prison health care costs are higher than ever in Texas. Many point to an aging prison population. *The Texas Tribune,* November 25, 2019. www.texastribune.org/2019/11/25/texas-prison-health-care-budget-parole/. Accessed July 5, 2020.
4. Vera Institute of Justice. Incarceration trends in Texas. https://www.vera.org/downloads/pdfdownloads/state-incarceration-trends-texas.pdf. Accessed July 5, 2020.
5. Bartlett A, Hollins S. Challenges and mental health needs of women in prison. *Br J Psychiatry*. 2018;212(3):134–136. doi:10.1192/bjp.2017.42.
6. Abbott P, Magin P, Davison J, Hu W. Medical homelessness and candidacy: women transiting between prison and community health care. *Int J Equity Health*. 2017;16(1):130. doi:10.1186/s12939-017-0627-6.

7. Harzke AJ, Baillargeon JG, Kelley MF, et al. HCV-related mortality among male prison inmates in Texas, 1994-2003. *Ann Epidemiol*. 2009;19(8):582–589. doi:10.1016/j.annepidem.2009.03.009.
8. Baillargeon J, Black SA, Pulvino J, et al. The disease profile of Texas prison inmates. *Ann Epidemiol*. 2000;10(2):74–80. doi:10.1016/S1047-2797(99)00033-2.
9. Wangmo T, Meyer AH, Bretschneider W, et al. Ageing prisoners' disease burden: is being old a better predictor than time served in prison? *Gerontology*. 2014;61(2):116–123. doi:10.1159/000363766.
10. Wangmo T, Hauri S, Meyer AH, Elger BS. Patterns of older and younger prisoners' primary healthcare utilization in Switzerland. *Int J Prison Health*. 2016;12(3):173–184. doi:10.1108/IJPH-03-2016-0006.
11. Heidari R, Wangmo T, Galli S, Shaw DM, Elger BS; Agequake group. Accessibility of prison healthcare for elderly inmates, a qualitative assessment. *J Forensic Leg Med*. 2017;52:223–228. doi:10.1016/j.jflm.2017.10.001.
12. Annaheim B, Wangmo T, Bretschneider W, et al. Polypharmacy and drug-drug interactions among older and younger male prisoners in Switzerland. *Int J Prison Health*. 2019;15(3):250–261. doi:10.1108/IJPH-07-2018-0040.
13. Haesen S, Merkt H, Imber A, et al. Substance use and other mental health disorders among older prisoners. *Int J Law Psychiatry*. 2019;62:20–31. doi:10.1016/j.ijlp.2018.10.004.
14. Handtke V, Bretschneider W, Elger B, et al. Easily forgotten: elderly female prisoners. *J Aging Stud*. 2015;32:1–11. doi:10.1016/j.jaging.2014.10.003.
15. Bank G, Blakinger K. Texas inmates sue for hepatitis C drug, alleging lack of treatment is 'cruel and unusual.' *Houston Chronicle,* September 18, 2019. www.houstonchronicle.com/news/houston-texas/houston/article/Texas-inmates-sue-for-hepatitis-C-drug-alleging-14453099.php. Accessed July 5, 2020.
16. Grissom B. Better hepatitis C treatment is costly for prisons. *New York Times,* September 20, 2012. www.nytimes.com/2012/09/21/us/better-hepatitis-c-treatment-is-costly-for-texas-prisons.html. Accessed July 5, 2020.
17. Green S. HIV rates higher around TDCJ prisons. *The Item [Huntsville, TX],* January 9, 2014. www.itemonline.com/news/local_news/hiv-rates-higher-around-tdcj-prisons/article_21fc4e70-5946-5c13-8562-2e22c5abac9d.html. Accessed July 5, 2020.
18. Hunter G. Texas prisoners face mandatory testing for HIV. *Prison Legal News*, March 15, 2007. www.prisonlegalnews.org/news/2007/mar/15/texas-prisoners-face-mandatory-testing-for-hiv/. Accessed July 5, 2020.
19. Davis DM, Bello JK, Rottnek F. Care of incarcerated patients. *Am Fam Physician*. 2018;98(10):577–583.
20. Glaser JB, Greifinger RB. Correctional health care: a public health opportunity. *Ann Intern Med*. 1993;118(2):139–145. doi:10.7326/0003-4819-118-2-199301150-00010.
21. Rich JD, Allen SA, Williams BA. The need for higher standards in correctional healthcare to improve public health. *J Gen Intern Med*. 2015;30(4):503–507. doi:10.1007/s11606-014-3142-0.
22. Freudenberg N, Heller D. A review of opportunities to improve the health of people involved in the criminal justice system in the United States. *Annu Rev Public Health*. 2016;37:313–333. doi:10.1146/annurev-publhealth-032315-021420.
23. Canul A. Rehabilitation Programs Division: substance abuse treatment program. www.tdcj.texas.gov/divisions/rpd/substance_abuse.html. Accessed July 5, 2020.
24. Bleiberg J. Rise in suicide attempts in Texas prisons alarms advocates. *People's World*, April 12, 2019. www.peoplesworld.org/article/rise-in-suicide-attempts-in-texas-prisons-alarms-advocates/. Accessed July 5, 2020.
25. Hogg Foundation for Mental Health. Texas Department of Criminal Justice and local criminal justice agencies. hogg.utexas.edu/public-behavioral-health-services-in-texas/texas-department-of-criminal-justice-and-local-criminal-justice-agencies. Accessed July 5, 2020.
26. McCullough J. Solitary confinement worsens mental illness. A Texas prison program meant to help can feel just as isolating. *The Texas Tribune*, April 23, 2019. www.texastribune.org/2019/04/23/texas-prisons-solitary-confinement-mental-health-program/. Accessed July 5, 2020.
27. Møller LF, Matic S, van den Bergh BJ, et al. Acute drug-related mortality of people recently released from prisons. *Public Health*. 2010;124(11):637–639. doi:10.1016/j.puhe.2010.08.012.
28. Sridhar S, Cornish R, Fazel S. The costs of healthcare in prison and custody: systematic review of current estimates and proposed guidelines for future reporting. *Front Psychiatry*. 2018;9:716. doi:10.3389/fpsyt.2018.00716.
29. Texas Association of Counties. Final state budget update: items of interest to counties, June 28, 2019. www.county.org/News/County-Issues/2019/June/Final-State-Budget. Accessed July 5, 2020.
30. Texas Department of Criminal Justice. Operating budget 2020. https://www.tdcj.texas.gov/documents/bfd/FY2020_Operating_Budget_LBB.pdf. Accessed July 5, 2020.
31. Pollock C. Texas faces a looming $4.6 billion deficit, comptroller projects. *Texas Tribune*, July 20, 2020. https://www.texastribune.org/2020/07/20/texas-deficit-comptroller/. Accessed July 23, 2020.
32. Redemske D. Providing healthcare in the prison environment. 2018. https://www.hdrinc.com/sites/default/files/2018-10/providing-heath-care-in-the-prison-environment.pdf. Accessed July 5, 2020.
33. Deslich SA, Thistlethwaite T, Coustasse A. Telepsychiatry in correctional facilities: using technology to improve access and decrease costs of mental health care in underserved populations. *Perm J*. 2013;17(3):80–86. doi:10.7812/TPP/12-123.
34. Kaftarian E. Lessons learned in prison and jail-based telepsychiatry. *Curr Psychiatry Rep*. 2019;21(3):15. doi:10.1007/s11920-019-1004-5.
35. Senanayake B, Wickramasinghe SI, Eriksson L, et al. Telemedicine in the correctional setting: a scoping review. *J Telemed Telecare*. 2018;24(10):669–675. doi:10.1177/1357633X18800858.
36. Ahalt C, Trestman RL, Rich JD, et al. Paying the price: the pressing need for quality, cost, and outcomes data to improve correctional health care for older prisoners. *J Am Geriatr Soc*. 2013;61(11):2013–2019. doi:10.1111/jgs.12510.
37. World Health Organization. WHO coronavirus disease (COVID-19) dashboard. https://covid19.who.int/. Accessed July 5, 2020.