



Published in final edited form as:

Int J Prison Health. 2010 December 1; 6(3): 100–106.

Physicians in US Prisons in the Era of Mass Incarceration

Scott A. Allen¹, Sarah E. Wakeman², Robert L. Cohen³, and Josiah D. Rich¹

¹Center for Prisoner Health and Human Rights, The Miriam Hospital, Alpert Medical School, Brown University, Providence, RI

²Massachusetts General Hospital, Department of Medicine, Harvard Medical School, Charlestown, MA

³New York University, Department of Medicine, New York, NY

Abstract

The United States leads the world in creating prisoners, incarcerating one in 100 adults and housing 25% of the world's prisoners. Since the 1976, the US Supreme Court ruling that mandated health care for inmates, doctors have been an integral part of the correctional system. Yet conditions within corrections are not infrequently in direct conflict with optimal patient care, particularly for those suffering from mental illness and addiction. In addition to providing and working to improve clinical care for prisoners, physicians have an opportunity and an obligation to advocate for reform in the system of corrections when it conflicts with patient well-being.

Keywords

prison; jail; addiction; mental health; medical professionalism; HIV/AIDS

INTRODUCTION

In 1976, the US Supreme Court ruling *Estelle vs Gamble* found that deliberate indifference to healthcare for inmates constituted cruel and unusual punishment, and was thus prohibited by the US Constitution. In the years since that ruling, the quality of correctional healthcare has steadily improved, thanks in large part to a constellation of lawsuits, (or threats of lawsuits), brought on behalf of prisoners, and the dedication of mission-driven health professionals and administrators, advocates, and activists. Delivering medical care within prisons and jails shares many of the challenges of working with any under-served population. However, unlike most healthcare settings where the physician is only responsible for the patient's welfare, doctors working within corrections often find themselves caught between the punitive aspect of the institutions' mission and the best interests of their patients. This dual loyalty conflict is made that much harder by the fact that many features of the correctional system can directly conflict with optimal treatment for a patient's medical conditions. This can include the deleterious effect of incarceration itself, especially for the mentally ill.

Historically, physicians working in correctional settings have focused their efforts on delivering care, while remaining relatively silent on larger issues about the nature of the institution itself. Over the past three decades physicians have been present and unwittingly

complicit as the United States has embarked on a vast and unprecedented social program of mass incarceration (Wacquant, 2010). Within the arenas of public and occupational health, the importance of physician advocacy for reform of systems that negatively affect patient health is well recognized (for example, physician support for the introduction of respiratory filters, ergonomics, back braces in the work place or physician support for hygiene efforts in restaurants and food manufacturing plants). Fighting for patient well-being and safety is even more crucial when physicians are themselves an essential component of the institution, as is the case with US prisons and jails.

MASS INCARCERATION

The United States leads the world in creating prisoners, incarcerating 753 per 100,000 people, or roughly one in 100 adults (One in 100, 2010). For comparison, the Russian Federation, with the next highest rate of imprisonment, incarcerates 628 per 100,000, while the rate per 100,000 for Cuba is 531; it is 223 for Iran, 148 for England and Wales, 98 for Germany, 85 for France, and 32 for India (World Prison Brief, 2010). With only 5% of the world's population, the United States has a quarter of the world's prisoners (Liptak & Adam, 2008). In 1970, there were 200,000 Americans incarcerated (Haney & Zimbardo, 1998). By 2008, that number had skyrocketed to 2.3 million Americans in prisons and jails (West & Sabol, 2009). At the same time that prison populations have been climbing, rates of crime have been steady or declining. Some would argue crime has decreased precisely because more criminals are in prison. Yet from 2004 to 2006 violent crimes remained at an all-time low of 21% and still the US incarceration rate rose by 23 per 100,000 persons (Bureau of Justice Statistics, 2007). Despite no increase in the occurrence of violent crimes, more Americans were imprisoned. These soaring incarceration rates have been attributed to the powerful combination of the deinstitutionalization of the mentally ill, the "War on Drugs," and increasingly harsh sentencing practices (Haney & Zimbardo, 1998; Human Rights Watch, 2006; Lamb & Bachrach, 2001).

Prisoners in the United States have a disproportionately high prevalence of infectious diseases including viral hepatitis, HIV/AIDS, other sexually transmitted diseases and tuberculosis (Hammett et al, 1997). This is a pattern seen internationally as well (Dolan et al, 2007; Larouze et al, 2008; Ferguson & Batey, 2010). In addition to an increased burden of disease within incarcerated populations, the communities that inmates come from have increased rates of sexually transmitted diseases and unwanted pregnancies, an effect attributed to the destabilization of having a large portion of the male population removed from certain communities (Thomas & Torrone, 2008; Thomas & Sampson, 2005). Our current policies that result in mass incarceration have had and will continue to have a range of untoward consequences. High rates of incarceration of young African-American men result in wage disparities and lower the ratio of men to women in the community, adversely affecting sexual networks in ways that increase HIV risk (Gaiter et al, 2006). In the United States, incarceration has also been associated with disparities in access to health care after release from confinement (Kulkarni et al, 2010). Released inmates also face tremendous risks following incarceration with a recent study showing a 12.7 times increased risk of dying in the two-week period after release among former inmates when compared to their free counterparts (Binswanger et al, 2007).

In addition, US prisons disproportionately affect communities of color, and perpetuate historical racial disadvantages. A study by The Sentencing Project estimates that 60% of the people in prison are racial minorities. One in every eight black males in their twenties is in prison or jail on any given day (The Sentencing Project, 2010). This racial disparity has been intensified by the "War on Drugs," where 75% of inmates incarcerated for drug offenses are minorities (The Sentencing Project, 2010).

The cost of mass incarceration impacts more than just the public health system. The overall cost of corrections in the United States is staggering. In 2007, the United States spent \$49 billion on maintaining correctional facilities (One in 100, 2010). In Rhode Island, the cost in 2009 of incarcerating an inmate for a year is \$62,699 on average, and for a high security inmate that number jumps to \$157,033 per year (Wall, 2010). Between 1987 and 2007, the amount states spent on corrections increased by 127%, while the amount spent on higher education only increased by 21%. In 2007, five states spent as much or more on corrections than they spent on higher education (One in 100, 2010).

MENTAL HEALTH

In 1955 there were 339 per 100,000 occupied state psychiatric beds; by 1995 that number had plummeted to 21 per 100,000 (Lamb & Bachrach, 2001). Following deinstitutionalization, a significant proportion of the mentally ill in America were left untreated and unstable, often winding up homeless or in prison (Lamb & Bachrach, 2001). At least one-third of the estimated 600,000 homeless population in the United States suffers from schizophrenia or bipolar disease (Torey & Zdandowicz, 1999). For many who in past years would have been institutionalized, correctional facilities have become “the asylums of last resort” (Rhodes, 2004). In 2006, 56% of state prisoners, 45% of federal prisoners and 64% of local jail inmates, were found to have a mental health problem (James & Glaze, 2006). High rates of incarceration for the mentally ill are well documented internationally as well, with most studies finding overall rates of mental illness in prison inmates in the range of 50%–80% (Brink, 2005).

With the staggering burden of mental illness among corrections populations, prisons often function as the de facto mental health providers. While inmates do receive some psychiatric care, the system is not designed for treatment provision, but rather for custody and control. In addition, homeless and mentally ill inmates are incarcerated for significantly longer than demographically similar inmates convicted of similar crimes (McNiel et al, 2005). The unfortunate reality of mentally ill inmates being incarcerated for crimes related to their untreated mental illness represents a failure of the community mental health care system as a whole.

Prisons and jails are designed in ways that may aggravate and intensify psychiatric illness. For example, the deleterious effects of “super-max,” or high security, units and solitary confinement are well documented (Haney, 2003; Smith, 2006). At least 44 states have super-max facilities, and an estimated 20,000 US prisoners are held in super-max conditions (Mears, 2006; Briggs et al, 2003). The effects of sensory deprivation have been demonstrated among healthy volunteers in conditions far less stressful than long-term incarceration in “The McGill Studies” and similar experiments at Princeton University. In these studies, healthy volunteers were confined to boxes or small rooms and virtually all subjects reported hallucinations and disturbed thought processes (Smith, 2006). For the mentally ill in prisons and jails, placement in isolation can often push individuals into acute psychosis (Human Rights Watch, 2006). After years of research on the health affects of prolonged isolation, Haney et al write “...the recent trend toward increased use of super-max and solitary confinement is dangerously ill-conceived. It ignores or contravenes a diverse and robust empirical literature that has consistently documented the psychologically destructive effects of prolonged extreme idleness and social deprivation. Solitary confinement and punitive isolation take the pains of imprisonment and intensify them, demonstrating little regard for the long-term psychological consequences to prisoners” (Haney & Lynch, 1997).

Federal courts in Wisconsin, California, and Ohio have found that imprisoning seriously mentally ill prisoners in super-maximum security prisons is a violation of the US Constitution's 8th amendment prohibition of cruel and unusual punishment. Although conditions in Super-Max prisons are potentially harmful, punitive and administrative segregation units in usual medium and maximum security facilities also disproportionately concentrate the mentally ill and harm the mental health of both chronically ill and previously healthy inmate patients.

ADDICTION

In 1980 there were 19,000 people incarcerated for drug offenses, by 2002 that number had increased fourteen-fold to 265,100 and in 2006 there were almost 1.7 million drug arrests (Bureau of Justice Statistics). In addition, more than 50% of inmates now meet DSM-IV (Diagnostic and Statistical Manual, 4th Ed.) criteria for drug dependence or abuse, and more than two-thirds report using drugs regularly during their lives (Mumola & Karberg, 2006). Even among inmates not convicted of drug-related crimes, addiction still often plays a significant role. One in four violent offenders committed their offenses while under the influence of drugs (Mumola & Karberg, 2006). Yet despite the clear link between substance use and incarceration, little is being done to address the underlying problem of addiction.

Addiction is a chronic and relapsing disease, characterized by the development of tolerance, the experience of withdrawal, and drug craving (Volkow, 2008). Despite clear scientific evidence supporting this disease model, we continue to criminalize addiction, even in the face of two decades of resounding proof that the "War on Drugs" has failed. After spending \$69 billion a year on drug prohibition, America's prisons are bursting at the seams and drugs are cheaper, more potent, and easier to get (Fleming & Gray, 2008). The American Society of Addiction Medicine's ethical statement recognizes the importance and ethical obligation of physicians as advocates for people struggling with addiction. "Society's response to alcoholism and other drug dependencies has reflected a history of stigma and prejudice towards persons who suffer from these illnesses and their families. The addictionist therefore has a special role as advocate for those changes in law and public policy that will improve the treatment of addiction, reduce stigma, and protect the rights of those affected" (American Society of Addiction Medicine, 2010).

Harm reduction is a proven effective treatment for narcotic addiction, and may decrease the transmission of blood borne diseases such as HIV and hepatitis C virus (HCV) infection in prisons (Harm Reduction Coalition, 2007). Syringe exchange programs are functioning in prisons in Switzerland, Germany, and Spain. Physicians in US prisons should advocate for the introduction of harm reduction strategies in US prisons and jails and should lobby for expanded availability of proven and effective addiction treatment programs in the community. The expansion of community treatment could also potentially prevent activities that eventually lead to incarceration.

ETHICAL ISSUES CONFRONTING CORRECTIONAL PHYSICIANS

Physicians working in correctional settings face a variety of ethical conflicts. Examples of conflict may include situations where physicians are complicit with unethical behavior that is sanctioned by the culture of the institution but not by official policy and those where they are complicit with institutional policies that are in conflict with established medical ethics.

In the first case, physicians may be guilty of failing to report or intervene in unsanctioned acts of prison staff that bring harm to their patients. A recent in-depth study of Cook County Jail by the Civil Rights Division of the US Department of Justice found "clear examples of corrections officers in organized groups beating inmates to retaliate for verbal abuse, and

people going to the hospital for it” (Davey, 2008). In that case it is unclear whether health care staff made any effort to intervene to protect their patients. In another recent case in Michigan, a severely mentally ill 21-year-old man died of hypothermia and dehydration after being restrained naked to a concrete slab for four days, where he was visited regularly by doctors and nurses who assured correctional staff that they could continue their restraints (Alexander, 2009).

In these cases, the behavior of prison staff that placed the health of prisoner patients at risk was not officially sanctioned by the institutions, but cultures permissive of abuse created pressures to “go along” or “look the other way” that health professionals may have yielded to. Since the Stanford Prison Experiment, it has been understood that the risk of abuse in correctional settings is extremely high. Health professionals, including physicians, are not immune to these competing pressures. These potent competing forces are described by the term “dual loyalties,” defined as the conflict between professional duties to a patient and obligations, express or implied, real or perceived, to the interests of a third party such as an employer, an insurer or the state (International Dual Loyalty Working Group, 2003). Health professionals working in prison settings are subject to pressures to conform in settings that are often physically and functionally isolated from community health care settings.

Not unlike the cases of torture in Guantanamo and Iraq, where doctors may have “stood by silently when humiliation, degrading treatment, and physical abuses [took] place” (*Lancet* editorial, 2004), physicians in US jails and prisons are often at least indirect witnesses to the maltreatment of prisoners. Following the reports of US torture in recent years, the American Medical Association (AMA) has put out an additional statement condemning any “failure to report by physicians and other health professionals the mental or physical abuse, sexual degradation, or torture of prisoners or detainees” (AMA Policies). While certainly the situation with US corrections is not comparable to the torture reported in Abu Ghraib and Guantanamo, physicians working in prisons and jails have the responsibility to intervene to stop (if at all possible), document and report the alleged abuse to the appropriate authorities when they observe or have suspicion of abuse of their patients. In addition to directing physicians to oppose torture, the AMA further directs physicians to “... help provide support for victims of torture and, whenever possible, strive to change the situation in which torture is practiced or the potential for torture is great” (AMA Policies).

In the second case, institutional policies may be in direct conflict to the ethical conduct of the medical profession. In many correctional facilities, methadone treatment is discontinued abruptly upon arrival in the facility, which is directly in conflict with accepted medical practice. In many facilities, prolonged isolation in segregation is employed even with inmates suffering from serious mental illness despite the known harmful effects of prolonged isolation on mental health. In other cases, physicians have helped develop clinical protocols that deny prisoners access to potentially life saving treatments for serious medical illnesses such as HIV and HCV infection, in effect creating a separate but unequal standard of care for prisoners. Again, in these situations, physicians may feel intense pressures to remain silent and go along with institutional practices that may harm their patients.

In a broader sense, physician complicity in support of the system of mass incarceration is problematic. The American policies that have resulted in mass incarceration is an unprecedented undertaking directly affecting millions of people, and the long-term effects on the health of individual prisoners, their families, and their communities are still not known.

Physicians, including many academic physicians (including three of the authors of this paper) with the best of intentions, inadvertently have lent their support and reputations to the

program of mass incarceration simply by working for and with the institutions. Without their profession's involvement, mass incarceration would not be legal. In the United States, inadequate medical care for prisoners has been found to constitute cruel and unusual punishment by the US Supreme Court (*Estelle vs Gamble*, 1976). Prisons in the United States must provide adequate medical care to pass constitutional muster, and physicians are required to provide that care. In addition to the legal imperative, ethical guidelines such as the World Medical Association (WMA) Declaration of Tokyo and the United Nations' Guidelines also require adequate medical care of prisoners (WMA Declaration, 2010; Standard Minimum Rules, 2010). In civilized societies, prisons could not be established without the support of physicians and other health professionals. Physician abandonment of correctional facilities is obviously not a practical or ethical option; abandonment of institutions would result in wholesale abandonment of patients with compelling healthcare needs and no other means of accessing care. Yet, physicians have rarely acknowledged their foundational role and have not adequately leveraged the resulting power of their required participation to vigorously promote humane reforms of the institutions they support.

CORRECTIONAL MEDICINE AND MEDICAL PROFESSIONALISM

While there are many risks and challenges for physicians working in correctional settings, there are often opportunities to effect change. Physicians are obliged to advocate for appropriate health services for their prisoner patients. This can include interventions such as:

1. Working to establish evidence based drug treatment programs for prisoners including those based on proven principles of harm reduction;
2. Refusing to transfer their seriously ill patients to facilities or special units that will predictably be harmful to their health;
3. Lending their professional insights as clinicians and public health professionals to inform more humane and effective treatment programs for their patients; and
4. Collaborating with community partners including public health authorities and advocates, and community based physicians to develop re-entry programs for released patients who struggle with addiction and/or mental illness, and should support the development of alternatives to incarceration.

In the United States, mental health courts have been used successfully to direct individuals in need of care to treatment instead of incarceration (Baillargeon et al, 2009). While in prison, intensive case management and jail diversion have been associated with significant reductions in arrests and incarcerations over time (Loveland & Boyle, 2007).

Physicians must be mindful of and responsive to claims of abuse by patients by staff or other prisoners. Any evidence of either physical or psychological abuse must be examined and documented and reported to the appropriate institutional authorities (National Commission on Correctional Healthcare). Any evidence of sexual abuse or rape must also be documented and reported, and recent legislation in the United States emphasizes the need for an institutional response to such abuse (Dumond, 2003). In the case where institutional authorities are unresponsive to claims of abuse, reporting to authorities outside of the prisons system must be considered, even though such action may jeopardize the reputation and employability of the physician whistleblower.

In these areas, the physician must deal with the limits of physician patient confidentiality directly by informing the patient that allegations of abuse must be reported. Doctor-patient confidentiality is an essential element in establishing the trust necessary for successful medical practice, and violations of confidentiality can inhibit both trust and communication in health care settings. But confidentiality does have limits.

Exceptions exist when there is a competing and compelling interest to the rights of an individual to protect public health or the health of a third party or parties. Such examples include required reporting of infectious diseases such as tuberculosis or sexually transmittable diseases to a public health agency or specific threats of violence to a third party. In the United States, these categories of disclosure are typically required by law. Violation of confidentiality must be based on the compelling interests and the fact that a disclosure will be made should be communicated clearly to the patient and every effort should be made to preserve confidentiality beyond the initial disclosure to a law enforcement or surveillance agency in order to limit further intrusion of privacy beyond the minimum required. With reporting violence or trauma, extra effort must be made to address individual patient's concerns about potential adverse consequences of the disclosure including referral to supportive, protective, and therapeutic services (Morris, 2009).

Physicians are often part of the leadership and management of correctional institutions. Physicians in administrative positions have an affirmative duty to use their knowledge about the effects of correctional programs on the health of their patients to help inform and guide prison leadership. To this end, physicians should work to eliminate the use of prolonged isolation and sensory deprivation and work to develop effective and rational programs for patients dealing with addiction and mental illness. If an inmate poses a risk to himself or others, there are options available to security staff (including segregation without isolation and sensory deprivation) that provide for safety that do not place the inmate at the same level of risk of harm.

Occupational and public health programs, with their record of collaboration with government and local organizations to improve workplace safety and the health of communities, can serve as models. Through medical societies, community agencies, and academic centers, physicians need to provide advocacy and expertise to help craft realistic and achievable reforms for a correctional system that remains in conflict with the health interests of prisoners and their communities.

The medical profession has been complicit in supporting mass incarceration in the United States, despite the many conflicts with the mission of medicine. Prisons and jails cannot be sustained ethically or constitutionally without the support of the medical profession. In lending the good reputation of the medical profession to the work of correctional institutions in a culture of mass incarceration, physicians have placed at risk the ethical foundation of the profession itself. To prevent this, all physicians – not just those working in prisons – must exercise their moral authority to insist upon substantial reforms relating to clinical care within the institutions. Ultimately it is not the prisons or jails who decides who enters, it is the police and the courts. Therefore, in addition, physicians must advocate for change in the structure of the criminal justice system to the extent that mass incarceration acts against the individual and public health of prisoners and the community, particularly with regards to mental health and addiction.

The quality of health care in US prisons has improved dramatically in the past three decades in large part because physicians and other health professionals brought the best ideals, skills and approaches of their professions to bear on medical challenges of their patients. The next step is to use these same professional assets to produce positive reforms on conditions of confinement that impact the health of their patients.

Acknowledgments

This work was in part supported by grant P30-AI-42853 from the National Institutes of Health, Center for AIDS Research (NIH/CFAR), P30DA013868 from the Center for Drug Abuse and AIDS Research (CDAAR), and

K24DA022112 from the National Institute on Drug Abuse, NIH (NIDA/NIH). The content is solely the responsibility of the authors and does not necessarily represent the official views of NIDA or the NIH.

References

- Alexander E. Prison health care, political choice, and the accidental death penalty. *J of Constitutional Law*. 2009; 11(1):1–22.
- AMA policies H-65.981 and E-2.067.
- American Society of Addiction Medicine. Public Policy Statement on Principles of Medical Ethics. Available online at: www.asam.org/1PRIN%20OF%20MED%20ETHICS%2010-92.pdf
- Baillargeon J, Binswanger IA, Penn JV, Williams BA, Murray OJ. Psychiatric disorders and repeat incarcerations. *Am J Psychiatry*. 2009; 166:103–109. [PubMed: 19047321]
- Binswanger IA, Stern MF, Deyo RA, et al. Release from prison – A high risk of death for former inmates. *N Engl J Med*. 2007; 356(2):157–165. [PubMed: 17215533]
- Briggs C, Sundt J, Castellano C. The effect of super-maximum security prisons on aggregate levels of institutional violence. *Criminology*. 2003; (41):1341–1376.
- Brink J. Epidemiology of mental illness in a correctional system. *Curr Opin Psychiatry*. 2005; 18:536–541. [PubMed: 16639114]
- Bureau of Justice Statistics. Crime Characteristics. 2007. Available online at: <http://www.ojp.usdoj.gov/bjs/>
- Bureau of Justice Statistics. Drug Law Violations. Available online at: <http://bjs.ojp.usdoj.gov/content/DCF/enforce.cfm>
- Davey, Monica. The New York Times. July 18. 2008 Federal Report Finds Poor Conditions at Cook County Jail.
- Dolan K, Black E, Aceijas C, Stimson G. HIV in prison in low-income and middle-income countries. *Lancet Infect Dis*. 2007; 7:32–41. [PubMed: 17182342]
- Dumond RW. Confronting America's most ignored crime problem: The prison rape elimination act of 2003. *J Am Acad Psychiatry Law*. 2003; 31:354–360. [PubMed: 14584536]
- Estelle vs Gamble. United States Supreme Court; 1976.
- Ferguson L, Batey R. Prisons, prisoners, and hepatitis C. *Journal Gastroenterol and Hepatol*. 2010; 25:1184–1185.
- Fleming, DW.; Gray, JP. This is the US on Drugs. The Los Angeles Times; July 5. 2008
- Gaiter JL, Potter RH, O'Leary A. Disproportionate rates of incarceration contribute to health disparities (Letter). *Am J Public Health*. 2006; 96:1148–1149. [PubMed: 16735613]
- Hammett TM, Harmon MP, Rhodes W. The burden of infectious disease among inmates of and releasees from US correctional facilities, 1997. *Am J Public Health*. 2002; 92:1789–1794. [PubMed: 12406810]
- Haney C. Mental health issues in long-term solitary and “super-max” confinement. *Crime & Delinquency*. 2003; 49:124–146.
- Haney, C.; Lynch, M. *NYU Rev L & Soc Change*. Vol. 23. New York University Review of Law and Social Change; 1997. Regulating Prisons of the Future: A Psychological Analysis of Super-Max and Solitary Confinement; p. 477
- Haney C, Zimbardo P. The past and future of U.S. prison policy twenty-five years after the Stanford prison experiment. *Am Psychol*. 1998; 53(7):709–727. [PubMed: 9699456]
- Harm Reduction Coalition. Syringe Exchange in Prisons: The International Experience. January. 2007 Available online at: <http://www.harmreduction.org/article.php?id=418>
- International Dual Loyalty Working Group. Dual Loyalty and Human Rights in Health Professional Practice: Proposed Guidelines & Institutional Mechanisms. Physicians for Human Rights. March. 2003 Available online at: <http://physiciansforhumanrights.org/library/report-dualloyalty-2006.html>
- Lancet Editorial. How complicit are doctors in abuses of detainees? *Lancet*. 2001; 364:637–638.
- Human Rights Watch. US: Number of Mentally Ill in Prisons Quadrupled Prisons Ill Equipped to Cope. September 5. 2006 Available online at: <http://www.hrw.org/en/news/2006/09/05/us-number-mentally-ill-prisons-quadrupled>

- James, DJ.; Glaze, LE. Mental Health Problems of Prison and Jail Inmates. Bureau of Justice Statistics; September. 2006
- Kulkarni SP, Baldwin S, Lightstone AS, Gelberg L, Diamant AL. Is incarceration a contributor to health disparities? Access to formerly incarcerated adults. *J Community Health*. 2010; 35:268–274. [PubMed: 20127504]
- Lamb H, Bachrach L. Some perspectives on deinstitutionalization. *Psychiatr Serv*. 2001; 52(8):1039–1045. [PubMed: 11474048]
- Larouze B, Sánchez A, Diuana V. Tuberculosis behind bars in developing countries: a hidden shame to public health. *Trans R Soc Trop Med and Hyg*. 2008; 102:841–842. [PubMed: 18513772]
- Liptak; Adam. Inmate Count in US Dwarfs Other Nations'. *The New York Times*; April 23. 2008
- Loveland D, Boyle M. Intensive case management as a jail diversion program for people with serious mental illness. *Int J Offender Ther Com Criminol*. 2007; 51:130–150.
- McNiel DE, Binder RL, Robinson JC. Incarceration associated with homelessness, mental disorder and co-occurring substance abuse. *Psychiatr Serv*. 2005; 56(7):840–846. [PubMed: 16020817]
- Mears, D. Evaluating the Effectiveness of Super-max Prisons. The Urban Institute Justice Policy Center; January. 2006 Available online at: <http://www.ncjrs.gov/pdffiles1/nij/grants/211971.pdf>
- Morris K. UK doctors begin reporting gun and knife crime. *Lancet*. 2009; 374:2041–2042. [PubMed: 20109819]
- Mumola, CJ.; Karberg, JC. Bureau of Justice Statistics Special Report. 2006. Drug Use and Dependence, State and Federal Prisoners, 2004.
- National Commission on Correctional Healthcare. Position Statements Correctional Health Care Professionals' Response to Inmate Abuse. Available online at: http://www.ncchc.org/resources/statements/inmate_abuse.html
- One in 100: Behind bars in America 2008. The Pew Center on the United States; Available online at: <http://www.pewcenteronthestates.org/uploadedfiles/one%20in%20100.pdf>
- Rhodes, L. Total Confinement: Madness and Reason in the Maximum Security Prison. University of California Press; 2004.
- Smith, PS. The Effects of Solitary Confinement on Prison Inmates: A Brief History and Review of Literature. In: Tonry, M., editor. *Crime and Justice*. Vol. 34. 2006. p. 466f
- Standard Minimum Rules for the Treatment of Prisoners. Adopted by the First United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held at Geneva in 1955, and approved by the Economic and Social Council by its resolutions 663 C (XXIV) of 31 July 1957 and 2076 (LXII) of 13 May 1977. Available online at: <http://www2.ohchr.org/english/law/pdf/treatmentprisoners.pdf>
- The Sentencing Project. Available online at: <http://www.sentencingproject.org/template/page.cfm?id=122>
- Thomas JC, Sampson LA. High rates of incarceration as a social force associated with community rates of sexually transmitted infection. *J Infect Dis*. 2005; 191(Suppl 1):S55–S60. [PubMed: 15627231]
- Thomas JC, Torrone E. Incarceration as forced migration: effects on selected community health outcomes. *Prisons and Health*. 2008:S181–S184.
- Torrey, EF.; Zdandowicz, MT. Deinstitutionalization Hasn't Worked. *The Washington Post*; July 9. 1999
- Valkow, N. The Science of Addiction. NIDA; 2008. Available online at: <http://www.nida.nih.gov/scienceofaddiction/>
- Wacquant L. Class, race hyperincarceration in revanchist America. While we have used the term “mass incarceration,” others have suggested the term “hyperincarceration” to emphasize the fact that U.S. incarceration rates, while unparalleled in magnitude in time and place, do not impact communities equally but disproportionately affect individuals from certain races and socioeconomic groups. *Daedalus*. 2010; 139(3):74–90.
- World Prison Brief. International Center for Prison Studies at King's College; London: Available online at: http://www.kcl.ac.uk/depsta/law/research/icps/worldbrief/wpb_stats.php?area=all&category=wb_poprate

- West, HC.; Sabol, WJ. Prisoners in 2008. Bureau of Justice Statistics; December. 2009 Available online at: <http://bjs.ojp.usdoj.gov/content/pub/pdf/p08.pdf>
- Wall, Ashbel T. RIDOC at a Glance. Rhode Island Department of Corrections. Available online at: <http://www.doc.ri.gov/documents/media/RIDOC%20Brochures/RIDOC%20At%20a%20Glance%2005-10.pdf>
- WMA Declaration of Edinburgh on Prison Conditions and the Spread of Tuberculosis and Other Communicable Diseases. 2000. Available online at: <http://www.wma.net/en/30publications/10policies/p28/index.html>