Medical Conditions and Health Care in Prisons

Stories are often showed on the news of convicted felons being sentenced to days, months and years in prison. What some people may not think about is that happens to these people once they become inmates if they have a medical condition. Are there services available to them to so they may receive medical treatment while incarcerated? What options are available for follow-up care once inmates are released for prison? This chapter will explain some of the medical conditions inmates often have, with an emphasis on mental health disorders, and how many inmates have them, as well as the state of health care in prisons across the country.

Inmate Population

At midyear 2000, there were approximately 1.3 million inmates being held in 1,668 Federal, State and private correctional facilities across the United States. These correctional facilities are divided into two different categories, confinement facilities and community based facilities. In confinement facilities, less than 50% of the inmates are allowed to leave the facility for any reason without a staff member. The number of these types of facilities decreased 7% between midyear 1995 and midyear 2000. However, the number of community based facilities, facilities where more than 50% of the inmates are allowed to leave the facility for any reason without a staff member, increased by 7%.

Between both facilities, the number of inmates being held rose by 28% and the number of facilities housing these inmates grew by 14% between midyear 1995 and midyear 2000. The majority of these facilities were State run facilities (78%) and these State-run facilities held 84% of all prisoners. Approximately half of the facilities were classified as minimum security facilities, a third as medium security facilities and the rest as maximum security facilities. State prisons were operating at 1% above capacity, while federal prisons were operating at 34% above capacity. The majority of prison inmates were males (93%). Almost half (46%) of prisoners were black, followed by whites (36%), Hispanics (16%), American Indians or Alaska Natives (1%) and Asian or Pacific Islanders (1%).

Mental Health Disorders

Mental health disorders are classified and their symptoms outlined in the Diagnostic and Statistical Manual of Mental Disorders, more commonly known as DSM-IV. DSM-IV diagnoses are divided into five categories, or axes, ranging for Axis I to Axis V. Axis I disorders are major mental disorders and include major depression, anxiety disorders, bipolar disorder, ADHD and psychotic disorders.

Major Depressive Disorder: depression is characterized by periods of feeling sad or down and/or decreased interest in family, friends and surroundings. In addition, people with depression experience persistent irritability, loss of concentration, psychomotor agitation or retardation, feelings of worthlessness and/or guilt, suicidal ideation/suicide attempts and changes in sleep and appetite, both of which can either be increased or decreased. These symptoms must last at least 2 weeks at a time and cause the person some type of problems at home, at work or at school in order for them to receive a diagnosis of
Major Depression\textsuperscript{2}. At midyear 2005 24\% of state prison inmates had symptoms of major depressive disorder in the 12 months before they were assessed\textsuperscript{3}.

\textbf{Bipolar Disorder (BD):} Bipolar Disorder is a mood disorder where people experience periods of depression as described above, as well as periods of mood elevation, or mania. Symptoms of mania include feeling extremely good about one’s self, talking fast, louder and more often, decreased need for sleep, starting new projects or activities, impulsivity, distractibility, increased irritability, hypersexuality, racing thoughts and grandiose ideas or plans. Bipolar Disorder is broken into two major types; Bipolar I Disorder and Bipolar II Disorder. Bipolar I disorder is when a patients has manic symptoms that last a week or more and cause the person significant problems at work, home and/or school. When someone has Bipolar II Disorder, their manic symptoms due not last as long and do not cause significant impairment\textsuperscript{2}. At midyear 2005 43\% of state prison inmates had symptoms mania in the 12 months before they were assessed\textsuperscript{3}.

\textbf{Psychotic Disorders:} People who have psychotic disorders experience delusions, hallucinations and/or grossly disorganized behavior consistently for at least 6 months, which cause some type of impairment at either work, home or school\textsuperscript{2}. Approximately 15\% of state prison inmates have experienced either delusions or hallucinations and 4\% of experienced both\textsuperscript{3}.

\textbf{Substance Use Disorders:} Substance use disorders are broken down both by substance type, such as alcohol, cannabis etc. as well as specifier, either abuse or dependence. People with a substance abuse diagnosis experience some type of social, work or school problems as a result of their drinking or drugging. Dependence takes this one step further and is present when a person not only experience problems because of their substance use, but their body has become physically dependent on the substance as well\textsuperscript{2}. Substance use disorders are very common in the prison population, with dependence being more prevalent than abuse. 74\% of state prison inmates had a substance use disorder, with 54\% of those having a dependence diagnosis. When broken down by substance 51\% had an alcohol use disorder (30\% of those being a dependence diagnosis) and 62\% had a drug use disorder (44\% of those being a dependence diagnosis)\textsuperscript{3}.

Often times those with a mental health disorder also have a substance use disorder. The prison population is no exception. 42\% of state prison inmates had both a mental health disorder and a substance abuse or dependence disorder\textsuperscript{3}.

\textbf{Communicable Diseases}

Communicable diseases are of great concern to prison officials, given that prison inmates are in such close proximity to each other, as well as the people that work in the prisons. This section goes over a number of communicable diseases that are commonly found in prisons and their prevalence in the prison population.

\textbf{Viral Hepatitis:} One communicable disease commonly found in correctional facilities is viral hepatitis, of which there are five types; Hepatitis A (HAV), Hepatitis B (HBV), Hepatitis C (HCV), Hepatitis D (HDV), and Hepatitis E (HEV). All hepatitis viruses attack the liver and can cause lifelong problems including infection, cancer, cirrhosis of the liver, liver failures and death. HAV and HEV are found in feces, are acquired by the fecal-oral route and do not lead to chronic infection. HBV, HCV and HDV are found in blood and other bodily fluids, are therefore spread through the percutaneous and permucosal route and
can cause chronic infection. The most common types of the hepatitis virus found in the US are HAV, HBV and HCV. These three types account for 97% of the hepatitis cases in the US\textsuperscript{4,5}.

While a large number of inmates have risk factors for HAV infection, there have not been any HAV outbreaks in a prison. It is estimated that 22-39\% of inmates have had a prior HAV infection, but this is not much different than rates in the general population. When it comes to HBV, however, there are differences between the inmate population and the general population. The estimated prevalence of HBV in the general population is 0.5\%, while in the inmate population, that percentage is between 1.0-3.7\%. This percentage is comparable to those in some at risk populations, such as intravenous drug users and men who have sex with other men (MSM), whose rates are between 5-10\% and 1.5-6.0\% respectively. Additionally, between 16-41\% of those incarcerated have some evidence of HCV infection and between 12-35\% suffer from chronic HCV infection\textsuperscript{4}.

Tuberculosis: Tuberculosis (TB) or \textit{M. tuberculosis} is a bacteria spread through coughing, sneezing, speaking or singing and is often found in the lungs, central nervous system, lymphatic system and bones and joints\textsuperscript{6}. According to the CDC, there are a significantly higher proportion of people with TB incarcerated than in the general US population. Only 0.7\% of the US population was incarcerated at midyear 2003, but they made up 3.2\% of all cases of TB in the US. And while the number of new TB cases is dropping in the US, the rate of new TB cases in the correctional population is higher. In 1994, 91.2 cases per 100,000 inmates were reported in New Jersey, while the rate for the general New Jersey population was only 11.0 cases per 100,000. Similar results were seen in 1991 in a California prison, where the rate of TB for inmates was 10 times higher than that of the general California population\textsuperscript{7}.

HIV/AIDS: The Bureau of Justice Statistics (BJS) started collecting data on HIV and AIDS cases in 1991. The number of cases reached an all time high in 1999 when cases totaled 25,807. Since then, however, cases have steadily declined, reaching 22,480 by the end of 2005. This represents 1.7\% of the total state and federal inmate population in the United States. Between 1997 and 2004, significant decreases were found in the percentage of HIV positive males, females, inmates between the ages of 25 and 34, drug offenders and inmates who reported prior drug involvement. 1995 saw the highest number of deaths in prisons due to AIDS-related illnesses with 1,010. This number dropped to 176 in 2005\textsuperscript{8}.

Other Medical Conditions

While reducing the risk of communicable diseases is important to prison officials, communicable diseases are not the most common medical conditions found in state and federal prisons. In 2002 approximately 37\% of state and prisons inmates reported having a current medical condition. The most common medical conditions reported were arthritis (13\%), hypertension (11\%), asthma (10\%), heart problems (6\%) and kidney problems (4\%). 34\% of inmates also reported having some kind of physical impairment, including learning, speech, hearing, vision or mobility impairment. Women were more likely to report ever having any type of cancer. The most common types of cancer for women were cervical cancer, ovarian cancer and breast cancer, while for men the most common types were skin cancer, lung cancer, testicular cancer and colon cancer\textsuperscript{9}.
Prison Health Care

The American Public Health Association first developed comprehensive guidelines for correctional healthcare in 1976. This was brought about when surveys and studies showed that correctional facilities were deficient in providing proper health care to their inmates. Also, in 1976 the Supreme Court ruled in *Estelle v Gamble* that ignoring a prisoner’s serious medical needs was considered cruel and unusual punishment and violated the 8th Amendment. While there have been struggles, strides have been made in improving health care in correctional facilities, making it what it is today. This section looks at the Texas Department of Criminal Justice (TDCJ) and what steps they took.

In 2002, in over 100 facilities, there were more than 145,000 adults incarcerated under the authority of the Texas Department of Criminal Justice (TDCJ). Only about 6% of these inmates were female, almost 50% were over the age of 36, 41% were black, 31% were white and 28% were Hispanic. In the Texas inmate population, 60% had at least one medical condition, with the most prevalent type being infectious diseases (29.6%). When looking at specific illnesses, tuberculosis was the most prevalent, which was reported by 20.1% of the inmate population, followed by high blood pressure (9.8%) and asthma (5.2%). Almost 11% of inmates reported a mental health disorder with affective disorders and schizophrenia being the most prevalent (3.9% and 2.0% respectively).

In the 1970s health care in the Texas prison system was usually limited to small infirmaries run by staff with little formal training. They were equipped with little to no equipment and the equipment that was there was poorly maintained. The primary medical facility for inmates in Texas was Huntsville Unit Hospital, built in 1935. By the 1970s this facility had become overcrowded and understaffed. In 1983 a new facility was built at the University of Texas Medical Branch (UTMB) and was the first prison hospital to be built at an academic medical center. However, due to decreases in financial resources, rising medical costs and the lack of physicians and nurses willing to work for low pay and in rural areas, the problems still existed. So in 1993 the Correctional Managed Health Care Committee (CMHCC) was formed by the Texas Legislature. This committee was tasked with developing a health care plan using a managed care network that worked with 2 state medical schools and affiliated hospitals. The committee is composed of three public members and two representatives from TDCJ, UTMB and Texas Tech University Health Sciences Center (TTUHSC), the second academic medical center involved. Five of the nine members are physicians.

TDCJ contracted with the CMHCC to provide oversight of the program. In addition, the CMHCC contracted with UTMB and Texas Tech University Health Sciences Center (TTUHSC) to provide medical, dental and psychiatric care to the prisoners. The program receives funds through the Texas legislature, which are given to the CMHCC which then gives funds to UTMB and TTUHSC. Quality of care is overseen by the TDCJ Health Services Division. The division reviews prison health facility records biennially to make sure that all parties are complying with standards and laws. In addition, they field and investigate all medical related complaints, review prisoner deaths and monitor cases of communicable diseases.

22% of the prison population is served by TTUHSC and the reminder of the population by UTMB. While UTMB uses mostly their own providers, TTUHSC uses a combination of their own providers and subcontracted local providers. Clinics are set up in
every TDCJ facility to provide primary care to the prisoners. Most of these clinics also provide basic dental and mental health services. In addition, 16 correctional facilities have their own 7 to 166 bed infirmaries. In addition to the general medical care that is provided, there are some specialty programs for those suffering from a chronic or psychiatric condition. The chronic care clinic provides evaluations, medication management, laboratory tests and patient education to inmates with hepatitis C virus, hypertension, asthma, diabetes mellitus (DM) and HIV infection, just to name a few. Psychiatric clinics provide therapy, both individual and group, medication management and crisis intervention counseling to inmates. Three psychiatric facilities provide inpatient services for inmates with severe psychiatric disorders12.

The changes made to the TDCJ health care system have dramatically improved outcomes. One of the more notable changes has been an increase in staffing. Vacancy levels have decreased from 30%-40% to 8%-12%. Using an operational performance evaluation system (OPES), clinical performance and outcomes have been analyzed. Substantial improvements in compliance with standards were found in 6 chronic diseases. The compliance rates increased from 40% in 1994 to 97% in 2003. Also, there were significant changes in disease specific indicators. The mean glucose level for an inmate with DM decreased by 41.5 mmol/L (p=0.003), the mean LDL in patients with hyperlipidemia decreased by 42.9 mg/dL (p=0.005) and proportion of patients with a blood pressure level of at least 140/90 mm Hg decreased by 31.0%12.

**Conclusions**

Just as in the regular community, medical problems, both physical and mental, need to be addressed in correctional facilities. This is especially important for communicable diseases that have higher prevalence rates than the general community, such as tuberculosis and HBV. It is important not only to understand how common these diseases are, but why they are more common in an inmate population and what steps can be taken to reduce their incidence. TDCJ is a prime example of establishing organized health care for inmates as a means to lower the number of cases in prisons and improve outcomes for inmates.

**References**


