Survey of the Status of Inmate Health in the State Prison System

July 2007

Health Finance Commission

Indiana Legislative Services Agency

Legislative Evaluation and Oversight

The Office of Fiscal and Management Analysis is a division within the Legislative Services Agency that performs fiscal, budgetary, and management analysis. Within this office, teams of program analysts evaluate state agency programs and activities as set forth in IC 2-5-21.

The goal of Legislative Evaluation and Oversight is to improve the legislative decision-making process and, ultimately, state government operations by providing information about the performance of state agencies and programs through evaluation.

The evaluation teams prepare reports for the Legislative Council in accordance with IC 2-5-21. The published reports describe state programs, analyze management problems, evaluate outcomes, and include other items as directed by the Legislative Evaluation and Oversight Policy Subcommittee of the Legislative Council. The report is used by an evaluation committee to determine the need for legislative action.

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Executive Summary

The Legislative Evaluation and Oversight Policy Subcommittee of the Legislative Council requested a survey of the status of state inmate health in the state prison system. Legislative Services Agency (LSA) prepared the survey using adult intake data and one-day snapshots of the state prison population. Department of Correction also provided a Health Services Report from Correctional Medical Services (CMS) for six months, from December 2006 to May 2007. Other state and national sources were also used.

Under state law, confined persons are entitled to medical care, medical personnel, and medical facilities; first aid or emergency medical care on a 24-hour basis; and mental health care by a psychiatrist, psychologist, or other mental health professional. Intake screening and testing is specifically described in the statute. The DOC is responsible for providing health care and contracts for services with CMS.

Admissions and Population Snapshot Data

Medical coding information was only available for adult prisoners. The majority of individuals were coded as free of illness and injury in both the admissions and the snapshot data, the next largest group had stabilized permanent or chronic conditions, and the next group had mental or emotional conditions. Comparing the snapshot data to the admissions data, the percentage of prisoners free of illness and injury is lower in the prison population and the percentage who have stabilized permanent or chronic condition, or mental or emotional conditions is higher.

Summary of Clinical Encounters

The majority of the clinical encounters were the result of a sick call, and about a quarter were segregation encounters. Routine physicals only account for 3.7% of the clinical encounters. Most of the clinical encounters were provided by a nurse, and the smallest percentage of clinical encounters were provided by psychiatrists. On average, there were 429 monthly visits to off-site specialty services, with the majority of those for radiology services and obstetrics.

Chronic Disease, Hepatitis C, HIV, and Mental Health

During the six-month period reviewed, there was an average of 2,306 cases with chronic disease seen per month. Cardiovascular problems were the most frequent of the chronic diseases seen followed by pulmonary diseases. A comparison of the top five causes of death among the nonprison population and the prison population shows that liver disease and AIDS are a greater concern in the prison population than the nonprison population.

Required hepatitis C and HIV testing for individuals committed to the DOC results indicate that 11.4% of new adult prison admissions were infected with hepatitis C and 0.3% of new juvenile detention admissions were infected. In addition, on average, there are 45 newly diagnosed hepatitis C cases per month among the prison population. Prison admission testing for HIV results in less than 1% of the tests being positive. HIV positive testing in the juvenile population is near zero for juvenile males but higher for juvenile females.

Various measures indicate different levels of mental illness among Indiana prisoners. Policy and procedure changes in mental health treatment at DOC instituted early this year have increased the number of offenders screened for mental illness and resulted in a higher number of patients treated.

Finally, on average per month, there are 25 pregnancies and 5 live births.

Introduction

The Legislative Evaluation and Oversight Policy Subcommittee of the Legislative Council requested a survey of the status of state inmate health in the state prison system.

To meet this request, Legislative Services Agency (LSA) reviewed database information from the Department of Correction (DOC) concerning adult intake data and one-day snapshots of the state prison population. In these databases, prisoners are given a medical code from one of eleven categories. (Similar databases for the juvenile population did not have the medical code data field completed.) The medical code is used by DOC to communicate information about prisoner security classifications to accommodate the management and surveillance of medical conditions. The data do not provide complete medical information. About 34% of the intake records and 3% of the one-day snapshots have no data in the medical code field. The information available covered a five-year period from 2002 to 2006 for intake information, and a three-year period for population snapshots, from 2004 to 2006.

DOC also provided a Health Services Report from Correctional Medical Services (CMS) for six months, from December 2006 to May 2007. The data covered both adult and juvenile prison populations. They included data about clinical encounters, community hospital data, infirmary data, lab services, chronic care, hepatitis care, off-state specialty care, women's health, pharmacy, altercations, and mortality. Computerized medical records are the information source for the six-month period; records prior to this period do not provide the same level of detail.

Beginning September 2002, DOC is required to report to the General Assembly statistical information on the number of individuals tested and the number of positive test results for hepatitis C and human immunodeficiency virus (HIV). DOC provided this information for review for this report, as well.

Background on the Prison Population and Prison Medical Services

Adult Prisoners

There are 22 adult correctional institutions with a total population on January 1, 2007, of 25,237 prisoners. The majority of prisoners are male (91.8%) and white (57.1%). Black prisoners represent 38.2% of the inmate population, and Hispanic prisoners, the next largest racial or ethnic group, make up 3.8%. The average age at intake is 32.2 years, and the average current age of the adult prison population is 35.9 years. Based on the term of incarceration, a quarter of the prison population (6,562, or 26.0%) is serving a term of incarceration of more than 20 years. Another 5,073, or 20.1%, are serving a prison sentence of two to five years, and 5,729, or 22.7%, are serving a term of five to ten years.

Juvenile Offenders

There are 7 juvenile facilities housing 996 offenders on January 1, 2007. Just like the adult population, the juvenile population is predominately male (85.2%) and white (57.8%). Black juveniles represent 31.4% of the inmate population, and Hispanics are 6.4%. The average age of juvenile offenders at intake is 16.0 years, and the average current age of the population is 16.8 years. Based on CY 2006 release data, the longest length of stay for juvenile offenders is 15 months.

Medical Services

DOC contracts with CMS to provide medical services and health care staff to its offender population. Prior to CMS, DOC had contracted with Prison Health Services. The current contract runs from September 1, 2005, through August 31, 2009. In addition to providing all medical and dental care for both adult and juvenile offenders, CMS provides a patient medical recordkeeping system. Most health care is provided at DOC facilities, and DOC policy directives provide instructions for minimizing off-site appointments. Off-site appointments, however, do occur and CMS is responsible for the off-site provider, while DOC provides security for prisoner transport. DOC employs four medical monitors, one nurse practitioner, and a physician, who is the director of medical services, to oversee and ensure contract compliance. The medical director also establishes DOC medical policy.

Indiana Code Cites Concerning Inmate Health

This summary of Indiana Code provisions concern DOC's responsibilities and prisoners' rights for health care. Complete information about statutory requirements concerning prisoner health is presented in Appendix I.

When a prisoner or juvenile offenders is committed to the DOC, IC 11-10-1-2 and IC 11-10-2-4 require that the DOC evaluate the individual regarding his/her medical, psychological, educational, vocational, economic, and social condition and history within a reasonable time. The DOC may rely on presentence reports and evaluation and information from a previous commitment that occurred within the last two years for adult offenders or one year for juveniles offenders. Also, in IC 11-10-1-3 the DOC may determine that an adult offender is mentally or physically incapacitated to such an extent that proper custody, care, and control cannot be provided by the DOC, and the DOC may make arrangements for the prisoner's placement outside the DOC.

IC 11-10-3 contains the laws concerning medical care. State statute requires individuals (both adult offenders and juvenile offenders) committed to the DOC be examined immediately for communicable diseases and conditions. New commitments are required to be segregated from the general prison population until the examinations are complete. Also, prisoners must receive thorough medical and dental examinations within 14 days after commitment. Individuals committed to a DOC facility after June 30, 2001, must be tested for hepatitis C and HIV. The DOC reports on the number of individuals tested and the number of positive tests to the General Assembly.

In the same statute, confined persons are entitled to medical care, medical personnel, and medical facilities; first aid or emergency medical care on a 24-hour basis; and mental health care by a psychiatrist, psychologist, or other mental health professional. Necessary prenatal and postnatal care and treatment must be provided. In addition, the DOC must order medical, psychiatric, psychological, or other services after making a security classification and assigning the offender to a DOC facility.

Admissions Data

Medical condition information in the intake records is used to ensure that prisoners with health conditions requiring monitoring or management are assigned to facilities that can accommodate them. These data represent admissions, meaning that an individual prisoner may be counted more than once if the offender is admitted to a state correctional facility more than once in a calendar year. The medical coding information was only available for adult prison admissions.

Table 1. Adult Admissions to State Correctional Facilities (may include duplicates)

	Total Admissions	Number with Medical Coding Field Blank	Percentage with Medical Coding Field Blank
2002	13,939	4,833	34.7%
2003	16,303	5,673	34.8%
2004	16,165	5,144	31.8%
2005	17,060	5,761	33.8%
2006	14,089	4,570	32.4%
Average	**15,511**	**5,196**	**33.5%**

On average over the five years, there were 15,511 admissions per year and 5,196 records, or about 34% of admissions, that did not have the medical coding completed. Conversely, on average over the five-year period there were 10,315 admissions per year that did have medical coding. Of the admissions, the majority of individuals (on average 6,971 admissions a year, or 67.8% of the coded admissions) were coded as free of illness and injury. Prisoners with conditions that required minimal surgical, medical, nursing, or dental intervention limited to a 30-day duration were included among this group. The next largest group (on average 1,964 admissions a year, or 18.9% of the coded admissions) had stabilized permanent or chronic conditions. These are conditions that do not need frequent monitoring and where the prisoner knows how to and will perform self-care, where there may be a lifting restriction of 20 pounds or more, or where a tuberculosis prophylactic medication is being administered.

Table 2. Medical Coding of the Adult Prison Population (Number and Percentage of Total Less Blank Entries)				
Medical Coding	**Annual Admissions (Five-Year Average)**		**Snapshot Prison Population (Three-Year Average)**	
	Number	**Percent**	**Number**	**Percent**
Free of illness or injury.	6,971	67.8%	13,677	60.5%
Stabilized permanent or chronic condition.	1,964	18.9%	5,636	24.9%
Stable or acute mental or emotional condition requiring limited psychiatric care or evaluation.	510	4.9%	1,384	6.1%
Mental or emotional condition requiring medication and/or frequent monitoring by a psychiatrist.	365	3.5%	1,151	5.1%
Chronic physical or medical condition requiring licensed provider care.	227	2.2%	366	1.6%
Short-term, self-limiting condition of 31 to 180 days duration; may require observation or short infirmary stay.	197	1.8%	188	0.8%
Pregnancy.	47	0.5%	37	0.2%
Skilled nursing care required.	15	0.1%	70	0.3%
Mental illness or emotional condition; unable to function in a standard prison environment.	13	0.1%	75	0.3%
Renal failure.	6	0.1%	26	0.1%

Population Snapshot Data

The same medical coding system is used for prisoners within the prison population as is used for intake. Again, this information is used for security assignment and prisoner management purposes. Information from the one-day prison population snapshot covers adult prisoners only, and three years of data are available.

In these data, the average adult population at the single point in time is 23,362, and about 3.1% of the prisoner records are blank in the medical coding field. Table 2 shows that most adult prisoners (on average 13,677, or 60.5% of the coded prison population) were free of illness or injury. In comparison to the admissions data, there was a lower percentage of inmates rated as free of illness or injury in the adult prison population, and there was a higher percentage (on average 5,636, or 24.9% of the coded prison population) with stabilized permanent or chronic conditions. Also, the percentage with mental or emotional conditions either requiring limited psychiatric care or evaluation or medication and/or frequent monitoring by a psychiatrist increases from 8.4% of admissions to 11.2% of the general adult prison population.

These data provide a management view of prisoner health to the degree that conditions or ailments require accommodation. This view indicates that most prisoners are free of illness or injury or have a stabilized

permanent or chronic condition. Mental or emotional conditions affect a small percentage of the population in comparison.

Medical Overview

The DOC provided a report summarizing clinical encounters over a six-month period, from December 2006 to May 2007. This information provides insight into the status of prisoner health by providing data on clinical encounters including the type of encounter and the health care professional providing the service, and by highlighting certain medical conditions and medications used by prisoners. The information from the report is presented first by discussing the overall clinical encounters and off-site specialty care, and then by reviewing information on special conditions including chronic diseases, communicable diseases, and mental health, and briefly reviewing natal care.

Prisoner clinical encounters are initiated for several reasons according to DOC policy directives. The encounter may be initiated by the prisoner, or staff may request the service based on policy directive requirements. The descriptions of the types of clinical encounters taken from DOC policy directives follow.

A. *Routine Sick Call.* Sick call is the evaluation and treatment of an ambulatory patient in a clinical setting by a qualified health care professional. An offender may initiate the request by placing a form in a secure drop box or, for an offender in segregation, by handing the form directly to nursing staff performing segregation unit rounds. The forms are collected from the drop boxes daily and triaged within 24 hours. Additionally, staff may initiate a routine request which must also be triaged within 24 hours.

On average over the six-month period, there were 28,348 sick calls per month. Of those, 46.3% were initiated by offenders and 53.7% were initiated by staff.

B. *Segregation Encounters.* A review of an offender's health record is required immediately upon a prisoner's assignment to disciplinary segregation. If the health record suggests the presence of a health condition which contraindicates segregation placement, the nurse must contact the facility physician for advice and orders and alert the superintendent or designate of the concern. Also, nursing staff must see every disciplinary segregation offender daily so that the offender's health status can be monitored.

Offenders placed in administrative segregation require the same treatment as those in disciplinary segregation. However, facilities may, if desired, reduce the frequency of nurse review of adult administrative segregation offenders to three times a week.

On average over the six-month period, there were 11,810 encounters per month for offenders in segregation. Of those, 16.5% were initiated by prisoners and 83.5% were initiated by staff.

C. *Receiving Screening.* At the point of entry into incarceration when DOC accepts custody of the offender at one of its facilities, a medical evaluation that searches for critical and immediate health care problems is performed either by a health care professional or, more commonly, by a properly trained correctional officer. A second screening, an arrival health screening to search for important and urgent health care problems, is performed by a health care professional, usually a registered nurse, within the first 24 hours.

D. *Transfer Screening.* Upon receipt of an inter-facility transfer, professional health care staff review the incoming offender's health and disability statuses, including a brief face-to-face contact and a review of the health record. Based upon the findings of this "transfer screening," referral for services, provision of

medication, or other interventions may be implemented.

E. ***Intake Screening.*** The intake health appraisal is a deliberate and directed screening evaluation designed to establish an offender's health status and to take note of serious health conditions that may be present. It must be carried out within seven days of arrival.

F. ***Routine Health Physicals.*** Once a year each offender health record is to be briefly reviewed and the offender interviewed and screened. The review is timed to coincide with the offender's birthday, but may be deferred if the offender was screened at an intake center within the previous three months. In general, routine health physicals are performed by a registered nurse or a licensed practical nurse directly supervised by a registered nurse.

Summary of Clinical Encounters.

The six-month clinical encounters data indicate an average monthly population of 25,178, including both adult and juvenile offenders. The average number of clinical encounters per month was 48,876, or a little under two encounters per prisoner. As seen in Table 3, the majority (an average 28,348 per month, or 58.0%) of the clinical encounters were the result of a sick call either generated by the inmate or by staff, and about a quarter (an average 11,810 per month, or 24.2%) were segregation encounters requested by either inmates or staff. Routine physicals only account for 3.7% of the clinical encounters.

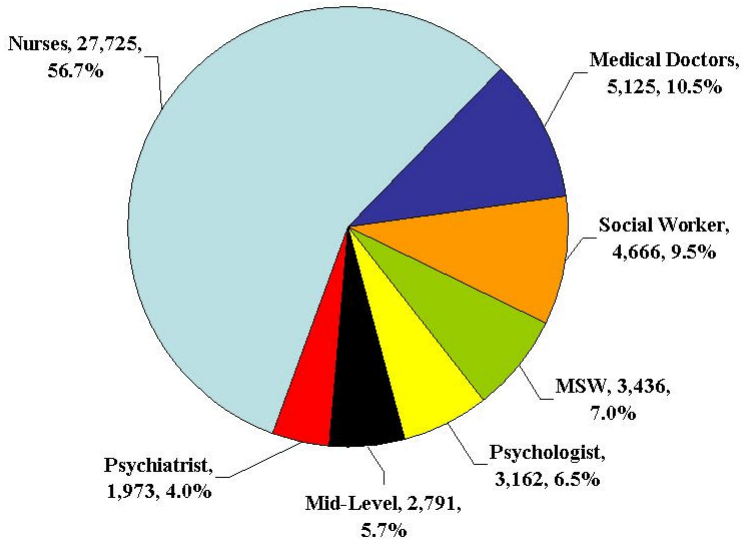
Table 3. Clinical Encounters by Type (6-Month Average)

Sick Call Encounters	28,348	58.0%
Segregation Encounters	11,810	24.2%
Receiving, Transfer, and Intake Screening	6,906	14.1%
Routine Health Physicals	1,814	3.7%
Average Number of Clinical Encounters	**48,876**	**100.0%**

Referring to Figure 1, most of the clinical encounters (56.7%) were provided by a nurse. For every encounter by a medical doctor, psychiatrist, psychologist, or mid-level provider (including physician assistants and nurse practitioners), a nurse clinical encounter is required to triage the prisoner. Additionally, all health maintenance is provided by nurses. For example, prisoners are not allowed to possess needles, requiring severe diabetics to have a clinical encounter with a nurse four times a day for insulin injections.

The smallest percentage (4.0%) of clinical encounters were provided by psychiatrists, as shown in Figure 1. The number of psychiatrist encounters (1,973) is less than the estimated number of prisoners with medical coding for surveillance or services by a psychiatrist. However, patients under psychiatric care often see the psychiatrist every three months and follow up with other mental health care professionals in the meantime. On average per month, more than a quarter of clinical encounters (13,237 or 27%) over the six-month period were for mental health services. All clinical encounters with psychiatrists, psychologists, masters of social work, and social workers represent mental health care services. This higher number of clinical encounters would provide for about three clinical encounters per prisoner in need of mental health services per month.

Figure 1. Clinical Encounters by Provider
Average Monthly Clinical Encounters = 48,876



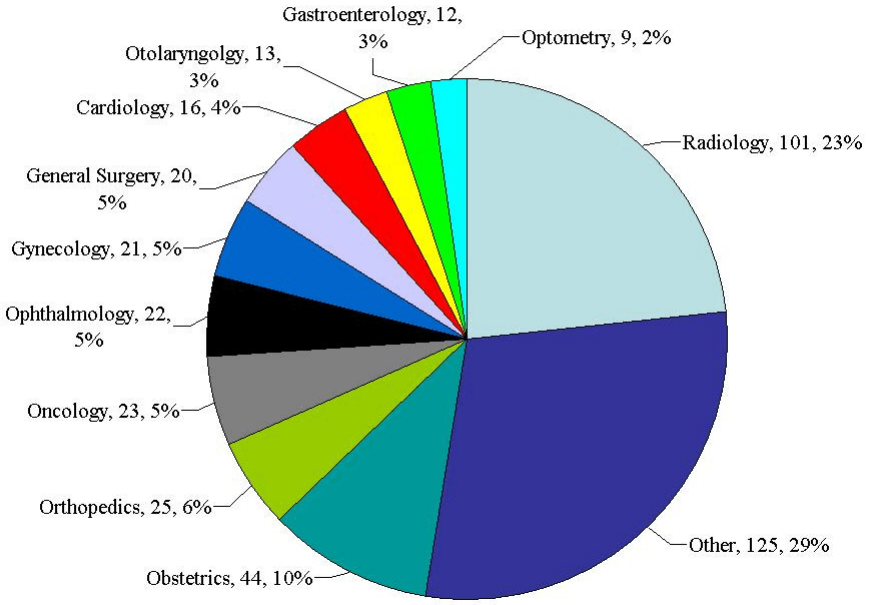
Off-Site Services

According to DOC policy directives, off-site services are generally needed for emergency care, diagnostic services, or specialty treatment. The directives indicate that a physician or dentist determines the need for off-site emergency care, but in certain circumstances, a nurse may make the determination. Diagnostic services and specialty treatment require the approval of the Department of Correction medical director.

Figure 2 shows the average monthly number of completed appointments with various types of specialty care. The "Other" category is made up of various specialities and subspecialities that received nine or less visits on average per month. The "Other" specialities include, but are not limited to, physical therapy, oral surgery, urology, neurology, plastic surgery, pulmonology, vascular surgery, hematology, endocrinology, neurosurgery, orthotics, orthopedic specialist, dermatology, and nephrology.

CMS reports that, on average, 429 monthly visits were provided for specialty services for the six months between December 2006 and June 2007. Radiology services was the single specialty that required the most off-site care with an average of 101 visits per month, or about 23% of the off-site visits. Obstetrics required 44 off-site specialty care visits per month on average, or about 10% of the overall off-site visits.

Figure 2. Off-Site Specialty Care
Average Monthly Number of Completed Appointments



Chronic Disease

According to policy directives, chronic disease care consists of specifically identifying or diagnosing the condition and recording it on the master problems list, developing a treatment plan, and comparing the outcome to the treatment plan objectives and goals. The DOC develops guidelines concerning how to care for common serious health conditions, to describe the basic sets of therapeutic interventions and cost-effective care, and to indicate visit frequency.

During the six-month period, there was an average of 2,306 cases with chronic disease seen per month. As seen in Table 4, 44.1% of all cases involved cardiovascular problems, such as hypertension or cardiac disease, or pulmonary disease including asthma or diseases such as emphysema or bronchitis.

Table 4. Chronic Disease Cases Seen During Month								
	Dec-06	**Jan-07**	**Feb-07**	**Mar-07**	**Apr-07**	**May-07**	**Six-Month Average**	**% of Total**
Cardiovascular	355	526	494	517	629	635	526	22.8%
Pulmonary	443	457	464	548	520	515	491	21.3%
Hepatitis C	291	428	438	441	478	488	427	18.5%
General Medicine/Special Needs	269	527	319	681	347	397	423	18.4%
Endocrine	179	256	199	236	253	315	240	10.4%
Infectious Disease	87	83	72	77	82	95	83	3.6%
Neurology	59	70	78	85	100	92	81	3.5%
HIV/AIDS	11	35	27	34	19	86	35	1.5%
Total Cases Seen	**1,694**	**2,382**	**2,091**	**2,619**	**2,428**	**2,623**	**2,306**	**100.0%**

There is little literature available about chronic diseases among prison inmates, even as the topic becomes more prevalent in the discussion of general public health and Medicare and Medicaid cost containment. However, "Medical Causes of Death in State Prisons, 2001-2004," a data brief from the Bureau of Justice Statistics (BJS), provides insight into how chronic illness affects mortality among state prisoners. The report indicates that the leading causes of death among state prisoners between 2001 and 2004 were heart disease and cancer (most commonly lung cancer). In 68% of the state prison deaths, the medical condition that was the cause of death was present at the time of admission. It was reported that the prisoners had been evaluated by the medical staff for the condition prior to death and 93% had been prescribed medication for the fatal condition. Also, prisoners who were admitted to a correctional facility later in life (55 years of age or older) accounted for 59% of the prisoners who died during the period of the study.

The report provides the mortality rate per 100,000 prisoners by the leading causes of illness death by state. For all causes of death, Indiana reports the second lowest death rate per 100,000 prisoners after Illinois when comparing Indiana to its surrounding states and the national total. Indiana has a lower death rate from cancer and AIDS than the surrounding states, and it is in the middle for other medical causes of death including heart disease, liver cancer, and respiratory disease. The table below shows a comparison among Indiana, the national total, and several surrounding states.

Table 5. Mortality Rates per 100,000 Prisoners by Five Top Causes of Medical Death					
	Heart Disease	**Cancer**	**Liver Disease**	**AIDS**	**Respiratory Disease***
Indiana	**70**	**52**	**21**	**7**	**12**
U.S. Total	68	58	25	18	10
Illinois	63	42	14	19	3
Kentucky	119	94	22	23	14
Michigan	94	68	24	8	10
Ohio	99	60	15	7	18

*Excludes influenza and pneumonia.

Source: Mumola, Christopher J., *Medical Causes of Death in State Prisons, 2001-2004*, Bureau of Justice Statistics, January 2007.

While the mortality rates between the prison population and the nonprison population may not be readily comparable based on differences in demographics or socioeconomic status, comparing the major causes of death provides insights into the differences in type of chronic disease found among prisoners and those found among Indiana residents. The table below shows the main causes of death by age-adjusted mortality rate per 100,000 Indiana residents for the same period as the BJS report.

Table 6. Top Five Causes of Death Among Indiana Residents (Age-Adjusted Mortality Rate per 100,000 Residents)					
	Diseases of the Heart	**Malignant Neoplasms**	**Cerebrovascular Diseases**	**Chronic Lower Respiratory Diseases**	**Accidents**
2001	261.71	213.32	64.82	52.60	34.95
2002	246.09	208.33	59.42	51.11	33.75
2003	245.39	206.15	57.36	52.15	34.54
2004	227.69	198.13	53.77	49.78	37.90

Source: Indiana State Department of Health, *Mortality Reports*, 2001 - 2004.

Three of the top five causes of death among the nonprison population and the prison population shows an overlap for heart disease, cancer, and respiratory diseases. The differences between the two populations, in particular liver disease and AIDS, illustrate the differences between the populations in terms of chronic disease. These diseases tend to be associated with drug use and high-risk behavior and with two communicable diseases, hepatitis C and HIV, which are discussed in following section. [Appendix II provides a comparison of the leading causes of death and mortality rates of Indiana residents and the nationwide state prison population.]

Communicable Disease

State law requires examination for communicable diseases and conditions by qualified medical personnel under the direct supervision of a physician, and for testing for hepatitis C and human immunodeficiency virus (HIV) for individuals committed to the DOC. The results of the hepatitis C and HIV screenings are reported to the General Assembly, including monthly and annual statistics, and cumulative information since July 1, 2002. For each time period, these reports indicate the number of tests drawn and the number and percentage of inmates testing positive by intake facility and in total for male adults, female adults, male juveniles, and female juveniles. The data provided by the DOC to the General Assembly was reviewed, and the summary results are presented. Also, information from the six months of CMS reports is discussed. BJS reports were reviewed for this section, but Indiana data are not reported for HIV infection rates.

Hepatitis C

DOC health policy directives indicate that hepatitis C is a ribonucleic acid virus that can be transmitted parenterally and sexually. The infection can elicit antibody production, but the antibodies are not curative. Interferon therapy may be used, but is not always effective depending on the substrain of virus. Hepatitis C infection is considered chronic when it persists for more than 6 months, and about 85% of infections will develop into chronic hepatitis C. The risk of developing cirrhosis is about 10-15% for those with chronic hepatitis C infections; however, the risk varies greatly. Death is not a common result of hepatitis C infection.

From the Centers for Disease Control and Prevention (CDC) fact sheet for May 2005, it is estimated that 4.1 million, or 1.6%, of Americans have hepatitis C infection and about 78% of these are chronically infected. The number of new infections diagnosed has decreased from 240,000 per year in the 1980s to 26,000 in 2004. This decrease is attributed to fewer transmissions through blood products.

In the three-year history provided by DOC to the General Assembly the number of tests drawn and the percentage of positive results varies widely. In 2005, a half year of data are available, resulting in about half the number of tests drawn as were drawn in either 2004 or 2006. In the half year of data, the percentage of positive results was higher, suggesting a higher incidence of hepatitis C during 2005. Hepatitis C tests are required upon admission to the state prison indicating that on average between 2004 and 2006, 11.4% of new adult prison admissions were infected with hepatitis C and 0.3% of new juvenile detention admissions were infected. Male adults were infected at a slightly higher rate than female adults, but female juveniles were more likely to be hepatitis C infected than male juveniles.

Table 7. Hepatitis C Annual Number Drawn and Percentage of Positive Tests						
	2004		January to June 2005		2006	
	Number Drawn	Percent Positive	Number Drawn	Percent Positive	Number Drawn	Percent Positive
Adult Male	12,061	9.9%	6,602	12.8%	13,875	11.9%
Adult Female	1,886	8.9%	932	12.2%	2,208	10.1%
Total Adult	13,947	9.8%	7,534	12.7%	16,083	11.6%
Juvenile Male	1,083	0.1%	478	0.0%	1,004	0.0%
Juvenile Female	325	0.0%	132	1.5%	354	1.4%
Total Juvenile	1,408	0.1%	610	0.3%	1,358	0.4%

As seen in the table below, the cumulative summary of positive tests for hepatitis C available for intake over a four-year period indicates that about 9.7% of the total prison population (adults and juveniles) are hepatitis C infected and that the rate of infection has decreased since 2003. In addition, on average, there are 45 newly diagnosed hepatitis C cases per month among the prison population. The CMS reports indicate there was a monthly average of 1,024 prisoners per month interviewed for high-risk hepatitis C factors, and 1,191 per month given hepatitis C prevention education. On average in the six-month period, 1,365 per month are enrolled in hepatitis C chronic care and 45 are receiving interferon therapy.

Table 8. Hepatitis C Cumulative Number of Tests and Percentage Positive Since July 1, 2002								
	2003		2004		As of June 2005		2006	
	Number Drawn	Percent Positive	Number Drawn	Percent Positive	Number Drawn	Percent Positive	Number Drawn	Percent Positive
Adults			34,172	11.5%	38,706	12.7%	65,058	11.4%
Juveniles			4,105	0.1%	4,715	0.1%	11,591	0.1%
Total	22,922	11.3%	38,277	10.3%	43,421	11.3%	76,649	9.7%

Human Immunodeficiency Virus

The number of samples drawn to test for HIV are similar to the number drawn for hepatitis C because of state law requirements. Like the number of tests for hepatitis C, in 2005 only half a year of data are available. Unlike hepatitis C results, however, the percentage of prison admissions infected with HIV remained similar to the rate in 2004. On an annual basis, for the adult population, less than 1% of the tests are positive. In 2006, the percentage of positive tests increased, with 1% of adult male new admissions testing positive.

HIV positive testing in the juvenile population is near zero for juvenile males (as shown in Table 9) but higher for juvenile females. In 2005, 2.3% of tests for juvenile females were positive for HIV. According to information from the Indiana State Department of Health (ISDH), the percentage of positive tests is less than the general nonprison population for which 3.5% of individuals tested for HIV between the ages of 15 and 19 were positive. The difference may reflect the requirement that all offenders entering a state prison are tested for HIV, while those who are tested in the nonprison population are, in most cases, self-selected.

Table 9. HIV Percentage of Positive Tests Drawn During Year

	2004		January to June 2005		2006	
	Number Drawn	Percent Positive	Number Drawn	Percent Positive	Number Drawn	Percent Positive
Adult Male	12,061	0.6%	6,602	0.7%	13,875	1.0%
Adult Female	1,885	0.7%	932	0.6%	2,208	0.7%
Total Adult	13,946	0.6%	7,534	0.7%	16,083	0.9%
Juvenile Male	1,085	0.0%	480	0.0%	1,004	0.0%
Juvenile Female	325	0.0%	132	2.3%	324	0.3%
Total Juvenile	1,410	0.0%	612	0.5%	1,328	0.1%

Even though the one-year total increased for 2006, overall, the prevalence of HIV in the prison population based on admissions testing has remained less than 1%, as seen on Table 10, below. The BJS reports that on average between 2000 and 2004, 1.9% of the state prison population had HIV/AIDS. However, 40% of HIV/AIDS-positive prisoners were incarcerated in one of three states, not including Indiana.

Table 10. HIV Cumulative Number of Tests and Percentage Positive Since July 1, 2002

	2003		2004		As of June 2005		2006	
	Number Drawn	Percent Positive	Number Drawn	Percent Positive	Number Drawn	Percent Positive	Number Drawn	Percent Positive
Adults			34,172	0.7%	41,706	0.7%	62,117	0.8%
Juveniles			4,112	0.0%	4,724	0.1%	11,264	0.1%
Total Population	22,928	0.6%	38,284	0.6%	46,430	0.6%	73,381	0.7%

Mental Health

Policy and procedure changes in mental health treatment at DOC instituted early this year have increased the number of offenders screened for mental illness resulting in a higher number of patients treated. A summary of indicators of the percentage of Indiana prisoners with mental illness is presented, and the impact of changes in mental health screening on the number of prisoners on psychotropic medication is discussed below.

Of the estimated 48,876 total clinical encounters per month, 10.5% took place with a psychiatrist or psychologist and 27.0% were with a mental health professional. A three-year average of inmate medical coding as reported in an annual one-day snapshot of the prison population indicates that 11.2% of adult prisoners had a mental health or emotional condition. In the adult prison population, 0.3% had a condition that prohibited the offender from functioning in a standard prison environment, 4.9% had a mental or emotional condition requiring medication or frequent monitoring by a psychiatrist, and 6.0% had a stable or acute mental or emotional condition requiring the services of a psychiatrist. Additionally, the DOC estimates that 85% of the population had a significant history of substance abuse and that 3,200 were actively in treatment.

The DOC does not have statistics readily available to indicate the number of offenders with mental illness by disease or a breakdown between prisoners who are stabilized or who have an acute condition. For acuity rising to the level of hospitalization, there are 125 beds for adult male offenders. For female and juvenile offenders, the DOC indicates there are a handful of beds for those with acute conditions.

A review of the number and percentage of prisoners with psychotropic medication prescriptions indicates a dramatic change. In April 2007, the percentage of the prison population who were prescribed psychotropic medication increased threefold. In the first quarter of the year, New Castle State Prison was designated as a mental health treatment center providing acute care treatment with subsequent referral to step-level treatment at Indiana State Prison and eventual reintegration into the general prison population. This has increased the capacity of DOC to identify and treat mentally ill state prisoners.

Table 11. Prisoners Prescribed Psychotropic Medications

	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Average
Number	1,975	2,278	1,274	1,694	5,397	3,971	2,765
Percent of Population	8.0%	9.0%	5.0%	7.0%	21.0%	15.0%	10.8%

Review of a BJS special report, at midyear 2005, 56% of state prison inmates nationwide were estimated to have a mental health problem. Mental health problems in the report were identified by (1) a recent history including a clinical diagnosis or treatment by a mental health professional or (2) symptoms of a mental health problem identified by criteria specified in the Diagnostic and Statistical Manual of Mental Disorders. The report also indicates that in the general nonprison population 11% of adults age 18 and older have mental health problems.

The percentages of the measurements available for Indiana inmates may be lower than national prisoner trends for several reasons including:

(1) The CMS report indicates the percentage of inmates on psychotropic drugs, but not all mental illnesses are treated with medication.

(2) Stable mental illness may not require monthly meetings with a psychiatrist or psychologist.

(3) The medical coding of prisoners includes those needing psychiatric surveillance or services, but may not include all individuals with mental or emotional conditions.

Since the state data do not include all prisoners considered to have mental health problems as suggested by the federal study, the federal numbers are more reflective of the potential amount of mental health problems in the Indiana system.

Natal Care

Policy directives indicate that all female offenders are screened for pregnancy at intake, and that prenatal services are provided onsite. If there is a high-risk pregnancy, speciality services are provided. Labor and delivery are provided through the same group that provides prenatal care. Information on pregnancies and live births is presented in the table below.

Table 12. Pregnancies and Live Births

Date	Pregnancies	Live Births
Dec-06	27	3
Jan-07	31	7
Feb-07	25	8
Mar-07	10	1
Apr-07	27	4
May-07	30	5
Average	**25**	**5**

Conclusion

There is no single source of statistics available to describe the status of inmate health in the state prison system. This report has attempted to provide some metrics of state prisoner health through analysis of six months of data provided by DOC from its health care contractor, Correctional Medical Services, Inc. Also reviewed were adult admissions data and prison population snapshots that provided information on medical coding which provides prison management information. These data were compared with nonprison state resident information data and analysis from BJS of conditions across the United States.

The summary of the information gleaned from these sources indicates that a little less than two-thirds of the prison population is free of illness and injury at any one time. Prisoners who do not fall into this category are afflicted by chronic diseases and mental illness. Chronic diseases among prisoners tend to be similar to the

nonprison population, except in terms of hepatitis C and HIV. These communicable diseases lead to more deaths from liver disease and AIDS in the prison population than the nonprison population. It is difficult to identify the extent to which mental illness affects the prison population because illness in prison is viewed from a management perspective. However, national estimates by BJS appear to reflect the widest possible effect of mental illness on prisoners.

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Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
IC 11-8-2-8	The department shall provide six (6) hours of training to employees who interact with persons with mental illness, addictive disorders, mental retardation, and developmental disabilities concerning the interaction, to be taught by persons approved by the secretary of family and social services, using teaching methods approved by the secretary of family and social services and the commissioner. The commissioner or the commissioner's designee may credit hours of substantially similar training received by an employee toward the required six (6) hours of training.
IC 11-8-2-11	Sec. 11. (a) The corrections drug abuse fund is established. The department shall administer the fund. Expenditures from the fund may be made only in accordance with appropriations made by the general assembly. (b) The department may use money from the fund to provide drug abuse therapy for offenders. (c) The treasurer of state shall invest the money in the fund not currently needed to meet the obligations of the fund in the same manner as other public funds may be invested. (d) Money in the fund at the end of a fiscal year does not revert to the state general fund.
IC 11-8-5-2	Sec. 2. (a) The department may, under IC 4-22-2, classify as confidential the following personal information maintained on a person who has been committed to the department or who has received correctional services from the department: (1) Medical, psychiatric, or psychological data or opinion which might adversely affect that person's emotional well-being. (2) Information relating to a pending investigation of alleged criminal activity or other misconduct. (3) Information which, if disclosed, might result in physical harm to that person or other persons. (4) Sources of information obtained only upon a promise of confidentiality. (5) Information required by law or promulgated rule to be maintained as confidential.
IC 11-10-1-2	Sec. 2. (a) A committed criminal offender shall, within a reasonable time, be evaluated regarding: (1) his medical, psychological, educational, vocational, economic and social condition, and history; (2) the circumstances surrounding his present commitment; (3) his history of criminality; and (4) any additional relevant matters. (b) In making the evaluation prescribed in subsection (a), the department may utilize any presentence report, any presentence memorandum filed by the offender, any reports of any presentence physical or mental examination, the record of the sentencing hearing, or other information forwarded by the sentencing court or other agency, if that information meets the department's minimum standards for criminal offender evaluation. (c) If an offender has undergone, within two (2) years before the date of his commitment, a previous departmental evaluation under this section, the department may

Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
	rely on the previous evaluation and the information used at that time. However, this subsection does not deprive an offender of the right to a medical and dental examination under IC 11-10-3.
IC 11-10-1-3(b)	(b) After determining the offender's security classification, the department shall assign him to a facility or program; make an initial employment, education, training, or other assignment within that facility or program; and order medical, psychiatric, psychological, or other services. In making the assignment, the department shall, in addition to other relevant information, consider: (1) the results of the evaluation prescribed in section 2 of this chapter; (2) the offender's security classification; (3) the offender's need for special therapy or programs, including employment, education, or training available only in specific facilities or programs; (4) the likelihood of the offender's reintegration into the community in which the facility or program is located; (5) the desirability of keeping the offender in a facility or program near the area in which he resided before commitment; (6) the desires of the offender; (7) the current population levels of the facilities or programs considered appropriate for the offender; and (8) the length of the offender's sentence.
IC 11-10-1-3(c)	(c) If the department determines that a committed offender is mentally or physically incapacitated to such an extent that proper custody, care, and control cannot be provided by the department, it shall make arrangements for placement outside the department.
IC 11-10-2-2	Sec. 2. Except as provided by section 6 of this chapter, the commitment or award of guardianship of a delinquent offender to the department is governed by the following: (1) All commitments are to the department as opposed to a specific facility. The department shall determine the facility or program assignment. The initial conveyance of an offender must be to a place designated by the department. (2) No offender under twelve (12) years of age or eighteen (18) years of age or older may be committed to the department. (3) No offender known to be pregnant may be committed to the department.
IC 11-10-2-4	Sec. 4. (a) A committed offender shall, within a reasonable time, be evaluated regarding: (1) his medical, psychological, educational, vocational, economic and social condition, and history; (2) the circumstances surrounding his present commitment; (3) his history of delinquency; and (4) any additional relevant matters. (b) In making the evaluation prescribed in subsection (a), the department may utilize reports of any precommitment physical or mental examination or other information or records forwarded by the committing court or other agency, if that information meets the department's minimum standards for delinquent offender evaluation. (c) If a committed offender has undergone, within one (1) year before the date of

Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
	his commitment, a previous departmental evaluation under this section, the department may rely on the previous evaluation and the information used at that time. However, this subsection does not deprive an offender of the right to a medical and dental examination under IC 11-10-3.
IC 11-10-3-2	Sec. 2. (a) An individual committed to the department shall be immediately examined for communicable diseases and conditions by qualified medical personnel under the direct supervision of a physician. New admittees shall be segregated from the general population of a facility or program to the extent required by acceptable medical practice and standards until this examination is completed. (b) Within fourteen (14) days after commitment to the department, an individual shall be given the opportunity to receive a thorough medical and dental examination conducted according to acceptable medical practices and standards. All subsequent routine medical or dental examinations shall be scheduled by direction of a physician or dentist. (c) A confined person is entitled to: (1) medical care, medical personnel, and medical facilities of a quality complying with applicable state licensing requirements; (2) first aid or emergency medical treatment on a twenty-four (24) hour basis; and (3) mental health care by a psychiatrist, a psychologist, or another mental health professional. (d) A committed person may not prescribe, dispense, or administer drugs or medication.
IC 11-10-3-2.5	Sec. 2.5. (a) As used in this section, "confirmatory test" means a laboratory test or a series of tests approved by the state department of health and used in conjunction with a screening test to confirm or refute the results of the screening test for the human immunodeficiency virus (HIV) antigen or antibodies to the human immunodeficiency virus (HIV). (b) As used in this section, "screening test" means a laboratory screening test or a series of tests approved by the state department of health to determine the possible presence of the human immunodeficiency virus (HIV) antigen or antibodies to the human immunodeficiency virus (HIV). (c) For an individual who is committed to the department after June 30, 2001, the examination required under section 2(a) of this chapter must include the following: (1) A blood test for hepatitis C. (2) A screening test for the human immunodeficiency virus (HIV) antigen or antibodies to the human immunodeficiency virus (HIV). (d) If the screening test required under subsection (c)(2) indicates the presence of antibodies to the human immunodeficiency virus (HIV), the department shall administer a confirmatory test to the individual. (e) The department may require an individual who: (1) was committed to the department before July 1, 2001; and (2) is in the custody of the department after June 30, 2001; to undergo the tests required by subsection (c) and, if applicable, subsection (d). (f) Except as otherwise provided by state or federal law, the results of a test administered under this section are confidential.

Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
	(g) The department shall, beginning September 1, 2002, file an annual report in an electronic format under IC 5-14-6 with the executive director of the legislative services agency containing statistical information on the number of individuals tested and the number of positive test results determined under this section.
IC 11-10-3-3	Sec. 3. Necessary prenatal and postnatal care and treatment shall be provided consistent with acceptable medical practice and standards. When possible, arrangements shall be made for children to be born in a hospital outside the correctional facility. If a child is born in a correctional facility, this fact may not be mentioned on the birth certificate.
IC 11-10-3-4	Sec. 4. (a) The department shall establish directives governing: (1) medical care to be provided to committed individuals, including treatment for mental retardation, alcoholism, and drug addiction; (2) administration of medical facilities and health centers operated by the department; (3) medical equipment, supplies, and devices to be available for medical care; (4) provision of special diets to committed individuals; (5) acquisition, storage, handling, distribution, and dispensing of all medication and drugs; (6) training programs and first aid emergency care for committed individuals and department personnel; (7) medical records of committed individuals; and (8) professional staffing requirements for medical care. (b) The state department of health shall make an annual inspection of every health facility, health center, or hospital operated by the department and report to the commissioner whether that facility, center, or hospital meets the requirements established by the state department of health. Any noncompliance with those requirements must be stated in writing to the commissioner, with a copy to the governor. (c) For purposes of IC 4-22-2, the term "directive" as used in this section relates solely to internal policy and procedure not having the force of law.
IC 11-10-3-5	Sec. 5. (a) This section does not apply to a person committed to the department who: (1) maintains a policy of insurance from a private company covering: (A) medical care; (B) dental care; (C) eye care; or (D) any other health care related service; or (2) is willing to pay for the person's own medical care. (b) Except as provided in subsection (c), a person committed to the department may be required to make a copayment in an amount of not more than ten dollars ($10) for each provision of any of the following services: (1) Medical care. (2) Dental care. (3) Eye care. (4) Any other health care related service. (c) A person committed to the department is not required to make the copayment under subsection (b) if: (1) the person does not have funds in the person's commissary account or trust account at

Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
	the time the service is provided; (2) the person does not have funds in the person's commissary account or trust account within thirty (30) days after the service is provided; (3) the service is provided in an emergency; (4) the service is provided as a result of an injury received in the correctional facility; or (5) the service is provided at the request of the administrator of the correctional facility. (d) Money collected under this section must be used to reimburse the department whenever a person makes a copayment as a result of health care related services provided during the person's confinement in a correctional facility. (e) The department shall adopt rules under IC 4-22-2 to implement this section.
IC 11-10-4-2	Sec. 2. The department shall provide for the care and treatment of every confined offender who is determined to be mentally ill by a psychiatrist employed or retained by the department. To provide that care and treatment, the department may: (1) establish and operate its own mental health facilities and programs; (2) transfer offenders to the division of mental health and addiction, subject to the approval of the director of the division of mental health and addiction; or (3) contract with any city, county, state, or federal authority or with other public or private organizations for the provision of care and treatment.
IC 11-10-4-3	Sec. 3. (a) A committed offender may be involuntarily transferred to the division of mental health and addiction or to a mental health facility only if: (1) the offender has been examined by a psychiatrist employed or retained by the department and the psychiatrist reports to the department in writing that, in his opinion, the offender is mentally ill and in need of care and treatment by the division of mental health and addiction or in a mental health facility; (2) the director of mental health approves of the transfer if the offender is to be transferred to the division of mental health and addiction; and (3) the department affords the offender a hearing to determine the need for the transfer, which hearing must comply with the following minimum standards: (A) The offender shall be given at least ten (10) days advance written and verbal notice of the date, time, and place of the hearing and the reason for the contemplated transfer. This notice must advise the offender of the rights enumerated in clauses (C) and (D). Notice must also be given to one (1) of the following: (i) The offender's spouse. (ii) The offender's parent. (iii) The offender's attorney. (iv) The offender's guardian. (v) The offender's custodian. (vi) The offender's relative. (B) A copy of the psychiatrist's report must be given to the offender not later than at the time notice of the hearing is given. (C) The offender is entitled to appear in person, speak in his own behalf, call witnesses, present documentary evidence, and confront and cross-examine witnesses. (D) The offender is entitled to be represented by counsel or other representative. (E) The offender must be given a written statement of the findings of fact, the evidence

Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
	relied upon, and the reasons for the action taken. (F) A finding that the offender is in need of mental health care and treatment in the division of mental health and addiction or a mental health facility must be based upon clear and convincing evidence. (b) If the official in charge of the facility or program to which the offender is assigned determines that emergency care and treatment in the division of mental health and addiction or a mental health facility is necessary to control a mentally ill offender who is either gravely disabled or dangerous, that offender may be involuntarily transferred, subject to the approval of the director of the division of mental health and addiction, before holding the hearing described in subsection (a)(3). However, this subsection does not deprive the offender of his right to a hearing. (c) The official in charge of the division of mental health and addiction or facility to which an offender is transferred under this section must give the offender a semiannual written report, based on a psychiatrist's examination, concerning his mental condition and the need for continued care and treatment in the division of mental health and addiction or facility. If the report states that the offender is still in need of care and treatment in the division of mental health and addiction or a mental health facility, the division of mental health and addiction or facility shall, upon request of the offender or a representative in his behalf, conduct a hearing to review the need for that continued care and treatment. The hearing must comply with the minimum standards established by subsection (a)(3). The division of mental health and addiction or facility to which the offender is transferred under this section may conduct a hearing under this subsection upon its initiative. (d) If the division of mental health and addiction or facility to which an offender is transferred under this section determines that the offender no longer needs care and treatment in the division of mental health and addiction or facility, the division of mental health and addiction or facility shall return the offender to the custody of the department of correction, and the department of correction shall reassign the offender to another facility or program.
IC 11-10-4-4	Sec. 4. (a) An offender who believes the offender to be mentally ill and in need of care and treatment in the division of mental health and addiction or a mental health facility shall, at the offender's request for transfer, be examined by a psychiatrist employed or retained by the department of correction, who shall report the psychiatrist's findings to the department of correction. If the report states that the offender is mentally ill and in need of care and treatment in the division of mental health and addiction or a mental health facility, the department of correction shall transfer the offender to the division of mental health and addiction, subject to the approval of the director of the division of mental health and addiction, or to a mental health facility. If the department of correction intends to transfer an offender to the division of mental health and addiction, the department of correction shall transmit a copy of the psychiatrist's report to the division of mental health and addiction. (b) Section 3(c) and 3(d) of this chapter apply to transfers under this section.
IC 11-10-4-6	Sec. 6. The administration of a drug by the department for the purpose of controlling a mental or emotional disorder is subject to the following requirements:

Appendix I
Indiana Code Cites concerning the Department of Correction's Responsibilities or Prisoners' Rights for Health or Mental Health Care

Cite	Statute
	(1) The particular drug must be prescribed by a physician who has examined the offender. (2) The drug must be administered by either a physician or qualified medical personnel under the direct supervision of a physician. (3) The offender must be periodically observed, during the duration of the drug's effect, by qualified medical personnel. (4) A drug may be administered for a period longer than seventy-two (72) hours only if the administration is part of a psychotherapeutic program of treatment prescribed and detailed in writing by a physician.

Appendix II
Top Ten Causes of Death Comparison
Prison and Nonprison Populations

Ten Leading Causes of Death and Mortality Rate per 100,000 Population			
Nationwide State Prison Population		**Indiana Residents**	
Cause of Death	**Mortality Rate per 100,000 Inmates**	**Cause of Death**	**Age-Adjusted Mortality Rate per 100,000 Residents**
1. Heart Disease	68	1. Diseases of the Heart	227.69
2. Cancer	58	2. Malignant neoplasms	198.13
3. Other liver diseases, excluding cirrhosis	18	3. Cerebrovascular diseases	53.77
4. AIDS	18	4. Chronic lower respiratory diseases	49.78
5. Suicide	15	5. Accidents (unintentional injuries)	37.90
6. Cerebrovascular disease	8	6. Diabetes mellitus	26.28
7. Chronic liver disease	7	7. Alzheimer's disease	23.76
8. Other respiratory diseases	7	8. Nephritis, nephrotic syndrome and nephrosis	19.47
9. Illness - specific medical cause unknown	6	9. Influenza and pneumonia	17.65
10. Septicemia	5	10. Septicemia	12.83

Sources: Mumola, Christopher J., *Medical Causes of Death in State Prisoners, 2001-2004*, Bureau of Justice Statistics, January 2007, Appendix Table 12.

Indiana State Department of Health, *Mortality Report*, 2004, Table 3, available at http://www.in.gov/isdh/dataandstats/mortality/mortality_index.htm.