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We have completed an audit of the Department of Corrections, Inmate Medical Services. This audit is part of the ongoing program of the Legislative Auditor as authorized by the Legislative Commission. The purpose of legislative audits is to improve state government by providing the Legislature, state officials, and Nevada citizens with independent and reliable information about the operations of state agencies, programs, activities, and functions. The results of our audit, including findings, conclusions, recommendations, and the Department's response, are presented in this report.

We wish to express our appreciation to the management and staff of the Department of Corrections for their assistance during the audit.

Respectfully presented,

A handwritten signature in black ink, appearing to read "Paul V. Townsend".

Paul V. Townsend, CPA
Legislative Auditor

November 20, 2006
Carson City, Nevada

STATE OF NEVADA
DEPARTMENT OF CORRECTIONS
INMATE MEDICAL SERVICES

AUDIT REPORT

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INMATE MEDICAL SERVICES

AUDIT REPORT

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EXECUTIVE SUMMARY

DEPARTMENT OF CORRECTIONS INMATE MEDICAL SERVICES

Background

The Department of Corrections is responsible for the treatment, care, security, and discipline of all offenders sentenced to imprisonment in the State. The Director supervises the administration of all Department institutions and facilities and must take proper measures to protect the health and safety of staff and offenders. The Director also establishes regulations and administers the Department under the direction of the Board of State Prison Commissioners. The Board is comprised of the Governor, Secretary of State, and Attorney General.

The Department is required to provide medical services to its inmates. Services mainly include medical treatment through nurses and physicians, mental health through psychiatrists and psychologists, dental, and pharmacy. If services cannot be provided by in-house medical staff, the inmates are sent to outside providers. During fiscal year 2006, the Department spent approximately \$35.9 million on medical services. Of this amount, \$22.7 million was spent on personnel costs for 276 authorized full-time equivalent positions.

The Pharmacy is responsible for filling drug orders from the institutions. This includes prescriptions ordered by physicians and psychiatrists, and requests for stock to replenish drug inventories maintained at the institutions. Stock inventories, often called floor stock, are ordered by nursing staff for immediate and emergency use. This stock is frequently used to administer drugs while waiting for the Pharmacy to dispense prescriptions.

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Purpose

The purpose of this audit was to evaluate the Department's pharmacy operations, including whether activities were carried out in accordance with applicable state laws, regulations, and policies. This audit focused on pharmacy operations from July 2005 through March 2006, and through October 2006 for certain issues.

Results in Brief

The Department of Corrections has significant weaknesses in its pharmacy operations. These weaknesses involve key functions including controlling drug inventories, distributing drugs to institution medication rooms, and monitoring operations. Specifically, the Pharmacy has not established adequate controls over drug inventories to help safeguard drugs from theft and waste. In addition, the Pharmacy was slow in dispensing drugs during our audit, and certain dispensing practices were inefficient. Further, adequate monitoring of institution medication rooms did not take place to ensure compliance with state regulations and Department requirements. Most problems stem from a lack of management controls to guide pharmacy operations. These problems were compounded in late 2005, when the northern and southern pharmacies were combined into a Central Pharmacy without proper planning. While new management and staff are working to resolve these issues, much work remains to be done.

Principal Findings

- The Central Pharmacy did not maintain adequate records to account for the use of all controlled

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substances distributed to the institutions. The Pharmacy could not locate 54 of 165 (33%) controlled substance forms we tested, resulting in 1,350 doses of drugs not accounted for. Most of the missing controlled substance forms were issued to the Southern Nevada Women's Correctional Center (SNWCC) to provide Phenobarbital (32.4 mg tablets). The Central Pharmacy could not locate 40 of 65 controlled substance forms totaling 1,000 doses of Phenobarbital issued to this institution. After we completed our audit, the Department found 50 of the 54 missing forms including all 40 missing forms for Phenobarbital issued to SNWCC. Department staff indicated these forms had been misfiled. (page 13)

- The Pharmacy did not maintain inventory records of its prescription drugs. Although several million dollars in drugs flow through the Pharmacy each year, inventory records documenting additions, distributions, and inventory balances were not maintained. According to management, an inventory system was not in place in the northern pharmacy prior to its closing in December 2005. In the south, the Central Pharmacy has been working on maintaining an inventory system, but it has not been fully achieved. Without inventory records, significant loss could occur without being detected by management. (page 15)
- Neither the Central Pharmacy nor the institutions had adequate controls over drug stock distributed to institutions. The Central Pharmacy did not track the amount of drug stock distributed to institutions for most of fiscal year 2006. In addition, staff at the institutions did not adequately track quantities of stock on hand. As a result, drugs were overstocked at medication rooms which contributes to waste from expired drugs. For example, one institution returned expired controlled substances nine times in fiscal year 2006, totaling 814 doses of expired drugs. (page 16)

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- The Central Pharmacy was slow in dispensing drugs, at times taking more than 4 weeks to provide medications. During our audit, slow turnaround time caused complaints, confusion, and frustration because nursing staff and inmates did not know when medications would be received. In addition, delays by the Pharmacy in filling and delivering medications increase the likelihood of shortages at the institution medication rooms. (page 19)
- The Department can more efficiently provide drugs to inmates by not filling prescription bottles for medications that are kept in stock at the institutions and administered during pill call. Based on our review of this process, the cost of filling these prescriptions outweighs the benefits received. Much of the benefit from filling these prescriptions is lost because the process results in leftover pills which are used as stock for other inmates. To use the extra pills as stock, nursing staff cross the inmate's name off the prescription bottle and keep it with other bottles of stock. During our visit to the institution medication rooms, we observed about 650 prescription bottles with names crossed off and kept with other stock. (page 20)
- The Department's process for dispensing temporary medications to inmates was not efficient. During our audit, nursing staff were limited to dispensing a 4-day supply of medicine to inmates that had keep on person (KOP) privileges. This 4-day supply of temporary medicine was repeated until the inmate's prescription arrived from the Central Pharmacy. If the Central Pharmacy took 20 days to fill a KOP prescription, then nursing staff repeated the 4-day supply process five times. Because of the large volume of KOP prescriptions, nursing staff could save time by dispensing one KOP supply that corresponds with the Central Pharmacy's turnaround time. Available records at one institution indicated that

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about 600 KOP supplies were dispensed monthly.
(page 22)

- The Pharmacy did not conduct required monthly inspections of institution medication rooms. We found only 5 of 96 required inspections were performed during fiscal year 2006. In addition, the Pharmacy lacked adequate policies and procedures to ensure monthly inspections were performed. As a result, the Department has little assurance that medication rooms meet minimum standards for pharmacy operation. (page 23)
- The Department did not review and verify the accuracy of controlled substance inventory counts at each institution monthly, as required by Department regulation. According to management, monthly reviews of controlled substance counts by pharmacists were not taking place. In addition, controlled substance inventory forms were not completed properly and lacked evidence of review. Inadequate supervision over controlled substance inventories increases the risk of loss or misuse. (page 24)
- The Department lacked adequate management information to monitor pharmacy activities. Information on pharmacy operations was not consistent, complete, accurate, or readily available. For example, pharmacy statistics on inmate drug usage were inaccurate, and drug purchases and inventories were not tracked. Inadequate information contributed to problems identified in this report. (page 25)
- The Department centralized its pharmacy operations at High Desert State Prison in December 2005. However, consolidating the pharmacies was not adequately planned. Consolidation took place without adequately planning for the Pharmacy's space needs, staff vacancies, meeting inspection requirements, and

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DEPARTMENT OF CORRECTIONS INMATE MEDICAL SERVICES

other items. As a result, the Pharmacy was not prepared to effectively handle its workload during and after centralization. (page 28)

- The Central Pharmacy uses higher paying pharmacist positions to perform tasks that can be done by pharmacy technicians. We estimate the Department could save about \$130,000 annually by adjusting the ratio of pharmacist to pharmacy technician positions. The Central Pharmacy currently operates with five pharmacists and three pharmacy technician positions. However, other pharmacies we contacted strive to operate at a ratio of two technicians to one pharmacist as allowed by State Board of Pharmacy regulations. The Department anticipates the Pharmacy will need additional staff in the next biennium to meet future workload. (page 30)

Recommendations

This report contains 16 recommendations to improve pharmacy operations and controls over drugs. Five recommendations address improving controls over drug inventories. Four recommendations address improvements in dispensing drugs to the institutions. We also made four recommendations to improve monitoring activities and management information. Finally, three recommendations address issues resulting from centralizing the Pharmacy. (page 46)

Agency Response

The Department, in response to our audit report, accepted the 16 recommendations. (page 41)

Introduction

Background

The Department of Corrections is responsible for the supervision, custody, treatment, care, security, and discipline of all offenders sentenced to imprisonment in the State. The Director supervises the administration of all Department institutions and facilities and must take proper measures to protect the health and safety of staff and offenders. The Director also establishes regulations and administers the Department under the direction of the Board of State Prison Commissioners.

Authority over operations of the prison system is granted to the Board by the Nevada Constitution. The Board is comprised of the Governor, Secretary of State, and Attorney General. In 2001, legislation was passed to change the agency's name from the Department of Prisons to the Department of Corrections. The Department's mission is to protect the community through safe, humane, and efficient confinement of offenders; to maintain sensitivity to the rights and needs of victims; and to provide opportunities for offenders to successfully reenter the community through education, training, treatment, work, and spiritual development.

In fiscal year 2006, offenders were housed at 20 facilities throughout the State: 8 institutions (prisons and correctional centers), 10 conservation camps, 1 restitution center, and 1 transitional center. The Department is divided into five main functional areas: Operations, Correctional Programs, Medical, Prison Industries, and Support Services.

Offender Population

The Department reported having an average offender population of 12,103, during fiscal year 2006. Exhibit 1 shows the average number of offenders at each facility.

**Average Inmate Population by Facility
Fiscal Year 2006**

Institutions	Average Population
Ely State Prison	1,072
High Desert State Prison	2,404
Lovelock Correctional Center	1,534
Nevada State Prison	882
Northern Nevada Correctional Center	1,271
Southern Desert Correctional Center	1,569
Southern Nevada Women's Correctional Center	574
Warm Springs Correctional Center	489
Institutions Total	9,795
Conservation Camps	
Carlin Conservation Camp	134
Ely Conservation Camp	143
Humboldt Conservation Camp	139
Indian Springs Conservation Camp	216
Jean Conservation Camp	279
Pioche Conservation Camp	179
Silver Springs Conservation Camp	116
Stewart Conservation Camp	234
Tonopah Conservation Camp	135
Wells Conservation Camp	124
Conservation Camps Total	1,699
Other Facilities⁽¹⁾	609
Total Population	12,103

Source: Department records.

⁽¹⁾ Includes offenders housed out-of-state, in restitution and transitional living centers, residential confinement, county jails, and hospitals.

Medical Services

The Department is required to provide medical services to its inmates. Services mainly include medical treatment through nurses and physicians, mental health through psychiatrists and psychologists, dental, and pharmacy. If services cannot be provided by in-house medical staff, the inmates are sent to outside providers. During fiscal year 2006, the Department spent approximately \$35.9 million on medical services. Of this amount, about \$22.7 million was spent on personnel costs for 276 authorized full-time equivalent positions.

To provide in-house services, the Department has medical staff at each of its institutions throughout the State. During fiscal year 2006, the Department operated eight institutions in the following locations:

- Ely State Prison (ESP), Ely
- High Desert State Prison (HDSP), Indian Springs
- Lovelock Correctional Center (LCC), Lovelock
- Nevada State Prison (NSP), Carson City
- Northern Nevada Correctional Center (NNCC), Carson City
- Southern Desert Correctional Center (SDCC), Indian Springs
- Southern Nevada Women's Correctional Center (SNWCC), North Las Vegas
- Warm Springs Correctional Center (WSCC), Carson City

In September 2006, a ninth institution was added with the re-opening of Southern Nevada Correctional Center in Jean, Nevada.

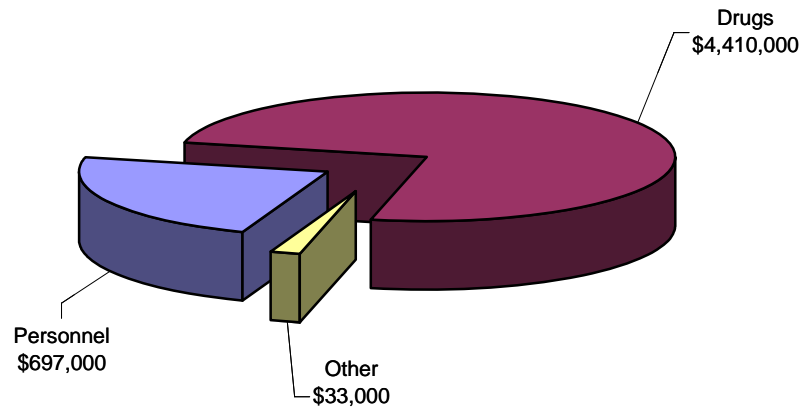
The Department also has a Regional Medical Facility which is similar to a hospital. The Regional Medical Facility is located at the Northern Nevada Correctional Center. This location also has a mental health unit. Medical services for inmates at the Department's camps are provided by staff at the institutions.

Pharmacy

The Department maintains a pharmacy to supply the institutions with drugs for administering and dispensing to inmates. Prior to December 2005, the Department had two pharmacies. One pharmacy was located at the Northern Nevada Correctional Center in Carson City and the other at High Desert State Prison in Indian Springs. In December 2005, the two pharmacies were combined to create a Central Pharmacy at High Desert State Prison. Subsequently, in September 2006, the Department relocated the Central Pharmacy to its Casa Grande Transitional Housing Center in Las Vegas.

The Central Pharmacy operates with eight authorized full-time positions. This includes five pharmacists and three pharmacy technicians. One pharmacist is appointed as Chief of Pharmacy by the Medical Director and oversees the Pharmacy's activities. Pharmacy costs in fiscal year 2006 totaled about \$5.1 million. Most of these costs were for prescription drugs. Exhibit 2 shows pharmacy costs for fiscal year 2006.

**Pharmacy Costs
Fiscal Year 2006**



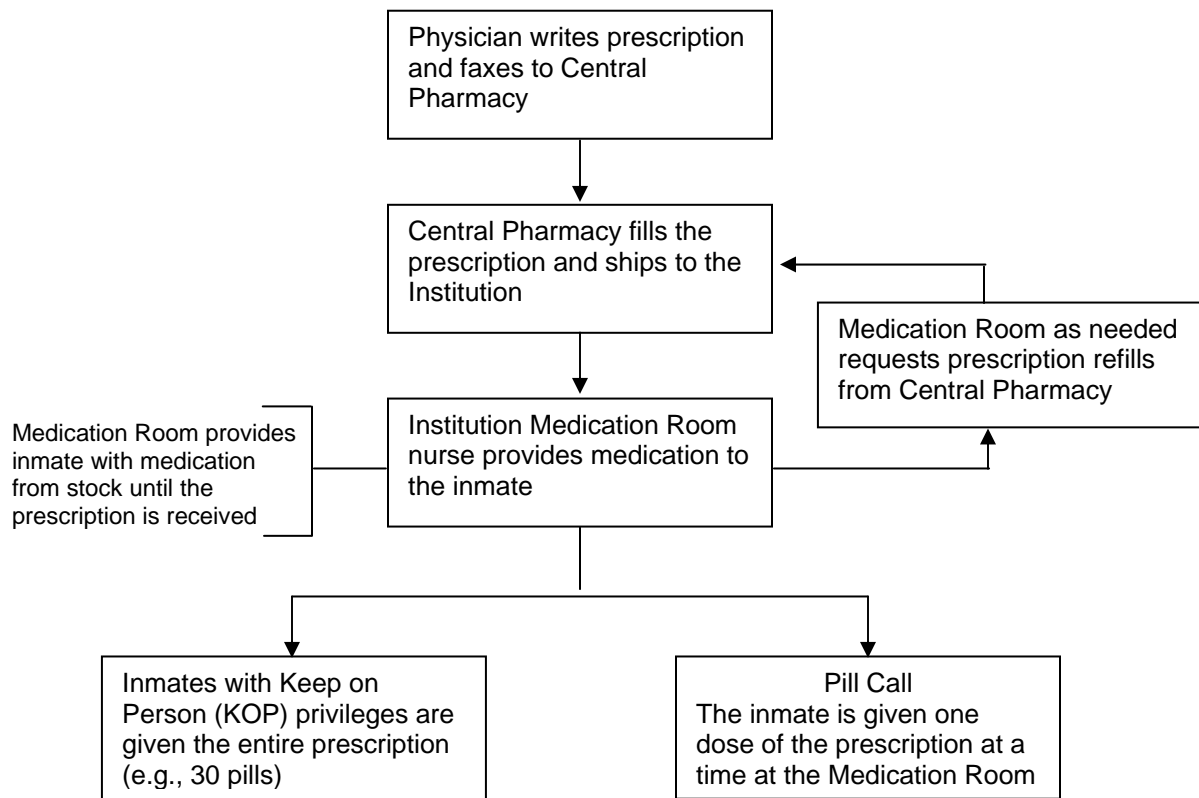
Source: State accounting system.

Note: Other costs primarily include shipping, data processing, and supplies.

The Pharmacy is responsible for filling drug orders from the institutions. This includes prescriptions ordered by physicians and psychiatrists, and requests for stock to replenish drug inventories maintained at the institutions. Stock inventories, often called floor stock, are ordered by nursing staff for immediate and emergency use. This stock is frequently used to administer drugs while waiting for the Pharmacy to dispense prescriptions.

Each institution has a medical facility with at least one medication room for administering, dispensing, and storing drugs. Facilities with more medical responsibilities, such as Northern Nevada Correctional Center, have multiple medication rooms. Exhibit 3 shows the Pharmacy's process for dispensing prescription drugs to inmates.

Pharmacy Dispensing Process



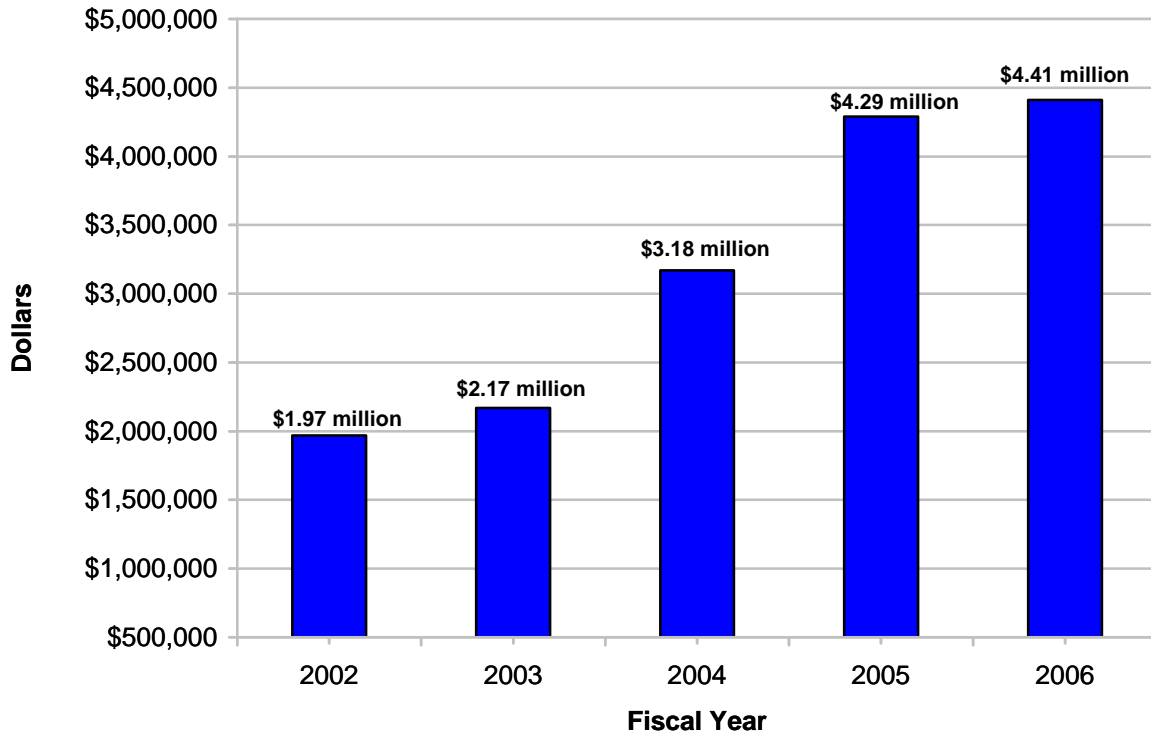
Source: Auditor analysis of Department process.

Note: Exhibit 3 excludes drugs administered entirely from stock such as controlled substances.

The State's Purchasing Division contracts with a vendor to provide prescription drugs to state agencies. The Department is required to use this vendor unless it can find cheaper alternatives. Nevada has also joined a multi-state consortium to obtain cheaper drug prices.

Prescription drug costs have increased in recent years. These increases resulted in part from the Department assuming direct responsibility for medical care at the Ely State Prison in July 2003 and Southern Nevada Women's Correctional Center in October 2004. Medical care at these institutions was previously provided by a private vendor. Exhibit 4 shows prescription drug costs over the past 5 fiscal years.

**Drug Costs
Fiscal Years 2002 - 2006**



Source: State accounting system.

Scope and Objective

This audit is part of the ongoing program of the Legislative Auditor as authorized by the Legislative Commission, and was made pursuant to the provisions of NRS 218.737 to 218.893. The Legislative Auditor conducts audits as part of the Legislature’s oversight responsibility for public programs. The purpose of legislative audits is to improve state government by providing the Legislature, state officials, and Nevada citizens with independent and reliable information about the operations of state agencies, programs, activities, and functions.

This audit focused on pharmacy operations from July 2005 through March 2006, and through October 2006 for certain issues. Our objective was to evaluate the Department’s pharmacy operations, including whether activities were carried out in accordance with applicable state laws, regulations, and policies.

Findings and Recommendations

The Department of Corrections has significant weaknesses in its pharmacy operations. These weaknesses involve key functions including controlling drug inventories, distributing drugs to institution medication rooms, and monitoring operations. Specifically, the Pharmacy has not established adequate controls over drug inventories to help safeguard drugs from theft and waste. In addition, the Pharmacy was slow in dispensing drugs during our audit, and certain dispensing practices were inefficient. Further, adequate monitoring of institution medication rooms did not take place to ensure compliance with state regulations and Department requirements. Most problems stem from a lack of management controls to guide pharmacy operations. These problems were compounded in late 2005, when the northern and southern pharmacies were combined into a Central Pharmacy without proper planning. While new management and staff are working to resolve these issues, much work remains to be done.

Drug Inventories Not Adequately Controlled

The Department lacked adequate controls over drug inventories in three key areas. First, the Central Pharmacy did not ensure inventory records were maintained to account for the use of all controlled substances. Second, the Pharmacy did not maintain an inventory of its prescription drugs in stock. Finally, the Pharmacy did not track the amount of drug stock distributed to institutions.

Missing Controlled Substance Records

The Central Pharmacy did not maintain adequate records to account for the use of all controlled substances distributed to the institutions. The Pharmacy could not locate 54 of 165 (33%) controlled substance forms we tested, representing 1,350 doses of drugs not properly accounted for. In addition, our inventory observations identified one institution that could not show the use or disposal of drugs listed on nine forms, totaling 225 doses of controlled substances.

The Pharmacy distributes controlled substances to institution medication rooms using a prenumbered Controlled Substance Record (CSR) form. Each form serves as the inventory record to account for 25 doses of a drug. The Department's Administrative Regulation 635 requires a precise record be maintained of each dose of a controlled substance. A recording must be made on the CSR when the drug is administered to an inmate. This form is required to be completed and returned to the Central Pharmacy.

Missing Records From Samples Tested

The Department could not locate 14 of 100 CSR forms from our initial sample tested. These forms were issued by the Central Pharmacy to five different institutions during fiscal year 2006. The missing CSR's were used to distribute 350 doses of drugs including 200 doses of Phenobarbital, a barbiturate that can be abused. At Southern Nevada Women's Correctional Center (SNWCC), all five CSR forms for Phenobarbital (32.4 mg tablets) were missing.

Because our original sample identified several missing CSR's for Phenobarbital at SNWCC, we expanded our testing in this area. On September 15, 2006, we requested the Department provide an additional 65 CSR's for Phenobarbital issued to SNWCC during fiscal year 2006. On October 6, 2006, the Department indicated it could not locate 40 of the 65 CSR's, totaling 1,000 doses of Phenobarbital. The 40 missing CSR's were issued by the Pharmacy between October 2005 and February 2006.

On October 18, 2006, we reported these improper practices of financial administration and inadequacy of fiscal records to the Governor, each member of the Legislature, and the Director of the Department of Corrections, in accordance with NRS 218.880. In addition, because of the potential for illegal acts, we also notified the Attorney General. A copy of this report is contained in Appendix B.

After we completed our audit, the Department found most of the missing CSR forms. On November 9, 2006, the Department provided us with 50 of the 54 missing CSR forms. These included 10 of the 14 missing CSR's from our initial sample of 100, and all 40 missing CSR's for Phenobarbital from our sample of 65. According to the Department, 4 of the missing forms from our initial sample had been misfiled by the Central Pharmacy and 46 CSR's had been misfiled at SNWCC.

Missing Records From Inventory Observations

Documentation was not available showing the use or disposal of drugs for nine CSR's we observed at Ely State Prison. The CSR's indicated the drugs were not used, but medical staff could not locate the drugs. The Pharmacy distributed most of the drugs to this institution in August and September 2004, which included 100 doses of Phenobarbital. According to management, staff indicated the drugs were administered to inmates but different records were completed and returned to the Central Pharmacy. However, the Pharmacy could not locate these records.

Although Department regulations require CSR's be returned to the Central Pharmacy, the Pharmacy did not ensure adequate records were maintained for all CSR's issued and returned. These forms were not issued in a logical sequence, no tracking system was in place to ensure the forms were returned, and completed forms were put in boxes with other records.

Federal laws and State Board of Pharmacy regulations require the Pharmacy to maintain adequate records to account for all controlled substances. NAC 639.485 requires the Pharmacy to maintain records for controlled substances in a readily retrievable manner. In addition, NAC 639.486 requires the Pharmacy to maintain detailed records for each dose of controlled substances administered from stock. Furthermore, NAC 639.482 requires each record be kept by the Pharmacy for at least 2 years. These records must be made available for inspection by the State Board of Pharmacy or other authorized local, state, or federal law enforcement agencies.

Pharmacy Inventory Records Not Maintained

The Pharmacy did not maintain inventory records of its prescription drugs. Although several million dollars in drugs flow through the Pharmacy each year, inventory records documenting additions, distributions, and inventory balances were not maintained. According to management, an inventory system was not in place in the northern pharmacy prior to its closing in December 2005. In the south, the Central Pharmacy has been working on maintaining an inventory system, but it has not been fully achieved. Without inventory records, significant loss could occur without being detected by management.

The Department's Medical Directive 808 requires the Pharmacy to maintain a perpetual inventory of non-controlled substances in its computer system. A perpetual inventory is a method of keeping up-to-date inventory records by recording each inventory item entering or leaving the system. Therefore, inventory balances are readily available. A perpetual inventory system is also useful in identifying the best time to reorder stock.

The Central Pharmacy should be able to maintain a perpetual inventory once pharmacy staff start using all the inventory functions of its pharmacy software. This software has been used by the Pharmacy since July 2004; however, the main use of the system is to generate prescription labels for dispensing drugs. These labels are given to the pharmacist and they dispense the quantity listed on the label. Because the quantity dispensed is entered into the system, most of the information necessary to maintain perpetual inventory is already input into the system.

During our audit, the Pharmacy started to implement a perpetual inventory system. This included taking a physical inventory on March 24, 2006, to establish a beginning balance. In addition, staff started to enter information on quantities purchased and quantities of stock distributed to institutions. Based on discussions with management, they did not expect the perpetual system to be fully implemented until March 2007.

Although the Department requires the Central Pharmacy to maintain a perpetual inventory and conduct a physical inventory once per year, detailed procedures were not in place to guide staff in meeting these requirements. For example, the Pharmacy did not have procedures on taking the inventory, adjusting inventory balances, and approving inventory records and adjustments.

Poor Controls Over Drug Stock Distributed to Institutions

Neither the Central Pharmacy nor the institutions had adequate controls over drug stock distributed to institutions. The Central Pharmacy did not track the amount of drug stock distributed to institutions for most of fiscal year 2006. When requests for stock were received from the institutions, the Pharmacy shipped large quantities of drugs without entering the information into its computer system. In addition, staff at the

institutions did not adequately track quantities of stock on hand. As a result, drugs were overstocked at medication rooms which contributes to waste from expired drugs.

Inventory counts at the eight institutions identified that drugs were overstocked. Although each institution had stock lists identifying drugs and quantities allowed, only 55 of 80 drugs we tested were on the institution's list. Of these 55 drugs, 24 (44%) exceeded the quantity allowed. Exhibit 5 shows the stock quantities counted for 10 drugs at the Southern Desert Correctional Center's medication room.

Exhibit 5

**Stock Count of 10 Drugs at
Southern Desert Correctional Center's Medication Room**

Drug	Common Use	Quantity Counted⁽²⁾	Quantity Allowed	Quantity Overstocked
Acetaminophen 325 mg	Pain and Fever	7,500	3,000	4,500
B-6 50 mg	Vitamin Deficiency	3,850	1,000	2,850
Cogentin 1 mg	Parkinson's Symptoms	100	- ⁽¹⁾	-
Cogentin 2 mg	Parkinson's Symptoms	89	- ⁽¹⁾	-
CTM 12 mg	Antihistamine	1,000	- ⁽¹⁾	-
Isoniazid 300 mg	Tuberculosis	4,000	1,000	3,000
Metformin HCL 500 mg	Diabetes	120	1,000	-
Naproxen 500 mg	Pain and Inflammation	1,475	500	975
Phenylgesic 325 mg	Pain	1,250	1,000	250
Sulfamethoxazole 800 mg	Infections	1,725	500	1,225

Source: Inventory observation on June 19, 2006.

⁽¹⁾ Drug was not on stock list.

⁽²⁾ Count includes the number of pills in sealed containers plus an estimate of the number of pills in open containers.

Poor controls over drug stock contributes to waste from expired drugs. All five institution inspections performed by pharmacy staff during 2006 identified expired drugs in the medication rooms. Inspection reports indicated the drugs were removed from stock; however, specific quantities were not recorded. In addition, controlled substance stock was not always monitored to prevent waste from expired drugs. Our review of the Central Pharmacy's records identified one institution that returned expired controlled substances nine times in fiscal year 2006, totaling 814 doses of expired drugs. For example, this institution ordered 400 tablets of a controlled substance in December 2004. In October 2005, 241 tablets of the same drug were returned because they had expired.

Controls over drug stock were weak in several areas: 1) the Department had not evaluated the appropriate quantities of stock to keep on hand at the medication rooms; 2) changes to stock lists were not adequately communicated; 3) stock lists did not include many drugs kept in stock; 4) the Central Pharmacy did not track stock distributions to institutions; and 5) the stock inventories were not adequately monitored by staff at the institutions.

During our audit, the Department started working on improving controls over drug stock. In March 2006, pharmacy staff started entering stock distributions into their computer system. This should enable the pharmacy to track the amount of stock shipped to each institution. In addition, management was planning additional revisions to stock lists, including determining the appropriate levels for each drug.

Recommendations

1. Establish policies and procedures to account for the issuance and return of Controlled Substance Records, and follow-up on forms not completed and returned within a reasonable time.
2. Implement a perpetual inventory system to account for drugs purchased, dispensed, distributed, and inventory balances.
3. Develop detailed procedures for the inventory process including operating the computer system, taking the inventory, adjusting inventory balances, and approving records and adjustments.
4. Ensure that institution medication rooms have approved and up-to-date stock lists.
5. Ensure the amount of stock distributed to institution medication rooms is monitored and periodically verified.

Dispensing Practices Need Improvement

Dispensing practices at the Central Pharmacy and the institution medication rooms need improvement. During our audit, the Pharmacy was slow in dispensing drugs, taking weeks to provide some medications. In addition, certain dispensing

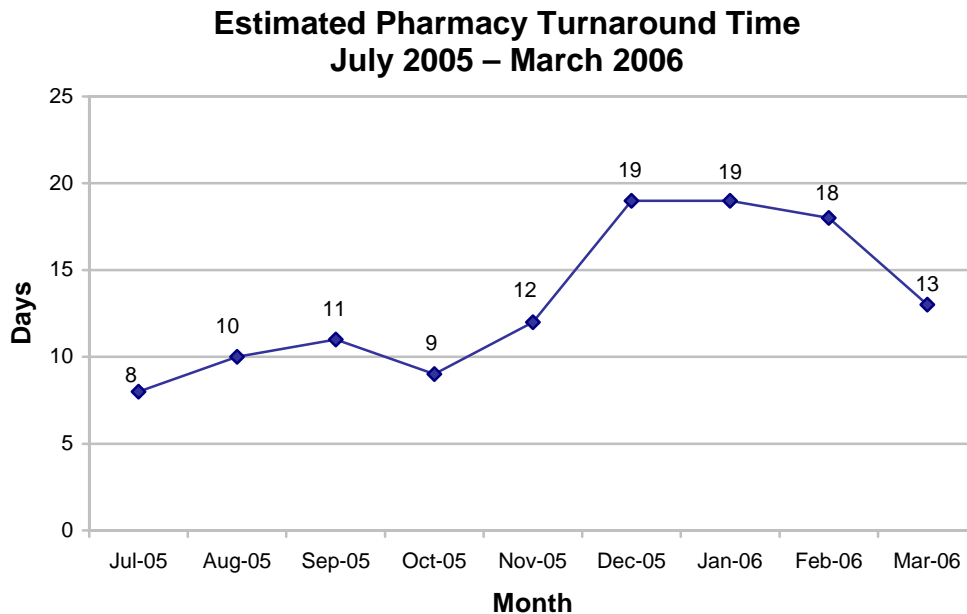
practices of the Pharmacy and institution nursing staff were not efficient. These inefficiencies resulted in increased work without much benefit.

Central Pharmacy Dispensing Time Was Slow

The Central Pharmacy was slow in dispensing drugs, at times taking more than 4 weeks to provide medications. During our audit, slow turnaround time caused complaints, confusion, and frustration because nursing staff and inmates did not know when medications would be received. In addition, delays by the Pharmacy in filling and delivering medications increase the likelihood of shortages at the institution medication rooms.

We reviewed the turnaround time for 180 prescriptions. Our analysis included the time it took the Pharmacy to: 1) process prescription information, 2) fill the prescription, and 3) deliver the prescription to the institution. Exhibit 6 shows the estimated monthly turnaround time for pharmacy prescriptions from July 2005 through March 2006.

Exhibit 6



Source: Auditor analysis of pharmacy records.

As shown in Exhibit 6, the average monthly turnaround time ranged from 8 days to 19 days. However, based on discussions with nursing staff in January and February 2006, half of the institutions experienced delays of 4 weeks or longer. Of the 40

prescriptions we tested for January and February 2006, 6 had an estimated turnaround time of 4 weeks or longer.

The increase in turnaround time resulted from consolidating the northern and southern pharmacies into one Central Pharmacy. As the southern pharmacy took over responsibilities from the northern pharmacy, the turnaround time began to increase. This phase-in process took several months and was completed in late 2005. The turnaround time peaked in December 2005, about the same time the northern pharmacy was closed. In early 2006, turnaround time started to decrease when the Central Pharmacy began to staff pharmacy positions that were transferred from the north.

To keep up with the constant demand for prescriptions, the Pharmacy should maintain a turnaround time of approximately 1 week. This would include 1 day to process prescription information, 1 to 2 days to fill an institution's prescriptions, and 2 to 4 days to pack, deliver, and stock the prescription at the institution's medication room. We reviewed the turnaround time again in July 2006, and found it averaged about 7 days.

Pharmacy Operations Can Be More Efficient

The Department can more efficiently provide drugs to inmates by not filling prescription bottles for medications that are kept in stock at the institutions and administered during pill call. Based on our review of this process, the cost of filling these prescriptions outweighs the benefits received. Much of the benefit from filling these prescriptions is lost because the process results in leftover pills which are used as stock for other inmates.

Exhibit 7 illustrates the number of pills that would be administered from stock and a prescription bottle, for a 30-day prescription. Assuming a 10-day turnaround time by the Central Pharmacy, nursing staff would provide temporary medication for these days out of stock. When the prescription is received from the Pharmacy, nursing staff would administer 20 pills from the prescription bottle to the inmate. The 10 leftover pills would then be used as stock for other inmates.

**Pills Administered From Stock and Prescription Bottle
Illustration of 30-Day Prescription**

Nursing Staff Administer Pills From:	Number of Pills	Pills Administered to Inmate	Left Over Pills Used as Stock for Others
Medication Room Stock	10	10	-
Prescription Bottle	30	20	10
Totals	40	30	10

Source: Auditor analysis of Department's process.

Note: The number of pills from medication room stock will vary depending on Central Pharmacy turnaround time.

To use the extra pills as stock, nursing staff cross the inmate's name off the prescription bottle and keep it with other bottles of stock. During our visit to the institution medication rooms, we observed approximately 650 prescription bottles with names crossed off and kept with other stock. However, one medication room did not follow this practice. Staff indicated they pour the extra pills into a larger stock bottle.

We discussed the practice of crossing names off prescription bottles and using the drugs as stock with State Board of Pharmacy representatives. The Board did not take exception to this practice since the drugs were under the control of nursing staff, and the drugs did not leave the medication room.

For drugs administered from stock at the medication rooms, the cost of filling prescriptions exceeds the benefits. Costs include pharmacy time to fill the prescription, packaging and shipping costs, and nursing time to identify and open individual bottles. In addition, multiple prescription bottles with names crossed off may increase the chance of error. Benefits include filling prescription bottles by a pharmacist and prescription information entered into the pharmacy system. However, if the Pharmacy decides not to fill prescriptions that can be administered from stock, it could still capture information in its new information system currently under development.

The Department already has a process in place for not filling prescriptions for certain drugs; therefore, changes in this area should not be difficult. The Central Pharmacy does not fill prescriptions for controlled substances kept in stock at the medication rooms. For these drugs, nursing staff administer each dose from stock and no prescription information is sent to the Central Pharmacy. In addition, the Department revised its process for filling certain antibiotic prescriptions during our audit. According

to staff, most antibiotics are now administered from stock and the Pharmacy no longer fills these prescriptions.

Process for Dispensing Temporary Medications Was Not Efficient

The Department's process for dispensing temporary medications to inmates was not efficient. During our audit, nursing staff were limited to dispensing a 4-day supply of medicine to inmates that had keep on person (KOP) privileges. This 4-day supply of temporary medicine was repeated until the inmate's prescription arrived from the Central Pharmacy. If the Central Pharmacy took 20 days to fill a KOP prescription, then nursing staff repeated the 4-day supply process five times. Because of the large volume of KOP prescriptions, nursing staff could save time by dispensing one KOP supply that corresponds with the Central Pharmacy's turnaround time.

In February 2006, one institution expressed the following concerns regarding the KOP process:

The KOP medications are taking approximately 3-4 weeks to get them (from the pharmacy). By the time the medications arrive to the Infirmary, nursing staff has already filled 30 days worth of medication. . . Additional concern: Nursing staff filling 4 day supply of meds all the time. Every time a nurse fills a medication for a patient we take the risk of making an error – the chance for errors is directly related to the number of times the task is performed.

Because a high percentage of inmates have KOP privileges, the volume of 4-day supplies is significant. According to Department estimates, approximately 70% of prescriptions are dispensed to inmates with KOP privileges. Most institutions did not track the number of 4-day supplies dispensed each month. However, available records at one institution indicated about 600 KOP supplies were dispensed monthly.

The 4-day KOP process reduces efficiency because nursing staff must perform several steps to dispense each supply, including: 1) reviewing inmate charts to research orders for a prescription; 2) dispensing and labeling the medication including the date dispensed, name of drug, dosage units, strength of drug or medicine, directions for use, inmate name, doctor, and dispensing nurse; and 3) recording dispensed medications in medical records.

Nursing staff were limited to dispensing a 4-day supply because the Department's Administrative Regulation 635.01 incorrectly states: "Per the Pharmacy Board regulations a Registered Nurse (RN) may not dispense medications exceeding a

96-hour supply.” We found the State Board of Pharmacy Regulations do not limit the supply of medicine dispensed by a Registered Nurse. After discussing the KOP process with pharmacy staff in August 2006, the Pharmacy issued a memorandum to all medical staff indicating there is no 4-day limit. The memorandum also indicates the Department’s regulations should be amended to remove the limitation.

Recommendations

6. Monitor the Central Pharmacy’s turnaround time.
7. Review the process for filling prescriptions for medications kept in stock at the institutions and administered during pill call, including the ability to capture information for medications administered entirely from stock.
8. Revise Administrative Regulation 635.01 for Registered Nurse dispensing practices to agree with State Board of Pharmacy regulations.
9. Allow Registered Nurses to dispense KOP medications in quantities sufficient to cover the time it takes the Central Pharmacy to fill and ship prescriptions to institutions.

Monitoring Activities and Management Information Are Inadequate

The Department can improve its monitoring of institution medication rooms. Required inspections were not always performed, and controlled substance records were not periodically reviewed and verified. In addition, the Department lacked adequate information to effectively monitor pharmacy and medication room activities. These weaknesses contributed to the problems identified throughout our report.

Institution Medication Rooms Not Inspected as Required

The Pharmacy did not conduct required monthly inspections of institution medication rooms. We found only 5 of 96 required inspections were performed during fiscal year 2006. In addition, the Pharmacy lacked adequate policies and procedures to ensure monthly inspections were performed. As a result, the Department has little assurance that medication rooms meet minimum standards for pharmacy operation.

Nevada State Board of Pharmacy regulation 639.477 requires correctional institutions to develop written policies and procedures for the distribution of drugs in its facilities. The regulation also requires monthly inspections of medication rooms and storage areas for drugs.

We requested copies of all monthly inspections performed between July 1, 2005, and May 31, 2006, for the eight institutions' medication rooms. The Department could only provide documents showing it had conducted 2 of 88 required monthly inspections during this time period. The Department also provided documents showing it conducted 3 of the 8 required inspections for June 2006. For the 5 inspections conducted during fiscal year 2006, pharmacy staff identified several deficiencies including: expired and discontinued medications, improper refrigeration, open medication vials that were undated, and improperly labeled drugs.

The Department did not have policies and procedures in place to ensure that monthly inspections were performed prior to June 2006. On June 28, 2006, Medical Directive 745 was issued, requiring a department pharmacist or designee to conduct monthly inspections of all medication rooms and nursing stations. This directive also requires that all inspection reports be reviewed and retained by the Central Pharmacy.

Controlled Substance Inventories Not Reviewed at Institutions

The Department did not review and verify the accuracy of controlled substance inventory counts at each institution monthly, as required by Department regulation. According to management, monthly reviews of controlled substance counts by pharmacists were not taking place. In addition, controlled substance inventory forms were not completed properly and lacked evidence of review. Inadequate supervision over controlled substance inventories increases the risk of loss or misuse.

As indicated earlier in our report, we identified nine Controlled Substance Records (CSR's) at Ely State Prison that did not identify the use or disposal of various controlled substances. CSR's are the inventory record for controlled substances. Staff could only speculate what happened to the 225 doses of drugs listed on the 9 CSR's, since most were received in August and September 2004. In addition, staff did not return the CSR's to the Pharmacy as required by regulation. Had the Department

reviewed these inventory records monthly, this problem would have been identified in 2004.

In addition, CSR's were not completed properly by the institutions. Our review of 86 CSR's found 76 records were not completed correctly by institution staff. For example, 76% of the CSR's reviewed did not indicate the date the controlled substances were received by the institution, and 31% did not identify staff who received the drugs. In addition, most CSR's did not include the inmate's full name for the drugs administered, and more than half lacked the inmate's identification number.

The Department had administrative regulations in place until January 2006 that required a monthly review and verification of the controlled substances inventory at each institution. However, this regulation was not followed. Regulations were revised in June 2006 requiring a pharmacist or designee complete a checklist which includes reviewing the controlled substance inventory records at each institution monthly. Monthly reviews of CSR's would provide assurance that controlled substances are properly handled.

Inadequate Management Information

The Department lacked adequate management information to monitor pharmacy activities. Information on pharmacy operations was not consistent, complete, accurate, or readily available. For example, pharmacy statistics on inmate drug usage were inaccurate, and drug purchases and inventories were not tracked. Inadequate information contributed to problems identified in this report.

Weaknesses in the Department's management information were noted in several areas. These include:

- Pharmacy Statistics – Consistent methods were not used to compile drug utilization statistics. The institutions did not use the same methods to identify the number of inmates on medication, new prescriptions, refilled prescriptions, and the number of pills given out at pill call.
- Computer System Not Fully Utilized – The Pharmacy did not use its computer system to track drug purchases and usage. Quantities of drugs purchased were not entered into the Pharmacy's computer system. In addition, the quantities of drug stock distributed to the institutions were not entered. Because information was not entered into the Pharmacy's system, complete and accurate operational data could not be generated.

- Medication Room Inventory Not Tracked – Information on medication room stock inventory was not tracked from July 2005 to March 2006. The Department eliminated requirements for medication rooms to track stock inventory in July 2005. The Department expected the Pharmacy to track this information. However, the Pharmacy did not begin tracking stock sent to the medication rooms until March 2006.
- Pharmacy Turnaround Time Not Tracked – The Pharmacy did not track and report the time it takes to dispense prescriptions.

As a result of these weaknesses, statistical information provided to management, the Legislative Counsel Bureau, and the Department of Administration was often unreliable. We reviewed Department statistical information for: number of inmates on medication, number of doses administered at pill call, number of new prescriptions, and the number of prescriptions refilled. We found different methods were used among the institutions to calculate these statistics. For example, we found the institutions used several different methods when calculating the number of inmates on medication each month. Exhibit 8 identifies the different methods used among the institutions.

**Comparison of Methods Used by the Institutions
to Identify the Number of Inmates on Medication
During April 2006**

Institution	Reported by Department		Auditor Analysis	
	Inmates on Medication	Average Population	Percent on Medication	Method Used to Determine the Number of Inmates on Medication
ESP	138	1,075	12.8%	Number of inmates receiving medication at pill call during the month.
SDCC	511	1,609	31.8%	Number of inmates receiving medication at pill call divided by 3, then multiplied by 0.1.
SNWCC	195 ⁽¹⁾	594	32.8%	Number of inmates receiving medication at pill call on the day the monthly count is taken.
LCC	754 ⁽²⁾	1,555	48.5%	Number of new prescriptions and refills, divided by 2.
WSCC	299	511	58.5%	Number of new prescriptions and refills.
NSP	610	881	69.2%	Number of new prescriptions and refills.
NNCC	971	1,303	74.5%	Sum of numbers reported by each medication area. The medication areas use different methods.
HDSP	1,870	2,461	76.0%	Sum of numbers reported by each medication area. The medication areas use different methods.

Source: Department reports and auditor analysis.

⁽¹⁾ Excludes inmates on medication number for the Jean Conservation Camp.

⁽²⁾ Excludes inmates on medication numbers for the Humboldt and Carlin Conservation Camps.

Using different methods resulted in the institutions reporting inconsistent numbers for the inmates on medication. For example, ESP only counted inmates receiving medication at pill call, which excludes all inmates with KOP privileges. The Department estimates that KOP medications account for 70% of all prescriptions filled. Therefore, the numbers reported by this institution significantly understates the number of inmates on medication. In addition, WSCC and NSP counted the number of new prescriptions and refills to identify the number of inmates on medication. However, these numbers exclude inmates receiving a controlled substance or other medication from stock. We also found problems with the methods used by the remaining institutions.

The Department has not evaluated its information needs. An assessment of what information is needed, when it is needed, and how it should be generated has not been performed. In addition, written procedures are not in place to ensure data collection methods are clearly communicated and consistently applied over time.

Recommendations

10. Establish procedures to monitor the implementation of Medical Directive 745 which requires monthly inspections of medication rooms.
11. Ensure adequate supervision over the controlled substance inventory and records at the institutions' medication rooms.
12. Evaluate information needs including an assessment of what is needed, when it is needed, and how it should be generated.
13. Establish written policies and procedures to ensure data collection methods are consistent over time, including sources of data, and calculations performed.

Centralization of Pharmacy at Indian Springs Not Well Planned

The Department did not adequately plan centralizing its pharmacy operations. As a result, the Pharmacy experienced several problems during consolidation and was unable to handle its workload in a timely manner. In addition, the Department missed an opportunity to improve efficiency by adjusting the staffing ratio of pharmacists to pharmacy technicians. Finally, centralization occurred without adequately separating the duties of pharmacy staff in several areas.

Northern and Southern Pharmacies Combined Without Proper Planning

The Department centralized its pharmacy operations at High Desert State Prison (HDSP) in December 2005. However, consolidating the pharmacies was not adequately planned. Consolidation took place without adequately planning for the Pharmacy's space needs, staff vacancies, meeting inspection requirements, and other items. These problems could have been avoided through better planning.

Previously, the Department operated two pharmacies; one in southern Nevada at the HDSP in Indian Springs and the other at the Northern Nevada Correctional Center in Carson City. The southern pharmacy filled prescriptions for facilities in southern Nevada and Ely. The northern pharmacy handled the remaining facilities. A decision was made in late September 2005 to centralize pharmacy operations at HDSP by early December 2005.

Prior to centralizing, Department staff discussed several advantages and disadvantages for consolidating the Pharmacy. Reasons cited for consolidating operations at HDSP included: better controls over pharmaceuticals, staff could better cover for one another during absences, and difficulty hiring pharmacists in northern Nevada. Some pharmacy staff opposed the move citing several concerns including: lack of adequate space at HDSP, meeting emergency needs for northern institutions, keeping adequate drug stock at the institution's medication rooms, and complying with the Board of Pharmacy's regulation requiring monthly inspections of medication rooms. Despite these concerns the Department went forward with centralization.

Centralizing pharmacy operations took place without adequately addressing the following areas:

- Pharmacy Space Needs – The Department decided to combine both pharmacies in the space occupied by the southern pharmacy at HDSP. This increased staff at HDSP from five to eight. Pharmacy staff were located in four small rooms and the one room used to store medications and fill prescriptions was very cramped. In late September 2006, the Department moved the Central Pharmacy to a larger space at its Casa Grande facility in Las Vegas.
- Staff Vacancies – During the transition to a Central Pharmacy the Department did not fill staff vacancies timely. The decision to centralize the pharmacy resulted in three vacant positions in the north, which were then transferred to the Central Pharmacy. These vacant positions could have been filled more timely. For example, one pharmacist position remained vacant from August 2005 to January 2006. Additionally, the Pharmacy could have used temporary pharmacists during consolidation.
- Inspection Requirements – Plans were not in place to ensure the Pharmacy met its regulatory obligations during and after consolidation. For example, State Board of Pharmacy regulations require that all medication rooms be inspected monthly. These inspections were not done during consolidation as previously discussed.

- Inventory at the Northern Pharmacy – The Department did not take an inventory of non-controlled prescription drugs or record where the drugs were sent when closing the northern pharmacy. Drugs were transferred to northern institutions for stock, shipped to the southern pharmacy, or disposed of through a pharmaceutical return company. However, no records were prepared for drugs transferred to the institutions or the southern pharmacy.
- Utilizing the Computer System – Consolidation took place without pharmacy staff understanding the capabilities or effectively utilizing their computer system. Staff received little training on how to operate the Pharmacy's computer system which can be used to order, track, and inventory drugs. Understanding how to use the system was learned on the job.
- Complete Procedures – Although the Department has high level regulations and policies, it lacks detailed procedures to carry out regulatory and policy requirements. Areas lacking adequate procedures include: ordering drugs, tracking inventory, accounting for controlled substance forms, monitoring medication room inspections, and operating the computer system. Complete procedures would benefit existing staff and provide a resource for new personnel.

As a result of these weaknesses, the Pharmacy was not prepared to effectively handle its workload during and after centralization. This resulted in a significant increase in the Pharmacy's turnaround time previously discussed in this report.

Changes in Staffing Ratio Would Improve Efficiency

The Central Pharmacy uses higher paying pharmacist positions to perform tasks that can be done by pharmacy technicians. We estimate the Department could save about \$130,000 annually by adjusting the ratio of pharmacist to pharmacy technician positions. The Central Pharmacy currently operates with five pharmacists and three pharmacy technician positions. The Department anticipates the Pharmacy will need additional staff in the next biennium to meet future workload.

The Nevada State Board of Pharmacy regulations allow for some flexibility in staffing and performing duties. Pursuant to NAC 639.245, a pharmacy technician under the direct supervision of a pharmacist may perform many functions including: preparing, packaging, compounding, and labeling prescription drugs, if the pharmacist inspects the preparations. In addition, NAC 639.250 allows a pharmacist to supervise up to two pharmacy technicians at one time.

Currently, the Pharmacy is not taking advantage of the staffing flexibility available through these regulations. Although technicians order and inventory drugs, they do not

fill or label prescription bottles. We also found pharmacists perform duties that could be done by technicians. For example, pharmacists spend time sorting, grouping, and bagging filled prescription bottles by inmate and institution. We also observed pharmacists entering prescription data in the computer system.

The Department missed an opportunity to adjust staffing when pharmacy operations were consolidated at HDSP. Previously, when the Department operated a northern and southern pharmacy at least two pharmacist positions were required at each site to keep the pharmacies open. During consolidation the two pharmacist positions in the north became vacant. If these positions were converted to pharmacy technician positions, we estimate it could save the State \$130,000 annually, as shown in Exhibit 9.

Exhibit 9

Potential Savings by Adjusting Current Staffing to Levels Allowed by the State Board of Pharmacy

	<u>Current Staffing Ratio</u>		<u>Allowed Staffing Ratio</u>		Potential Savings
	Positions	Cost⁽¹⁾	Positions	Cost⁽¹⁾	
Pharmacist	5	\$614,000	3	\$373,000	\$241,000
Pharmacy Technician	3	165,000	5	276,000	(111,000)
Totals	8	\$779,000	8	\$649,000	\$130,000

Source: Auditor analysis of pharmacy staffing and costs.

⁽¹⁾ Based on current salary and estimated benefit costs.

The exhibit shows revised staffing based on the ratio allowed by the Board of Pharmacy results in three pharmacists and five pharmacy technicians.

Other pharmacies use technicians to fill prescriptions. We discussed staffing with six private pharmacies, three located in northern Nevada and three in the south. All six reported using pharmacy technicians to count, fill, and label prescription bottles under the supervision of a pharmacist. All six also strive to operate at a ratio of two technicians to one pharmacist. We also discussed this issue with the Division of Mental Health and Developmental Services which operates several pharmacies. The Division reported their pharmacy technicians count, fill, and label prescription bottles under a

pharmacist's supervision and they strive when possible to operate at a ratio of two technicians to one pharmacist.

The Department did not perform a formal analysis of staffing ratios when the pharmacies were consolidated. However, management indicated they decided to maintain the current staffing ratio for several reasons. These included: 1) a pharmacy technician's work filling prescriptions must be double checked by a pharmacist, which impacts the productivity of both the pharmacist and pharmacy technician; 2) pharmacists can do all required jobs in the Pharmacy and pharmacy technicians are limited, which is important when the physical layout of the Pharmacy is small; and 3) expansion of pharmacy operating hours from 5 to 6 days a week required more pharmacist coverage.

Although the Department gave several reasons why it prefers the current staffing ratio, we believe the Central Pharmacy could operate more efficiently with more technicians and fewer pharmacists. First, to use pharmacists to perform clerical and technician related duties is not an efficient use of resources. Second, if technicians are used to count pills, place them into a bottle, and apply a label, the amount of time to check this work is minimal. Third, the Central Pharmacy's new location at the Casa Grande facility will provide the Pharmacy with more space for staff to fill prescriptions. With technicians filling bottles and working with pharmacists, the Pharmacy should be able to process prescriptions more efficiently.

The Department is making additional changes in operations that could impact the staffing ratio. First, through its new information system the institutions will send prescriptions electronically to the Central Pharmacy. Currently, handwritten prescriptions are faxed to the Central Pharmacy and pharmacy technicians enter prescription information into the Pharmacy's computer system. One pharmacy technician position is currently devoted to data entry. Second, the Department anticipates increased workload will result in the need for an additional pharmacist and pharmacy technician positions in the next biennium. However, the Department is also considering requesting funds to purchase an automated pill dispensing machine to fill and package prescriptions, which would reduce workload. Staff anticipate pill dispensing equipment would eliminate the need for additional staff. The above changes

would save staff time. It would also provide another opportunity to reconsider the ratio of pharmacists to pharmacy technicians.

When planning future budget requests, the Central Pharmacy needs to evaluate its ratio of pharmacists to technicians. The Department should consider: allowing technicians to fill prescriptions, not requesting additional pharmacist positions, and making additional staffing adjustments if an automated dispensing machine is approved.

Separation of Duties Is Needed

The Central Pharmacy has not adequately separated the duties of pharmacy staff in several areas. These areas include: handling controlled substances, ordering and inventorying drugs, and receiving refund checks. Standards for internal control recommend that key duties and responsibilities be divided among different people to reduce the risk of fraud or error. This should include separating the responsibilities for authorizing transactions, processing and recording them, reviewing the transactions, and handling the related assets. No one individual should control all key aspects of a transaction or event.

The Central Pharmacy lacks adequate separation of duties in the following areas:

- Controlled Substances – One pharmacist has primary responsibility for controlled substances. This pharmacist fills control substance orders, monitors inventory records, and tracks the issuance and return of Controlled Substance Records.
- Non-controlled Prescription Drugs – One employee is primarily responsible for ordering, receiving, stocking, monitoring, and adjusting drug inventory.
- Refund Checks – The Central Pharmacy occasionally receives refund checks for returned drugs. These checks are sent to one employee who in turn mails the checks to the Department's fiscal staff in Carson City. The employee who receives refund checks also has control over the drug return process.

Because the Pharmacy has centralized its staff and operations in one location, it should be able to better separate key duties among existing staff.

Recommendations

14. Ensure significant changes in pharmacy operations such as new locations, staff changes, and equipment purchases are adequately planned.
15. Reevaluate the ratio of pharmacists to pharmacy technicians including the consideration of allowing pharmacy technicians to fill prescriptions, eliminating requests for more pharmacists, and adjusting staffing if automated dispensing occurs.
16. Separate duties to the extent possible.

Appendices

Appendix A Audit Methodology

To gain an understanding of the Department of Corrections, Inmate Medical Services, we reviewed state laws and regulations, interviewed management and staff, and reviewed policies and procedures. We also reviewed prior audit reports, legislative and executive budgets, legislative committee minutes, and state accounting records. In addition, we reviewed department reports and statistics, vendor reports, and national standards for correctional facilities. Finally, we observed activities at the institution's medical facilities and the Central Pharmacy.

To determine if drug inventories are adequately controlled, we selected a sample of 100 controlled substance forms from the eight institutions and reviewed them for completeness. We then selected an additional 65 controlled substance forms sent to the Southern Nevada Women's Correctional Center for Phenobarbital. In addition, we performed inventory counts at the eight institutions and compared the results with the Department's approved drug and quantity stock list. Furthermore, we assessed the Department's inventory system for tracking and controlling prescription drugs.

To evaluate dispensing practices, we tested 180 prescriptions filled at the southern pharmacy (20 for each month from July 2005 to March 2006). For each prescription, we reviewed available documentation and estimated the time required from when the physician wrote the prescription until the medication was delivered to the institution, or turnaround time. We then calculated the monthly turnaround time from July 2005 to March 2006. In addition, we reviewed the Department's practice of issuing inmates a temporary or 4-day supply of medication until the prescription arrived from the Central Pharmacy. We then analyzed the impact this practice had on operations.

To evaluate monitoring and management information, we reviewed Pharmacy inspection reports conducted on medication rooms for compliance with state requirements. We also reviewed 86 Controlled Substance Records for evidence that controlled substance inventories were reviewed and verified monthly. In addition, we

assessed the accuracy and completeness of statistical information reported on pharmacy operations. This included documenting various methods used by the institutions to compile drug statistics. Finally, we reviewed Department policies and procedures addressing monitoring and management information to ensure they were adequate.

To determine if centralizing the Pharmacy was adequately planned, we reviewed agency planning documents, discussed processes with staff, and observed pharmacy operations. In addition, we reviewed staffing patterns, regulations, and policies and procedures. Furthermore, we discussed staffing and pharmacy processes with six private pharmacies and the Division of Mental Health and Developmental Services, which operates several pharmacies. Finally, we reviewed the duties and responsibilities at the Central Pharmacy to determine if they were adequately segregated among staff.

Our audit work was conducted from December 2005 to October 2006 in accordance with generally accepted government auditing standards.

In accordance with NRS 218.821, we furnished a copy of our preliminary report to the Director of the Department of Corrections. On November 9, 2006, we met with agency officials to discuss the results of the audit and requested a written response to the preliminary report. That response is contained in Appendix E, which begins on page 41.

Contributors to this report included:

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Appendix B NRS 218.880 Report

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October 18, 2006

Legislative Commission
Legislative Building
Carson City, Nevada 89701

This report is issued in accordance with NRS 218.880(1), which requires the Legislative Auditor to report evidence of improper practices of financial administration or inadequacy of fiscal records to the Governor, each member of the Legislature, and the head of the agency audited.

The Department of Corrections is responsible for providing medical services to approximately 12,000 offenders located at institutions and facilities throughout the State. Medical services include dispensing and administering drugs to inmates. During fiscal year 2006, the Department purchased about \$4.4 million in drugs. Most of these drugs were dispensed or distributed by the Department's Pharmacy to institution medication rooms.

During our audit, we found the Department did not maintain adequate records to account for the use of all controlled substances distributed to the institutions. The Pharmacy distributes controlled substances to the institutions by issuing a Controlled Substance Record (CSR) form. Each CSR form serves as an inventory record and is used to account for 25 doses of a controlled substance. However, the Pharmacy could not locate 54 of 165 (33%) CSR forms, resulting in 1,350 doses of controlled substances not properly accounted for.

Most of the above missing CSR's were identified from a separate sample of forms issued to the Southern Nevada Women's Correctional Center. On September 15, 2006, we requested the Department provide 65 CSR's for Phenobarbital (32.4 mg tablets) issued to this institution during fiscal year 2006. On October 6, 2006, the Department indicated it could not locate 40 of the 65 CSR's, totaling 1,000 doses of Phenobarbital. The 40 missing CSR's were issued by the Pharmacy between October 2005 and February 2006.

Federal laws and State Board of Pharmacy regulations require the Pharmacy to maintain adequate records to account for all controlled substances. These laws and regulations require the Pharmacy to maintain records for controlled substances in a readily retrievable manner. Furthermore, controlled substance records must be kept by the Pharmacy for at least 2 years, and must be made available for inspection by the State Board of Pharmacy or other authorized local, state or federal law enforcement agencies.

Legislative Commission
October 18, 2006
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This report is being submitted to the Governor, each member of the Legislature, and the Director of the Department of Corrections. In addition, because of the potential for illegal acts, we are providing a copy of this report to the Attorney General.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Paul V. Townsend", written in a cursive style.

Paul V. Townsend, CPA
Legislative Auditor

Appendix C

Prior Audit Recommendations

As part of our audit, we requested the Department of Corrections determine the status of the eight recommendations made in our prior audit of Inmate Medical Services in 1998. The Department indicated that all eight recommendations from the 1998 audit had been fully implemented. The scope of our current audit did not include these recommendations. Therefore, we did not verify the Department's implementation of the prior audit recommendations.

Appendix D

Glossary of Report Terms

Administer	The direct application of a drug whether by injection, inhalation, ingestion or any other means, to a patient.
Controlled Substance	Certain drugs, where federal law requires additional controls over the manufacture, importation, possession, and distribution.
Controlled Substance Record (CSR)	A form used by the Department of Corrections to track the controlled substances issued as stock from the Central Pharmacy to the medication rooms at the institutions. Nursing staff use this form to account for all controlled substances received, administered, and inventory balance.
Dangerous Drug	Any drug which, pursuant to the Nevada State Board of Pharmacy's regulations, may be sold only by prescription because the Board has found those drugs to be dangerous to public health.
Dispense	To deliver a drug to an ultimate user, patient or pursuant to the lawful order of a practitioner, including the prescribing by a practitioner, administering, packaging, labeling, or compounding necessary to prepare the substance for delivery.
Fill	The counting, measuring, compounding, pouring, packaging and labeling required to prepare a drug for either direct or indirect delivery to a patient.
Keep on Person Prescription (KOP)	Prescriptions allowed to be in the possession of inmates who have earned the privilege. Inmates typically are allowed to keep a 30-day supply.
Medication Room	A location within a correctional institution where drugs are stored until dispensed or administered to the inmate.
Perpetual Inventory	Keeping inventory records continuously in agreement with the physical inventory on hand during a specified time.
Pharmacy	Every store or shop licensed by the Nevada State Board of Pharmacy where drugs, controlled substances, poisons, medicines or chemicals are stored or possessed, or dispensed, or sold at retail, or displayed for sale at retail, or where prescriptions are compounded or dispensed.
Pharmacy Technician	A person who performs technical services in a pharmacy under the direct supervision of a pharmacist and is registered with the Nevada State Board of Pharmacy.
Pill Call	A designated time when a drug is administered to an inmate at the medication room.
4-Day Supply	A temporary supply of drugs which nurses are authorized by the Department to provide to inmates with Keep on Person (KOP) privileges while the inmate waits for their prescription to be filled by the Central Pharmacy.

Appendix E
Response From the Department of Corrections

BOARD OF COMMISSIONERS
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STATE OF NEVADA

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DEPARTMENT OF CORRECTIONS

Leading Nevada Corrections Into the Future

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November 20, 2006

CONFIDENTIAL

Paul V. Townsend, CPA
Legislative Auditor
Legislative Counsel Bureau
401 S. Carson St.
Carson City, NV 89701

RE: Inmate Medical Services Audit Report

Dear Mr. Townsend:

We have accepted all 16 of the recommendations of the audit report dated November 9, 2006 on the Department of Corrections, Inmate Medical Services. The plan required 60 working days after presentation of the audit results per NRS 218.8235 is also attached. The following supplemental information is provided for each recommendation:

Recommendation Number 1: Establish policies and procedures to account for the issuance and return of Controlled Substance Records, and follow-up on forms not completed and returned within a reasonable time.

Response: During the audit 54 of 165 Controlled Substance Records (CSR) requested for inspection by LCB Audit were identified as missing and unaccounted for. Subsequent to the completion of the audit, 50 of the 54 missing CSR forms have been located. The missing documents were submitted to LCB Audit for verification. The CSR documents were misfiled at one institution (46 CSR's) and the balance were misfiled at the Central Pharmacy (4 CSR's). A Controlled Substance Record (CSR) tracking sheet has been developed and implemented by Central Pharmacy to track CSRs. The files have been reorganized to allow CSRs to be readily available. A Medical Directive on use of the tracking sheet and monitoring guidelines will be developed.

Paul V. Townsend, CPA
November 20, 2006
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Recommendation Number 2: Implement a perpetual inventory system to account for drugs purchased, dispensed, distributed and inventory balances.

Response: A perpetual inventory system has been ~95% implemented as of this date. The remaining 5% of the drugs not being tracked by the perpetual inventory system are slow moving drugs that have not been prescribed or ordered since the implementation. As they are prescribed or ordered, they are added to the pharmacy software system. The cycle counting procedure will be incorporated into the Medical Directive covering inventory management and include a provision to select drugs from both the system and the shelf to be counted. The next physical inventory is scheduled for March 2007 and any drugs not already added will be added at that time.

Recommendation Number 3: Develop detailed procedures for the inventory process including operating the computer system, taking the inventory, adjusting inventory balances, and approving records and adjustments.

Response: A Medical Directive will be developed to fully detail the inventory process within the context of the pharmacy computer system.

Recommendation Number 4: Ensure that institution medication rooms have approved and up-to-date stock lists.

Response: The Pharmacy and Therapeutics Committee is responsible and has developed approved and up-to-date stock lists. Pharmacy is responsible for and has distributed the approved lists.

Recommendation Number 5: Ensure the amount of stock distributed to institution medication rooms is monitored and periodically verified.

Response: Floor stock amounts are currently monitored by nursing personnel and ordered or re-ordered according to approved order guidelines. Monthly inspections of the institution medication rooms are being accomplished and part of the inspection is to verify floor stock quantities. A Medical Directive will be drafted to fully detail the inspection procedure.

Recommendation Number 6: Monitor the Central Pharmacy's turnaround time.

Response: Central Pharmacy has begun distributing Pharmacy turnaround data once per month to Administration and the Pharmacy and Therapeutics Committee. Data collection and methodology will be incorporated into a medical directive.

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Recommendation Number 7: Review the process for filling prescriptions for medications kept in stock at the institutions and administered during pill call, including the ability to capture information for medications administered entirely from stock.

Response: The process for filling prescriptions for medications kept in stock at the institutions and administered during pill call is being reviewed by Pharmacy and Nursing Staff. The final procedure will be incorporated into a Medical Directive.

Recommendation Number 8: Revise Administrative Regulation 635.01 for Registered Nurse dispensing practices to agree with State Board of Pharmacy regulations.

Response: AR 635.01 has been revised to agree with State Board of Pharmacy regulations and submitted for approval.

Recommendation Number 9: Allow Registered Nurses to dispense KOP medications in quantities sufficient to cover the time it takes the Central Pharmacy to fill and ship prescriptions to institutions.

Response: AR 635.01 has been changed to allow Registered Nurses to dispense per NRS 454.215. This means that nurses will no longer be limited to issuing 4 day supplies only.

Recommendation Number 10: Establish procedures to monitor the implementation of Medical Directive 745 which requires monthly inspections of medication rooms.

Response: Medical Directive 745 will be updated to include an inspection verification checklist to be maintained and monitored by the Pharmacy Director monthly.

Recommendation Number 11: Ensure adequate supervision over the controlled substance inventory and records at the institutions' medication rooms.

Response: Nursing staff complete a shift by shift check of controlled substance inventory and records at the institutions' medication rooms. Verification by a pharmacist or designee are completed monthly during the medication room inspections.

Recommendation Number 12: Evaluate information needs including an assessment of what is needed, when it is needed and how it should be generated.

Response: Medical Administration will re-check with LCB Fiscal and Corrections Management to assess current information needs from NDOC Medical. An annual request for information needs to medical information users will be written into a Medical Directive. If the requests for information can be provided without cost or minimal workload increase, they will be incorporated into the monthly reports.

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Recommendation Number 13: Establish written policies and procedures to ensure data collection methods are consistent over time, including sources of data and calculations performed.

Response: A Medical Directive will be written to cover standardized methodology for capturing statistics from each institution.

Recommendation Number 14: Ensure significant changes in pharmacy operations such as new locations, staff changes, and equipment purchases are adequately planned.

Response: This recommendation is accepted.

Recommendation Number 15: Reevaluate the ratio of pharmacists to pharmacy technicians including the consideration of allowing pharmacy technicians to fill prescriptions, eliminating requests for more pharmacists, and adjusting staffing if automated dispensing occurs.

Response: In the event of any pharmacist attrition, the ratio of pharmacists to pharmacy technicians will be reevaluated. In the audit report, it was estimated that \$130,000 could be saved utilizing 3 Pharmacists and 5 Pharmacy Technicians, instead of the current 5 Pharmacists and 3 Pharmacy Technicians. The estimate assumes that Pharmacists and Pharmacy Technicians can be substituted 1 for 1 and that the Pharmacy Director is available as a full time pharmacist. As pointed out in the audit, the Pharmacy Director position has additional supervising, planning, organizing, monitoring and verification duties that would prevent that position from functioning more than 20% as a prescription filling Pharmacist. Secondly, any Pharmacy Technician engaged in filling prescriptions, must have each prescription signed off by a licensed Pharmacist, after the Pharmacist has checked the medication name, quantity, strength, dosage and labeling against the prescription.

Recommendation Number 16: Separate duties to the extent possible.

Response: Medical Directives for pharmacy operations and inventory control will reflect separation of duties to the extent possible.

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If you have any questions regarding this letter, please contact me at 775-887-3216.

Sincerely,

A handwritten signature in black ink, appearing to read "Glen Whorton", with a long horizontal flourish extending to the right.

Glen Whorton
Director

GW:sc

**Department of Corrections
Response to Audit Recommendations**

<u>Recommendation Number</u>		<u>Accepted</u>	<u>Rejected</u>
1	Establish policies and procedures to account for the issuance and return of Controlled Substance Records, and follow-up on forms not completed and returned within a reasonable time	<u> X </u>	<u> </u>
2	Implement a perpetual inventory system to account for drugs purchased, dispensed, distributed, and inventory balances	<u> X </u>	<u> </u>
3	Develop detailed procedures for the inventory process including operating the computer system, taking the inventory, adjusting inventory balances, and approving records and adjustments	<u> X </u>	<u> </u>
4	Ensure that institution medication rooms have approved and up-to-date stock lists	<u> X </u>	<u> </u>
5	Ensure the amount of stock distributed to institution medication rooms is monitored and periodically verified	<u> X </u>	<u> </u>
6	Monitor the Central Pharmacy's turnaround time	<u> X </u>	<u> </u>
7	Review the process for filling prescriptions for medications kept in stock at the institutions and administered during pill call, including the ability to capture information for medications administered entirely from stock	<u> X </u>	<u> </u>
8	Revise Administrative Regulation 635.01 for Registered Nurse dispensing practices to agree with State Board of Pharmacy regulations	<u> X </u>	<u> </u>
9	Allow Registered Nurses to dispense KOP medications in quantities sufficient to cover the time it takes the Central Pharmacy to fill and ship prescriptions to institutions	<u> X </u>	<u> </u>
10	Establish procedures to monitor the implementation of Medical Directive 745 which requires monthly inspections of medication rooms	<u> X </u>	<u> </u>
11	Ensure adequate supervision over the controlled substance inventory and records at the institutions' medication rooms	<u> X </u>	<u> </u>

Department of Corrections
Response to Audit Recommendations
 (continued)

<u>Recommendation Number</u>		<u>Accepted</u>	<u>Rejected</u>
12	Evaluate information needs including an assessment of what is needed, when it is needed, and how it should be generated	<u> X </u>	<u> </u>
13	Establish written policies and procedures to ensure data collection methods are consistent over time, including sources of data, and calculations performed	<u> X </u>	<u> </u>
14	Ensure significant changes in pharmacy operations such as new locations, staff changes, and equipment purchases are adequately planned	<u> X </u>	<u> </u>
15	Reevaluate the ratio of pharmacists to pharmacy technicians including the consideration of allowing pharmacy technicians to fill prescriptions, eliminating requests for more pharmacists, and adjusting staffing if automated dispensing occurs.....	<u> X </u>	<u> </u>
16	Separate duties to the extent possible	<u> X </u>	<u> </u>
	TOTALS	<u> 16 </u>	<u> 0 </u>