OFFICE OF THE INSPECTOR GENERAL
City of Chicago

David H. Hoffman
Inspector General

180 N. Michigan Avenue, Suite 2000
Chicago, Illinois 60601
Telephone: (773) 478-7799
Fax: (773) 478-3949

REPORT OF INSPECTOR GENERAL'S AUDIT

To: Mayor Richard M. Daley
Members of the City Council
Commissioner Terry O. Mason, Chicago Department of Public Health

From: Inspector General David H. Hoffman

Re: Audit of CDPH pharmacy warehouse

Date: February 2, 2009

The Inspector General's Office has completed an audit of the City of Chicago's Central Pharmacy Warehouse, which is operated by the Chicago Department of Public Health ("CDPH"). A copy of the audit report is attached.

The Central Pharmacy Warehouse ("the warehouse") obtained and stored approximately $3 million in goods in calendar year 2007, which was the time period covered by the audit. CDPH paid for the goods principally with money from federal grants provided to the City and from the Corporate Fund in the City's budget. Goods stored at the warehouse included vaccines for a variety of diseases (including hepatitis A and B, measles, mumps, rubella, and influenza), a variety of drugs (including antibiotics, TB drugs, anesthetics, and cough and cold medicine), and clinical supplies. The warehouse would receive orders for these goods from CDPH health clinics and other health sites associated with the CDPH, and was then supposed to distribute the goods to these locations.

The purpose of the audit was to determine whether CDPH's procedures and internal controls were effective in preventing theft, loss, waste, and the potential for misconduct, and whether there were inefficiencies in the warehouse's operations. To our knowledge, this is the first comprehensive performance audit of the CDPH warehouse.

The audit found widespread deficiencies in the warehouse's procedures and internal controls relating to the inventory. Most significantly, its procedures for keeping track of its inventory were highly defective. As a result, the items received and distributed by the warehouse were not properly safeguarded against theft and loss. In fact, a full and complete audit of the warehouse inventory was impossible because adequate records were not available for significant portions of the inventory.

As to those items for which the IGO auditors were able to conduct a full inventory audit, they found that the deficiencies in internal controls had serious negative consequences, including the following examples:

- The City lost at least $365,000 due to waste resulting from the warehouse staff's failure to properly manage its inventory of medications. The audit determined that in 2007, approximately $529,000 of drugs purchased by CDPH and stored at the warehouse expired. (This is equal to approximately 18% of all the goods obtained by the warehouse in 2007.) The warehouse received some credits when it returned the expired medications, but even after the credits, the loss to the City was $365,000. Such a high level of medications sat unused and expired because of the warehouse's failure to maintain proper reorder points, a standard inventory practice.

- At least $639,000 of vaccines (92,000 doses of 18 different vaccines) received by the warehouse were not tracked by the warehouse staff in any meaningful way. This means that there was no way for CDPH to establish that all the vaccines that left the warehouse were actually distributed to CDPH clinics. In other words, a large number of vaccines could have been stolen or misplaced in 2007 and CDPH would not have known it. The records simply do not allow CDPH or the IGO auditors to determine where the vaccines went.

  These vaccines were purchased by CDPH using federal grant funds, but the warehouse had no system for determining when it needed to order vaccines. As a result, hundreds of thousands of dollars of vaccines were stored at the warehouse without any clear indication that they were needed. In addition, because CDPH had no effective tracking system for the vaccines stored at the warehouse, there were no safeguards against theft or loss. This failure created major health risks and major liability risks for the City since the consequences of vaccines falling into the wrong hands or being improperly administered are extremely serious. Because of the absence of warehouse records regarding the vaccines, it was impossible for the audit to calculate the amount of vaccines that may have been missing.

- In 2007, CDPH had a "controlled substances" license from the Drug Enforcement Administration (DEA), authorizing a licensed pharmacist at the warehouse to distribute controlled substances (powerful drugs that are regulated by DEA). This allowed the warehouse to receive and send controlled substances to the CDPH clinics but not to dispense the drugs directly to patients.

  When the IGO auditors began their audit of the warehouse, CDPH personnel stated that the warehouse did not have any controlled substances in its possession. However, it was later determined that not only did the warehouse have controlled substances but its Director of Administration had dispensed controlled substances by opening and preparing dosages for specific patients. The specific controlled substances were the generic equivalents of Valium and Ativan (an anti-anxiety drug). This constituted a violation of DEA regulations.

DEA discovered this violation in 2008. It also discovered that warehouse staff had failed to keep the proper records of the controlled substances it received, in violation of DEA regulations. As a result of these violations, DEA forced CDPH to surrender its controlled substances license.

The IGO audit determined that the warehouse staff kept no records whatsoever of the controlled substances it received. Obviously, this makes it impossible for CDPH or the IGO auditors to determine whether prescription drugs were stolen or misplaced since there are no records of the warehouse's receipt and distribution of controlled substances. A further inquiry into this matter is being conducted.

- The warehouse could not account for 438 packs of birth control pills (each pack being equal to a one-month supply), due to the deficiencies in its record-keeping system. As a result, this large quantity of birth control pills (worth about $19,000) may have been stolen, lost, or improperly distributed.

- Despite the fact that the inventory stored at the warehouse typically consisted of hundreds of thousands of dollars of drugs and other valuable items, there was little to no security at the warehouse. Surveillance cameras were in place but no one monitored them, either in real time or after the fact. Unescorted guests were allowed to access the warehouse, and the storage cages and refrigerators containing valuable and restricted items were left unlocked.

In light of the widespread problems the audit uncovered at the warehouse, the audit examined the overall question of whether the City was being well served by having a CDPH warehouse in the first place. Although it costs the City money to operate the warehouse, CDPH officials stated at the beginning of the audit that the warehouse's purpose was to save money through bulk ordering of certain drugs and medical supplies, and to save time by maintaining a readily-accessible cache of supplies. The audit determined, however, that the warehouse was accomplishing neither of these goals.

The IGO auditors recommended to CDPH during the audit that it move to a system of having the CDPH clinics order their items directly from a pharmacy company – as many of the CDPH clinics currently do for some items. This recommendation is detailed in the conclusion of the audit report. The report explains that such a system would not result in higher per-item costs, and would not cause the clinics to wait any additional length of time before receiving the items.

As set out in the audit report, the IGO auditors met extensively with CDPH staff during the audit and received their complete cooperation. Their assistance contributed significantly to the successful completion of the audit. The IGO auditors provided their audit report to CDPH in December 2008 and met with CDPH leadership to discuss the audit later that month. CDPH provided written responses to the audit, which have been incorporated into the final audit report.

After CDPH received a copy of the audit report in December 2008, it reported that the head of the warehouse had resigned. CDPH has also reported that it is in the process of ending its use of the warehouse and moving to a system of having CDPH clinics order directly from a pharmacy

company, as recommended by the IGO auditors.

If you have any questions about this audit report or would like to discuss its contents with me or my staff, please let us know.

cc: Chief of Staff Paul A. Volpe
City Comptroller Steven J. Lux
Acting Budget Director Ann McNabb
Director of Intergovernmental Affairs John F. Dunn

INSPECTOR GENERAL'S OFFICE

CITY OF CHICAGO

CHICAGO DEPARTMENT OF PUBLIC HEALTH

CENTRAL PHARMACY WAREHOUSE
AUDIT – 2007

TABLE OF CONTENTS

AUDITOR'S REPORT

We have completed an audit of the Chicago Department of Public Health's ("CDPH") Central Pharmacy Warehouse ("the warehouse"). We conducted the audit for the period of January 1, 2007 through December 31, 2007.

The authority to perform such an audit is established in the City of Chicago Municipal Code § 2-56-030 which states that the Inspector General's Office has the power and duty to review the programs of City government in order to identify any inefficiencies, waste and potential for misconduct, and to promote economy, efficiency, effectiveness and integrity in the administration of City programs and operations.

Our purpose was to review, test, and evaluate activities performed to determine whether the warehouse had effective and efficient operations and internal controls as well as adequate policies and procedures. CDPH management is responsible for establishing and monitoring effective internal controls over the warehouse. We also evaluated whether controls effectively prevented theft, loss, waste, and misconduct.

We conducted this audit in accordance with generally accepted Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Based upon the results of our audit, we determined that the CDPH's application of internal controls was not adequate to ensure efficient and effective management of the warehouse. We identified significant deficiencies in internal controls over the inventory process. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to effectively carry out the function or program being audited. We cannot be assured that the controls in place would prevent theft, loss, waste, and misconduct at the warehouse. These deficiencies resulted in a loss of at least $365,000 worth of goods, the failure to track over $900,000 worth of goods, the violation of federal regulations (which led to the loss of CDPH's ability to obtain DEA-controlled medications and loss of its DEA license), and noncompliance with City policies and procedures.

We would like to thank the Chicago Department of Public Health's Central Pharmacy Warehouse management and staff for their cooperation during the audit. Their assistance contributed significantly to the successful completion of the audit.

Wendy Funk
Chief Auditor

EXECUTIVE SUMMARY

The Inspector General's Office ("IGO") performed an audit of the operations of the CDPH's pharmacy warehouse for 2007. The warehouse receives approximately $3 million in goods annually, and is supposed to distribute these goods to CDPH health clinics and to other health sites associated with the CDPH. The purpose of the audit was to review, test, and evaluate activities performed to determine whether the warehouse had effective and efficient operations and internal controls as well as adequate policies and procedures. We also evaluated whether controls effectively prevented theft, loss, waste, and potential for misconduct. To our knowledge, this is the first comprehensive operational audit of the CDPH warehouse.

Audit steps included:

- interviewing CDPH management, warehouse staff, and CDPH clinic staff;
- interviewing third-party vendors that conduct business with the CDPH and warehouse;
- observing year-end inventory count, ordering, and filling of clinic orders;
- documenting and testing manual and system controls; and
- analyzing the effectiveness and efficiency of inventory procedures through observation, review of documentation, and review of system inputs and outputs.

Based upon the results of our audit, we determined that the CDPH's application of internal controls was not adequate to ensure efficient and effective management of the warehouse. We found significant deficiencies in almost all of the warehouse's internal controls relating to the inventory, including its procedures for keeping track of its inventory, and its record keeping system. As a result, we cannot be assured that assets were properly safeguarded against theft and loss while in the warehouse or while being transported to clinics. In fact, a full and complete audit of the warehouse inventory was impossible because adequate records were not available for significant portions of the inventory.

As to those items for which we were able to conduct a full inventory audit, we found that the deficiencies in internal controls had serious negative consequences, including:

- At least $365,000 of waste resulted from the warehouse's failure to properly manage its inventory of medications. The audit determined that in 2007, approximately $529,000 of drugs purchased by the warehouse expired. (This is equal to approximately 18% of all the goods obtained by the warehouse in 2007.) Such a high level of medications sat unused and expired because of the warehouse's failure to maintain proper reorder points, a standard inventory practice. The warehouse gave these expired drugs to an expired-goods-retrieval company (with which the City did not have a contract), but the company only gave CDPH a credit (minus the company's commission) for those expired drugs that were "eligible" for a refund from the manufacturer. This amounted to a credit of only $164,090. As a result, the City paid for about $529,000 in medications which were not utilized before expiring, sent them back to the manufacturer through the expired-goods-retrieval company, and received reimbursement of only $164,090, leaving the City with a loss of $365,000.

- The warehouse received about 92,000 doses of various vaccines (*e.g.*, for influenza, hepatitis, measles, mumps, and rubella) that CDPH had purchased using $639,000 of federal grant funds. Yet the warehouse failed to track the receipt and distribution of these vaccines in any meaningful fashion. Thus, neither the warehouse nor the IGO auditors can reasonably determine whether all of these vaccines were properly distributed to CDPH-authorized sites. Given the potential health risks and liability issues if these vaccines fall into the wrong hands or are improperly administered, this problem must be considered a serious one.

- The warehouse improperly handled its inventory of controlled substances, and exceeded the scope of its DEA license (which only authorized distributing controlled substances to CDPH clinics) by actually dispensing controlled substances. When the DEA learned of these problems during its own audit of the warehouse earlier this year, it stripped the CDPH of its DEA license.

- The warehouse could not account for 438 packs (one-month supply) of birth control pills, as a result of the deficiencies in its record-keeping system. As a result, this large quantity of birth control pills (worth about $19,000) may have been stolen, lost, or improperly distributed.

In light of the widespread problems the audit uncovered at the warehouse, we examined the overall question of whether the City was being well served by having a CDPH warehouse in the first place. Although it costs the City money to operate the warehouse, CDPH officials stated at the beginning of the audit that the warehouse's purpose was to save money through bulk ordering of certain drugs and medical supplies, and to save time by maintaining a readily-accessible cache of supplies. We found, however, that the warehouse accomplishes neither of these goals. As detailed at the end of this audit report in the "Overall Recommendation and Conclusion" section, a system of having the CDPH clinics order their items directly from a pharmacy company – as many of the CDPH clinics currently do for some items – would not result in higher per-item costs, and would not cause the clinics to wait any additional length of time before receiving the items.

Therefore, our overall recommendation is that CDPH end its practice of operating a central pharmacy warehouse and instead convert to a system of having each clinic order its own supplies directly, on a "just-in-time" basis.

If CDPH decides to stay with its current central warehouse system, we recommend that CDPH completely review and revise its policies, procedures, and system of internal controls – as detailed in the individual findings of this report – to ensure that assets are safeguarded and properly recorded and reported.

This summary highlights the key findings which are described in detail in the Audit Findings and Recommendations section beginning on page 17.

Failure to Track Vaccines, Controlled Substances, and Other Goods Received by the Warehouse (Finding 07-1)

Items Obtained through Federal Grants or State Donations

In 2007, the warehouse obtained goods worth at least $912,141 from federal grants or donations from the State ($639,150 of vaccines, $257,406 of condoms, and $15,585 of baby formula). This constitutes approximately 31% of the total $3M of goods obtained by the warehouse in 2007. None of these goods were entered into or tracked in the warehouse inventory system.

Warehouse Inventory 2007

Inventory Tracked (est)	$2.1M	69%
Inventory NOT tracked	**$912K**	**31%**
Total Inventory (est)	$3M	100%

As a result, the audit showed that approximately $912,000 of inventory was not tracked throughout the year and therefore, the remaining items left on hand worth at least $643,000 were not included in the year-end balance.

Without a proper tracking mechanism in place at the warehouse, we do not have assurance that the vaccines, condoms, and baby formula were all sent to the appropriate locations to be distributed to the low-income recipients, as intended.

Controlled Substances Led to Violation of Drug Enforcement Administration ("DEA") Regulations

A DEA audit revealed that controlled substances were on hand at the warehouse and that several violations occurred. Specific violations included: i) lack of recordkeeping of purchases, receipts, and distributions, ii) no biennial inventory, and iii) dispensing controlled substances without the proper registration. This resulted in the warehouse Director of Administration voluntarily surrendering its DEA registration, so that CDPH can no longer obtain controlled substances.

Failure to Follow Basic Inventory Procedures Caused a Loss of At Least $365,000, and Created an Increased Risk of Theft and/or Loss (Finding 07-2)

Inventory policies and procedures failed to provide adequate internal controls and did not follow inventory best practices. The lack of effective procedures hindered, among other things: i) the determination of efficient reorder points, ii) the ability to minimize waste due to expired goods, iii) the reliability of physical counts, and iv) the maintenance of up-to-date documentation. The procedures did not require the warehouse or fiscal administration section to reconcile inventory records. Additionally, warehouse practices failed to segregate incompatible duties which could allow for errors or irregularities to occur and go unnoticed.

The CDPH written policies and procedures were neither complete nor did they incorporate the Standard Inventory Management Policies issued by the City Comptroller's Office.

As a result of not maintaining proper reorder points, we determined that there was over $529,000 worth of expired goods resulting in an approximate net loss of $365,000.

Additionally, lack of review and reconciliation procedures may allow for inaccurate year-end balances to be reported to the City Comptroller for inclusion in the annual financial statements.

Poor Physical Controls over Safeguarding of Inventory from Risk of Theft and/or Loss (Finding 07-3)

The following weaknesses were noted:

- Unescorted guests were allowed to access the warehouse.
- Cages and refrigerators containing valuable or restricted inventory were unlocked.
- Surveillance cameras were not monitored.
- A large hole in the ceiling of the warehouse caused water leakage.

These weaknesses could allow for items to be lost, stolen, or damaged, and subject unescorted visitors to injury, in turn creating a potential liability to the CDPH.

Lack of Fiscal Administration Section Oversight Caused Poor Tracking of Goods, Financial Records, and Refunds (Finding 07-4)

The fiscal administration section did not have complete and accurate financial records for the warehouse, nor did it track credit memos or checks from vendors issued to the warehouse. The fiscal administration section also had no role in review and reconciliation of inventory balances submitted to the City Comptroller by the warehouse Director of Administration.

The fact that the fiscal administration section did not have complete and accurate financial records for the warehouse, and did not track credit memos issued to the warehouse, could result in a loss of credits that should be utilized before payments are made to vendors. Additionally, this impacted audit testing since there was no assurance that purchase records were complete.

As stated previously, lack of review and reconciliation may allow for inaccurate year-end balances to be reported to the City Comptroller for inclusion in the annual financial statements.

Written Policies and Procedures Were Not Complete, Current, or Reflective of City Inventory Policies (Finding 07-5)

CDPH's written inventory policies and procedures regarding the warehouse had multiple deficiencies:

(a) Policies and procedures for the warehouse did not include all warehouse functions and were outdated.
(b) The warehouse did not comply with the Standard Inventory Management Policies issued by the City Comptroller's Office.
(c) There was no list of authorized approvers for clinic, the Westside CDC, or community-based organization order forms.

The warehouse policies and procedures were neither complete nor consistent with the City of Chicago inventory policies.

Incomplete and outdated policies and procedures may lead to the type of errors in tracking, recording and safeguarding of inventory that have been documented throughout this report.

Without a current list of authorized approvers, supplies may be shipped to a clinic, the Westside CDC, or community-based organization in error and thus may lead to theft or misuse of goods.

Inadequate and Underutilized Computerized Inventory System (Finding 07-6)

The computerized inventory system currently in use is an antiquated mainframe system implemented in 1981 with very limited capabilities and poor reporting and control mechanisms.

The mainframe system is deficient in a number of ways:

- Inventory records are unreliable and incomplete.
- Inventory balances cannot be monitored by management.
- Inventory adjustments, purchases, and shipments cannot be monitored except on an individual commodity basis.
- Inventory transactions by individual employees cannot be monitored.

Such deficiencies do not allow for CDPH to place reliance on the data recorded in the system, and therefore do not provide management with assurance that complete and accurate records are maintained.

No Written Contract with Vendor (Finding 07-7)

There was no written contract in place with the expired goods retrieval company, Guaranteed Returns ("GR"). This violates the Illinois Municipal Purchasing Act as well as City procurement rules and could cause the City to overpay and/or receive substandard service, allowing for waste and inefficiencies to occur.

Overall Recommendation and Conclusion

Due to the widespread internal control issues at the warehouse, it would be most beneficial for the CDPH to transition to a just-in-time direct ordering process. This process, if properly implemented, would ensure that proper reorder points are maintained and monitored, the supplies are tracked at each clinic, and that approvals are obtained before orders are processed.

However, should the CDPH decide not to implement a direct-order process, steps should be taken to improve policies and procedures, document handling, financial record tracking, review and reconciliation, physical security, computerized inventory systems, and contracting.

BACKGROUND

This section describes the purpose and organizational structure of the CDPH and the processes in place at the warehouse during our 2007 review period.

I. CDPH

The CDPH's mission, according to the City of Chicago website, is to improve Chicago residents' health by providing leadership on City-wide public health issues, emphasizing public health's role in public medicine, and extending the presence of public health to more communities.

The CDPH is organized into five major departments: Office of the Commissioner, Financial Management, Administration, Operations, and Epidemiology & Disease Control. For further details of these departments, see the organizational charts, attached as Exhibit A.

II. Fiscal Administration Section

The fiscal administration section falls under the Financial Management Department and reports directly to CDPH's Chief Financial Officer. The fiscal administration section consists of the Manager of Finance, one Administrative Assistant III, one Senior Database Analyst, six finance officers, one Director of Administrative Services, and eight clerks.

The fiscal administration section was not involved in any financial functions related to the warehouse with the exception of paying invoices. Rather, the warehouse staff themselves handled all bookkeeping functions (except paying invoices). For instance, the warehouse staff submitted the warehouse's year-end inventory balances directly to the City Comptroller's Office without prior review or approval from the fiscal administration section. Checks and credit memos received on behalf of the warehouse for rebates and expired goods were sent directly to the warehouse rather than to the fiscal administration section.

III. The Warehouse

The warehouse falls within the Operations Department of the CDPH. The warehouse, located at 1820 North Besly Court, Chicago, is used to store items that are distributed to CDPH clinics and community-based organizations. The items include pharmacy supplies, general and clinical supplies, dental supplies, vaccines, baby formula and condoms. CDPH officials said that the purpose of the warehouse was to allow the CDPH to save money through bulk ordering of certain drugs and medical supplies, and to save time by maintaining a readily-accessible cache of supplies.

A. Physical Space and Security

The warehouse is located at 1820 N. Besly Court in Chicago and is comprised of approximately 1,200 square feet of finished office space and 20,081 square feet of warehouse space. The lease for this space began in May 1997 and runs until May 31, 2009. Plans are currently in place to

move the inventory to a City-owned building located on Pershing Road by the lease expiration date.

Within the warehouse, there are approximately 16 cameras mounted to the walls that are maintained by the Department of General Services ("DGS"). There is an alarm system for building security that also monitors temperature settings in the refrigerators.

B. Items Stored at the Warehouse

The warehouse houses a wide variety of items ranging from prescription drugs to cotton balls to batteries. These items can be divided into seven categories[1]:

(1) *Vaccines*, including vaccines for tetanus and diphtheria (Td); influenza; measles, mumps & rubella (MMR); hepatitis A (HepA); hepatitis B (HepB); and pneumococcal. The vaccines are stored in refrigerators which remain unlocked at all times.

(2) *Pharmacy supplies*, including antibiotics (such as Bacitracin and Erythromycin) anesthetics (such as Lidocaine), cough and cold medicines (such as Sudafed and Robitussin), TB drugs (such as Pyrazineamide), and smoking-cessation items. All pharmacy supplies except the smoking-cessation items are kept in a cage that is unlocked and open during work hours.

(3) *Dental supplies*, such as pliers, saliva injectors, and mouth mirrors. They are kept on open shelving units.

(4) *Clinical supplies*, such as cotton balls, tongue depressors, specimen bags, exam gloves, bandages, and tourniquets. These supplies are kept on open shelving units.

(5) *General supplies*, such as envelopes, labels, cups, paper bags, money bags, and batteries. These supplies are also kept on open shelving units.

(6) *Condoms*. These supplies are kept on pallets in the aisles.

(7) *Baby formula*. These supplies are also kept on pallets in the aisles.

Although CDPH officials told IGO auditors at the November 26, 2007 entrance conference that the warehouse did not house any controlled substances, an unannounced DEA audit performed in early 2008 determined that the warehouse did in fact house controlled substances. This issue is discussed in Finding 07-1b.

[1] The warehouse also contains bioterrorism supplies, including syringes, medications, Ready-meals, and ventilators. The scope of the audit did not include the bioterrorism supplies at the warehouse because it was controlled by a different section within CDPH using different inventory management procedures. Additionally, these items are stored at multiple locations.

C. Warehouse Personnel

During the time of the audit, there were five full-time employees at the warehouse: one Director of Administration, one Administrative Assistant II ("AAII"), two Principal Storekeepers ("PS"), and one Stockhandler.

The Director of Administration, a licensed pharmacist, is responsible for managing the warehouse operations. In addition to managing the day-to-day operations of the warehouse, he performs other tasks such as ordering stock for the pharmacy supplies inventory, and assisting in filling the baby formula and condom orders. In 2007, the Director of Administration reported to the Deputy Commissioner/Chief Operations Officer. However, when this Deputy Commissioner left CDPH in January 2008, the reporting line changed so that the Director of Administration reported to the Director of Facilities Management, who in turn reported to the First Deputy Commissioner.

One PS handles all vaccine orders, and the other PS fills pharmacy supply orders. The AAII manages the operations for the general and clinical supplies and assists in filling the baby formula and condom orders. The Stockhandler ensures that filled orders are transported to the dock and loaded into the City motor pool vehicles for distribution to the clinics.

D. Warehouse Budget and Expenses

CDPH officials were unable to provide IGO auditors with the overall amount of money spent to maintain and operate the warehouse.

As to personnel costs, the 2007 cost of the salaries and benefits for the five CDPH employees who work at the warehouse was approximately $572,000.

As to the cost of the items that were received by the warehouse in 2007, there were approximately $2.1M worth of inventory purchased with city funds, $639,000 of vaccines and $257,000 of condoms purchased with federal grant funds, and $16,000 of donated baby formula. Thus, using these estimates, the total value of the items received by the warehouse in 2007 was approximately $3M.

As to other non-personnel costs, CDPH's lease payments in 2007 for the warehouse totaled $118,000, and utilities and repair/maintenance costs for the warehouse were estimated at $20,000. Other non-personnel costs related to the warehouse were not provided.

E. Warehouse Computerized Inventory Management System

Inventory is currently tracked using a mainframe computer system developed in 1981. Aside from basic system maintenance most recently performed in 2005, the only updating has been COBOL programming in 1999 to prevent Y2K issues. The system utilizes mainframe applications HL24 & HL99, and is physically located in Downers Grove under the outsourced support of ACXIOM (an outside vendor). The system programming languages include CICS, COBOL, and Mark4, and the file structure is VSAM.

F. Recipients of Warehouse Items

The main recipients of items from the warehouse are CDPH clinics, including:

- CDPH's 7 primary health care clinics (also called community health clinics);
- CDPH's 12 mental health clinics;
- CDPH's HIV/AIDS clinics (also called STD (sexually transmitted diseases) clinics); and
- CDPH's Women, Infant, and Children ("WIC") nutrition clinics.[2]

The clinics also order some supplies not carried by the warehouse directly from two outside vendors. However, they can also add items carried by the warehouse to their order for convenience purposes.

Outside of CDPH, there are 35 community-based organizations that receive condoms from the CDPH warehouse.

In addition, certain doctors have agreements with CDPH to provide immunizations to Chicago citizens as part of CDPH's Immunization Program. Those doctors are provided with the vaccines by CDPH; these vaccines sometimes come from the warehouse, as explained below.

G. Flow of Goods In and Out of the Warehouse

1. Warehouse Places Orders

The AAII orders clinical and general supplies for the warehouse. The Director of Administration orders the pharmacy supplies. To place the order, they fill out an "Expenditure Processing Form" (EPF) requesting the items needed. For the clinical and general supply orders, the AAII has the Director of Administration sign off on the form.

The EPF is then forwarded to the CDPH fiscal administration section for processing. The fiscal administration section enters the information into the system and prints out a "Blanket Release Form" which shows the purchase order number, items ordered, and commodity codes. The fiscal administration section forwards the Blanket Release Form to the vendor and sends a copy to the warehouse. When the vendor receives the form, the order is processed.

2. Vendor Delivers to the Warehouse

Once the goods are received at the warehouse, the AAII signs the driver's manifest and checks the packing slip and the bill of lading to confirm that all the items have been received. He fills out a "receiving report" and enters the information into the warehouse's mainframe computer system.

---

[2] CDPH management informed IGO auditors that in 2007, the primary health care clinics recorded 161,974 visits, the STD clinics had 14,972 visits, and the mental health clinics had 16,197 visits.

3. CDPH Pays the Vendor Invoice

When the warehouse receives the invoice from the vendor, the AAII attaches it to the "receiving packet" (the EPF, the blanket release form, the packing slip, and the receiving report) and gives it to the Director of Administration for approval. Once approved, the invoice along with a copy of the receiving report is forwarded to the fiscal administration section for payment. The fiscal administration section then pays the vendor.

4. Clinic Orders from the Warehouse

To request supplies from the warehouse, the clinics fill out order forms, also called "material requisition forms" ("MRF"), which are sent to the warehouse via fax or interoffice mail.

For pharmacy supplies, clinics use "Pharmacy Warehouse Material Requisition" forms. There are different types of forms which list different items depending on the particular CDPH program at issue (*e.g.*, mental health, STD/HIV, family planning, tuberculosis). If the order is for drugs and is from a clinic that focuses on STD/HIV, mental health, or maternal health, the order must be accompanied by a "usage rate" form. This form lists all the drugs and the names of the individuals that the drugs were administered to, in order to confirm that the clinic's original supply has been exhausted before the warehouse distributes more to that clinic. The warehouse's Director of Administration is in charge of ensuring that a usage rate form is included when required, and that it is completed appropriately.

For clinical supplies or general supplies, clinics use "Central Warehouse" order forms. There are different types of forms which list different items depending on the type of supplies being ordered. In addition, if clinical supplies are needed by clinics as part of the CDPH Immunization Program, they will use the "West Side Immunization" form.

For dental supplies, there is a dental supplies order form. There are no particular forms for ordering condoms, so clinics simply write out those requests and send them to the warehouse. Baby formula orders for clinics and WIC sites are made by one CDPH employee of the WIC Program who faxes or emails the warehouse and tells them how much baby formula to send to which site.

The system for ordering vaccines is a bit more complicated. Clinics and doctors who are part of or have arrangements with CDPH do not order their vaccines from the warehouse, but from CDPH's West Side Center for Disease Control ("the City CDC"). That facility is staffed by CDPH personnel (including the Vaccine Manager) and one federal official (a Federal Public Health Advisor from the federal CDC). When they receive and approve vaccine orders from clinics, they enter the information into the federal CDC's "VacMan" computer system. The VacMan system then electronically submits the information to a vendor to fill and distribute the vaccines directly to the clinics or doctors' offices. This vendor (which has a contract with the federal CDC) and the VacMan system are both outside the scope of this audit.

However, if a vaccine order form is received at the City CDC that is deemed an urgent situation (*e.g.*, the clinic is down to its last vial of a vaccine that is stored on-site at the warehouse), a City

CDC official will rewrite the order on another form (the "CDPH Vaccine Order" form) and fax it directly to the warehouse's PS to fill the order. In addition, the warehouse delivers vaccines directly to the City CDC for health fairs run by the CDPH.

5. Warehouse Fills the Orders

For all supplies except vaccines, the warehouse procedure for filling the order is essentially the same, although the warehouse employee in charge of filling the order changes depending on the type of items ordered. Pharmacy supply orders are filled by either the Director of Administration or a PS. Clinical supply or general supply orders are filled by the warehouse's AAII. Baby formula or condom orders are filled by either the AAII or the Director of Administration.

When these orders come in, the assigned employee reviews the order for completeness and approval, and manually assigns a requisition number to each order form. The employee then gathers the items and fills in the lot numbers and expiration dates on the order form. The employee makes a copy of the completed order form on either pink paper (for pharmacy supplies) or white paper (for clinical or general supplies) and attaches the order form (with the delivery address displayed) to the order.

Vaccine orders are filled by the PS. He pulls the vaccine vials from the vaccine refrigerators, places them in a brown paper bag along with literature for the specific vaccines, and places the bag back in the refrigerator. On the order form, he fills in the number of doses, the lot numbers, and the expiration dates. The next morning he puts the brown paper bag into a Styrofoam container with an ice pack to prepare it for delivery. He makes a copy of the completed order form on pink paper and attaches it to the container, with the delivery address displayed.

As to all of these filled orders, the warehouse employee places the order on the dock for the driver to pick up. The employee also writes the order information on a "daily route sheet".

6. Items are Picked Up from the Warehouse and Delivered to Clinics and Others

Deliveries to CDPH clinics are made by City motor pool drivers. They pick up the orders from the warehouse every morning and sign the "daily route sheet" to confirm their pick up. The drivers make their deliveries based on the information on the sheet, as filled in the day before by warehouse staff. The sheet lists the clinic location, the number of packages, the driver's name, and the route. The daily routes are divided into North, South, and Central. As the driver drops off the orders, the individuals at the clinics receiving the orders are supposed to sign the daily route sheet to confirm that they received the order. At day's end, the drivers return the daily route sheets to the warehouse.

As to all vaccines shipped out by the warehouse, the pink copy of the order form is supposed to be signed by the recipient and returned to the warehouse. As to vaccines for doctors who have arrangements with CDPH, a third-party vendor picks up the vaccines from the warehouse and delivers them to the doctors' offices. As to condoms for non-CDPH community organizations, the organizations pick them up directly from the warehouse.

7. Expired Goods

The CDPH works with GR, a vendor that picks up and disposes of expired medications. The vendor takes all the expired goods back to its warehouse and separates items by pharmaceutical company. It determines which items are returnable (based on pharmaceutical company and supplier requirements). The CDPH then receives credits or checks for a portion of the expired goods. Although there is no contract between CDPH and GR, the agreement between the warehouse and GR was that GR would receive an 8.4% commission on expired goods it picked up from the warehouse. This resulted in a commission for GR of $15,048 on $179,138 of returnable expired goods in 2007.

SCOPE, OBJECTIVES, AND PURPOSE

SCOPE & METHODOLOGY

The scope of the audit consisted of reviewing the inventory management procedures at the warehouse for the period of January 1, 2007 to December 31, 2007. Fieldwork was completed on February 26, 2008.

Audit steps included:

- interviewing CDPH management, warehouse staff and some clinic staff;
- interviewing 3rd party vendors that do business with the CDPH and warehouse;
- observing year-end inventory counting, ordering, and filling of clinic orders;
- documenting and testing manual and system controls in place; and
- analyzing the effectiveness and efficiency of inventory procedures through observation, review of documentation, and review of system inputs and outputs.

OBJECTIVES

The objectives of the audit were to:

- gain an understanding of the processes and functions of the warehouse;
- evaluate the policies and procedures that are applied to the warehouse regarding inventory management;
- assess the adequacy and effectiveness of internal controls related to issuing, recording, safeguarding, and valuing assets;
- test and evaluate activities performed to ensure effective and efficient operations and compliance with policies and procedures;
- identify inefficiencies, waste, loss and potential for misconduct.

PURPOSE

CDPH management is responsible for establishing and maintaining a system of internal controls to adequately safeguard the physical inventory as an integral part of the department's overall internal control structure. The objectives of such a system are to provide reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that all transactions are executed in accordance with management's authorization and are recorded properly. The purpose of this review is to assess whether the above-mentioned responsibilities and objectives were carried out in an effective and efficient manner, with minimal waste, loss, or misappropriation of assets.

Melanie Mui
Senior Auditor

Wendy Funk
Chief Auditor

David Grossman
Director of Investigations & Audit

David Hoffman
Inspector General

AUDIT FINDINGS AND RECOMMENDATIONS

A. Absence of Basic Inventory Procedures within the Warehouse

Our audit determined that the manner in which the warehouse personnel maintained the warehouse inventory was deficient in many respects. This included the following findings, as detailed below:

Finding

1. The failure to track valuable and important items in the computerized inventory system or any other meaningful tracking system, including:
   a. approximately $912,000 in vaccines and other items; and
   b. all controlled substances.
2. The failure to follow basic inventory procedures, including:
   a. the failure to maintain proper reorder points;
   b. the failure to follow basic inventory "best practices";
   c. the failure to perform any overall inventory reconciliation, and the failure to base the year-end inventory count on an actual count at the end of the year; and
   d. the failure to properly segregate duties, in that one or two warehouse employees controlled functions that should be performed by different employees to ensure integrity and reliability and to minimize the risk of errors and irregularities from going unnoticed in the normal course of business. These functions include keeping accurate records, ensuring custody over all physical assets, approving orders from and payments to vendors, and verifying the correctness and propriety of these orders and payments.
3. The failure to provide proper physical safeguards for the inventory at the warehouse.

As detailed below, these deficiencies resulted in a wide variety of harms and potential harms, including:

- A determination by DEA that CDPH violated federal law. (Finding 07-1b)
- The risk of theft or loss of $639,000 of vaccines, and the resulting risk of City liability if these vaccines had fallen into the wrong hands. (Finding 07-1a)
- The loss of $365,000 that the City may not have lost if proper reorder points were maintained. (Finding 07-2a)
- The warehouse's inability to account for 438 packs of birth control pills (each pack being one month's supply), with a value of $18,917 – meaning that they were stolen, lost, or misplaced. (The audit discovered these missing items through the testing protocol, not through a comprehensive review of all items. There is therefore no way to know whether other warehouse items were similarly unaccounted for, and if so, the scope of the problem.) (Finding 07-2b)
- The warehouse's inability to provide a correct inventory of dental supplies, including pliers, saliva injectors, and mouth mirrors. This means that there is no way to determine whether dental supplies were stolen, lost, or misplaced, and if so, the scope of the problem. (Finding 07-2b)

<u>Finding 07-1:</u> Failure to Track Vaccines, Controlled Substances, and Other Goods Received by the Warehouse

Finding 07-1a: Items Obtained through Federal Grants or State Donations

In 2007, the warehouse obtained goods worth at least $912,141 from federal grants and donations from the State ($639,150 of vaccines, $257,406 of condoms, and at least $15,585 of baby formula). This constituted approximately 31% of the total $3M of goods obtained by the warehouse in 2007.[3]

None of these goods were entered into or tracked in the warehouse inventory system. The warehouse inventory system therefore had no record of these goods. Although warehouse personnel kept informal inventory records on the side for the vaccines and condoms, these records were very limited and inadequate as detailed below. As a result, none of these goods were subjected to adequate safeguards to protect against theft or loss. In addition, none of these goods were submitted to the City Comptroller for inclusion in the financial statements, causing the financial statements to substantially understate the value of the items at the warehouse.[4]

As to the vaccines, the warehouse received approximately 92,000 doses of 18 types of vaccines in 2007, purchased through a federal grant. The warehouse's system for inventorying these vaccines consisted of a handwritten, manual inventory list kept by the PS. At the end of each month, the PS would manually count the quantity of each vaccine in the warehouse's refrigerators. He would then cross out the quantity listed on the sheet and write in the new quantity. However, the inventory sheet did not contain any record of the quantity of vaccines shipped by the warehouse to the clinics. There was therefore no way to know from the inventory sheet whether the change in the quantity of vaccines in the refrigerators from one month to the next was due to legitimate causes (shipments to clinics) or illegitimate causes (theft, loss). While the federal CDC maintained its own vaccine database (the VacMan system), the warehouse's shipments of vaccines to the clinics were not entered into the VacMan system. Thus, the quantity and type of vaccines shipped from the warehouse to the clinics were not entered into any inventory system.

As to the condoms, CDPH bought over 4.4 million condoms (4,487 cases with 1,000 condoms per case) in 2007 by using federal grants. The head of the warehouse kept an Excel spreadsheet showing the type and quantity of condoms that were sent to each clinic or community-based organization. However, the spreadsheet was never reviewed by anyone (for instance, to determine whether the quantities listed on the spreadsheet matched the inventory in the warehouse, or matched the records showing the actual shipments to the clinics and other sites). While a CDPH employee at the STD Program also maintained a spreadsheet of condoms

[3] Due to incomplete financial records we cannot be certain of the total inventory; this is the best estimate provided by the CDPH based on its data. The incompleteness of the financial records is discussed further in Finding 07-4.

[4] This does not suggest that the City's overall annual financial statements were materially misstated since the dollar amount at issue here is small enough in comparison to the City's total inventory.

delivered to the clinics and other sites, the warehouse did not compare the information on its spreadsheet with the information on the STD Program's spreadsheet.

As to the baby formula, the warehouse obtained about 21,000 cans of liquid baby formula (872 cases with 24 cans per case) and about 1,750 cans of powder baby formula (291 cases with 6 cans per case) through a donation by the State in 2007. While the "government contract" value of these cans was $15,585, the retail value was over $120,000. The warehouse supplied baby formula to the CDPH clinics and WIC sites as part of the WIC Program. The warehouse kept no inventory record at all of the baby formula, and kept no records of its shipments of baby formula to the clinics and sites. It therefore could not track how much it had shipped to the clinics, and which clinics should have received the baby formula. While a CDPH employee with the WIC Program maintained a spreadsheet that showed how much baby formula a clinic received, the warehouse never obtained or used this spreadsheet to check its inventory. Once notified that the shipment was made, the WIC employee would update her spreadsheet. In addition, midway through 2007, the warehouse stopped giving updates to the WIC Program employee and therefore stopped updating the spreadsheet for the remainder of the year.

Although the warehouse's computerized inventory system on the mainframe is antiquated, it does have some controls in place to prevent data from being manipulated, such as automatic date and time fields to demonstrate when the data was entered as well as the date of the activity. By failing to include over $912,000 of goods in this computerized inventory system, the warehouse failed to take advantage of the inventory tracking system that is already in place.

These documents used to track the vaccine and condom inventories were clearly inadequate. Among other things, these documents were not being reviewed by someone other than the individuals entering the data and were not used for reporting purposes. They added no value as they were not being used to actually track the items.

An inventory accounting system should have strong internal controls to ensure accuracy and completeness of financial records. It should 1) identify and record all valid transactions, 2) provide detailed and timely descriptions of transactions traceable to the source, 3) measure transactions to permit recording at proper values, 4) determine when transactions occurred, and 5) properly present transactions.

According to the *Statements on Auditing Standards (SAS 106)*, certain assertions need to be considered with inventory, such as existence and occurrence, rights and obligations, and valuation or allocation. If the inventory is owned by the department, whether obtained through City, State, or federal funding, or via donation, it should be included in the balance.

CDPH warehouse personnel stated that, because the formula is donated from the State, and the condoms and vaccines are paid for using federal dollars, they believed that such items were not required to be included in the inventory balance.

Not tracking the inventory related to these items in the mainframe, resulted in $912,000 of goods that went in and out of the warehouse without proper controls in place, leaving them subject to theft or loss. Without a proper tracking mechanism in place at the CDPH, we do not have

assurance that the $639,150 of vaccines sent to the warehouse, condoms worth over $250,000, and baby formula with a retail value over $120,000 were all sent to the appropriate locations to be distributed to the low-income recipients, as intended.

Given the type and quantity of these items, all of them are particularly susceptible to theft. For example, baby formula is quite expensive at the retail level, priced at $5 to $15 per container, and would therefore be a very attractive item to obtain for free (possibly for resale).

In addition, there are very significant health risks that could result from some of these items ending up in the hands of unauthorized people. This is obviously so with regard to the vaccines; if the vaccines are not administered by a professional, serious medical consequences, such as developing a weaker immune system, anaphylactic shock, and possibly death, may occur. Baby formula may also be misused if the child is not under a doctor's care, as different formulations exist depending on the needs of the baby. For example, there are formulations with or without additional iron, with or without soy or lactose, etc. If babies have allergies or specific needs, the wrong formula could be detrimental or even fatal. Therefore, it is important that the formula is provided to the low-income families with the proper oversight from the participating clinics and not obtained illegally off the street.

One of the financial issues that arose from failing to include these goods in the warehouse inventory system is that the City's year-end financial statements had an understated inventory balance for the warehouse. Using 2007 inventory count record of vaccines on hand at the warehouse along with the CDC's VacMan pricing records, the auditors determined that the CDPH understated its year-end inventory concerning vaccines by approximately $643,000. The total amount of inventory reported to the City Comptroller was $674,000. Therefore, we know that the year-end inventory figure was underreported by approximately 49% - and this does not even include the amount understated for condoms and formula. The understatement for the formula and condoms could not be quantified as they were not counted at year end.

Warehouse Year-End Inventory – 2007

Reported	$674K	51%
Not Reported - Vaccines	$643K	49%
Total Inventory (excluding unknowns not reported)	$1.3M	100%

Recommendation(s):

We recommend that all inventory that is in the possession of the CDPH be counted and included in the inventory balance reported to the City Comptroller, to ensure complete and accurate reporting and tracking of CDPH inventory. Additionally, the CFO should initiate procedures to have the fiscal administration section i) track financial activity by the warehouse, and ii) reconcile financial records maintained by the fiscal administration section with the physical inventory records obtained from the Director of Administration. The CFO should submit the year-end inventory records to the City Comptroller as the official CDPH inventory record after such reconciliation and review has occurred.

Finding 07-1b: Controlled Substances Led to Violation of DEA Regulations

During the period of the audit, the CDPH warehouse was registered with the DEA and the State of Illinois as a "Controlled Substance Distributor," which authorized the warehouse to handle controlled substances listed in DEA Schedules III, IIIN, IV, and V. At the IGO audit entrance conference with CDPH management on November 26, 2007, both the Deputy Commissioner and the Director of Administration stated that the CDPH did not have controlled substances at the warehouse. They indicated that the CDPH has a contract with CVS Pharmacy to dispense controlled substances to patients who are issued prescriptions at CDPH clinics.

However, the IGO later learned that during a subsequent DEA audit on April 4, 2008, the Director of Administration informed DEA investigators that controlled substances (Lorazepam and Diazepam)[5] had been purchased, received, and dispensed by the warehouse during 2007. The IGO determined that the Director of Administration ordered 1,600 5mg tablets of Diazepam in 2007 and in January of 2008 ordered 1,800 1mg tablets of Lorazepam. In December 2007 he ordered 3,500 syringes of Diazepam and told the auditors the order was for the Office of Emergency Management and Communications ("OEMC").

The registration held by the warehouse only allows for distribution. However, the DEA audit revealed that the Director of Administration actually dispensed the controlled substances in violation of the Controlled Substances Act, 21 C.F.R. § 1304.11. Dispensing a controlled substance in this situation, means that the Director of Administration (a licensed pharmacist) opened and prepared dosages of the drugs for specific patients. However, he was only authorized to forward or "distribute" packaged drugs to the clinics where medical personnel would then administer the proper dosages to the patient(s).

In addition, the DEA audit exposed that the CDPH failed to keep or maintain records concerning controlled substances, also violating the Controlled Substances Act. (See Title 21, Code of Federal Regulations (21 C.F.R.)). Specifically, the DEA found that the CDPH:

- failed to maintain a biennial inventory of controlled substances in violation of 21 C.F.R. § 1304.11(c);
- failed to maintain proper records of receipt of controlled substances in violation of 21 C.F.R. § 1304.22(b); and
- failed to maintain proper records of distribution of controlled substances in violation of 21 C.F.R. § 1304.22(b).

As a result of the DEA's finding, the Director of Administration voluntarily surrendered the CDPH DEA registration and signed DEA Form 104 (Surrender of Controlled Substances Privileges). Therefore, the CDPH cannot obtain any controlled substances unless it is able to get

[5] Diazepam is the generic version of Valium. It is used to treat anxiety, acute alcohol withdrawal, and seizures. It is also used to relieve muscle spasms and provide sedation prior to medical procedures. This drug can be habit forming. Lorazepam is the generic version of Ativan. It is used to treat anxiety. It may also be used to treat symptoms of alcohol withdrawal, or prevent nausea and vomiting due to chemotherapy, and for insomnia. This medication may cause dependence, and can be habit forming.

the registration re-instated. The DEA investigators also requested and observed the destruction of the Diazepam that was on hand on April 4, 2008.

Once notified of the DEA's findings, the IGO audit team performed a search to determine if the above-mentioned controlled substances were included in:

- the CDPH's inventory listing (both in-house and the year-end balances submitted to the City Comptroller's Office);
- material requisition forms used by clinics to order supplies from the warehouse; and
- data obtained from the Department of Innovation and Technology ("DoIT") which was extracted from the warehouse mainframe system.

The search disclosed that the controlled substances were not included in any of these lists. This demonstrates that the warehouse was not recording any activity related to the controlled substances at all. Not only is this a violation of DEA regulations, but it also suggests that either the Director of Administration intentionally omitted the controlled substances from the records, or he did not understand basic inventory control procedures and federal compliance requirements.

A further inquiry into whether these controlled substances were properly distributed and safeguarded is being conducted.

Recommendation(s):

We recommend that the warehouse no longer order or handle any controlled substances. There is no need for the warehouse to order, receive, or distribute these drugs. All prescriptions written by clinics can be filled at all CVS Pharmacy locations, including 24-hour stores. The CDPH's written policies should address the restriction on ordering controlled substances. Additionally, other City entities, such as the Police and Fire Departments, have current DEA registrations, and could obtain controlled substances in case of an emergency.

Department Response:

Vaccines are tracked in a federally provided automated system: Vacman. This system records vaccines ordered and received by the CDPH Immunization program. The program tracks those vaccines distributed to private physicians participating in the vaccine program. Vacman tracks vaccines shipped to the warehouse but not the final distribution point from the warehouse to the City clinics. The auditors noted that the distribution and receipt of those vaccines by City clinics is manually recorded and not entered into Vacman for reconciliation. Effective January 2009 there is no intention to have vaccines distributed from the warehouse. The vaccine program intends to have all vaccine shipped directly from the federal warehouse to the sites of use, concurrent with the federal initiative.

Bulk order condoms received by the warehouse are entered into the City mainframe. Distribution was monitored by the program manually. Effective January 1, 2009 all condoms

distributed will be entered into the mainframe and distribution locations will also be entered for reconciliation.

The State of Illinois ceased providing infant formula to all WIC providers midyear 2007. This formula was not tracked in the City mainframe. It is not anticipated that the State will renew this program.

The Department's Pharmacist did not comply with DEA regulations. The license was surrendered April 2008. The Department no longer maintains controlled substances. The Pharmacist in charge has retired. The warehouse pharmacy distribution license lapsed December 31, 2008, and the Department does not intend to reapply.

<u>Finding 07-2:</u> Failure to Follow Basic Inventory Procedures Caused a Loss of At Least $365,000, and Created an Increased Risk of Theft and/or Loss

Finding 07-2a: Proper Reorder Points Were Not Maintained

The CDPH works with a vendor, GR, that picks up and disposes of expired medications. The vendor takes all the expired goods back to its warehouse and separates items by pharmaceutical company. It determines which items are returnable (based on pharmaceutical company and supplier requirements). The CDPH then receives credits or checks for a portion of the expired goods that are returnable per the vendor's agreements with various manufacturers and providers of the drugs. The agreement with the vendor provided an 8.4% commission netted out of what the City would receive in credits or payments, which resulted in a commission paid to the vendor of $15,048 on $179,138 of returnable expired goods in 2007. (See credit memo and check issues in Finding 07-4 and contract issue in Finding 07-7).

After reviewing reports from GR, we determined that they picked up over $529,000 worth of expired goods at the warehouse during 2007. Although credits were received for the eligible portion of the expired goods ($179,138) through GR, this high amount of expired goods demonstrates both an insufficient analysis of appropriate reorder points and a failure to monitor expiration dates.

All inventory, with or without expiration dates, should be ordered in proper amounts and at proper times to avoid waste or loss. The "reorder point" is the inventory level at which it is appropriate to replenish stock in order to avoid over- or under-stocking of items. Generally, two factors that determine the appropriate reorder point are i) the "procurement or delivery time stock", which is the inventory needed during the lead time (i.e., the difference between the order date and the receipt of the inventory ordered), and ii) the "safety stock," which is the minimum level of inventory that is held as a protection against shortages.

The audit revealed that warehouse staff ordered drugs in quantities larger than what is normally used and needed for safety stock. In addition, warehouse staff did not establish proper reorder points or track expiration dates. The Director of Administration explained that some of the ordering issues were caused because some of the goods were sent back to the warehouse by clinics. However, that would still indicate an overall lack of monitoring and of tracking reorder points.

The expired goods resulted in a minimum $365,000 loss after netting out the credits received for the returnable goods and the commission paid to the vendor.

Recommendation(s):

We recommend that warehouse management establish proper reorder points and procedures to monitor expirations both at the warehouse and at clinics to ensure that the amount of expired goods is nominal. These processes should be included in the revised policies and procedures manual. (See recommendation in Finding 07-5).

Finding 07-2b: Inventory Procedures Did Not Follow Inventory Best Practices

The warehouse's inventory management procedures failed to follow standard inventory best practices in a variety of significant respects, including:

(a) Item expiration dates were not tracked.
(b) Inventory count sheets, catalog order forms, and material requisition forms were inconsistent. Items that were available were not included on all forms.
(c) Independent recounts were not performed during annual physical inventory.
(d) Item descriptions in the system, on the packaging, and on order forms were not consistent.
(e) Differently-packaged items (*e.g.*, by quantity per case, flavor) were counted the same, causing a discrepancy in the quantities included in the count and the system.
(f) Different items were stored together on the same pallets.
(g) Items were stored on shelves that are not labeled with a location code.
(h) Random warehouse layout caused disorganization.
(i) Dental supplies were unorganized and not properly tracked.
(j) Daily route sheets were often incomplete or modified.
(k) The filing of material requisition forms and purchase orders was unorganized. The filing system consisted of stacks of paper stored in bankers boxes with vertical sheets of paper dividing horizontal sheets of paper.

Inventory best practices and good internal controls require accurate and complete inventory counts; sufficient warehouse space and organization; and proper recordkeeping – including appropriate descriptions, accurate record of quantities on hand, and proper commodity codes; in order to ensure assets are properly safeguarded and not subject to waste or loss. The failures described in items (a) through (h) above would not have occurred if basic inventory best practices had been followed.

According to warehouse personnel, there was not enough manpower to perform continuous updates of forms, or independent counts, and there was not enough space for storage. They said that they did not use labeled pallet locations because the inventory system did not accommodate specific location codes. Additionally, warehouse personnel stated that an employee who previously handled the dental inventory decided to reorganize the dental supplies; in doing so, she ultimately deleted some items that were still available, failed to delete items that were no longer available, and changed commodity codes. These changes were not recorded in the system.

As to item (i) above, the 2007 year-end dental inventory reported as $46,192 was completely inaccurate. Items that were still available on the shelves were not included in the inventory count sheets, and vice versa. Certain commodity codes did not match their descriptions. We were unable to quantify the dental inventory misstatement as complete records were not available. Additionally, effective testing of dental inventory could not be performed by the IGO Senior Auditor ("SA") since most items were not recorded in inventory records. (See exception (r) in Appendix A).

Good business practices require documentation to be complete and accurate to ensure procedures run smoothly.

As to item (j) above, the audit uncovered numerous instances of incomplete and "modified" daily route sheets. The audit inventory testing summary at Appendix A (see exception (y)) shows that the Daily Route Sheet testing resulted in several exceptions, such as missing driver's name, missing signatures, modified quantities, and added locations. This error verifies that items being transported are not properly tracked to ensure documentation of receipt at the clinics. Additionally, these incomplete and inaccurate records made it impossible for the SA to assess the accuracy of delivery data.

One fundamental aspect of an effective inventory system is tracking when and where goods are delivered. Daily route sheets that are incomplete or modified could cause deliveries to be sent to the wrong location, may not provide intended proof of delivery of goods, and may result in goods being misappropriated.

This documentation issue may have been caused by the lack of proper policies and procedures or a lack of appropriate supervision leading to a misunderstanding of the importance of such documentation.

Finally, as to item (k) above, an accurate filing system is essential, especially where the computer system is outdated (see Finding 07-6). Unorganized filing causes pertinent documents to be misplaced or lost. During audit testing, proof of activities and transactions could not be found due to this lack of organization.

Problems Noted as a Result of Poor Inventory Procedures

Because of the poor inventory management procedures and lack of record maintenance noted in this Finding, as well as the lack of fiscal administration section participation noted in Finding 07-4, several exceptions were found during inventory audit testing procedures. (See Appendix A for a description of the testing procedures and a summary of the exceptions noted). The more notable exceptions include the following:

- *The documentation of expired goods provided by warehouse staff did not match the documentation provided by the vendor that picks up the expired goods.*

  The testing process involved randomly selecting 40 items and conducting certain audit tests regarding those items. One of the tests compared the "sheet count" (the warehouse's documents showing year-end inventory balance as of December 31, 2007) with the auditor's "floor count" (the actual count of the items in the warehouse on a subsequent date). In conducting this test, the auditor determined that for three of the items, there were unexplained discrepancies between the number of items that the warehouse said it gave to the expired-goods company, GR, and the number of items that GR said it received from the warehouse. (See exception (a) in Appendix A).

For instance, one of the items selected for testing was a type of birth control pill, which came in one-month supplies. A "sheet count" (the warehouse's documents showing year-end inventory balance as of December 31, 2007) showed that there were 2,209 packs of this type of birth control pill in the warehouse. The SA counted 634 packs on the floor on January 15, 2008. Thus, the discrepancy was 1,575 packs. This discrepancy could be explained if the warehouse had shipped out this number of packs between January 1 and 15. The SA asked the warehouse staff to explain the discrepancy.

The PS provided the SA with proper material requisition forms to confirm that 105 packs had been shipped to clinics during the January 1 – 15 time period. As documentation regarding the remaining packs, he gave the SA a handwritten document dated January 24, 2008, which stated that 1,470 packs were expired and had therefore been given to GR for disposal. These figures fit exactly with the total discrepancy of 1,575 packs the SA had found. As to the records he provided for the 105 packs, the SA confirmed that warehouse records indicated that 105 packs had been shipped to clinics. However, as to the document he provided for the 1,470 packs, no other backup documentation was provided to show the basis for the statement that 1,470 packs had been given to GR.

In inquiring further into this issue, the SA obtained reports from GR on January 31, 2008 that showed their most recent expired-goods pickups from the warehouse. Their most recent pickup was January 5, 2008, and the prior pick up was two months earlier. The report of the January 5 pickup showed that the warehouse had only given 1,032 birth control packs to GR. GR employees explained that at the time they pick up items from the warehouse, they input into their laptops the type and quantity of items being picked up. This information is placed into GR's computer system that same day.

In contrast, the warehouse had no documentation from January 5 to show what items had been given to GR on January 5. The handwritten information provided to the SA on January 24 (showing that 1,470 packs had been given to GR) was not reflected in the warehouse mainframe system on January 15 when the SA conducted her count. This information was inputted into the mainframe system after January 24, which was well after the SA had asked the warehouse staff for documentation to explain the discrepancy.

The discrepancy between GR's contemporaneous records and the warehouse's handwritten document was 438 packs. Each pack had a retail value of $43.19, so the overall value of the missing birth control pills was $18,917.

This situation shows that warehouse management had no procedures to determine either i) what happened to the missing items, or ii) whether they received proper credit/refunds for the expired goods. And it shows the serious risk in failing to have such procedures.

- *Some discrepancies could not be explained by any of the warehouse's documentation.*

  When the SA compared the "sheet count" to the "floor count" for 40 items, she found 4 items with unexplained discrepancies. When she reversed the test and compared the

"floor count" to the "sheet count" for 40 additional, she found 5 additional items with unexplained discrepancies. (See exception (l) in Appendix A).

For instance, discrepancies could not be explained for items ranging from serious pharmacy items such as the "Novopen" diabetes injection pen, "diascreen" strips (used for diabetes tests), and birth control pills (different from the expired-goods discrepancy described above), to general items such as wall containers for used needles, 9x12 envelopes, computer ribbons, and Kleenex boxes.

There is no explanation for their absence. This error indicates that items may be misplaced, lost, or stolen – perhaps from the warehouse itself, perhaps during the process of transporting items to clinics. Warehouse management has no review or follow up process in place to determine what happened to the missing items.

For two additional items where discrepancies were found, the warehouse staff provided documentation in an attempt to explain the difference – but that documentation showed more items being shipped out than were needed to explain the discrepancy. (See exception (p) in Appendix A).

Specifically, warehouse documentation could not explain eight boxes of missing "micral urine strips" (for testing urine), for which the warehouse paid $105 each, or 40 missing boxes of "drape sheets" with a total retail value of $1,000.

These errors show there is not proper review and reconciliation of year-end physical inventory. Based on the situation, it indicates that the inventory count was overstating the actual amount on hand.

- A warehouse employee was not able to provide material requisitions to validate the differences noted during the dental inventory count and reconciliations. This made it impossible to determine what dental items were removed from the warehouse, and if they were removed legitimately, which clinics they were delivered to. Because of this problem, the SA was unable to validate or quantify whether items were under- or overstated for the dental inventory. This deficiency means that items may have been stolen, lost, or misplaced without being noticed by staff or management. (See exception (r) in Appendix A).

Recommendation(s):

We recommend that warehouse management strengthen inventory processes and train employees to ensure: 1) physical counts are performed accurately; 2) a location coding system is implemented; and 3) documentation is kept current.

We also recommend that dental inventory be counted and recorded in the inventory system to ensure proper tracking and accurate reporting of balances, and that the same strengthened procedures implemented for the rest of the inventory be applied to dental inventory.

We recommend that in the process of addressing Finding 07-5, regarding written policies and procedures, CDPH warehouse management and staff should address the issues noted above.

Finding 07-2c: Inventory Reconciliation Was Not Performed

The warehouse's inventory reconciliation procedures had the following problems:

(a) No overall reconciliation of inventory occurred.
(b) Adjustments to the mainframe were processed by individuals without oversight, investigation, or review by management.
(c) Inventory counts were conducted during the last week of November and the first two weeks of December but year-end balances were not updated from the day of the actual count to December 31, 2007.

Standard inventory control practices require that the organization reconcile its inventory balance and review adjustments in order to ensure accuracy of balances recorded and to prevent waste or loss of inventory. A process should occur whereby both warehouse personnel and fiscal administration section personnel separately reconcile beginning balance, items in, items shipped out, expired goods, and other adjustments to come to an ending balance. The purpose of reconciliation is to resolve any discrepancies noted during the inventory count process, to determine their cause, and adjust the records accordingly. The purpose of both the warehouse and the fiscal staff independently reconciling the balance is to ensure that an independent outside party (the fiscal administration section) confirms that the inventory activity and balances are proper and that accurate figures are reported to the City Comptroller's Office.

According to warehouse personnel, there was not enough manpower to perform reconciliations, update year-end inventory numbers, or to review adjustments.

If adjustments are made without oversight, review, or investigation, there is potential for theft or errors to occur and go unnoticed. Year-end inventory balances submitted to the City Comptroller's Office may not be accurate if reconciliations are not performed and if transactions occurring between the count date and year-end are not taken into consideration.

Recommendation(s):

We recommend that independent reconciliation of inventory records and review of discrepancies be performed during the annual inventory process.

If there are any discrepancies noted when performing a physical count, reconciliation must be performed before adjustments are made to the system. Additionally, a process of review and approval should be put in place for any adjustments entered into the system at any point in time.

When shipments are made or received after the count but prior to December 31, the year-end inventory balance must be updated so as to accurately report the year-end balance to the City Comptroller. Additionally, we recommend that physical inventory counts be performed as close

to year-end as possible, preferably when the warehouse is closed to limit the amount of adjustments required.

Finally, while *quantities* should be counted and reconciled by warehouse staff, *dollar values* of items should be reviewed and reconciled by the fiscal administration section staff. The two reconciliations should agree prior to submission to the City Comptroller.

Finding 07-2d: Failure to Properly Segregate Duties

Warehouse personnel performed incompatible duties and failed to properly segregate duties. Specifically:

(a) As to the general and clinical supplies, one warehouse employee (the AAII) controlled the ordering of the items, the receiving of the items, the distribution of the items to the clinics, and the posting of the inventory activity to the mainframe.
(b) As to the pharmacy supplies, one warehouse employee (the Director of Administration) controlled the ordering of the items without another level of approval or review, and also controlled the distribution of the items at times.

Segregation of duties is a fundamental and critical internal control. Standard internal control measures require that four general categories of functions be separated in order to ensure that errors or irregularities are prevented or detected on a timely basis by employees in the normal course of business:

(1) Authorization – the process of reviewing and approving transactions or operations. Examples include:
   - approving purchase requisitions (orders), which should have been prepared by a different individual; and
   - approving adjustments to inventory records.

(2) Record Keeping – the process of creating and maintaining records of revenues, expenditures, and inventories. These may be manual records or records maintained in automated computer systems. Examples include:
   - posting requisitions to the mainframe; and
   - maintaining organized and complete records, such as purchase orders, material requisitions and receiving reports.

(3) Custody – having access to or control over any physical asset such as cash, checks, equipment, supplies, or materials. Examples include:
   - receiving and distributing goods; and
   - maintaining inventories.

(4) Reconciliation – verifying the processing or recording of transactions to ensure that all transactions are valid, properly authorized and properly recorded on a timely basis. Examples include:
   - performing physical inventory counts and company to system records;

- investigating any differences or discrepancies identified, and
- comparing inventory changes to amounts purchased and distributed.

Each of these functions should be performed by different individuals. If that is simply not possible, then at the least no one person should handle more than two of the functions. And even in that case, additional mitigating controls, as described in the recommendation, should be put in place within each function.

Responsibilities of the warehouse staff were delegated so that one person handled the majority of these functions, in a way that was incompatible with proper internal control measures.

For the general and clinical supplies, the AAII handled the ordering of the items (function 1), the receiving of the items (function 3), the distribution of the items (function 3), and the posting of the inventory activity to the mainframe system (function 2). Within function 1, there was one mitigating control in place as the ordering of items had to be approved by the Director of Administration. However, the fact that the AAII had complete control of two different functions and partial control of one function is incompatible with proper internal controls regarding segregation of duties.

For the pharmacy supplies, a PS posted inventory activity to the mainframe (function 2) and usually distributed the items to the sites (function 3). The Director of Administration ordered items without any other approval (function 1) and received the items (function 3). The Director of Administration sometimes distributed the items as well (function 3) instead of or in the absence of the PS. Thus, both the PS and the Director of Administration controlled two different functions, which is inconsistent with proper internal controls.

Finally, for vaccines, a PS handled the receiving of the items and the distribution of the items (function 3). Although these duties both fall within function 3, no one in the warehouse was keeping any records of the vaccines coming in to or going out from the warehouse (function 2), and no one at the warehouse was performing any inventory reconciliation (function 4). As a result, the problem with the segregation of duties for the vaccines was not that one person was performing incompatible duties but that no one was performing certain key duties. Since the only duties being performed as to the vaccines were being performed by one employee, that one employee effectively controlled all the duties being performed with regard to the vaccines. This means that there were no controls at the warehouse regarding the activities of the PS regarding the vaccines.

In sum, the way the CDPH assigned warehouse functions means that there was very limited segregation of duties. Failure to segregate duties allows the inventory to be more susceptible to theft because one person is controlling all or most of the process.

Recommendation(s):

We recommend the warehouse reassign duties so that no one individual handles incompatible functions. In instances where duties cannot be fully segregated, mitigating or compensating controls (additional procedures designed to reduce the risk or errors or irregularities) should be

established, such as review and approval of non-segregated functions by a different individual. For example, if one person receives a shipment of goods and posts it to the system, another individual should review the shipping documentation and verify that it was properly posted.

Department Response:

Inventory remaining at the warehouse will be managed in the City's mainframe system. Reconciliation will be completed routinely, reviewed by the First Deputy Commissioner and signed by the Commissioner. Medication expiration dates will be tracked by the Public Health Emergency Response personnel in a manual system until their customized system is acquired.

Daily route sheets are now reviewed by the Foreman of the Motor Pool for variances. A policy and procedure is in place and monitored by the Foreman. Route sheets will be maintained by the Foreman for one year.

<u>Finding 07-3:</u> Poor Physical Controls over Safeguarding of Inventory from Risk of Theft and/or Loss

The warehouse failed to provide proper physical safeguards for its assets. Specifically:

- Unescorted guests were allowed to access the warehouse.
- Cages and refrigerators containing valuable or restricted inventory were unlocked.
- Surveillance cameras were not monitored.
- A large hole in the ceiling of the warehouse caused water leakage.

A warehouse should provide adequate safeguards over access to assets and records, such as secured facilities, authorization for access to the premises, and the proper storing of assets to protect them from damage.

According to warehouse personnel, due to the lack of manpower, guests were not escorted through the warehouse. The SA also observed non-warehouse CDPH personnel packing up their own supplies.

There is a great potential for theft when unescorted guests are allowed to walk freely throughout the warehouse, especially when refrigerators and cages remain unlocked. Additionally, unescorted guests could be injured should they get in the way of forklifts in operation or other warehouse activities. This would leave the CDPH vulnerable to lawsuits for damages.

The pharmacy cage houses supplies such as birth control pills and other medicines for STD and TB patients, while the refrigerators contain vaccines. The pharmacy cage remains unlocked during business hours and the refrigerators are never locked. Warehouse personnel stated that the pharmacy cage and refrigerators remain unlocked as there is no concern of theft due to the cameras throughout the warehouse. However, according to DGS, which maintains the cameras, they are not monitored and the recorded footage is available for only 30 days. Due to the widespread internal control issues at the warehouse, it would be unlikely one would notice if a theft occurred within a 30-day timeframe. The lack of physical security was further exemplified when the SA walked out of the warehouse carrying an empty box, and she was not questioned by staff as to whether or not CDPH property was being transported in the box.

The hole in the ceiling was caused when a work crew replacing the billboard above the warehouse dropped a metal pillar. This occurred in early January 2008. The ceiling remained in disrepair until at least March 14, 2008 when the SA last discussed the issue with warehouse personnel. According to Section 4.3 of the lease, the Landlord shall "keep the premises in a condition of thorough repair and good order." "If Landlord shall refuse or neglect to make needed repairs within ten (10) days after mailing of written notice thereof sent by Tenant, unless such repair cannot be remedied within ten (10) days, and Landlord shall have commenced and is diligently pursuing all necessary action to remedy such repair, Tenant is authorized to make such repairs and to deduct the cost thereof from rents accruing under this lease or Tenant can immediately terminate this lease by providing the Landlord with written notice of termination for cause sent by certified or registered mail to the address cited herein."

The large hole in the ceiling caused leakage throughout the warehouse which could have harmed personnel, and damaged the inventory or equipment.

Recommendation(s):

We recommend that guests always be escorted while on the premises of the warehouse.

The cages and refrigerators should remain locked at all times unless in use.

Periodic review of the security camera digital footage should be performed by the DGS or CDPH management to maximize theft discovery and deterrence.

When property damage occurs, especially damage that threatens the integrity of the inventory, CDPH management should inform the landlord in a timely fashion to ensure that the landlord fixes the damage promptly pursuant to the terms of the lease.

Department Response:

The facility will remain locked. Access is controlled by key and electronic alarm code; the latter creates a paper trail at the monitoring center at the Department of General Services. The building has no history of any loss due to roof leaks; any leaks or building maintenance has been quickly resolved by the owner.

B. Poor Oversight by CDPH Management

While the first set of findings related to the actions of warehouse personnel at the warehouse, this second set of findings relates to the actions of CDPH management who did not work at the warehouse. In this area, our audit also found substantial problems that contributed to the widespread deficiencies in the pharmacy warehouse inventory system. This included the following findings, as detailed below:

Finding

4. The complete absence of participation or involvement by the CDPH fiscal administration section or the CFO in the financial affairs of the warehouse, other than paying invoices;
5. The failure to provide appropriate policies and procedures that are supposed to dictate how the warehouse operates;
6. The failure to provide an adequate, usable computer database system; and
7. The failure to comply with state and City rules requiring contracts with City vendors.

As detailed below, these deficiencies resulted in a wide variety of harms and potential harms, including:

- The potential loss of over $179,000 in credit memos/checks sent directly to the warehouse by the expired-goods vendor, as the fiscal administration section could not determine whether those checks were actually deposited into the City's bank account or if credit memos were properly applied to future purchases. (Finding 07-4.)
- The inability to provide any reliable calculation of the amount of goods purchased by, or stored at, the warehouse. (Finding 07-6.)
- There is not a written contract in place with the expired goods retrieval company which may lead the City to potentially overpay and/or receive substandard service. (Finding 07-7.)

<u>Finding 07-4:</u> Lack of Fiscal Administration Section Oversight Caused Poor Tracking of Goods, Financial Records, and Refunds

In reviewing CDPH's oversight of the warehouse's financial activities, as well as CDPH's fiscal processes related to the warehouse inventory records, we found the following problems:

(a) The CDPH CFO could not provide a complete and accurate list of purchase orders submitted by the warehouse when requested for audit testing. This impacted testing as there was not a complete population available to select samples from, and therefore we could not ensure that every item in the population had a chance to be randomly selected. Consequently, the SA was forced to make the selections from purchase order files at the warehouse. Testing in this manner gives less assurance that all purchase orders have an equal chance to be selected for testing and that all have been accounted for by the CDPH.

(b) The fiscal administration section did not have a process in place to monitor credit memos received on behalf of the warehouse. Therefore, there is no assurance that credits received for expired or returned goods are used to offset expenditures. Additionally, credit memo information was usually sent to the Director of Administration at the warehouse rather than directly to the CDPH fiscal administration or revenue sections for review.

(c) Checks from outside vendors were sent directly to the Director of Administration at the warehouse before being forwarded to the fiscal administration section for deposit.

(d) Year-end inventory balances were submitted directly to the City Comptroller's Office by the Director of Administration without any other review or approval. These balances were not submitted to the fiscal administration section for their review and reconciliation. (See Findings 07-1a and 07-2c).

The above conditions exist because the fiscal administration section did not take part in warehouse financial recordkeeping. Rather, its function with regard to the warehouse was mainly to process payments for purchases. Additionally, the CFO stated that the system in place did not allow them to track fiscal data directly related to the warehouse operations with any assurance that it was complete or accurate.

CDPH management further explained that a former employee who controlled the credit memos received on behalf of the CDPH, including the warehouse, left her position and did not inform any of the remaining staff about the credit memos. CDPH personnel could not explain how credit memos were being handled after her departure.

The fact that the fiscal administration section did not have complete and accurate financial records for the warehouse, and did not track credit memos issued to the warehouse, can result in a loss of credits that should be utilized before payments are made to vendors.

Checks and credit memos were sent directly to the warehouse and were then supposed to be sent to the fiscal administration section. However, no one at the fiscal administration section was aware of what checks were sent to the warehouse. Therefore, there can be no assurance that all deposits that should have been made, were made. In fact, the fiscal administration section was not able to provide a total deposits amount.

The accounting system should have strong internal controls to ensure accuracy and completeness of financial records. It should 1) identify and record all valid transactions, 2) provide detailed and timely descriptions of transactions traceable to the source, 3) measure transactions to permit recording at proper values, 4) determine when transactions occurred, and 5) properly present transactions.

Recommendation(s):

We recommend the CFO immediately initiate procedures to have the fiscal administration section track the financial activity of the warehouse. The CFO should be able to provide a complete and accurate list of all CDPH financial transactions, such as payments made on the department's behalf, deposits, and credits.

Any financial reports sent to the City Comptroller should be reviewed and reconciled by the fiscal administration section, prior to submission.

In order to trace past credit memos and checks, we recommend that the fiscal administration section contact all vendors and request a list of all checks or credits issued to the CDPH in 2007 and 2008, and then determine whether they accounted for these in their books and records. The department should follow up on any missing checks to determine who cashed the checks and when they were cashed. If they went un-cashed, the CDPH should request re-issuance from the vendors. Any suspicion of wrongdoing or misappropriation of checks should be reported immediately to the Inspector General's Office. Credit memos should also be traced to ensure proper credit was received, and if any credit memos were not redeemed, they should be used to offset expenditures as soon as is practical.

Additionally, all CDPH vendors should be notified that in the future, all checks and credit memos must be sent directly to the fiscal administration section of the CDPH.

A process should be put in place by the fiscal administration section to ensure that all credits received are monitored and used to offset expenditures.

Finally, as a part of future processes, the warehouse Director of Administration or his staff should conduct any reviews necessary to ensure appropriate amounts are received by comparing records with copies of checks (rather than originals) and associated reports received from vendors.

Department Response:

Product ordering for medication and medical supplies is now completed in a web-based online ordering system. Authorized users are the only ones with access to the ordering system. Product receipt is signed for at the receiving location by one other than the person ordering, typically the stock handler. Onsite reconciliation of supplies will be completed typically by the nursing supervisor. Packing slips are forwarded to Fiscal for reconciliation with the respective order and invoice.

All vendors have been notified in writing to submit invoices and credit memos to the Department's Fiscal unit and never to the receiving location.

<u>Finding 07-5:</u> Written Policies and Procedures Were Not Complete, Current, or Reflective of City Inventory Policies

CDPH's written inventory policies and procedures regarding the warehouse had multiple deficiencies:

(a) Policies and procedures for the warehouse did not include all warehouse functions and were outdated.
(b) The warehouse did not comply with the Standard Inventory Management Policies issued by the City Comptroller's Office. (See Exhibit B attached).
(c) There was no list of authorized approvers for clinic, the Westside CDC, or community-based organization order forms.

Appropriate and documented policies and procedures are essential to ensure consistent and effective operation in any organization. Employees may not be able to properly carry out their job duties without these standard guidelines. In addition, comprehensive documented policies and procedures are vital to ensure a smooth transition in the event of employee turnover.

The warehouse policies and procedures were neither complete nor consistent with the City of Chicago inventory policies.

The four-page warehouse policy and procedure manual (see Exhibit C, attached) had not been updated since May 2002, and did not include all functions of the warehouse. Furthermore, the warehouse was non-compliant with City guidelines because it did not follow the Standard Inventory Management Policies issued by the City Comptroller's Office in November 2004 (see Exhibit B, attached), and had not informed the Comptroller's Office of its failure to implement these policies.

In fact, warehouse personnel did not have a copy of the Comptroller's Standard Inventory Management Policies; they also stated that there was not enough manpower at the warehouse to comply with those policies.

Incomplete and outdated policies and procedures may lead to the type of errors in tracking, recording and safeguarding of inventory that have been documented throughout this report.

The warehouse received material requisition forms from the various clinics, the Westside CDC and community-based organizations, but there was no list of authorized approvers for these forms. Warehouse staff stated they did not need a list of authorized approvers because only the clinic administrators were authorized approvers of material requisition forms. However, audit interviews determined that the actual practice by the clinics is different. Specifically, during interviews of personnel at four randomly selected clinics, the Administrators or Administrative Assistants stated that there were several other people who are authorized to approve material requisition forms from their clinics.

Without a current list of authorized approvers, supplies may be shipped to a clinic, the Westside CDC, or community-based organization in error and thus may lead to theft or misuse of goods.

Recommendation(s):

We recommend that the document describing the current policies and procedures be reviewed and updated to i) include improved processes that address proper inventory controls as discussed in this report, and ii) incorporate all City Standard Inventory Management Policies issued by the City Comptroller's Office, as appropriate.

A list of authorized approvers' signatures for each clinic or ordering location should be prepared and maintained by CDPH personnel other than the warehouse staff. Then the signatures on the MRFs should be verified by the warehouse staff against the approved list before any shipments are sent from the warehouse.

Department Response:

The City of Chicago Standardized Inventory Management Policies will be used as a framework for completion of the Departmental implementation of these policies to our particular circumstances, including:

1. Long term storage of emergency preparedness material;
2. Any stored items, such as traveling exhibits that enter/exit the warehouse approximately four times a year;
3. The exhaustion of existing routine medical supplies and the management of any remaining supplies, such as bulk condom orders; and,
4. Departmental online ordering, receiving and reconciliation of just in time pharmaceutical and medical supplies by each authorized clinic location.

These policies will be part of the respective managers' responsibility and incorporated into their performance evaluation.

Finding 07-6: Inadequate and Underutilized Computerized Inventory System

The computerized inventory system currently in use is an antiquated mainframe system implemented in 1981 with very limited capabilities (which in themselves are not being utilized) and poor reporting and control mechanisms. The warehouse currently has two users with full access to read and write to the system. The Director of Administration cannot currently access the system because the DoIT cannot provide him with "view only" access.

The mainframe system, as utilized, has numerous weaknesses, including:

(a) The system has limited capabilities, including:
  - items must be searched one at a time by commodity code; and
  - transactions by employee are not available.

(b) Reliability of system data cannot be confirmed. The data received from the DoIT showed an inventory balance in the system of approximately $150,000 more than the figures provided by the warehouse physical inventory count at 2007 year-end.

(c) The Director of Administration does not have access to the mainframe, and cannot review any data without asking one of his employees to look it up.

(d) Changes can be made to the mainframe without any review and/or approval.

(e) Several reports can be generated by the DoIT but are not utilized by warehouse personnel.

(f) No reports exist to provide a trail of transactions entered into the system.

Based on system records received from the DoIT, the system data did not agree with the inventory on hand, per manual counts. Since the system cannot generate full reports, the CDPH cannot use the system data to compare with physical inventory. Thus, the system is useless for comprehensive reconciliation purposes. We also noted that system records of purchases made during the year totaled $1.3M, but the estimate provided by the CDPH fiscal administration section totaled $2.1M. There was no way to verify which figure, if either, was correct. As stated in Finding 07-1a, the total estimated inventory obtained during 2007 was $3M.

A reliable system for tracking and recording inventory is integral to ensuring the accuracy and completeness of inventory records. The ability for management to review activity is imperative in order to ensure proper monitoring can occur.

The mainframe system was developed in 1981 and does not include the control and reporting features of modern inventory systems. According to the Deputy Commissioner, the department has been looking into inventory system applications such as Velocity and DataStream and plans to implement a new system in the near future.

The mainframe system is deficient in a number of ways:

- Inventory records are unreliable and incomplete.
- Inventory balances cannot be monitored by management.
- Inventory adjustments, purchases, and shipments cannot be monitored except on an individual commodity basis.

- Inventory transactions by individual employees cannot be monitored.

A lack of approval or review over employee adjustments and other entries in the system could allow errors or irregularities to go unnoticed, resulting in loss of goods.

Recommendation(s):

We recommend that the CDPH continue its plan to implement a new system in the near future.

It is imperative that the implementation process include assessment of system requirements, inclusion of good internal controls, determination of useful management reports, and complete audit trails to track activity by user. Additionally the system should allow for "view only" capability for those users who do not input data.

All users should be trained on proper use of the system before the system is implemented.

Department Response:

There is no known plan to upgrade/replace the City's mainframe inventory software. The Department's Public Health Emergency Response team will secure their own software to manage the inventory of product necessary under Homeland Security guidance. The City's mainframe will be utilized for any continuing inventory by the Department, such as bulk order condoms.

Finding 07–7: No Written Contract with Vendor

There is no written contract in place with the expired goods retrieval company, GR. (Also see Finding 07-2).

The *Illinois Municipal Purchasing Act (65 ILCS 5, § 8-10-3)* provides that purchase orders or contracts in excess of the threshold amount ($10,000) be let by free and open competitive bidding after advertisement and those less than the threshold amount be let in the same manner when practicable or after solicitation of bids by mail, telephone or otherwise when not practicable. City Ordinance subsequently changed the threshold to $100,000.

The Director of Facilities Management and the Director of Administration had no explanation as to why the there was no contract in place.

In addition to violating City procurement rules, the lack of a written contract with a vendor could cause the City to overpay and/or receive substandard service, allowing for waste and inefficiencies to occur.

Recommendation:

We recommend that the CDPH work with the Department of Procurement Services to initiate a competitive bidding process in order to obtain a contract with an expired-goods-retrieval company, as well as contracts for any other services that CDPH currently uses that should be under contract.

Department Response:

The Department purchases medications via the Minnesota Multi-State Contracting Alliance for Pharmacy (MMCAP, contract MMS220867). Under this Alliance, the Department can also take advantage of the vendor Guaranteed Returns, a licensed vendor who can accept expired medications for disposal and frequently obtain some remuneration from the pharmaceutical manufacturers. CDPH has requested assistance from the Office of Procurement to include Guaranteed Returns as a city vendor.

IGO Response to Department Response:

The contract mentioned in the Department Response above was not obtained until August 31, 2008, which was after the IGO auditors met with the Department to inform them of the lack of contract.

ADDITIONAL ISSUE NOTED

While the warehouse's bioterrorism (BT)/emergency preparedness inventory was beyond the scope of this audit, we would be remiss, in light of the serious findings of this audit, if we did not note that this inventory is not reported to the City Comptroller's Office for inclusion in the annual financial statements. The CDPH told us that as of December 31, 2007, they have $3,715,747 of emergency preparedness inventory stored at five different locations around the City and surrounding suburbs.

OVERALL RECOMMENDATION AND CONCLUSION

This audit uncovered significant and widespread internal control problems at the CDPH pharmacy warehouse, as explained in detail in the preceding findings. The findings indicate that the CDPH cannot properly account for warehouse inventory, and cannot provide assurance that assets are properly safeguarded against theft or loss. The audit showed that as a result of these problems, substantial City funds were wasted, some goods remain unaccounted for, information reported to the City Comptroller was inaccurate, and federal controlled-substances regulations were violated.

The findings contain a wide variety of recommendations that, if implemented, would make it much less likely that these problems would occur at the warehouse in the future. However, in light of how significant and widespread the problems at the warehouse were, and the fact that the CDPH already allows clinics to order supplies directly from outside vendors, we recommend that the CDPH end its practice of operating a central pharmacy warehouse and instead convert to a system of having each clinic order its own supplies directly, on a "just-in-time" basis (meaning that it would not need to stockpile large quantities of items).

The CDPH already has contracts in place with two vendors for various drugs and other goods used at clinics. When the warehouse orders items, it does so from these two vendors. The CDPH also allows clinics to order directly from these vendors, and some clinics already do so. The clinics' direct orders with vendors are generally supposed to be limited to those items that the warehouse does not stock, but information obtained during the audit shows that clinics sometimes order other items from the vendors, even if the warehouse stocks them. Thus, there is already an established process of direct-ordering by the clinics from these vendors.

The leading potential benefits of having a central warehouse system – cost discounts from bulk ordering and efficiencies regarding delivery times and costs – do not appear to be present in this situation. Per discussion with the Director of Administration, the price per unit does not improve whether the CDPH buys items in small quantities or large quantities. In addition, the vendors can generally have goods sent to clinics within one to two business days of receiving the order, which is about the same time it takes for the warehouse to deliver items to the clinics once it receives an order. Our research confirmed that the vendor being used during the 2007 audit period charged no delivery fees for clinic orders unless the clinics ordered more than once a week or an individual order was less than $750. In these cases, the vendor would only charge $20 per delivery. Therefore, there would not be significant additional shipping costs in implementing a direct-ordering system.

Thus, the clinics can order in small batches whenever they need additional items (which is the definition of "just-in-time" ordering) since there is no significant cost difference between ordering large quantities infrequently and ordering small quantities frequently. This means that clinics (and the CDPH in general) do not need to stockpile any of the goods that they need.

Since this system includes quick delivery times and no delivery fees, individual clinics could retain just enough drugs and supplies for a short period of time. This, in turn, would reasonably limit the amount of inventory on hand at any clinic. Should a clinic need an extended supply for

a particular event – such as a health fair – the clinic would be able to order a sufficient supply with only one or two days' notice.

Ending the system of having a central warehouse would save the CDPH the cost of operating the warehouse. Using 2007 information, the following are examples of potential cost savings from implementing a system of just-in-time, direct ordering by the clinics:

- reduction in employee salaries and benefits totaling approximately $572,000;
- elimination of overhead / utilities at the current warehouse of $20,000; and
- an expected reduction in the amount of expired drugs (in 2007 approximately $529,000 worth of drugs were expired resulting in a net loss of $365,000, see Finding 07-2).

In addition, the warehouse has future extraordinary expenditures that would be averted if the CDPH converts to a clinic-direct-order system. The CDPH currently plans to move the warehouse to a City-owned location on Pershing Road on or before the 2009 expiration date of the Besly Court lease. The DGS estimates that moving the large quantity of goods on hand as well as the office and warehouse equipment would cost approximately $40,000. The CDPH also plans to implement a new computerized inventory system. The costs in both dollars and staff time of implementing such a system would likely be substantial, and the system requirements would likely differ depending on whether the CDPH continues with a central warehouse system or converts to a clinic-direct-ordering system. Furthermore, if the CDPH does not move the warehouse to the Pershing location, it can be used for storage by another City department that is currently leasing space elsewhere.

On the other hand, one potential reason in favor of a central warehouse and against a system of ordering by individual clinics is that, in theory, it may be easier to ensure integrity at one inventory location than at a large number of inventory locations. We have considered this issue but still recommend a clinic-direct-ordering system over a central-warehouse system in this situation. We do not believe that it would be costly or difficult to implement a central CDPH oversight process for a clinic-direct-ordering system. First, we note that since clinics currently order their own supplies from either a vendor or the warehouse, ordering procedures and forms are already in place. Any future oversight process would need to ensure that i) approvals are obtained before orders are processed, ii) proper just-in-time reorder points are maintained and monitored, and iii) the supplies are tracked at each clinic. A central oversight or compliance person or staff (either in the fiscal administration section or elsewhere in the CDPH) could be in charge of these steps for all clinics. With proper policies and procedures, and proper training of a designated inventory person at each clinic, such a system would have strong internal controls in place.

We strongly encourage the CDPH to conduct its own cost-benefit analysis comparing the current central-warehouse system with a clinic-direct-order system to determine whether it agrees with our recommendation and analysis. Given the costs that would be incurred from the upcoming warehouse move and the new computer system implementation, we encourage the CDPH to conduct such a review in advance of these changes.

Should the CDPH decide to stay with its central-warehouse system, we encourage the CDPH to follow the recommendations set out in this audit's findings. The CDPH should take steps to improve policies and procedures, document handling, financial record tracking, review and reconciliation, contracting, physical security, and computerized inventory systems as detailed in the previous findings.

Internal controls in inventory management should include but not be limited to the following:

- timely and complete recording of goods received, shipped, returned, and adjustments made;
- reorder point analysis and tracking of inventory expiration dates;
- timely and complete physical inventory counts, preferably by parties other than those responsible for inventory custody and control;
- proper review and approval for purchasing, shipping, and adjustment activity;
- segregation of duties to separate the functions of approving, recording, receiving, and reconciling;
- strong physical security of assets;
- review and reconciliation of inventory by the fiscal administration section;
- review and tracking of credit memos and refunds by the fiscal administration section;
- written policies and procedures communicated to all applicable staff;
- computer systems that allow for accurate tracking and recording of inventory, with proper descriptions, location codes, and system access rights and security features; and
- audit trails and reporting features in the computer system that allow for complete balance, transaction, adjustment monitoring by date, and by staff person responsible.

Warehouse staff repeatedly cited the lack of manpower as the explanation for non-compliance with basic procedures. While we do not believe that an increase in the number of warehouse staff is necessarily required to operate the warehouse pursuant to a strong system of internal controls, the CDPH should conduct its own assessment of this matter, examining the positions assigned to the warehouse to determine if more or different positions need to be allocated for the warehouse. In addition, we recommend that CDPH management assess the abilities of current warehouse staff to effectuate the new policies and procedures that need to be implemented.

Special attention should be given to how the responsibilities are distributed among current staff at the warehouse under the revised procedures (see Finding 07-2d). By reworking processes to ensure separation of incompatible duties, and by implementing improved monitoring and control processes, the CDPH would greatly increase the likelihood that assets will be properly safeguarded and inventory records will be accurate.

In conclusion, the widespread internal control problems found at the CDPH pharmacy warehouse demand substantial changes. These problems at the warehouse cause the City to operate inefficiently and waste funds. Additionally, they may subject the City to potential fraud, theft or misappropriation of assets.

Department Response to Overall Recommendation and Conclusion

CDPH began the phase out of its warehouse distribution center in 2008. It was apparent to management that neither the personnel nor the technology were in place or financially achievable to operate a professional warehouse distribution center. Specifically:

1. Lack of a citywide supported electronic inventory system. The present mainframe system is inadequate to record, track and report on inventory items. For example, the system does not provide for tracking product expiration dates. The expense and technology to support a state of the art inventory management system are prohibitive.
2. Personnel loses were not to be regained. The Director of Warehouse and Stores passed away in 2001 and his corporate funded position was eliminated. Additional store keepers at the warehouse took retirement and their positions were also eliminated. The lack of personnel impeded the ability of the Department to manually manage the tracking systems and assure separation of duties for control purposes.
3. Change in management of prescriptive medications. Vendors had been contacted in mid-2008 to secure procedures for "just in time" ordering of prescriptive and medical supplies with shipment directly to CDPH locations, not utilizing a CDPH warehouse distribution process.
4. Internal online ordering system developed: Concurrent with vendor discussions, our Information Technology Center assigned a database manager to develop, implement and support a web-based ordering system that would interface with the city's FMPS system. This was launched in November 2008.

Interim meetings with the IGO's personnel in 2008 during their audit of 2007 activity reinforced the Department's decision to phase out warehouse distribution activities. The development of an online just in time ordering system was well timed as the warehouse pharmacist/director resigned November 2008.

As of January 1, 2009, there are no prescriptive medications at the warehouse for routine clinical use. One pallet of bulk medication supplied by the State for the STD clinics will be repackaged under supervision of Dr. Will Wong, Medical Director of HIV/AIDS/STD Programs, and disbursed under his license before February 2009. There are approximately three months of routine non-prescriptive medical supplies (i.e., condoms, exam table paper, etc.) that will be drawn upon until exhausted. There will then be no daily in/out activity from the warehouse, it will become a storage facility.

The CDPH warehouse will be used for long term storage of the Department's Public Health Emergency Response materials: selected prescription medications for emergencies, to be managed by Dr. Michael Robbins, Emergency Preparedness Program Pharmacist, personal protective equipment, ready to eat meals, and related support material. These materials will be supervised by that program to manage product expiration and distribution of material in an emergency. The Department's Public Health Emergency Response team will utilize the City's mainframe to inventory all products until such time as the program secures a customized inventory management system.

Appendix A: Audit Testing Summary

While the 26 different exceptions noted below may not be individually significant, in sum they provide strong confirmation of a widespread failure to institute or maintain adequate inventory procedures or controls. This fundamental failure means that the inventory figures reported by CDPH cannot be relied upon, nor can the City be assured that assets are properly safeguarded against theft, waste, loss, or misappropriation.

Count Testing

Test counts are performed to ensure that personnel are properly counting inventory, and that processes and controls over inventory are operating effectively. Count testing was performed in two directions: "sheet-to-floor" and "floor-to-sheet." A sheet-to-floor count consists of comparing the balance of items selected from the inventory count sheets to the number of items counted by the auditor on the warehouse floor.

As to pharmacy supplies, warehouse staff provided the SA with an electronic version of all pharmacy inventory. Based on auditor judgment, the SA tested 20 items. The SA chose every seventh item from the inventory list for the sheet-to-floor count.

As to general and clinical supplies, an electronic inventory list was not available at the time of sample selection for the sheet-to-floor count. Therefore, the SA chose samples from the Catalog Order Form. Based on auditor judgment, the SA tested 20 items. The SA chose every sixth item from the catalog order forms for this test.

A floor-to-sheet count consists of randomly selecting items from the warehouse floor, counting the items, and comparing that number to the inventory count sheets and/or to the mainframe. Forty items in total were tested in each direction – 20 items in each direction from pharmacy supplies, and 20 items in each direction from general and clinical supplies.

In addition, the SA conducted a separate review in an attempt to obtain assurance that the amounts in the mainframe were reflective of the physical inventory counts being tested. This separate review consisted of comparing the 2007 year-end balances from the mainframe to the physical floor counts performed by the SA. In addition, the inventory count sheets prepared by the warehouse staff were compared to the numbers from the mainframe as of December 31, 2007. There were numerous instances where these numbers did not reconcile, which further illustrates that the mainframe and/or the counts performed were not reliable. (See Finding 07-2c).

(a) When trying to reconcile sheet-to-floor counts, the SA found that the documentation of expired goods provided by the warehouse staff did not match the documentation provided by the vendor that picks up the expired goods. The differences could not be explained by the warehouse staff. In the sheet-to-floor count testing we found this exception in 3 (7.5%) of the 40 items tested. In one situation, a birth control pill was selected for testing with a year-end inventory balance of 2,209. The SA counted 634 packs on the floor on

January 15, 2008. According to the PS, 105 packs were shipped to clinics (SA confirmed) and 1,470 packs had expired and were given to the expired goods retrieval company. However, the SA reviewed the report from the retrieval company which stated only 1,032 packs had actually expired – a difference of 438 packs (with a retail value of $43.19/pack or $18,917). This error indicates that drugs may be misplaced, lost, or stolen during the process of gathering them for the vendor to pick up. Warehouse management has no procedure to determine either what happened to the missing items, or whether they received proper credit/refunds for the expired goods (See Findings 07-2c and 07-4).

(b) A shipment of goods was delivered to the warehouse before year-end but a receiving report was never completed. A receiving report was filled out and posted on 1/9/08 to update the inventory balance but those goods were not included in the year-end balance submitted to the City Comptroller's Office. In the floor-to-sheet testing we found this exception in 1 (2.5%) of the 40 items tested. This type of error would cause an understatement of the year-end inventory balance reported to the Comptroller.

(c) Two types of exam gloves (size small and medium) were randomly selected. Testing revealed that the CDPH year-end count overstated the amount of one type and understated the other type. Warehouse staff believe that the wrong size was shipped out and the correct size posted to the mainframe. In the floor-to-sheet testing we found this exception in 1 (2.5%) of the 40 items tested. This type of error causes inaccurate records of inventory on hand for specific commodities and could have caused clinics to receive items other than those specifically ordered.

(d) During a count of two types of birth control pills, a case of Ortho Cyclen Lo was mixed in with the pallet full of Ortho Cyclen. In the floor-to-sheet testing we found this exception in 1 (2.5%) of the 40 items tested. This type of error causes inaccurate records of inventory on hand for specific drugs and may cause clinics to receive items other than those specifically ordered. In turn, it could lead to a similar but improper drug being given to a patient. In this case, a mix up of birth control pills could result in an unwanted pregnancy.

(e) Requisition # 505 1107-095 was entered into the mainframe twice. In the floor-to-sheet testing we found this exception in 1 (2.5%) of the 40 items tested. This error would cause the inventory balance to be understated since it would appear that twice the amount on the requisition went to a clinic than actually was sent out.

(f) A requisition was posted under the wrong requisition number. In the floor-to-sheet testing we found this exception in 1 (2.5%) of the 40 items tested. This error could cause inability to track where/when particular items were sent to clinics.

(g) Item names/descriptions on packages did not match the names/descriptions in the system, inventory count sheet, and/or catalog order form. In the sheet-to-floor count testing we found this exception in 9 (22.5%) of the 40 items. In the floor-to-sheet testing we found this exception in 8 (20%) of the 40 items tested. This type of error would cause the

inability to properly track exactly which items are on hand and/or being requested by clinics and/or require reordering by the warehouse.

(h) There was an item that had 9 more in the system than at the time of the year-end inventory count. The mainframe should have been adjusted but the adjustment was never processed. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This error reflects the fact that there are not proper policies and procedures in place to ensure consistent processing by all staff. Adjustments not made or made incorrectly would cause inventory on hand to be either under or overstated at year end.

(i) Nicorette gum may have been counted incorrectly at year-end. The original shipment was Original Flavor 110 pcs/box and 12 boxes/case. The newer shipments were Fruit Chill Flavor 40 pcs/box and 24 boxes/case. There were also 12 boxes of Fruit Chill Flavor 100 pcs/box. It appears as though all the cases were counted as if they were received in the original shipment under the same commodity code. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This type of error causes inaccurate records of inventory on hand for specific drugs and may cause clinics to receive items other than those specifically ordered. In turn it could lead to a similar but improper drug being given to a patient.

(j) One of the thermometers was not included in the SA's floor count as the storekeeper pulled it from the floor to obtain the product code but failed to return it to the floor. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This error would cause the inventory on hand to be understated, since the commodity did exist but was misplaced by staff and therefore not counted.

(k) The peak flow meter adult disposable mouthpieces were obscured by a different type of commodity on the same pallet and were not included in the year-end inventory count as it was not discovered until after the year-end count. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This error would cause the inventory on hand to be understated, since the commodity did exist but was obscured and therefore not counted.

(l) Some items were not included in confirmed shipments to clinics and could not be located. There is no explanation for their absence. In the sheet-to-floor count testing we found this exception in 4 (10%) of 40 items tested and in floor-to-sheet testing we found this exception in 5 (12.5%) of 40 items tested. This error indicates that items may be misplaced, lost, or stolen, during the process of transporting items to clinics. Warehouse management has no review or follow up process in place to determine what happened to the missing items.

(m) Items were not shipped but the requisition was posted to the mainframe. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This error would cause an understatement to the inventory balance and it would also appear that the clinic received items they had not received.

(n) During testing, a box of Naloxone Hydrochloride Injection syringes (used to counter an overdose) was not counted as it was behind the shelf. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This error would cause the inventory on hand to be understated, since the commodity did exist but was obscured and therefore not counted.

(o) There was leakage from the ceiling of the warehouse and specimen bags were used to cover electronic equipment throughout the warehouse and the inventory balance was not adjusted in the mainframe. This specific item is issued by case and will no longer be able to be sent to a clinic due it being a partial case. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. While the decision to protect expensive equipment with inexpensive specimen bags may have been appropriate in an emergency, the failure to accurately adjust the system to show use of the specimen bags would cause the inventory balance to be overstated.

(p) In an effort to reconcile discrepancies noted during testing, warehouse staff provided documentation of items shipped to clinics. However, the documentation showed more items being shipped out than were needed to explain the difference in the count. There was no explanation for this issue. In the sheet-to-floor count testing we found this exception in 2 (5%) of the 40 items tested. This error shows there is not proper review and reconciliation of year-end physical inventory and based on the situation it would indicate the inventory count was overstating the actual amount on hand.

(q) When a shipment of specimen bags was received at the warehouse, the wrong commodity code was used to enter the receipt. Previously, there were two types of bags with separate commodity codes but one was never deleted when the warehouse switched to using only one of those bags. In the sheet-to-floor count testing we found this exception in 1 (2.5%) of the 40 items tested. This type of error would cause the inability to properly track exactly which items are on hand and/or require reordering by the warehouse.

(r) A warehouse employee was not able to provide material requisitions to validate the differences noted during the dental inventory count and reconciliations. In the sheet-to-floor count testing we found this exception in 8 (80%) of the 10 items tested; and in the floor-to-sheet count testing we found this exception in 10 (100%) of the 10 items tested. Because of this issue, the SA was unable to effectively test dental inventory, nor validate or quantify whether items were under or overstated for the dental inventory. This deficiency would allow items to be stolen, lost, or misplaced without being noticed by staff or management. (See finding 07-5).

Expiration Testing

Expiration tests were performed to ensure that all vaccines were still in good condition to be shipped to and used by the clinics. Testing consisted of verifying all vaccine lot numbers and expiration dates and confirming that the items had not yet expired for the Immunization

Program. Information was also compared to the electronic list maintained by the Immunization Program which displays drug name, lot number, expiration date, and quantity.

(s) A handful of boxes of vaccines were mixed in with a set of different lot numbers of the same vaccine with the same expiration dates. We found this exception in 2 (7.4%) of 27 items tested. This could be a public health concern should a specific lot be recalled.

Purchase Order Testing

Purchase order testing entailed the examination of documents and accounting records involved in ordering supplies. The testing was performed to determine i) whether necessary processes and controls were in place and ii) whether those controls were being followed. However, the CFO for CDPH was unable to provide a complete and accurate population of purchase orders for the warehouse, and this made proper random sampling impossible. Therefore, the SA was limited to testing only seven samples from the copies of purchase orders on hand at the warehouse. Selecting samples in this fashion allows for less assurance that it accurately reflects the population's characteristics. The seven sample purchase orders were tested by verifying that all approvals were obtained, goods received, and that they were posted to the mainframe.

(t) During the testing of purchase orders, the SA found that blanket release forms were not included in the packet. We found this exception in 3 (42.9%) of 7 items tested. This error indicates that the warehouse is not maintaining proper documentation of orders processed.

(u) During the testing of purchase orders, several invoices were not included in the packet. We found this exception in 1 (14.3%) of 7 items tested. This error indicates that the warehouse is not maintaining proper documentation of orders processed.

(v) During the testing of purchase orders, some items received by the warehouse were not posted to the mainframe. We found this exception in 2 (28.6%) of 7 items tested. This type of error would cause an understatement of the year-end inventory balance to be reflected in the system, or if they attempted to correct it, it would be processed as a system adjustment rather than an accurately recording the purchased items.

Order Forms Testing

Order form testing was performed to determine whether proper and consistent procedures were followed in regard to processing order forms (material requisition forms). These forms are received from clinics, Westside CDC, and community-based organizations requesting supplies. Testing selections included 20 from pharmacy supplies and 20 from general and clinical supplies. The sample was judgmentally chosen as there was not a complete population to select from, due to the disorganization of the filing system as noted in Finding 07-2b The testing consisted of verifying that order forms were completed, approved, and filled out properly. The selected order forms were also traced through shipping and posting to the mainframe. Although order forms all had approval signatures, we could not confirm that they were the proper signatures. (See Finding 07-5).

(w) A requisition was received by the warehouse and the order shipped to the clinic but was not posted to the mainframe. We found this exception in 1 (2.5%) of 40 order forms tested. This type of error would cause an overstatement of the year-end inventory balance reflected in the system, which could potentially lead to a system adjustment rather than accurately reflecting the shipment of items to a clinic.

(x) Expiration dates are not written on formula orders before being shipped to the WIC sites. This control was put in place to ensure that warehouse staff did not ship expired goods. We found this exception in 7 (17.5%) of 40 orders tested. This error could lead to expired or nearly expired formula being shipped to WIC sites, and potentially could cause illness to the children receiving the expired formula.

Daily Route Sheet Testing

Daily route sheet testing was performed to ensure that internal control procedures over delivery and receipt of goods were in place. The testing was performed by selecting one route and examining the documentation for a one month period. Testing consisted of verifying that certain pieces of information were contained on the route sheets: drivers names indicated, signatures were obtained from the clinics, and that data on the sheets had not been modified.

(y) The Daily Route Sheet testing resulted in several exceptions such as missing driver's name, missing signatures, modified quantities, and added locations. Overall, we found that there were exceptions on 15 (71.4%) of 21 route sheets tested. This error verifies that items being transported are not properly tracked to ensure documentation of receipt at the clinics. We cannot be assured that goods being transported are not subject to theft, loss, or misplacement, without the completed documentation.

Unit Pricing Testing

Unit price testing was performed to determine whether inventory quantities and prices were correct, multiplications were correct, and the additions for the final inventory figure were correct. Testing consisted of vouching (performing price agreements) from the invoice to the count sheet as well as to the system report. The sample of one or two items (totaling 13) per purchase order used in the purchase order testing above was randomly selected based on auditor judgment.

(z) Unit prices on invoices did not agree with unit prices on the count sheets or in the system report. We found this exception in 6 (46.2%) of 13 items tested. The Director of Administration said that the difference may be due to timing as the vendors' prices may change quarterly for the pharmacy items. The mainframe system does not allow the price of an item to be changed to accommodate fluctuations throughout the year. Warehouse staff has no procedure in place to review and verify year-end pricing reflected in the system. Therefore, we cannot be certain that the system pricing used to quantify year-end inventory is accurate. This likely resulted in an incorrect dollar amount of the year-end inventory balance being reported to the City Comptroller.

EXHIBIT A

Chicago Department of Public Health

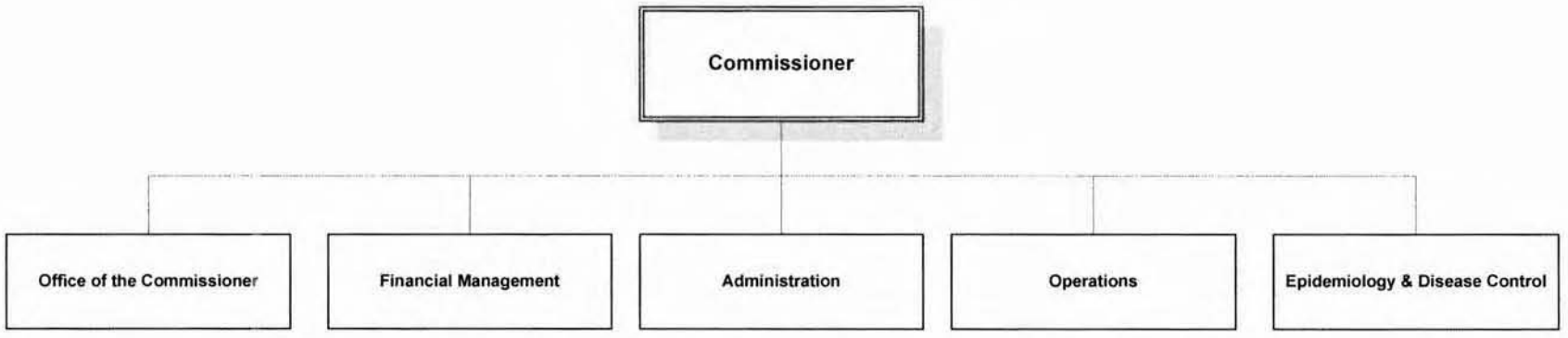
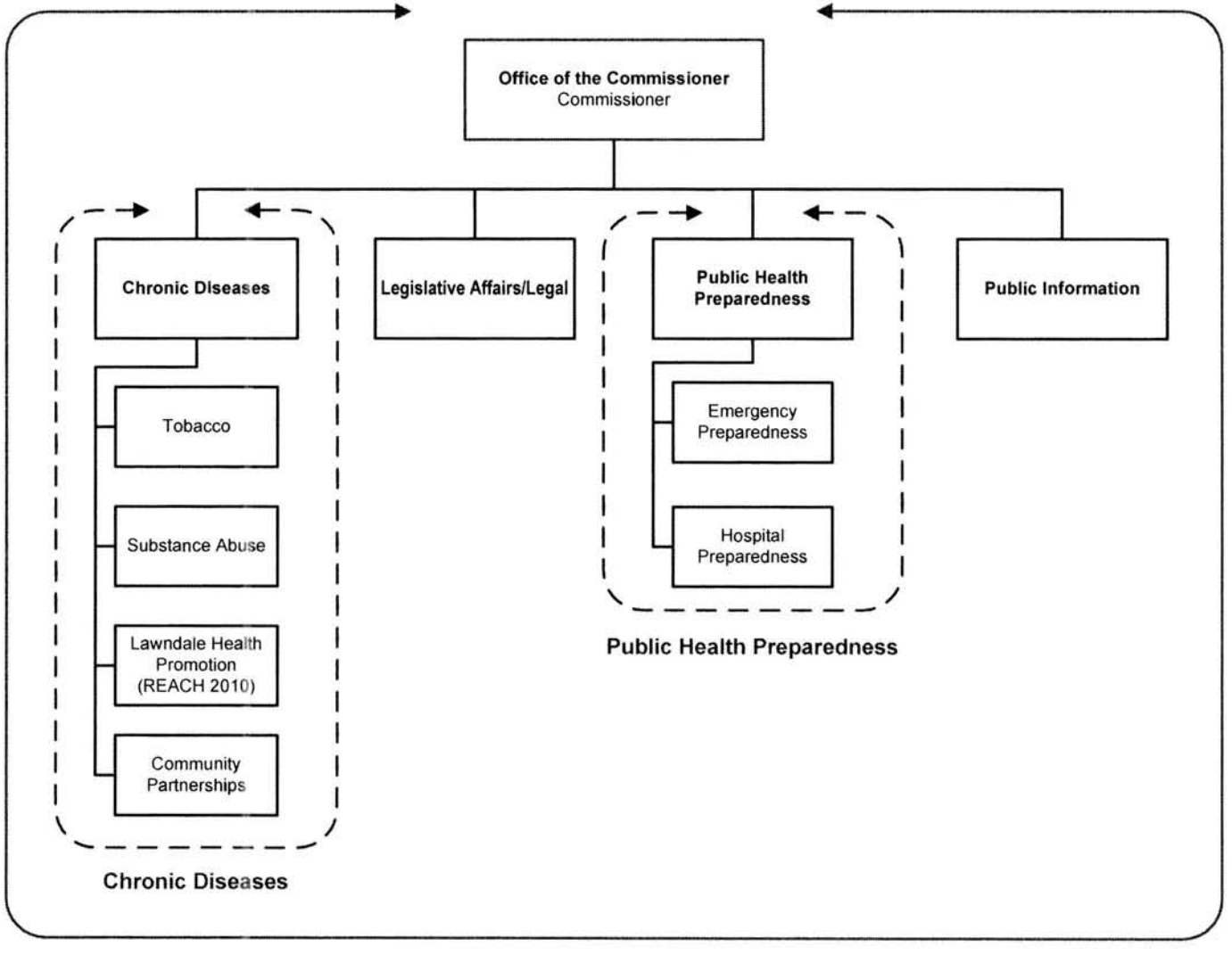
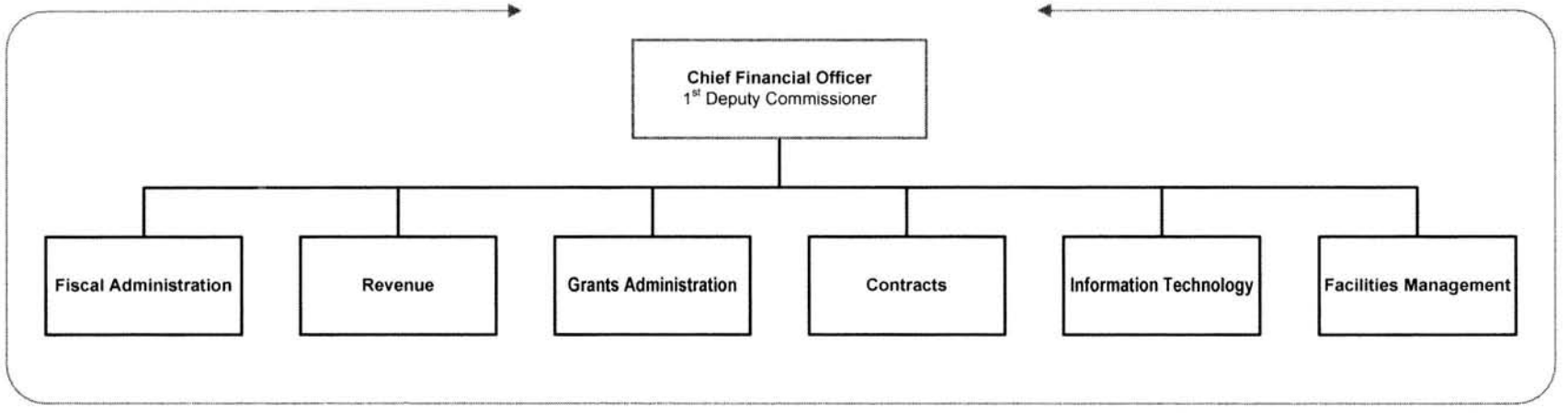


EXHIBIT A (con't)



Office of the Commissioner

EXHIBIT A (con't)



Financial Management

EXHIBIT A (con't)

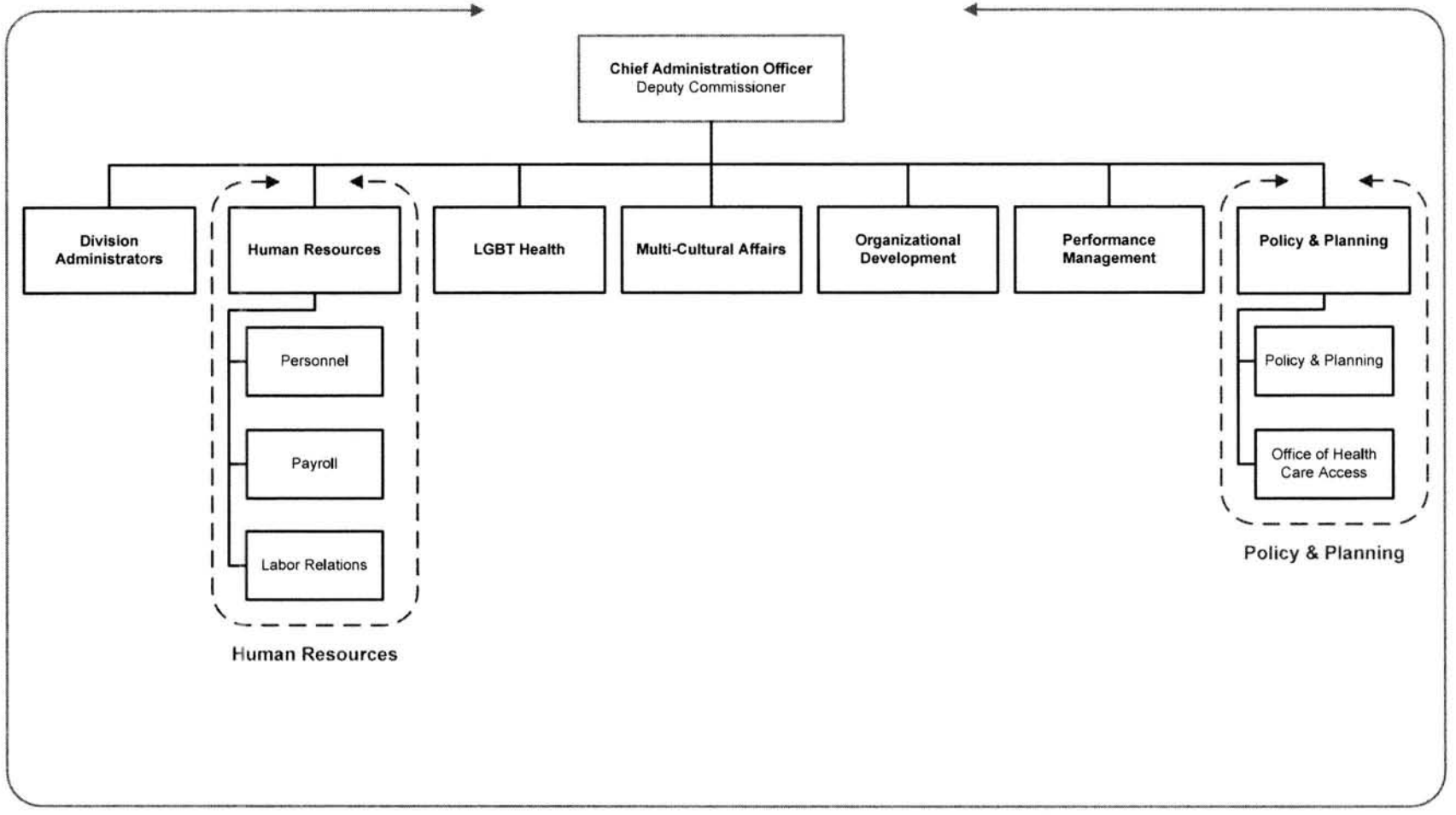
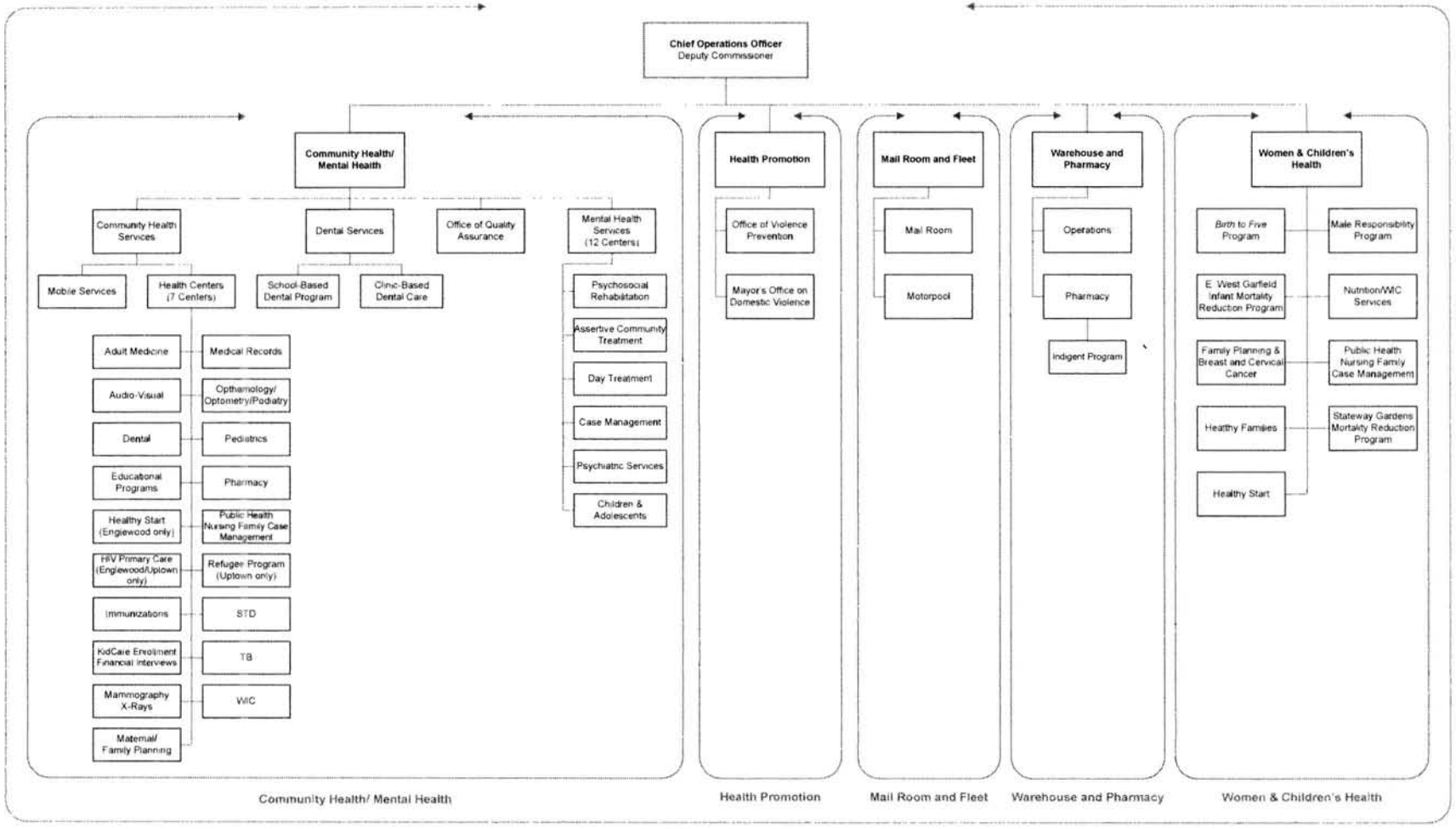


EXHIBIT A (con't)



Operations

EXHIBIT A (con't)

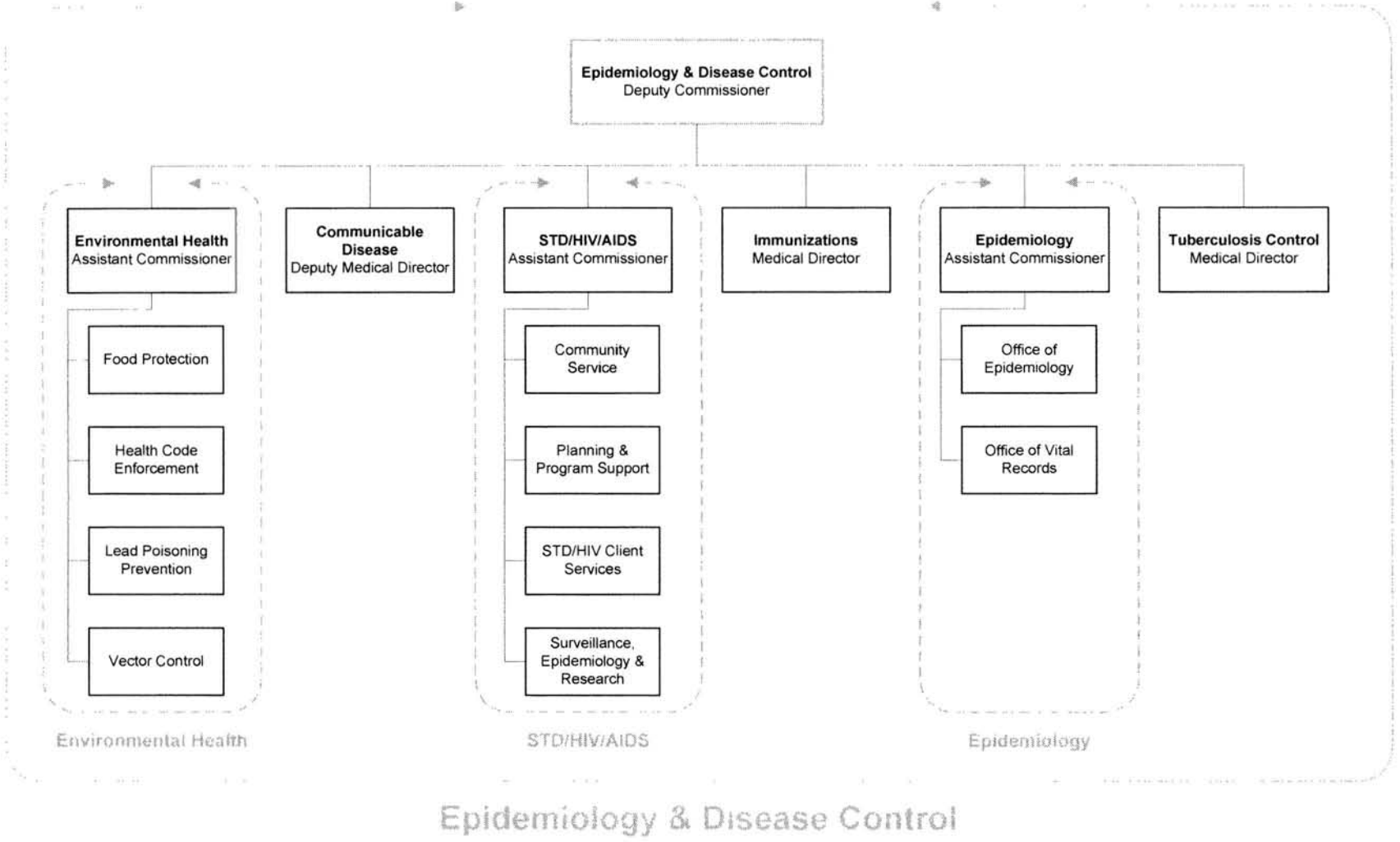


EXHIBIT B

City of Chicago

Standardized Inventory Management Policies

Effective 11/30/04

1) PURPOSE - To establish guidelines by which departments of the City of Chicago can maintain an accurate inventory system.
2) DEPARTMENTS AFFECTED
   a) Finance - 27
   b) General Services - 38
   c) Fleet Management - 40
   d) Health - 41
   e) Police - 57
   f) Streets and Sanitation - 81
   g) Transportation - 84
   h) Water Management - 88
3) POLICIES
   a) It is the inventory policy of the City of Chicago to:
      i) Use the Weighted Average inventory valuation method. If that is not feasible then the FIFO (first-in, first-out) method is to be applied.
      ii) Perform cycle counts – daily.
      iii) Perform cycle counts – quarterly of 30 or more, high-cost items.
      iv) Separate discontinued goods in stock to track - do not include in the final inventory balance at year-end.
      v) Separate obsolete goods in stock for disposal - do not include in the final inventory balance at year-end.
      vi) Separate supplies in stock to track - do not include in the final inventory balance at year-end.
      vii) Maintain a standard cut-off policy for year-end activity on December 31st or the last working day of the fiscal year.
      viii) Ensure current inventory activity is updated within two working days (exception: at year-end when all transactions must be accounted for).
      ix) Maintain a well-labeled and organized inventory.
      x) Report to Department of Finance monthly any material inconsistencies and resolution of daily cycle counts as well as provide proof of accurate, reconciled quarterly cycle counts within five working days of quarter end.
4) DEFINITIONS
   a) Cycle Count - is a partial count of a single inventory location as opposed to a Complete Count, i.e., a complete count of a single inventory location. A department should not wait to do a complete count, usually once a year. The best way to ensure that a minimum of 97% accuracy is maintained in inventory on an ongoing basis is to continually count your products. That is, count part of your inventory every day, and count each item several times per year. This process is called "cycle counting."
   b) Discontinued Goods – which are no longer a current commodity but could still have some useful purpose. These items could be used to repair an older vehicle, machine or pipeline.
   c) FIFO (first-in, first-out) - is an inventory cost flow whereby the first goods purchased are assumed to be the first goods sold so that the ending inventory consists of the most recently purchased goods.
   d) Obsolescence or Obsolete Goods - that are no longer usable for their intended purpose through expiration, contamination, or change of need, also includes items that have not been used in over two years and currently no longer used within the City of Chicago.

EXHIBIT B (con't)

e) Supplies – All items that are consumable. Generally, these would be commodities with a shorter life while in use than items that would remain in inventory after issuance or assignment for use. Examples include copy paper, printer cartridges, and forms.

f) Weighted Average - is one in which different data in the data set are given different "weights." For example:

10 items @ $1.00
12 items @ $1.10
5 items @ $1.05
27 items @ $1.0537

5) RESPONSIBITLITY – Each department must ensure that proper internal controls are maintained to provide for an accurate balance, prevention of theft and misuse of the City's inventory. This will be achieved through the implementation and monitoring of the Policies detailed above by the Supervisors and the Inventory Clerks.

EXHIBIT C

CHICAGO DEPARTMENT OF PUBLIC HEALTH

CENTRAL WAREHOUSE
POLICY AND PROCEDURES FOR OPERATION

PHARMACY:

The Pharmacy Section of the central warehouse functions to develop a list of drugs and pharmaceutical items to meet the needs of the patients seeking medical attention from neighborhood clinics operated by Chicago Department of Public Health.

The drugs and pharmaceutical items are handled as follows:

1. The drugs and pharmaceutical items stored at the central warehouse are in accordance with those approved by the department's Pharmacy & Therapeutics Committee.

2. Requisition forms are developed and sent to the clinics which are used for placing orders for all pharmacy items from the central warehouse.

3. Once completed at the clinic, the requisition forms are reviewed and signed by the staff person assigned to complete the requisition form as well as by the nursing, medical or administrative director at the clinic location of the origin of the requisition form.

4. The completed requisition form is then attached to the clinic medication stock verification form on which usage of the items that are being requested to be replenished are documented and sent to the central warehouse through the department drivers for processing.

5. Once the requisition gets to the warehouse, the staff who is assigned to the function then checks to make sure that the usage on the clinic medication stock usage form corresponds with the quantity being requested on the requisition form.

6. The order is then logged in the log book, assigned a requisition number, filled, packed in boxes and taken to the dock for delivery to the clinic on the next day by the department driver who is assigned to that particular route.

7. All filled orders that are input into the mainframe computer used to control inventory and all items sent out of the central warehouse are charged to respective clinic via the assigned appropriation number of each clinic.

8. A copy of the requisition forms indicating quantity dispensed is sent with the package to the clinic where the requisition originates.

9. The storekeeper or receiving clerks use this copy to check the items being received for accuracy; signs the copy and send it back to the central warehouse for filing.

EXHIBIT C (con't)

ORDERING AND INVENTORY CONTROL:

The following steps are taken for ordering and inventory control:

1. Orders for drugs and pharmaceutical items stocked at the central warehouse are placed with the vendors on a monthly or bimonthly basis based on the level of inventory.

2. The inventory levels are maintained through the usage report generated from the mainframe terminal weekly.

3. Close attention is given to the expiration dates on the packages of each item as the orders are filled. All items with earlier expiration dates are dispensed first so as minimize financial loss that may result from return of expired items to the vendor and/or manufacturer.

4. Once the drug and pharmaceutical shipments arrive at the central warehouse, a receiving report is completed and inventory is adjusted accordingly in the mainframe computer.

5. Adjustments are made accordingly when filled orders are posted in the mainframe computer.

6. An annual inventory is conducted at the end of the year and the report is sent to the Comptroller's Office in City Hall.

7. Any changes in stock items are made in the requisition sheet which is updated relative to changes resulting from the decision by the Pharmacy & Therapeutic Committee. The requisition form is also reviewed and updated at the end of the year and new form with changes (if any) is created and sent to all clinic sites to replace the old ones.

EXHIBIT C (con't)

IMMUNIZATION:

The following steps are taken when processing the Immunization Program needs:

1. Orders for vaccine and biologicals are placed from West Side Center for Disease Control at 2160 W. Ogden Avenue and shipment of vaccine and biologicals are sent to the central warehouse for storage.

2. All orders from clinics and private providers for vaccines and biologicals are filled at the central warehouse.

3. Since all vaccines and biologicals are temperature dependent, refrigerators and coolers are available at the central warehouse for storage.

4. Each of the refrigerator and cooler is connected to the **SECURITY ALARM** so that in the event of a **power failure or malfunction**, the director and other designated staff of the central warehouse can be contacted to initiate plans of action to prevent spoilage of the vaccines and biologicals.

5. In the event of a power failure, a back up generator has been installed to ensure safety of the vaccines and biologicals.

6. All orders for vaccines and biologicals are placed with Public Health Administrators of the Immunization Program at West Side Center for Disease Control at 2160 W. Ogden Avenue who will then fax the orders to the central warehouse on a signed authorized vaccine order form.

7. The staff at the central warehouse then completes the form by putting the **lot number** and **expiration dates** on each item to be filled, make copies for packaging and proceed to fill the order.

8. All orders for vaccines and biologicals filled are delivered by the delivery company contracted by the City of Chicago and deliveries are made on Mondays, Tuesdays and Wednesdays mornings only.

9. Orders received and processed on Wednesday afternoon thru Friday will be delivered the following Monday morning. If a holiday falls on Monday, then deliveries are done on Tuesday.

10. A receiving report is generated for all incoming shipments and inventory is maintained in the Vac Man computer system for vaccines and biologicals.

11. Physical inventory is taken at the end of every month and sent to the immunization program director at West Side Center for Disease Control for keeping track of when placing a new order for vaccines and biologicals.

EXHIBIT C (con't)

CLINIC SUPPLIES, GENERAL SUPPLIES & FORMS

The same procedures which are in place for pharmacy items are also used for clinic supplies. However, no stock medication usage verification form is required to process orders for general supplies and forms. The same inventory procedure is in place for these items as described under pharmacy section.

SECURITY:

An alarm system is installed at the entrance of the central warehouse with **motion detectors** located throughout the warehouse which will be activated in the event of vandalism.

To date, we have not had a break in problem.

Finally, as things changes our procedures are updated.

Approved :
(1) Clinic Board
May/2002
Deputy Commissioner
(2)
LASUN OMOTUNDE, MPA, RPh
DIRECTOR OF PHARMACY