



Commonwealth of Massachusetts
Office of the State Auditor
Suzanne M. Bump

Making government work better

Official Audit Report – Issued October 2, 2014

State Office for Pharmacy Services

For the period July 1, 2010 through February 28, 2013





Commonwealth of Massachusetts
Office of the State Auditor
Suzanne M. Bump

Making government work better

October 2, 2014

Donald Rogers, PharmD, BCPS, Chief of Pharmacy
State Office for Pharmacy Services
365 East Street
Tewksbury, MA 01876

Dear Mr. Rogers:

I am pleased to provide this performance audit of the State Office for Pharmacy Services. This report details the audit objectives, scope, methodology, findings, and recommendations for the audit period, July 1, 2010 through February 28, 2013. My audit staff discussed the contents of this report with management of the agency and the Department of Public Health, and their comments are reflected in this report.

I would also like to express my appreciation to the State Office for Pharmacy Services for the cooperation and assistance provided to my staff during the audit.

Sincerely,

A handwritten signature in blue ink that reads "Suzanne M. Bump".

Suzanne M. Bump
Auditor of the Commonwealth

cc: Cheryl Bartlett, RN, Commissioner, Department of Public Health
Carol E. Foltz, Chief Financial Officer, Department of Public Health

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EXECUTIVE SUMMARY

The State Office for Pharmacy Services (SOPS), an agency within the Department of Public Health (DPH) and the Executive Office of Health and Human Services, was established in 1992 to provide consolidated and standardized comprehensive pharmaceutical services to state agencies in an effort to reduce escalating pharmaceutical costs. SOPS is responsible for overseeing pharmacy-management services and the procurement of pharmaceuticals for 51 facilities (Appendix A). On April 1, 2008, DPH, on behalf of SOPS, initiated a contract with Comprehensive Pharmacy Services (CPS), a national private pharmacy services provider, to manage and operate the pharmacy program at SOPS, including oversight and staffing of the daily functions at individual on-site state-facility pharmacies and providing administrative activities at the pharmaceutical distribution center (PDC) that is located on the grounds of Tewksbury State Hospital. These activities include drug procurement, prescription order fulfillment, and distribution to facilities. The pharmacy contract runs through June 30, 2015, with a maximum obligation of \$86 million and three possible one-year extensions through June 30, 2018. For our audit period, SOPS disbursed more than \$27 million to CPS for pharmacy-management services on behalf of state agencies receiving services through SOPS. Total contract payments from April 1, 2008 through January 31, 2013 totaled \$55,098,926 (Appendix B). One of the contract's initiatives calls for CPS to collaborate with SOPS's administration to integrate best practices and metrics and "cutting edge" pharmacy services to further reduce costs and enhance the quality of pharmaceutical care for patients. SOPS's responsibilities include contract management oversight of all aspects of the pharmacy-services contract, including monitoring CPS's compliance with the contract terms and conditions, assessing vendor performance, and ensuring that patients receive the appropriate drug therapy in the most cost-effective manner.

In accordance with Chapter 11, Section 12, of the Massachusetts General Laws, the Office of the State Auditor conducted an audit of SOPS for the period July 1, 2010 through February 28, 2013 to determine whether SOPS was fulfilling its mission of providing comprehensive pharmacy services to state agencies in a cost-effective manner. The objectives of our audit were to (1) review and assess SOPS's internal controls and its oversight activities over pharmacy services provided to state agencies through the contract with CPS; (2) determine whether state agencies were realizing any cost savings through their participation in SOPS; and (3) analyze SOPS's inventory controls, purchasing

practices, and distribution procedures for pharmaceuticals to determine their adequacy and effectiveness.

Summary of Findings

- The SOPS executive director¹ was involved in a potential conflict-of-interest situation during our audit period: he was employed by a subcontractor that works for CPS and was simultaneously responsible for administering the CPS contract, a fact that he did not disclose to DPH in a timely manner as required. Potential conflicts like this, if they are not properly identified and effectively and transparently mitigated, can create a perception of misconduct that could undermine the public's trust in SOPS and the integrity of its services.
- As a result of various issues (system incompatibilities; online prescription ordering systems not being used at all pharmacy locations; and prescriber, nursing, and pharmacy personnel not maximizing the use of SOPS's pharmacy information and ordering system), as much as \$10 million was unnecessarily charged to state agencies for additional labor costs in order to compensate PDC pharmacists and pharmacy technicians for performing prescription data reentry and reverification tasks.
- SOPS lacks a documented fee structure and proper internal controls over the fees charged to state agencies under the CPS contract. As a result, there is significant disparity in the fees being charged to state agencies, without any documentation to substantiate the reasonableness of the different rates. SOPS also lacks proper internal controls over the use of the money it receives from state agencies to fund its operations. As a result, DPH and the Commonwealth cannot be certain that SOPS is using all of the funds it receives from state agencies for their intended purposes. In our review, we found \$196,000 of such funds paid to a subcontractor without sufficient supporting documentation and \$1,115.63 paid for a cookout held at a SOPS office for CPS and SOPS employees.
- SOPS did not file required reports with the Legislature's House and Senate Committees on Ways and Means (the Committees). As a result, the Committees were not provided with detailed information on savings by transitioning agencies and recommendations for inclusion of other entities that could realize cost savings under SOPS.
- Pharmaceutical compounding² performed in SOPS's PDC's Intravenous (IV) Room does not comply with U.S. Pharmacopoeia (USP) 797 safety standards. By not meeting USP requirements, SOPS significantly increases the risk of patients' exposure to contaminated pharmaceuticals, serious infections, and possibly death.

¹ All references to the executive director in this report refer to the prior executive director, who retired after our audit period.

² Pharmaceutical compounding is a practice in which a licensed pharmacist or pharmacy technician combines, mixes, or alters ingredients in response to a prescription to create a medication tailored to the medical needs of an individual patient who may, for example, need the alterations because of allergies to regular pharmaceuticals or need the medication in a different form, such as pill or liquid, that is not currently available.

- SOPS did not ensure that the Suffolk County Sheriff's Department, the Worcester County Sheriff's Office, and the Dukes County Sheriff's Office complied with legislative requirements to receive pharmacy services exclusively from SOPS. Also, although the Department of Youth Services (DYS) is a required SOPS participant, during our audit period DYS received its pharmaceutical services from other vendors. Because these agencies have not transitioned to receiving their pharmaceutical services from SOPS, they may be missing the opportunity to realize savings related to these services.

Recommendations

- DPH should take measures to ensure that all SOPS employees adhere to the requirements of the state's conflict-of-interest law. Such measures should include making sure that SOPS develops a formal conflict-of-interest policy, ensuring that all SOPS employees receive periodic training on the requirements of Chapter 268A of the General Laws, requiring employees' annual signoff on SOPS's conflict-of-interest policy, and providing a process for reporting and monitoring potential conflicts of interest. If necessary, DPH should gain an understanding of any circumstances surrounding potential conflicts to ensure that they are properly identified and effectively and transparently managed.
- SOPS should ensure that its WebRx computer system is fully implemented and used for all prescription functions at facilities to standardize operations and to reduce operating costs for state agencies.
- SOPS should continue to pursue information-technology funding to implement a computerized physician order entry system that will record prescription activities from ordering until receipt by the patient, thereby eliminating the duplicative data-entry and verification costs.
- SOPS should establish adequate internal controls over program contract fees, including written policies and procedures as well as documentation of the program contract fees charged to each agency, the services provided, and the use of the fees.
- DPH should improve oversight controls over SOPS to ensure that program contract fees are administered and used properly for eligible program costs and are sufficiently documented.
- SOPS should establish and implement the necessary policies, procedures, and related internal controls to ensure that required reports to the Legislature are appropriately filed and signed by the executive director and that they contain all required information.
- SOPS should ensure that the PDC fully complies with USP 797's sterile compounding standards to ensure that pharmaceuticals are safe from contaminants and that patients and personnel at state facilities are not placed at undue risk.
- SOPS should establish and implement the necessary policies, procedures, and related internal controls to ensure that CPS adheres to quality assurance contract provisions and USP 797.

- SOPS should send to all noncompliant state agencies annual notifications of their obligation to receive pharmacy services exclusively from SOPS and request pertinent information needed for transition implementation plans.
- SOPS should continue to work to provide less-costly pharmacy services as well as addressing agencies' concerns with its services.
- Together with DPH, SOPS should review the legislative mandate for designated agencies to join SOPS and determine whether to pursue changes to the legislation that would allow the required SOPS participants to contract for pharmacy services outside SOPS when cost savings are greater and when it is in the best interest of those served, the agency, and the Commonwealth.

Post-Audit Action

- As of March 22, 2013, SOPS has purchased a new isolator unit and initiated renovations to the PDC's IV Room to comply with USP 797.
- SOPS received a reimbursement from CPS totaling \$1,115.63 for the improper payment and use of program contract fees for a staff cookout. These funds were repaid to the Commonwealth's General Fund on March 6, 2012.

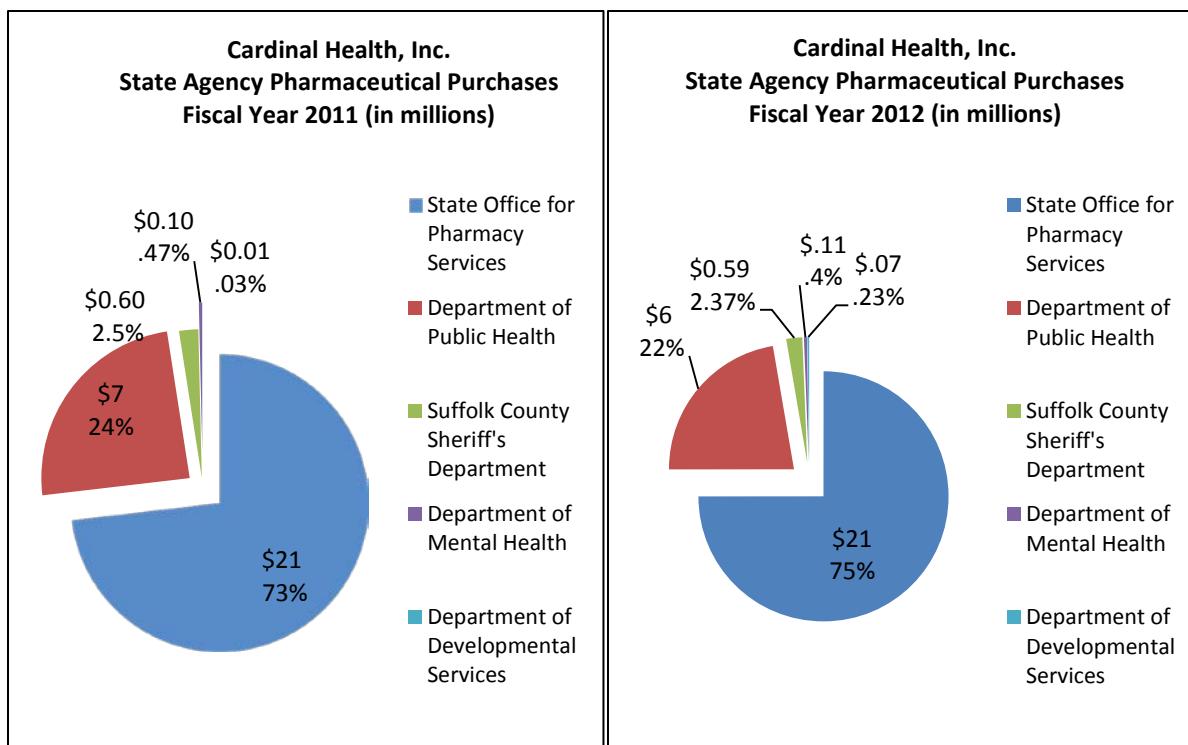
OVERVIEW OF AUDITED AGENCY

In 1992, the Commonwealth of Massachusetts, concerned with significant increases in healthcare and prescription drug costs, questions regarding the care provided in state facilities, and limited budgets of state agencies, established a commission to assess pharmacy services in the Department of Public Health (DPH), Department of Mental Health (DMH), and Department of Developmental Services (DDS) (formerly the Department of Mental Retardation). The commission concluded that it was feasible to consolidate and standardize pharmaceutical services and to integrate pharmacy services across the three departments. After this study, the State Office for Pharmacy Services (SOPS) was established within DPH under the Health and Human Services Secretariat as a feasible, efficient, and standardized way to provide pharmaceutical and pharmacy services across various Commonwealth agencies. At that time, the Commonwealth had approximately 4,000 consumers housed at 22 facilities with DPH, DMH, and DDS. In September 1998, the Department of Correction (DOC) joined SOPS to provide pharmacy services at 22 DOC facilities, bringing the total number of consumers served to more than 15,000. Furthermore, in the Acts of 2008, Chapter 182, various Sheriffs' Departments that were transitioning to state agencies as part of the abolition of certain counties³ were required to purchase their pharmaceuticals solely through SOPS as of certain dates during fiscal year 2009. As of February 2013, SOPS served a population of more than 22,000 across multiple state agencies, including DPH; DMH; DDS; DOC; the Sheriffs' Departments of Barnstable, Berkshire, Essex, Franklin, Hampden, Middlesex, and Norfolk Counties; the Sheriffs' Offices of Bristol and Hampshire Counties; and the Soldiers' Homes in Chelsea and Holyoke. Under Chapter 68 of the Acts of 2011, SOPS is to be the sole provider of pharmacy services for these entities as well as the Department of Youth Services (DYS). SOPS is required to develop a transition implementation plan for each entity in order to assist them in their shift to begin receiving pharmacy services under SOPS. However, as of February 28, 2013, DYS, the Dukes County and Worcester County Sheriffs' Offices, and the Suffolk County Sheriff's Department were still independently operating their pharmacy services.

According to the SOPS website, its mission is "to provide state of the art pharmaceutical care through clinically appropriate drug therapy management in a safe and cost-effective manner. Through this process optimal patient outcomes will be achieved."

³ This transition occurred under Chapter 48 of the Acts of 1997 and Chapter 300 of the Acts of 1998.

In accordance with state regulations, during fiscal years 2011 and 2012, Commonwealth agencies purchased more than \$159 million in pharmaceuticals through 43 drug-service providers. Of the \$159 million, \$57 million was procured through Cardinal Health Inc. (Cardinal), the Commonwealth's statewide contracted pharmaceutical provider (Appendix C). SOPS, on behalf of participating state agencies, was the largest agency procuring pharmaceuticals from Cardinal, as illustrated below, with \$42 million in purchases. SOPS processes the payments to Cardinal and bills against intergovernmental encumbrances set up by each participating state agency.



On August 1, 2007, DPH issued a Request for Response (a solicitation) on SOPS's behalf for the statewide pharmacy-management contract. Subsequently, on February 25, 2008, DPH awarded a seven-year contract with a start date of April 1, 2008, with a maximum obligation of \$86 million, to Comprehensive Pharmacy Services (CPS). Under the terms and conditions of this contract, CPS is to provide pharmacy services, including clinical pharmacy management at participating state facilities; pharmaceutical staffing, including pharmacists and pharmacy technicians; and management and operation of SOPS's pharmaceutical distribution center (PDC). This management and operation includes processing and filling prescription orders and distributing them to facilities in accordance with an established delivery schedule; processing pharmaceutical returns for reuse or disposal; purchasing pharmaceuticals at the lowest costs possible; packaging pharmaceuticals purchased in

bulk into 30-day blister cards for each patient; and conducting inventories, including monitoring expiration dates. Under its contract, CPS's contract management and pharmacy personnel are required to monitor pharmaceutical costs and use at facilities, identify best practices and cost-savings initiatives, develop and implement a quality assurance program to ensure the integrity of the pharmaceutical preparation and distribution process, and provide various operational reports to SOPS monthly. As compensation for these services, CPS is paid monthly management fees that are assessed to participating state agencies, and the payments are processed monthly by SOPS on behalf of the state agencies. For fiscal years 2011 and 2012, payments to CPS totaled \$22,828,087.

CPS personnel purchase pharmaceuticals on behalf of the state agencies primarily through Cardinal. SOPS also has a separate contract with the Schering Corporation to receive specific drugs used at correctional facilities at discounted rates and has access to suppliers to request lower costs on certain drugs than the costs provided in the Cardinal contract. SOPS receives a volume rebate on generic drugs that averages approximately \$31,000 per quarter and is applied against state agencies' billings before the monthly payment. In addition, state agencies and/or SOPS can purchase drugs and supplies outside the Cardinal contract from vendors that are (1) sole suppliers of a particular drug or medicine, (2) under contract with the specific agency making the purchase, (3) providing an emergency procurement, or (4) offering the drugs or medicine at a lower cost than that provided in the Cardinal contract. For fiscal years 2011 and 2012, drugs purchased through SOPS cost \$21 million and \$22.6 million, respectively.

Patient prescription orders or refills are initiated at the facilities by prescribers and/or nursing personnel who enter orders through the WebRx online ordering system or by faxes sent to the SOPS PDC. SOPS implemented the WebRx system primarily as a communication means for the efficient transmission of medication orders from facilities to the PDC and to reduce legibility errors from handwritten prescriptions. CPS personnel in the PDC enter the prescriptions in the separate McKesson pharmacy information system for processing. CPS pharmacy personnel fill prescription orders for each patient; the orders are reviewed and verified by a CPS pharmacist. Prescriptions are delivered to facilities, per a set schedule, by couriers under contract with CPS. Drug returns are processed in the PDC, with agencies receiving credit for reusable drugs.

SOPS consists primarily of four full-time and two part-time employees who provide oversight of the CPS pharmacy-management contract, including monitoring PDC activities and the on-site pharmacy

and clinical services provided to participating state agencies. SOPS personnel monitor pharmacy and clinical practices for up-to-date industry information; monitor pharmaceutical costs for price changes and potential savings; and conduct fiscal activities, including establishing and maintaining annual budgets and processing monthly payments to CPS and Cardinal through intergovernmental encumbrances for participating state agencies' monthly CPS contract fees and for allocation of pharmaceutical purchases to all agencies associated with SOPS.

Although SOPS has worked with state agencies to consolidate and standardize clinical pharmacy services, state agencies report that SOPS's efforts toward cost-effectiveness have achieved mixed results. The Office of the State Auditor met with six state agencies currently receiving services under SOPS, and three (the Essex County Sheriff's Department, DMH, and DDS) stated various concerns with SOPS services, including rising costs and insufficient cost savings. However, two of those three state agencies also stated that they were satisfied with services provided by SOPS. We also met with DPH, DOC, and the Hampden County Sheriff's Department, which reported that they had seen reduced pharmaceutical costs through SOPS's services and initiatives.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Chapter 11, Section 12, of the Massachusetts General Laws, the Office of the State Auditor conducted an audit of the State Office for Pharmacy Services (SOPS) for the period July 1, 2010 through February 28, 2013. The objectives of our audit were to (1) review and assess SOPS's internal controls and its oversight activities over pharmacy services provided to state agencies through its contract with Comprehensive Pharmacy Services (CPS); (2) determine whether state agencies were realizing any cost savings through their participation in SOPS; and (3) analyze SOPS's inventory controls, purchasing practices, and distribution procedures for pharmaceuticals to determine their adequacy and effectiveness. Initially, our audit scope was limited to the period July 1, 2010 through June 30, 2011. However, because of issues identified during our review of SOPS's oversight of the CPS contract, we extended our audit testing in certain areas to include the period from July 1, 2008 through February 28, 2013.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence that provides 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.

To achieve our objectives, we assessed SOPS's internal controls and oversight procedures for the CPS contract services; interviewed SOPS management and staff; and reviewed applicable laws, regulations, and policies. We interviewed relevant CPS management and staff, reviewed CPS's controls and procedures over pharmacy services, and conducted walkthroughs within SOPS's pharmaceutical distribution center (PDC) to obtain an understanding of CPS's operations of pharmacy-management services and the processing of pharmaceuticals. Our review did not include visits to site pharmacy operations at state facilities.

Regarding SOPS's oversight of pharmacy services, we obtained and reviewed the contract-procurement documentation and the contract scope of services for the \$86 million contract awarded to CPS. We initially judgmentally selected two CPS billing invoices and supporting documentation during fiscal year 2011 (July 1, 2010 through June 30, 2011) to review contract fees, charges to SOPS's budget, and billing records for state agencies. We selected a judgmental sample of 23 out of

155 expenditures charged to pharmacy overhead contract fees during the same period to review for reasonableness. Based on our review of CPS billings and expenditures, we obtained all monthly CPS invoices and supporting documentation for the period July 2009 through January 2013. Subsequently, we requested additional documentation related to all payments made to Integrated Pharmacy Solutions (IPS) by CPS, which provided us with IPS invoices and supporting documentation from July 1, 2008 to February 28, 2013.⁴ We obtained and reviewed minutes of weekly meetings between SOPS and CPS for the period July 1, 2010 through June 30, 2011, administrative reports, and monthly operational reports. In addition, we were provided with the fiscal year 2011 SOPS vendor performance evaluation of CPS as well as a corrective action plan submitted by CPS to SOPS, addressing areas of concern outlined in the vendor performance evaluation. We also reviewed SOPS's fiscal year 2011 customer satisfaction survey, which was submitted to all SOPS participants.

To assess cost savings for state agencies that used SOPS, we obtained and reviewed SOPS reports, including the yearly cost-savings summary reports that list realized/unrealized cost-savings monthly summary totals by agency for fiscal year 2011, fiscal year 2012, and fiscal year 2013 through December 2012. We also reconciled realized cost-savings balances to the detailed monthly cost-savings reports prepared by CPS for all agencies receiving services from SOPS. To assess the reliability of the WebRx system, we (1) judgmentally selected one month's worth of information in this system and reconciled the information to source documentation, including clinical-intervention⁵ cost-savings reports being maintained by SOPS; (2) interviewed knowledgeable information-technology (IT) staff members from the Executive Office of Health and Human Services (EOHHS); and (3) tested the data according to source documentation to verify completeness and accuracy. We determined that the data were sufficiently reliable for the purposes of this audit. For fiscal year 2012, SOPS reported realized savings for state agencies at approximately \$2.7 million. We were able to reconcile the initial savings data for each facility to monthly reports; however, in October 2011, CPS changed its formula used to prorate future savings through the rest of the year,

⁴ The CPS invoice that includes the February 2013 IPS invoice had not been paid by SOPS as of the end of our audit fieldwork. Our review of CPS invoices was through January 2013.

⁵ A clinical intervention is a professional activity undertaken by a registered pharmacist directed toward improving the quality use of medicines by patients. It may result in a recommendation for a change in the patient's medication therapy, means of administration, and/or medication-taking behavior. Drug cost savings can be achieved by recommending lower-cost alternatives, therapy instead of certain products, and the elimination of unnecessary or duplicative medications.

which resulted in report variances of approximately \$30,000 for fiscal year 2012. For fiscal year 2011, SOPS reported realized savings for state agencies of approximately \$2 million, which were reconciled to monthly reports based on the prior calculation formula. SOPS management provided a report listing the status of facilities' WebRx system use as of March 15, 2013, which we analyzed to obtain information on the use of this system as of the end of our audit period.

To assess cost effectiveness for state agencies, we conducted on-site interviews of administrative personnel and reviewed documentation provided at eight judgmentally selected state agencies—the Department of Public Health (DPH), the Department of Correction (DOC), the Department of Developmental Services (DDS), the Department of Mental Health (DMH), the Suffolk County Sheriff's Department, the Worcester County Sheriff's Office, the Essex County Sheriff's Department, and the Hampden County Sheriff's Department—regarding the agencies' current pharmacy operations and costs, whether actual cost savings were obtained from transitioning to SOPS, any concerns with SOPS, and the reasons that the Suffolk County Sheriff's Department and Worcester County Sheriff's Office had not transitioned to SOPS. Our interviews included six state agencies currently receiving pharmaceutical services from SOPS (DPH, DMH, DDS, DOC, and the Hampden and Essex County Sheriffs' Departments) and two state agencies not currently transitioning to SOPS (the Worcester County Sheriff's Office and the Suffolk County Sheriff's Department).

Regarding controls over pharmaceuticals, we gained an understanding of how the pharmaceuticals are purchased, how prescription orders are filled, and how prescriptions are distributed to facilities. We interviewed relevant CPS personnel and observed operations at the SOPS PDC. To assess the reliability of the McKesson pharmacy information system, we (1) reviewed hardcopy documentation related to the data sources of the system, including purchasing invoices from Cardinal Health Inc., receipt invoices, and shipping manifests, and (2) interviewed knowledgeable IT personnel from EOHHS. We also reviewed hardcopy records, logs, and weekly audit records for pharmaceutical controlled substances for fiscal year 2011. We determined that the data were sufficiently reliable for the purposes of this report.

Based on our audit, we have concluded that, for the period July 1, 2010 through February 28, 2013, except for the issues addressed the Detailed Audit Results and Findings section of this report, SOPS

maintained adequate internal controls and complied with applicable laws, rules, and regulations related to its operations for the areas tested.

DETAILED AUDIT RESULTS AND FINDINGS WITH AUDITEE'S RESPONSE

1. The State Office for Pharmacy Services' executive director was involved in a potential conflict of interest.

The executive director of the State Office for Pharmacy Services (SOPS) was involved in a potential conflict of interest during our audit period: he was employed by a subcontractor that works for Comprehensive Pharmacy Services (CPS) and was simultaneously responsible for administering the CPS contract, a fact that he did not disclose to the Department of Public Health (DPH) in a timely manner as required. Potential conflicts like this, if they are not properly identified and effectively and transparently mitigated, can create a perception of misconduct that could undermine the public's trust in SOPS and the integrity of its services.

The executive director is responsible for overseeing the state's \$86 million pharmacy-management contract awarded to CPS. Because he is a compensated employee of a company called Integrated Pharmacy Solutions (IPS), a subcontractor providing consulting and recruitment services for CPS under the state pharmacy contract, he also has a financial interest in that subcontractor. Although he annually submitted the required Statement of Financial Interest (SFI)⁶ to the State Ethics Commission, disclosing income from IPS more recently ranging from \$40,001 to \$60,000, he did not adequately disclose his potential conflict of interest via a Disclosure by Non-Elected State Employee of Financial Interest and Determination by Appointing Authority⁷ to his state employer, DPH (the authority that appointed him and the agency responsible for overseeing SOPS operations), as required by state law until the potential conflict was brought to his attention by the Office of the State Auditor (OSA), almost five years after the CPS and IPS agreement was executed.

After we brought this matter to DPH's attention, officials from DPH informed us that the agency had removed the SOPS executive director's authority to sign checks on SOPS's behalf, and that the executive director had notified DPH that he had tendered his resignation from IPS and filed for retirement from his state position.

⁶ Chapter 268B of the Massachusetts General Laws, the financial disclosure law, requires public officials, political candidates, and certain public employees to disclose their and their immediate families' private business associations and other financial interests. The law covers all elected state and county officials and candidates for these positions as well as all state and county employees who are in designated major policymaking positions.

⁷ According to Chapter 268A, Section 6, of the General Laws, this form must be filed with the individual's employer and a copy forwarded to the State Ethics Commission.

Contract with IPS

On August 27, 2007, the DPH issued a Request for Response (RFR)—a solicitation—on SOPS's behalf for the statewide pharmacy-management contract. The SOPS executive director was primarily responsible for the contract procurement; he was the procurement team leader (PTL), the sole procurement person for RFR questions, and the recipient of bidder responses. The procurement team, with the executive director's participation, evaluated and ranked all three bid proposals. On December 12, 2007, the executive director, as the PTL, issued a Notification of Contract Award to DPH, recommending that the contract be awarded to the lowest bidder, CPS. Accordingly, on February 28, 2008, the DPH signed the seven-year \$86 million pharmacy-management contract with CPS to provide pharmacy-management services to state agencies, including operating pharmacy services at state facilities and the pharmaceutical distribution center (PDC) located at SOPS. Approximately five months later, on June 17, 2008, CPS signed an agreement with IPS that enabled IPS to provide consulting services, including an Annual System-Wide Assessment and Recommendations Report, special projects, and staff recruiting services. According to SOPS's executive director, he is a long-term employee with IPS; works between 1 and 20 hours per week on nights and weekends; and receives a biweekly retainer fee from IPS, the amount of which he did not disclose to OSA, as a pharmacy contract operational management consultant regardless of the number of hours he actually works. OSA confirmed that the executive director had been employed by IPS since at least calendar year 2007, before CPS entered into its agreement with IPS. Consequently, once CPS entered into a contract with IPS to perform these services, the SOPS executive director should have immediately advised DPH and the State Ethics Commission of this situation and sought appropriate guidance on this matter because he had a financial interest in a subcontractor on a contract that he was administering.

As previously mentioned, state agencies receiving pharmacy services under SOPS set aside money for this purpose and are charged monthly management fees that they pay to SOPS in the form of intergovernmental encumbrances established annually for each state agency. SOPS then remits these funds to CPS. The executive director of SOPS, in addition to being the PTL for the pharmacy-management contract solicitation and award, is also responsible for overseeing contract services and operations and is the sole signatory authority for SOPS's monthly payments to CPS. To determine the total payments CPS made to IPS, we reviewed all CPS's monthly invoices and supporting documentation from July 2009 through January 2013. We identified 52 payments made to IPS

during this multiyear period, at \$3,500 per month, for services described as “a monthly fee for annual systems wide assessment” and classified as a contract management fee on CPS’s invoice expenditure documentation provided to SOPS. CPS provides this monthly breakdown of expenditures that it processes from the monthly contract management fees paid by the state agencies. The SOPS executive director reviews and approves, by signature, the monthly CPS invoice payments for each state agency, which include the management fees paid to CPS. The total documented payments made by CPS to IPS during the period July 2009 through January 2013 and shown on CPS’s monthly management fee expenditure list were as follows:

July 2009–June 2010	\$ 35,000
July 2010–June 2011	42,000
July 2011–June 2012	35,000
July 2012–January 2013	24,500
Total Payments July 2009–January 2013	<u>\$136,500</u>

Because several months of CPS’s monthly management fee expenditures did not list an IPS payment, we requested from CPS all IPS invoices paid under the contract. CPS provided IPS invoices for the period July 2008 through February 2013.⁸ From our review of SOPS and CPS records, we determined that IPS received payments from CPS of at least \$3,500 per month, which totaled \$196,000 during the above-mentioned audit period.

As a state employee, the executive director is required to, and did, comply with Chapter 268B of the Massachusetts General Laws, the financial disclosure law. The executive director submitted the required annual SFIs to the State Ethics Commission, disclosing his business association and earnings from IPS, which totaled \$20,001–\$40,000 per year for calendar years 2008 and 2009 and \$40,001–\$60,000 for each of the calendar years 2010–2012. However, the executive director is also required to comply with Chapter 268A of the General Laws, the conflict-of-interest law, which includes requirements for the conduct of state employees and disclosure requirements for individuals participating in matters in which they have a financial interest. The executive director stated that he disclosed his private business association with IPS to DPH, which oversees SOPS. Accordingly, we requested from the executive director documentation to support his assertion. The

⁸ CPS presented to the audit team all expenses related to IPS from the contract inception, in July 2008, through February 2013.

executive director allowed the audit team to read, but would not provide a copy of, an e-mail sent from DPH's legal department that was dated the same day we inquired about the executive director's financial interest with IPS. The e-mail stated that DPH did not believe it appeared to be a conflict based on the situation as described. However, since the e-mail did not specify what was communicated by the executive director, we met with DPH's general counsel and administrative personnel to get clarification. DPH representatives stated that they did not believe a conflict existed because the executive director informed DPH of his private business association in January 2013, when OSA brought it to the executive director's attention, and that the executive director had no knowledge that a potential conflict existed between his capacity as the SOPS executive director and his financial interest with IPS. However, our review of Executive Office of Health and Human Services (EOHHS) records showed that the SOPS executive director participated in conflict-of-interest training in 2009, 2010, and 2013, and therefore it seems reasonable that he would be aware of his responsibilities under this statute and seek guidance and a determination from DPH and the State Ethics Commission on this issue in a more timely manner.

Legal Requirements

Chapter 268A, Section 23(b), of the General Laws states,

No current officer or employee of a state, county or municipal agency shall knowingly, or with reason to know . . . act in a manner which would cause a reasonable person, having knowledge of the relevant circumstances, to conclude that any person can improperly influence or unduly enjoy his favor in the performance of his official duties, or that he is likely to act or fail to act as a result of kinship, rank, position or undue influence of any party or person.

Reasons for Appearance of Conflict of Interest

This potential conflict of interest was not properly identified and effectively and transparently managed because (1) as the executive director told us, he was not aware that his private business association and financial interest with IPS represented a potential conflict of interest; (2) SOPS did not have policies and procedures regarding conflicts of interest; and (3) DPH did not ensure that SOPS adhered to the State Finance Law and General Contract Requirements policy jointly issued by the Office of the State Comptroller (OSC) and the Operational Services Division. Specifically, it did not ensure that SOPS adhered to the Conflict of Interest section of the policy, which states that "all Departments must make certain that employees and participants involved in the procurement process are free from all conflicts of interest."

Recommendations

- DPH should take measures to ensure that all SOPS employees adhere to the requirements of the state's conflict-of-interest law. Such measures should include making sure that SOPS develops a formal conflict-of-interest policy, ensuring that all SOPS employees receive periodic training on the requirements of Chapter 268A, requiring employees' annual signoff on SOPS's conflict-of-interest policy, and providing a process for reporting and monitoring potential conflicts of interest. If necessary, DPH should gain an understanding of any circumstances surrounding potential conflicts to ensure that they are properly identified and effectively and transparently managed.

DPH's Response

DPH and SOPS agree with the Auditor's Recommendation. DPH requires all staff to take annual conflict of interest training on PACE. SOPS has updated its internal controls and procedures to include staff presenting course completion to the supervisor annually. . . .

DPH appreciates the State Auditor bringing this issue to its attention, as the Department was unaware that IPS was a subcontractor for CPS. Following notice by [OSA] on April 24, 2013 and based on the information in its possession, DPH contacted the employee to discuss the issue and on May 10, 2013 filed a potential conflict of interest with the State Ethics Commission. State Ethics provided a written response to the Department on August 16th, 2013 stating that no further action was necessary. . . .

Despite the absence of any State Ethics Commission's findings, the Department acknowledges that the former executive director's actions, even if unintentional, nevertheless resulted in an appearance of a potential conflict. In order to prevent any similar future occurrences SOPS is requiring its public employees to disclose any outside employment or non-SOPS compensated interests to the State Ethics Commission for an advisory ruling.

Auditor's Reply

Based on DPH's response, DPH and SOPS are taking measures to address our concerns about this matter. However, in its response, DPH states that in May 2013 it filed a potential conflict-of-interest statement with the State Ethics Commission and that the commission responded that no further action was necessary. We obtained a copy of the commission's decision on this matter, which states, "This decision is based on our understanding that the subject was not aware that a firm for which he consulted was a subcontractor for a vendor that had a State Office of Pharmacy Services contract." From this response, it appears that the commission was not aware of certain circumstances surrounding the potential conflict of interest we identified. These circumstances bring into question the executive director's assertion that he was unaware that IPS was a subcontractor for CPS: for instance, he reviewed and approved monthly invoices from CPS that outlined administration fees CPS had paid to IPS, and one of the IPS employees who was providing services to SOPS under the

CPS contract was the executive director's supervisor at IPS. Based on this, OSA will be referring this matter to other state oversight agencies for review and possible further action.

2. Inefficiencies in program operations resulted in as much as \$10 million in additional labor costs to state agencies.

As a result of various issues (system incompatibilities; online prescription ordering systems not being used at all pharmacy locations; and prescriber, nursing, and pharmacy personnel not maximizing the use of SOPS's pharmacy information and ordering system), as much as \$10 million was unnecessarily charged to state agencies for additional labor costs in order to compensate PDC pharmacists and pharmacy technicians for performing prescription data reentry and reverification tasks.

SOPS currently has two database systems in use for pharmaceutical operations: the WebRx System in use at state facilities and the SOPS PDC, and the McKesson pharmacy information system in use in the SOPS PDC. Inefficiencies in system operations due to incompatible database systems and Internet connectivity deficiencies have forced state agencies to fax medication prescriptions to the PDC; this has resulted in the PDC adding significant man-hours, approximately 257 hours per day under the pharmacy contract, for PDC pharmacists and pharmacy technicians to perform data reentry of faxed prescription orders in the McKesson pharmacy information system. Also, we determined that the SOPS WebRx online prescription ordering system was not in use at all pharmacy locations, where it could be used to make prescription ordering for clients more efficient. Faxing prescriptions not only results in additional labor costs but also heightens the risk for prescription orders being misplaced, processing of prescription orders being slowed down, or errors in prescription orders occurring because of hard-to-read handwritten prescription orders/refills. In addition, the data that must be entered in the McKesson system used in the PDC is not standardized and varies based on the type of facility submitting the order, resulting in the possibility of drug prescription errors.

Working with a programmer, SOPS developed the WebRx system for sites to standardize the following functions: entering prescription orders and refills, scanning and validating bulk plastic

tote⁹ deliveries to provide a more efficient way to validate pharmaceuticals when these totes are delivered to sites, and scanning and processing drug returns to the PDC. As of February 28, 2013, 19 facilities were still faxing prescription orders and/or refill orders to the SOPS PDC for various reasons. SOPS's management personnel stated that they continued to implement WebRx at locations and work with facility personnel to encourage its use for all its intended functions and to address technology issues, but that personnel at some facilities have been reluctant to use WebRx.

In our review of the 51 facilities under SOPS, we noted the following:

- Twenty-seven facilities (53%) use WebRx for all system functions.
- Thirteen facilities (25%) do not use any of WebRx's functions.
- Seven facilities (14%) use WebRx for some, but not all, functions.
- Four facilities (8%) have in-house pharmacies; one of these uses WebRx for refills only.

We noted the following regarding the functions of WebRx:

- Twenty-three facilities (45%) do not use WebRx to order prescriptions.
- Sixteen facilities (31%) do not use WebRx for prescription refills.
- Eighteen facilities (35%) do not use WebRx for tote validations.
- Twenty-two facilities (43%) do not use WebRx for the return of pharmaceuticals from sites.

The facilities not using WebRx for any functions as of February 28, 2013 are as follows:

Houses of Correction:	Essex County Sheriff's Department (three separate facilities) Hampden County Sheriff's Department (four separate facilities) Hampshire County Sheriff's Office
Department of Public Health:	Massachusetts Hospital School Tewksbury State Hospital
Department of Mental Health:	Corrigan Mental Health Center Pocasset Mental Health Center Solomon Fuller Mental Health Center

⁹ Bulk plastic totes are locked bins used to transport pharmaceutical prescription orders from the SOPS PDC to facilities. The totes' contents are scanned before leaving SOPS, an invoice is placed in the locked tote, and the pharmaceuticals are rescanned at the facility and compared to the invoice for variances.

Authoritative Guidance

Good business practices dictate that to ensure patient prescription safety and cost efficiency for state agencies, a standardized and fully functioning prescription ordering system should be in place that documents the entire process from ordering until delivery to the patient.

Reasons for System Inefficiencies

According to PDC personnel, as the system was developed and new facilities added, information required for data entry and processing of prescriptions was not standardized; it varies based on the facility type, which means pharmacy personnel have to know the prescription coding data-entry requirements for each facility.

In addition, many facilities still fax prescription and/or refill orders to the SOPS PDC because of connectivity problems due to a lack of compatibility with some facilities' databases or a lack of Internet access.

State agencies receiving pharmacy services under SOPS are incurring significant additional labor costs each year, approximately \$2.29 million for pharmacists and pharmacy technicians to reenter and reverify prescriptions at the SOPS PDC, because SOPS does not use a computerized physician order entry (CPOE) system¹⁰ that would electronically process pharmaceutical orders through the entire process. A true CPOE system would incorporate clinical screening of medication orders for drug interactions at the time of physician order entry, and prescribers' orders would be entered directly into the CPOE system, thereby enhancing the accuracy of the medication and dosage and eliminating the need for order reentry by PDC staff and reverification by pharmacists. CPS has provided some support by upgrading the WebRx software, but according to SOPS personnel, the McKesson pharmacy information system is outdated and limited because of its age and a new pharmacy information system is required to achieve compatibility and eliminate the data-entry expenses at the PDC. The McKesson system has been in place since 1996 and is no longer vendor supported. SOPS personnel stated that the agency has applied annually in recent years for funding for a new pharmacy information system but has not received approval for funds for a new system.

¹⁰ Computerized physician order entry with clinical decision support can improve medication safety and reduce medication-related expenditures because it introduces automation at the time of ordering, a key process in health care.

Not having this CPOE system in place has caused inefficiency in pharmaceutical-ordering operations, which has resulted in additional costs to state agencies.

Finally, SOPS has no standards addressing these specific incompatibility issues. SOPS's current policies are specific to the operation of the WebRx and McKesson systems at the SOPS PDC and do not take into account how to deal with any incompatibility or connectivity issues at state facilities. Moreover, in the IPS Annual System-Wide Assessment and Recommendations Report, the only discussion of system incompatibility hinted that the current software was going to remain in place for now; we found no other references to software incompatibility. In addition, SOPS may not be fully aware of the extent of any incompatibility issues between the PDC and state agency systems; the IPS Annual System-Wide Assessment and Recommendations Report that IPS submitted to SOPS during fiscal years 2009 and 2010 did not specifically identify any such issues. However, SOPS indicated that purchasing the new software is the responsibility of EOHHS along with DPH, since the system will also be used in state hospitals.

Recommendations

- SOPS should ensure that the WebRx system is fully implemented and used for all prescription functions at facilities to standardize operations and to reduce operating costs for state agencies.
- SOPS should continue to pursue information-technology funding to implement a standardized CPOE system that will record prescription activities from ordering until receipt by the patient, thereby eliminating the duplicative data-entry and verification costs.

DPH's Response

Recommendation 2A

DPH and SOPS agree with the Auditor's recommendation that WebRx should be fully implemented across all client/user agencies. Unfortunately, full implementation has not been possible due to a number of reasons, including the security implications of placing computer terminals in jails and prisons. To achieve full implementation, appropriate statewide interfaces and computer terminals must be available in the appropriate patient care areas. DPH and SOPS will continue to identify and work with participating purchasing agencies to reduce barriers to WebRx utilization.

DPH acknowledges that if fully implemented WebRx can create efficiencies for data entry, but in the absence of any supporting documentation, questions the accuracy of the audit's finding that "as much as \$10M was unnecessarily charged to state agencies for additional labor costs." While WebRx can improve technician accuracy and efficiency, it does not eliminate the technician's functional responsibilities under State law to review, profile, screen, and dispense all medications.

Recommendation 2B

DPH agrees with the Auditor's recommendation to continue its advocacy for the Commonwealth's investment in a Computerized Physician Order Entry (CPOE) system. DPH agrees with this recommendation as the implementation of a CPOE will improve patient safety and will provide the SOPS with increased efficiencies. Furthermore, DPH is in the process of implementing a new pharmacy information system (PIS). The rollout of new PIS scheduled for December together with the potential to move forward with CPOE, will produce additional efficiency improvements.

Auditor's Reply

The additional costs of as much as \$10 million were not for technician-related responsibilities but rather, as stated in our report, represent the labor costs associated with PDC pharmacists and pharmacy technicians reentering prescription data into the McKesson pharmacy information system because of incompatible database systems. The daily breakdown of prescription data reentry costs was provided to us by CPS's health-system director, and we used these average daily costs to calculate the additional labor costs for prescription data reentry during our audit period.

Based on its response, DPH is taking measures to address our concerns on this matter.

3. SOPS lacks adequate internal controls over contract fees and assessments.

SOPS lacks a documented fee structure and proper internal controls over the fees charged to state agencies under the CPS contract. As a result, there is significant disparity in the fees being charged to state agencies, without any documentation to substantiate the reasonableness of the different rates. SOPS also lacks proper internal controls over the use of the money it receives from state agencies to fund its operations. As a result, DPH and the Commonwealth cannot be certain that SOPS is using all of the funds it receives from state agencies for their intended purposes.

Under its pharmacy-management contract with CPS, SOPS charges all state agencies monthly management fees, which it pays to CPS to fund contract costs. In addition, DPH, the Department of Developmental Services (DDS), the Department of Mental Health (DMH), and the Department of Correction (DOC), which joined SOPS initially, are charged what SOPS refers to as a Tech Rx fee each month to fund the McKesson pharmacy information system used at the SOPS PDC. State agencies that joined SOPS later, including the Sheriffs' Departments and the Soldiers' Homes, are charged monthly pharmacy overhead fees (formerly called SOPS fees) but not the Tech Rx fees. SOPS uses the pharmacy overhead fees to purchase equipment, maintain state facilities, and purchase other items as needed to support daily operations. However, SOPS could not provide

written documentation regarding the contract fees' establishment, authorization for the fees charged, or a breakdown of the management fees charged to each agency for the pharmacy services provided. Per SOPS management personnel, charges vary by facility—some have in-house pharmacies requiring more vendor staffing, and others pay a reduced rate because they use in-house medical staff rather than CPS staff—but this is not documented. In addition, there are no written policies and procedures for the administration and use of the pharmacy overhead fees charged to the Sheriffs' Departments and the Soldiers' Homes. According to the SOPS finance director, pharmacy overhead fees are charged to these state agencies at the rate of \$0.02 per person per day. As monthly expenses are charged to the pharmacy overhead fees, the SOPS finance director identifies an agency with sufficient pharmacy overhead fees in its budget to pay the entire expense and bills it to that particular agency's budget. However, our review noted that the pharmacy overhead fees paid were not consistent. For example, in fiscal year 2011, the Plymouth County Sheriff's Department paid \$94,749 for an average of 1,447 individuals (\$0.18 per person per day), while the Bristol County Sheriff's Office paid \$10,349 for an average of 1,421 individuals (\$0.02 per person per day).

The SOPS executive director stated that the fee structure for agencies that initially and subsequently joined SOPS was established based on a decision to charge the additional pharmacy overhead fees to state agencies that joined SOPS after the four initial state agencies, since the initial agencies funded a significant portion of the initial overhead costs to start SOPS. In addition, the Tech Rx fees, which pay for the information system used by all agencies, are still paid solely by those four initial agencies, not by all parties that use the system. For fiscal year 2011, Tech Rx fees charged to those four agencies totaled \$54,024 for an average of 12,982 individuals (\$4.16 per person). Pharmacy overhead fees charged to the Sheriffs' Departments and the Soldiers' Homes totaled \$200,205 for an average population of 8,696 individuals (approximately \$23 per person).

SOPS also lacks formal policies and procedures and associated internal controls over the allocation and use of program contract fees received from state agencies under the pharmacy contract. As a result, program contract fees totaling as much as \$197,115.63 were expended on inadequately documented or improper payments made under the pharmacy contract.

Inadequately Documented Services and Improper Payments

We found that disbursements totaling as much as \$197,115.63 made under the CPS contract from July 2008 through February 2013 were for inadequately documented services or improper payments. The disbursements identified were as follows:

- Approved payments totaling \$196,000 made by CPS to IPS that lack sufficient supporting documentation.
- An expenditure of \$1,115.63 from pharmacy overhead fees on June 16, 2011 for a cookout held at SOPS's offices in Tewksbury for CPS and SOPS employees. CPS repaid the \$1,115.63 to the Commonwealth's General Fund on March 6, 2012, when OSA questioned SOPS about the expense.

a. Inadequately Documented Services

We determined that as much as \$196,000 in payments made to IPS, which employs the SOPS executive director, was questionable because SOPS was not able to provide adequate documentation to support the services that IPS identified as completed. For example, CPS paid IPS for an Annual System-Wide Assessment and Recommendations Report, per their agreement dated June 13, 2008, for \$3,500 per month, totaling \$196,000 from July 2008 through February 2013. However, we were only able to locate one Annual System-Wide Assessment and Recommendations Report, which was performed in 2008. In response to OSA's request for supporting documentation for these payments, CPS gave us monthly invoices, four reports, and one presentation to support the work that IPS had performed from July 2008 through February 2013. Our examination of the information provided revealed a lack of supporting documentation to support the monthly invoices. Each of the 45 monthly invoices simply stated "Monthly Fee for Annual Systems Wide Assessment and Recommendations." The invoices had no further description of services provided and no attached supporting documentation. Below is a list of supporting documentation we received from CPS as support for the 45 IPS invoices:

- The first report, "SOPS System Wide Assessment Pharmacy Distribution Center (PDC) Preliminary Results," stated that PDC operations were reviewed over an 11-day period during September and October 2008 and the report issued on December 3, 2008.
- The second report, "Shattuck Hospital Pharmacy Service Assessment," stated that the hospitals' operations were reviewed over an eight-day period in February and March 2009 and the report issued in March 2009. However, this was not a report of an annual system-wide assessment and recommendations as outlined on the invoices.

- The third document, “SOPS Clinical Service Assessment,” was a slide presentation, not a report, that showed a timeline of July 2009–April 2010 with findings and recommendations that were presented to SOPS in June 2010. This was also not a report of an annual system-wide assessment and recommendations as outlined on the invoices.
- The last report, “Strategic Service Reduction and Cost Analysis,” outlined potential cost savings in response to SOPS budget reductions for fiscal year 2013. This report, dated December 1, 2011, was submitted to SOPS by CPS and did not identify IPS as assisting in its completion. Also, all three of the other reports included the IPS logo, which was absent from this report. As with the second and third reports, this was not a report of an annual system-wide assessment and recommendations as outlined on the invoices.

The CPS director of Health Systems informed OSA that IPS personnel, primarily the owner, provide pharmacy operation reviews and assessments annually and are contacted by CPS regularly to discuss SOPS operations and provide recommendations. In addition to the monthly assessment fees, IPS received additional payments totaling \$70,606 for consultant and on-site consultant pharmacist fees from August 2008 through May 2009. Other services to be provided by IPS per its agreement include conducting special projects and recruiting staff support for CPS for additional fees. The agreement stipulates that IPS has the first opportunity to provide any personnel for CPS in relation to the SOPS contract. CPS personnel stated that IPS has recruited and still recruits personnel, including the current CPS contract manager responsible for oversight of the pharmacy contract at SOPS, who was recruited by IPS and hired by CPS in October 2011. The agreement provides for additional payments for recruiting, including a commission of 25% on any permanent placement of staff. These potential additional recruiting payments to IPS were paid from the CPS corporate account and not from this contract and therefore were not part of this review, because they were not costs passed on to state agencies.

b. Improper Payment of Program Expense

During our review of SOPS pharmacy overhead fees charged to state agencies in June 2011, we noted a payment of \$1,115.63 for an invoice for a cookout held at the SOPS administrative office. The invoice was for 70 individuals on June 16, 2011. The audit team discussed this with the SOPS executive director, who stated that the event was held for SOPS and CPS staff. The invoice payment was charged to SOPS fees paid by the Hampden County Sheriff's Department under the pharmacy contract. We asked for, but were not provided with, policies and procedures outlining the proper use of these pharmacy overhead funds. The only mention of the proper use of these funds was a footnote at the bottom of the Excel worksheet SOPS used to track

participating agencies' budgets and set the definition of this fund's use as "Dollars used by SOPS administration to purchase equipment, maintain plant, and other overhead items as needed to support daily operations." Because the funds were not used to purchase equipment, maintain pharmacy facilities, or pay for other overhead items needed to support daily operations, the payment should not have been approved and made from the pharmacy overhead funds and therefore is an improper payment. When OSA asked about the expense, SOPS required CPS to issue a repayment for the funds on February 16, 2012. The funds were repaid to the Commonwealth's General Fund on March 6, 2012.

Authoritative Guidance

The OSC Internal Control Guide, effective September 13, 2007, makes public-service managers accountable for administering resources entrusted to them to carry out government programs: "Internal control is . . . the structure, policies, and procedures used to ensure that the department accomplishes its objectives and meets its responsibilities." The purpose of establishing policies and procedures is to ensure that the staff knows what is to be done and compliance can be properly evaluated.

Reasons for Lack of Policies, Procedures, and Internal Controls

SOPS's administrative personnel stated that they deemed the controls in place to be adequate given that SOPS is a small agency. In addition, as the oversight agency for SOPS, DPH did not monitor whether SOPS established adequate policies and procedures regarding the pharmacy program fees received from participating state agencies. This allowed SOPS's management to use program contract fees for SOPS's benefit.

Recommendations

- SOPS should establish adequate internal controls over program contract fees, including written policies and procedures as well as documentation of the program contract fees charged to each agency, the services provided, and the use of the fees.
- DPH should improve oversight controls over SOPS to ensure that program contract fees are administered and used properly for eligible program costs and are sufficiently documented.

DPH's Response***Recommendation 3A***

SOPS appreciates the Auditor's recommendations and will work with stakeholders to develop a more unified approach given that the majority of agencies have joined in the SOPS procurement as required by law. It is important to note that the lack of a unified fee structure is a vestige of SOPS' initial cost allocation methodology. SOPS was created in 1992 as a means to standardize, and consolidate the delivery of pharmacy services across multiple state agencies for the purpose of creating greater efficiencies to reduce cost, and enhance the quality of services. In order to accomplish this goal, each of the then, participating agencies (DPH, DMH, DDS) were asked to select the type and quantity of services (i.e. full time field based staff, operational site based pharmacies, number of deliveries), which best met the needs of their patient/client population. Fees were to be allocated based upon a cost reimbursement model that included staffing components, space, administrative costs and cost of drugs. Regrettably, despite uniform drug costs, these differences in staffing, service requirements, as well as population variants have negated the use of a single fee structure suitable across multiple agencies. The expansion of SOPS' client base (DOC, County Sheriffs) over these many years has further exacerbated the problem.

Recommendation 3B

DPH accepts the Auditor's recommendations regarding oversight controls. Under the supervision of DPH's Hospital Bureau, the current SOPS Executive Director / Chief of Pharmacy is required to approve all purchases (including items to be purchased) made using these funds to ensure that each purchase benefits the overall operations of the pharmacy. Such purchases include equipment that enables SOPS clients to receive, store, and administer medication in the safest manner possible (i.e. fax machines, medication carts, narcotic bound books, scanners, electronic equipment etc.). . . .

The payments made to Integrated Pharmacy Services (IPS) were made by CPS using corporate funds. The CPS request for IPS services did not originate from SOPS nor were the services provided by IPS to CPS paid by SOPS. The pharmacy contract is a performance-based contract not a cost-plus contract. Accordingly, SOPS has no role in monitoring CPS expenditures. The SOPS does monitor vendor performance on an on-going basis to assure that the vendor is meeting contract requirements for service, safety and quality.

Auditor's Reply

Based on DPH's response, SOPS is taking measures to address our concerns in this area by working with stakeholders to develop a more unified fee structure. However, because it is not specifically addressed in the response, we want to reiterate the importance of SOPS's establishing adequate internal controls over program contract fees, including written policies and procedures as well as documentation of the program contract fees charged to each agency, the services provided, and the use of program contract fees.

Regarding the payments to IPS, the agreement between IPS and CPS states that IPS is responsible for specific deliverables to CPS, including a SOPS Annual System-Wide Assessment and Recommendations Report. SOPS is responsible for the administration of the statewide pharmacy-management contract, and as previously noted, CPS submits monthly invoices to SOPS that detail the services CPS provides in return for the management fees it receives under this contract, which are approved by the executive director and paid with state funds. These monthly invoices indicate that CPS was paying IPS as a subcontractor to provide consulting and recruitment services to CPS. Regardless of who originated these costs, OSA believes that, since they were related to the statewide pharmacy-management contract, SOPS is responsible for making sure that all invoices submitted by CPS (which included management fees with IPS-associated administrative costs) are only for program-eligible costs that are sufficiently supported with documentation to substantiate this eligibility. OSA believes that the documentation of these costs was particularly important in this instance, given that SOPS's executive director was employed by IPS.

4. SOPS did not comply with state law regarding filing reports with the Legislature.

SOPS did not file required reports with the Legislature's House and Senate Committees on Ways and Means (the Committees). As a result, the Committees were not provided with detailed information on savings by transitioning agencies and recommendations for inclusion of other entities that could realize cost savings under SOPS.

Legal Requirements

The Commonwealth's General Appropriations Act¹¹ for fiscal years 2010 and 2011 contains a provision for SOPS to complete an annual report and submit it to the Committees, describing savings by each agency that transitions to SOPS, as well as recommendations for the inclusion of other agencies that can achieve savings by joining SOPS.

Chapter 68 of the Acts of 2011, Appropriation 4510-0108, states,

SOPS shall report to the house and senate committees on ways and means not later than April 16, 2012 detailing the projected savings realized by each transitioning agency in comparison to their pharmacy costs in fiscal year 2011 and their projected savings for fiscal year 2013; and . . .

¹¹ This act is the Commonwealth's budget, voted on by the Legislature and signed by the Governor, to fund activities for the government for a specific budget fiscal year.

the report shall also provide recommendations for the inclusion of other entities that may realize cost savings by joining SOPS.

Chapter 131 of the Acts of 2010, Appropriation 4510-0108, states,

SOPS shall report to the house and senate committees on ways and means not later than April 15, 2011 detailing the projected savings realized by each transitioning agency in comparison to their pharmacy costs in fiscal year 2010 and their projected savings for fiscal year 2012; and . . . the report shall also provide recommendations for the inclusion of other entities that may realize cost savings by joining SOPS.

Reports Filed with DPH

During our audit, SOPS personnel provided three reports to OSA: two dated June 30, 2011, for fiscal year 2011, regarding the transitions of the Middlesex County Sheriff's Department and the Barnstable County Sheriff's Department, and one dated April 30, 2012, for fiscal year 2012, regarding the transition of the Norfolk County Sheriff's Department. Initially, SOPS personnel stated that the three reports were filed with the Committees; however, they subsequently stated that the reports were filed with DPH, the oversight agency for SOPS. OSA then met with DPH's chief financial officer, who provided copies of the reports and stated that SOPS also filed the reports with the Committees. In our review of the reports, we noted that (1) the two SOPS reports dated June 30, 2011 were dated April 22, 2011 on the DPH versions; (2) the reports had not been filed by the required legislative dates of April 15, 2011 for fiscal year 2011 and April 16, 2012 for fiscal year 2012; and (3) the reports had some savings analysis for the then-current fiscal year but lacked information regarding details on projected savings to be achieved in the next fiscal year and recommendations for inclusion of other entities in SOPS as required by the legislation.

OSA personnel contacted the Committees to determine whether the reports had been filed; both the Committees indicated that they had not received the reports.

Reasons That Reports Were Not Filed with the Legislature

The SOPS executive director stated that the reports were filed with the chief financial officer of DPH, SOPS's oversight agency, for review and that SOPS had therefore assumed that DPH filed the reports with the Committees. SOPS lacks formal external reporting policies and procedures and related internal controls to ensure that required reports are filed properly.

Recommendation

SOPS should establish and implement the necessary policies, procedures, and related internal controls to ensure that required reports to the Legislature are appropriately filed and signed by the executive director and that they contain all required information.

DPH's Response

DPH accepts the Auditor's recommendation but is of the opinion that it is in compliance with reporting regulations. SOPS provided annual reports for each agency transitioned to SOPS for the respective fiscal year. DPH will ensure future reports are properly documented upon submission to the Legislature.

Auditor's Reply

As stated in our report, although SOPS had filed reports with DPH, the required reports were not filed with the Committees because SOPS assumed DPH was making the filings. In order to comply with state law, SOPS should establish the internal controls needed to ensure that required reports are properly filed with the Committees. DPH, as the oversight agency, should ensure that all required reports are properly documented and are filed on time.

5. SOPS did not comply with pharmaceutical compounding standards.

The PDC within SOPS has an Intravenous (IV) Room where pharmacy technicians prepare compounded pharmaceuticals for clients in state facilities managed under SOPS. Pharmaceutical compounding¹² performed in this room does not comply with U.S. Pharmacopoeia (USP) 797 safety standards. Specifically, a sink is located next to the glove box isolator¹³ used to compound the pharmaceuticals, and the surrounding area has an unsealed window that does not meet the standards for a sterile compounding room with an isolator. The room also lacks smooth, impervious, and sealed ceilings, floors, and walls to minimize mold and contamination. By not meeting USP requirements, SOPS significantly increases the risk of patients' exposure to contaminated pharmaceuticals, serious infections, and possibly death. The above-mentioned room deficiencies

¹² Pharmaceutical compounding is a practice in which a licensed pharmacist or pharmacy technician combines, mixes, or alters ingredients in response to a prescription to create a medication tailored to the medical needs of an individual patient who may, for example, need the alterations because of allergies to regular pharmaceuticals or need the medication in a different form, such as pill or liquid, that is not currently available.

¹³ A glove box isolator is a sealed container used to maintain an aseptic environment for processing compounded pharmaceuticals to protect the pharmaceuticals and the employee from contamination.

were identified by SOPS administrative personnel as part of a tour of the IV Room, which had been requested by OSA audit staff, in response to our questions on compounding compliance.

As of the end of OSA's field work, SOPS was in the process of purchasing a new positive pressure aseptic glove box isolator and initiating plans to modify the IV Room in accordance with federal compounding requirements.

In 2012, the seriousness of noncompliance with compounding standards was brought to light after numerous reports nationwide of patient illness resulting from contaminated steroid injections or other medications that were compounded by New England Compounding Center (NECC),¹⁴ a facility licensed by the Massachusetts Board of Registration in Pharmacy. As of August 5, 2013, the Centers for Disease Control and Prevention reported more than 14,000 patients potentially receiving contaminated sterile medication, with 749 cases identified with meningitis, strokes, or serious infections, and 63 deaths in 20 states. In October 2012, DPH initiated surprise inspections at 40 compounding facilities in the Commonwealth.¹⁵ New emergency regulations for sterile compounding were enacted on November 1, 2012 in Chapter 247 of the Code of Massachusetts Regulations.

Authoritative Guidance

USP 797, issued by U.S. Pharmacopeial Convention,¹⁶ is a far-reaching accepted standard that governs a wide range of pharmacy policies and procedures, including the preparation of compounded pharmaceuticals. USP 797 establishes requirements for low-risk-level compounded sterile preparations, which SOPS prepares, including the following:

¹⁴ DPH, in collaboration with investigators from the federal Food and Drug Administration (FDA), conducted an on-site investigation of NECC early in this outbreak and issued a Preliminary Investigation Finding Report on October 23, 2012. DPH and FDA investigators identified serious deficiencies and significant violations of pharmacy law and standards that placed the public's health and safety at risk. Per the FDA's report, NECC's internal monitoring program showed mold or bacterial contamination at more than 80 locations, including numerous places in "clean rooms" where sterile drugs were made in the months before the outbreak, and NECC did not take action to correct infected areas or recall contaminated pharmaceuticals to prevent the widespread outbreak.

¹⁵ Per a CNN report on February 5, 2013, these inspections resulted in 11 facilities being issued partial or complete cease-and-desist orders for some or all pharmaceutical operations, 21 facilities being cited for minor violations, and 1 facility surrendering its license after significant deficiencies were found.

¹⁶ Along with the National Formulary, the United States Pharmacopeial Convention publishes the official pharmacopeia of the United States, the United States Pharmacopeia (published as the USP-NF). Medicines and other healthcare products sold in the United States must adhere to USP-NF standards. The convention also sets standards for food ingredients and dietary supplements.

The segregated compounding area shall not be in a location that has unsealed windows or doors that connect to the outdoors. . . .

Sinks should not be located adjacent to the [primary engineering control].¹⁷

Sinks should be separated from the immediate area of the [primary engineering control device].

Additional guidance in the document regarding facility design, environmental controls, and quality controls for the area surrounding the isolator includes the following:

The surfaces of ceilings, walls, floors, fixtures, shelving, counters, and cabinets in the buffer area shall be smooth, impervious, free from cracks and crevices, and nonshedding, thereby promoting cleanability and minimizing spaces in which microorganisms and other contaminants may accumulate. The surfaces shall be resistant to damage by disinfectant agents. Junctures of ceilings to walls shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. If ceilings consist of inlaid panels, the panels shall be impregnated with a polymer to render them impervious and hydrophobic, and they shall be caulked around each perimeter to seal them to the support frame. Walls may be constructed of flexible material (e.g., heavy gauge polymer), panels locked together and sealed, or of epoxy-coated gypsum board. Preferably, floors are overlaid with wide sheet vinyl flooring with heat-welded seams and coving to the sidewall. Dust-collecting overhangs, such as ceiling utility pipes, and ledges, such as windowsills, should be avoided. . . . The [area around the isolator] shall not contain sources of water (sinks) or floor drains.

Section 2.6.4 of the pharmacy-management contract requires CPS to

develop and implement a formal quality assurance program to assure integrity of the pharmaceutical preparation and distribution process, by . . . [performing] all compounding (sterile and non-sterile) in accordance with acceptable standards and practices promulgated by, at a minimum, the American Society of Health-System Pharmacists (ASHP), the Food & Drug Administration (FDA) and the United States Pharmacopeia (USP):

- *CPS will ensure adherence to USP 797 protocols by ensuring that clean room specifications are met (and documented daily) and that aseptic technique is utilized for IV Admixture services.*

Reasons for Noncompliance

SOPS personnel stated that the isolator unit itself was compliant but were unaware that the room where the isolator was located also had to meet USP 797 standards. There were no formal inspections conducted by CPS (whose employees conduct the compounding) citing the deficiencies in the IV Room to ensure compliance with USP 797. Also, SOPS lacked the necessary contract

¹⁷ A primary engineering control is a device or room that provides an environment that meets certain room air particle matter standards to limit exposure of critical sites when compounding sterile preparations. Critical sites are any locations that include components or openings, such as needle hubs, that are exposed and at risk of direct contact with air, moisture, and direct-touch contamination. Such devices include compounding aseptic isolators.

monitoring controls to ensure that CPS complied with quality assurance contract provisions and USP 797.

Recommendation

- SOPS should ensure that the PDC, including the isolator and the room where it is located, fully complies with USP 797's sterile compounding standards to ensure that pharmaceuticals are safe from contaminants and that patients and personnel at state facilities are not placed at undue risk.
- SOPS should establish and implement the necessary policies, procedures, and related internal controls to ensure that CPS adheres to quality assurance contract provisions and USP 797.

DPH's Response

Recommendation 5A

During the audit period SOPS was not required to comply with 797 standards as SOPS neither compounds large volume parenteral products nor manipulates dosage forms. Rather, SOPS compounding is limited solely to advantage/minibag preparations, in which a medication vial is attached to liquid preparation. The medication is not mixed until it is ready to be administered by a nurse. This practice is very different from facilities which inject medication into the bags or that compound larger volume parenteral product (i.e. TPNs) that are required to meet 797 standards. Nevertheless, since the audit, SOPS has come into compliance with USP 797 by purchasing a positive pressure Compounding Aseptic Isolator (CAI), and a 4-chamber and 2-chamber glove box. These purchases were made not because of a requirement to be 797 compliant, but because of a desire to bring SOPS into compliance with pharmacy best practice standards. These products maintain an aseptic environment within the isolator throughout the compounding and material transferring processes.

Recommendation 5B

DPH accepts the Auditor's recommendation and updated its policies after the purchase of the Compounding Aseptic Isolator. In addition, SOPS personnel continue to oversee the IV room during daily inspections and comprehensive weekly audits.

Auditor's Reply

While we agree that SOPS is not required to abide by USP 797, it is a nationally recognized standard for providing an acceptable level of safety in pharmaceutical compounding. Based on its response, SOPS agrees that USP 797 is a best practice and has taken steps to comply with that standard.

6. SOPS did not comply with state law by ensuring that it was the sole provider of pharmacy services for certain state agencies.

Contrary to Chapter 68 of the Acts of 2011 and Chapter 131 of the Acts of 2010, SOPS did not ensure that the Suffolk County Sheriff's Department, the Worcester County Sheriff's Office, and the Dukes County Sheriff's Office complied with legislative requirements to receive pharmacy services

exclusively from SOPS. Also, although the Department of Youth Services (DYS) is included in Chapter 68 as a required SOPS participant, during our audit period DYS received its pharmaceutical services from other vendors. Because these agencies have not transitioned to receiving their pharmaceutical services from SOPS, they may be missing the opportunity to realize savings related to these services.

A transition implementation plan was completed in fiscal year 2008 for the Worcester County Sheriff's Office and the Suffolk County Sheriff's Department; another plan was completed for the Worcester County Sheriff's Office using fiscal year 2011 data, but none of the plans were ever implemented, because of concerns over the validity of the projected savings indicated in the plans.

SOPS has not completed a transition implementation plan for the Suffolk County Sheriff's Department since 2008 because that office has not provided the necessary cost data. Sheriff's Department personnel explained that they did not provide cost data because they believed their in-house operations were more cost effective than SOPS and added that SOPS had informed them that it could not provide services in accordance with their jail operations. SOPS sent the Suffolk and Worcester County Sheriffs a letter on July 2, 2012 and a follow-up letter on September 11, 2012, citing the legislative requirement to join SOPS. SOPS personnel stated that they did not receive a response from either agency.

Finally, during our audit period, DYS did not get its pharmaceuticals from SOPS as required but instead received them from other vendors. SOPS also had not completed its required transition implementation plan for DYS.

Legal Requirements

Chapter 68 of the Acts of 2011 and Chapter 131 of the Acts of 2010 both require certain state agencies receiving pharmacy services from SOPS to continue exclusively receiving those services from SOPS, and they require certain state agencies not previously receiving SOPS's services to transition to using SOPS as their sole provider of pharmacy services. Chapter 68 of the Acts of 2011 and Chapter 131 of the Acts of 2010 both state, in part,

SOPS shall continue to be the sole provider of pharmacy services for the following agencies currently under SOPS: the department of public health, the department of mental health, the department of developmental services, the department of correction, the department of youth services, the sheriff's departments of Bristol, Essex, Franklin, Hampden, Hampshire, and

Plymouth, and the Soldiers' Homes in Holyoke and Chelsea; provided further, that SOPS shall become the sole provider of pharmacy services to the following agencies currently not being serviced by SOPS: the sheriff's departments of Worcester, Middlesex, Berkshire, Suffolk, Norfolk, Barnstable and Dukes; provided further, that SOPS shall be the sole provider of pharmacy services for all said agencies and all costs for pharmacy services shall be charged by this item; provided further, that said agencies shall not charge or contract with any other alternative vendor for pharmacy services other than SOPS; provided further, that SOPS shall develop an implementation plan to transition the following agencies within the current fiscal year: the sheriff's departments of Worcester, Middlesex, Berkshire, Suffolk, Norfolk, Barnstable and Dukes. . . .

The legislation further requires SOPS to complete transition implementation plans for certain state agencies, including plans for the Worcester and Dukes County Sheriffs' Offices to transition to SOPS in fiscal year 2011 and for the Suffolk County Sheriff's Department to transition to SOPS in fiscal year 2012. The state budget each year includes language requiring these state agencies to transition to SOPS; however, the legislation does not address who is responsible for taking action against state agencies that do not comply.

Reasons for Noncompliance

SOPS administrative personnel stated that although they had at times requested that the agencies in question join SOPS, the applicable legislation did not give SOPS the authority to enforce compliance. Consequently, SOPS has ceased to ask these agencies to participate.

OSA met with personnel at the Worcester County Sheriff's Office and the Suffolk County Sheriff's Department, who stated that their agencies had decided against transitioning to SOPS because of various concerns, including what the agencies deemed to be questionable cost savings identified by SOPS and concerns inadequately addressed by SOPS regarding services to be received by their agencies. Personnel for both agencies stated that they believed they received more cost-effective services for their agencies through not using SOPS and therefore have not transitioned to SOPS.

SOPS indicated that it had not pursued the Dukes County Sheriff's Office to join SOPS because of the insignificant volume of its pharmacy services and the difficulty of providing cost-effective services to the office.

With regard to DYS, SOPS indicated that DYS purchased its pharmaceuticals through long-term care pharmacies through Medicaid at higher cost savings.

Recommendation

- SOPS should send to all noncompliant state agencies annual notifications of their obligation to receive pharmacy services exclusively from SOPS and request pertinent information needed for the transition implementation plans.
- SOPS should continue to work to provide less-costly pharmacy services as well as addressing agencies' concerns with its services.
- Together with DPH, SOPS should review the legislative mandate for designated agencies to join SOPS and determine whether to pursue changes to the legislation that would allow the required SOPS participants to contract for pharmacy services outside SOPS when cost savings are greater and when it is in the best interest of those served, the agency, and the Commonwealth.

DPH's Response***Recommendation 6A***

SOPS agrees with the Auditor's recommendation and annually provides each appropriate agency with written notification of the agency's obligation to utilize SOPS as its sole provider of pharmaceutical services. As a result of its efforts, seven Sheriff's Departments and two Soldiers' Homes are now using SOPS for pharmaceutical services. SOPS continues to work with each of the agencies that have to-date refused to comply with the legislative mandate, routinely meeting their staff and providing them an optimal proposal for services.

Recommendation 6B

DPH appreciates the Auditor's recommendation, but it has provided proposals to each of the non-compliant agencies detailing how SOPS can provide substantial cost savings. In its FY14 proposal to Suffolk County Sheriff's Department, SOPS detailed that not only could it "provide services in accordance with their jail operations" but do so at a cost savings of 26%. Unfortunately, Suffolk never responded to the SOPS proposal, and instead, in March 2014, informed SOPS that it was considering a Medical Vendor RFR on which SOPS would be invited to bid.

Similarly Worcester Sheriff's Department, despite the Legislative language, engaged in a contract with an out of state private pharmacy vendor Diamond Pharmacy. SOPS met with Worcester in September 2013, completed a full analysis, and provided a detailed proposal which provided cost savings and accountability opportunities over its current vendor. Despite SOPS proposal, Worcester determined that it would be difficult to terminate the current contract and that SOPS and Worcester would meet again at the termination of its current contract. SOPS also offered its services for FY14 should any issues arise that require pharmacy oversight.

Recommendation 6C

SOPS appreciates the Auditor's recommendation. SOPS agrees that where no savings opportunities exist such agencies should be administratively, rather than legislatively, relieved from participation as is the case for both the Department of Youth Services and the Dukes County Sheriff's Department. As such understandings are based on the agency's current practices and patient volume . . . SOPS believes that it would best to

preserve the opportunity to revisit these discussions should circumstances or practices change.

Auditor's Reply

Based on DPH's response, SOPS is taking measures to address our concerns by sending all noncompliant state agencies an annual notification of their obligation to receive pharmacy services exclusively from SOPS. We also believe it was prudent of SOPS to engage both the Suffolk County Sheriff's Department and the Worcester County Sheriff's Office and offer them pharmacy savings opportunities for their consideration and that SOPS should continue to encourage these agencies to participate. Finally, OSA believes that when cost savings for pharmacy services are greater than those provided by SOPS and that it is in the best interest of those served, the agency, and the Commonwealth, SOPS should have the legislative authority to allow participants to contract for pharmacy services outside SOPS. Therefore, SOPS should pursue changes to the legislation for such authority. Further, we agree with SOPS that it would be best to preserve the opportunity to revisit discussions with those agencies should circumstances or practices change.

APPENDIX A

LIST OF AGENCIES AND FACILITIES SERVICED BY THE STATE OFFICE FOR PHARMACY SERVICES

The Massachusetts Department of Correction

- Bay State Correctional Center (Norfolk)
- Boston Pre-Release Center
- Bridgewater State Hospital
- Massachusetts Alcohol and Substance Abuse Center (Bridgewater)
- Massachusetts Treatment Center (Bridgewater)
- Massachusetts Correctional Institution at Cedar Junction (Walpole)
- Massachusetts Correctional Institution at Concord
- Massachusetts Correctional Institution at Framingham
- Massachusetts Correctional Institution at Norfolk
- Massachusetts Correctional Institution at Plymouth
- Massachusetts Correctional Institution at Shirley Medium/Minimum
- North Central Correctional Center (Gardner)
- Northeastern Correctional Center (Concord)
- Old Colony Correctional Center (Bridgewater)
- Old Colony Minimum (Bridgewater)
- Pondville Correctional Center
- South Middlesex Correctional Center (Framingham)
- Sousa-Baranowski Correctional Center (Shirley)

The Massachusetts Department of Developmental Services

- Fernald Developmental Center (Waltham)
- Hogan Regional Center (Danvers)
- Templeton Developmental Center (Baldwinville)
- Wrentham Developmental Center

The Massachusetts Department of Mental Health

- Taunton State Hospital
- Worcester State Hospital
- Cape Cod and the Islands Mental Health Center (Pocasset)
- Corrigan Mental Health Center (Fall River)
- Solomon Carter Fuller Mental Health Center (Boston)
- Brockton Multi-Service Center

The Massachusetts Department of Public Health

- Lemuel Shattuck Hospital (Boston)
- Massachusetts Hospital School (Canton)
- Tewksbury Hospital
- Western Massachusetts Hospital (Westfield)

Houses of Correction

- Barnstable County House of Correction (Bourne)
- Berkshire County House of Correction (Pittsfield)
- Bristol County House of Correction (North Dartmouth)
- Bristol County Ash Street Jail (New Bedford)
- Essex County House of Correction (Middleton)
- Essex County Women in Transition (Salisbury)

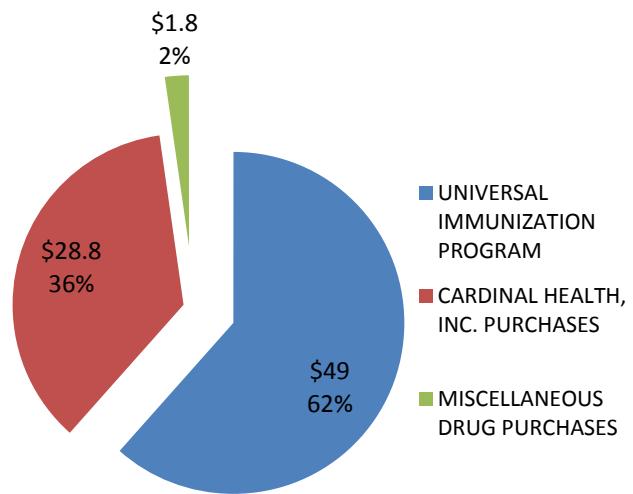
- Essex County Lawrence Correctional Alternative Center (Lawrence)
- Franklin County House of Correction (Greenfield)
- Hampden County House of Correction (Ludlow)
- Hampden County Pre-Release Center (Ludlow)
- Hampden County Western Massachusetts Alcohol Center (Springfield)
- Hampden County Western Massachusetts Women's Correctional Center (Chicopee)
- Hampshire County House of Correction (Northampton)
- Middlesex County House of Correction (Billerica)
- Middlesex County Jail (Cambridge)
- Norfolk County House of Correction (Dedham)
- Plymouth County House of Correction (Plymouth)

Soldiers' Homes

- Chelsea Soldiers' Home
- Holyoke Soldiers' Home

APPENDIX B**COMPREHENSIVE PHARMACY SERVICES CONTRACT PAYMENTS
APRIL 1, 2008–JANUARY 31, 2013**

Fiscal Year	Total Pharmacy Contract Payments
April 1, 2008–June 30, 2008	\$ 2,618,526
July 1, 2008–June 30, 2009	11,552,003
July 1, 2009–June 30, 2010	11,514,709
July 1, 2010–June 30, 2011	11,112,937
July 1, 2011–June 30, 2012	11,717,061
July 1, 2012–January 31, 2013	6,583,690
Total April 1, 2008–January 31, 2013	<u>\$ 55,098,926</u>

APPENDIX C**Statewide Drug Purchases (in millions)
Fiscal Year 2011****Statewide Drug Purchases (in millions)
Fiscal Year 2012**