



New York State Office of the State Comptroller
Thomas P. DiNapoli

Division of State Government Accountability

New York City School-Based Health Centers: Security and Controls Over Medications and Related Supplies

Department of Health



Report 2013-S-34

January 2015

Executive Summary

Purpose

To determine whether New York City School-Based Health Center (SBHC or Center) facilities have implemented proper controls over their medications and related supplies. Our audit covered the period July 1, 2011 to November 21, 2013.

Background

New York State's School-Based Health Center Program (Program) provides a campus-based health care alternative for preschool, elementary, middle, and high school students in low-income, high-risk communities. The New York State Department of Health (Department) oversees administration of the Program, including the licensing of the independent medical facilities (e.g., hospitals, diagnostic and treatment centers, and community organizations) that sponsor and operate the Centers. Services are provided at no out-of-pocket cost to students or their families. SBHCs bill Medicaid and third-party insurance for reimbursement, as appropriate.

All SBHCs must provide, on-site, a core of age-appropriate primary care services that comply in content and frequency with New York State's Child/Teen Health Plan. A multidisciplinary team of medical professionals is available through each Center to provide comprehensive primary care and mental health services, including immunizations, urgent care, health screenings and assessments, counseling and referrals, reproductive health care, and health education. SBHC staff can also prescribe and dispense medications, which are procured from an independent pharmacy or the sponsoring organization.

As of November 2013, 222 SBHCs throughout the State provide medical services to nearly 170,000 students enrolled in the Program, accounting for approximately 700,000 health care visits annually. Sixty percent (128) of the Centers are located on New York City Department of Education campuses and serve 111,814 students at 293 schools.

Key Findings

- The sampled New York City SBHCs did not follow Department inventory control regulations for medications and potentially hazardous medical supplies. Ten of the 11 SBHCs sampled had shortages in various medication categories (907 out of 2,298.25 units expected).
- One school had an unexplained shortage of 2,712 hypodermic needles.
- The sampled SBHCs do not maintain proper inventory control over student-supplied medications. They do not record student medication transactions (e.g., medications received from or returned to the parent/guardian or student), nor do they document their contact with parents/guardians to notify them of expired medications or to arrange the return of medications at the end of the school year.
- The sampled Centers' return of expired drugs to the sponsoring pharmacy was not always properly documented, either by the SBHC or the sponsoring pharmacy.

Key Recommendation

Develop guidelines for SBHCs to help ensure their compliance with governing regulations. The guidelines should include:

- Requiring SBHCs to perform periodic physical inventories of their medications and sensitive medical supplies and reconcile discrepancies as appropriate;
- Documenting all student-supplied medication transactions, including the type and quantity of the medication received or dispensed, as well as pertinent contacts with parents/guardians; and
- Documenting the disposition of expired medications.

Other Related Audits/Reports of Interest

[New York City Health and Hospitals Corporation: Inventory Controls Over Controlled Substances \(2004-N-4\)](#)

[Office of Mental Health: Controls Over Prescription Drugs \(2007-S-111\)](#)

**State of New York
Office of the State Comptroller**

Division of State Government Accountability

January 8, 2015

Dr. Howard A. Zucker, M.D., J.D.
Acting Commissioner
New York State Department of Health
Corning Tower, Empire State Plaza
Albany, NY 12237

Dear Dr. Zucker:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage government resources efficiently and effectively and, by so doing, providing accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit of the New York State Department of Health entitled *New York City School-Based Health Centers: Security and Controls Over Medications and Related Supplies*. This audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this draft report, please feel free to contact us.

Respectfully submitted,

*Office of the State Comptroller
Division of State Government Accountability*

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This report is also available on our website at: www.osc.state.ny.us

Background

New York State's School-Based Health Center Program (Program) is a campus-based health care alternative for preschool, elementary, middle, and high school students in low-income, high-risk communities. The New York State Department of Health (Department) licenses the independent medical facilities (e.g., hospitals, diagnostic and treatment centers, and community organizations) that sponsor and operate the School-Based Health Centers (SBHCs or Centers). Services are provided at no out-of-pocket cost to the students or their families. SBHCs bill Medicaid and third-party insurance for reimbursement, as appropriate.

All SBHCs must provide, on-site, a core of age-appropriate primary care services that comply in content and frequency with New York State Medicaid's Child/Teen Health Plan. Available through each Center is a multidisciplinary team of medical professionals to provide comprehensive primary care and mental health services, including immunizations, urgent care, health screenings and assessments, counseling and referrals, reproductive health care, and health education. SBHC staff can also prescribe and dispense medications, which are procured from an independent pharmacy or the sponsoring organization.

SBHCs are satellites of the sponsoring agencies and, as such, are subject to Department regulations. Sponsoring agencies are also responsible for ensuring that the SBHCs comply with their own health policies and regulations, including proper inventory controls and management of prescriptions, medications, and medical supplies.

As of November 2013, 222 SBHCs throughout the State provide medical services to nearly 170,000 students enrolled in the Program, accounting for approximately 700,000 health care visits annually. Sixty percent (128) of the Centers are located on New York City Department of Education (DoE) campuses and serve 111,814 students at 293 schools. The 11 New York City-based SBHCs we visited are managed and staffed by nine sponsoring health organizations and serve students at a total of 47 schools. During the 2012-13 school year, New York City-based SBHCs logged 51,536 student visits and reported \$7,051,796 in revenues and \$7,279,415 in expenses.

Audit Findings and Recommendations

The SBHCs we visited had some controls in place to protect medications and related supplies from unauthorized use. However, the SBHCs did not have adequate controls to account for all of their in-stock medications and potentially hazardous medical supplies (such as syringes). In addition, we identified control weaknesses pertaining to student medications provided to SBHCs by parents/guardians and the disposition of expired medications.

Inventory Controls

According to Department regulation Part 405.17, hospital pharmacies must maintain current and accurate records of all pharmacy transactions. As satellites of their sponsoring health care organizations, SBHCs are required to adhere to this standard as well. We found, however, that SBHCs do not have established procedures in place to ensure compliance. We also found that the Department does not emphasize to SBHC administrators the importance of maintaining complete and current inventory records. Without inventory oversight, care providers cannot be assured that on-hand supplies are adequate or sufficient to meet their patients' needs. More importantly, undocumented medications and supplies can be misappropriated without detection, setting the stage for misuse, abuse, and harm.

There was an aggregate of 92 types of medications and supplies identified at the 11 SBHCs we sampled. To assess the inventory controls over these items, we performed two separate inventories of each of the 92 items, at time intervals ranging from two weeks to five months, and compared the counts. We found unreconciled discrepancies at 10 of the Centers in the counts for 55 (60 percent) of the 92 items we tested, with overages for 22 items and shortages for 33 of the items. Notable shortages included the following:

- 2,712 hypodermic needles at the Martin Luther King, Jr. Educational Campus. SBHC officials told us they do not keep a record of needles in stock or perform a physical inventory, nor could they provide us with records documenting the number of needles used between our first and second visits (152 days apart). We asked officials at the sponsoring agency, St. Luke's-Roosevelt Hospital Center, for documentation showing the quantity of needles delivered to the SBHC. However, these officials could not provide such records. SBHC officials suggested that our first inventory count was in error, although they observed both of our physical inventory counts;
- 712 packages of oral contraceptives;
- 131 units of antibiotics;
- 21 albuterol inhalers; and
- 43 other various medications.

Excluding the hypodermic needles, a total of 907 units (39.5 percent) of various medications could not be accounted for out of the 2,298.25 units indicated per SBHC records. (See Exhibits A and B for summaries of the discrepancies.)

Accurate and current perpetual or periodic inventories allow management to determine whether available medications and supplies are adequate to meet the SBHC's needs, reduce the risk that medications and supplies are over- or under-ordered and/or misappropriated. In addition, accurate and current inventories alert staff to possible health and safety issues for the student community if supplies are misappropriated and/or if there are shortages.

Student-Supplied Medications

Section 504 of the Federal Rehabilitation Act of 1973 allows for reasonable accommodations, including the administration of essential medications, for students with disabilities. Under the Act, parents/guardians can deliver their child's Section 504 medication to the SBHC so it can be administered during school hours.

According to SBHC officials, it is the practice of Centers to notify parents/caregivers that Section 504 medications should be picked up at the end of each school year or the end of their child's enrollment. Although there were no specific control requirements provided to us regarding the Section 504 medications, we looked to see whether any were in place. We found that the SBHCs we visited did not institute formal controls over these medications. They did not maintain any formal inventory records nor did they have systems to dispose of expired medications. For example, we found an expired albuterol inhaler – used to prevent and treat airway spasms – at the PS 192 SBHC. As noted in Federal Food and Drug Administration regulations, explained in greater detail later on in this report, expired medications may be harmful to the user.

Additionally, we found that the Centers' lists of drugs on hand did not accurately reflect the medications actually stored in the student medication cabinet. Specifically, three medications stored in the cabinet were not accounted for on the list, including one controlled substance used to treat attention-deficit/hyperactivity disorders (ADD/ADHD). Six medications – three of which are controlled substances – used to treat ADD/ADHD, autism, bipolar disorder, and/or anxiety were included on the list, but were not in the cabinet. SBHC officials stated that they must have either discarded the medicines or returned them to the parents and failed to record the activity. Moreover, 9 of the 11 sampled SBHCs did not maintain records of medications received from or returned to parents/guardians, nor did they keep records of their contact with parents/guardians to notify them of expired medications or to arrange the return of medications at the end of the school year (or end of enrollment).

The Department has no standard policy addressing the management of student medications, and with the exception of Montefiore Medical Center, none of the other sampled SBHC sponsors had written procedures addressing how students' medications should be managed. Without proper control and oversight, undocumented and expired medications at SBHCs are susceptible to misuse or misappropriation, and present a potential hazard to students' safety and health.

Disposal of Expired Medications

According to the Federal Food and Drug Administration, expired medications should not be

administered to patients. There is a high risk of reduced effectiveness when medications are used beyond their expiration dates. In addition, the use of expired drugs can sometimes result in unintended and potentially harmful side effects. Aspirin and tetracycline, for example, can deteriorate into toxic substances that cause harm.

We found that 9 of the 11 SBHC-sponsoring programs have their own policies and procedures concerning the return of expired medications to the sponsoring program for disposal. Seven of the 11 SBHCs could not document the type, quantity, or date of expired medications that they returned to their program sponsor for disposal or, in fact, whether the sponsoring healthcare organizations ever received the expired medications from the SBHC. Only four of the Centers maintained documentation of expired medications and were able to provide us with records of receipt by the sponsoring pharmacy.

Because of the lack of universal standards and policies to guide the safe management of expired medications, there was little uniformity among SBHCs as to the proper level of oversight to be provided. Further, poor controls over potentially harmful medications can have unintended, severe health consequences. Without full documentation of the disposition of expired medicine, the risk that medication can be misappropriated is significantly increased. In addition, when expired medications are not systematically tracked, they could be dispensed mistakenly. Expired medications can be ineffective or harmful, or they can exacerbate an existing illness if dispensed in error.

Recommendation

1. Develop guidelines for SBHCs to help ensure their compliance with governing regulations. The guidelines should include:
 - Requiring SBHCs to perform periodic physical inventories of their medications and sensitive medical supplies and reconcile discrepancies as appropriate;
 - Documenting all student-supplied medication transactions, including the type and quantity of the medication received or dispensed, as well as pertinent contacts with parents/guardians; and
 - Documenting the disposition of expired medications.

Audit Scope and Methodology

We assessed whether the medicines and related supplies maintained at 11 judgmentally selected SBHC facilities are properly controlled and secured from unauthorized use. To accomplish our objectives, we met with or contacted officials from the Department, the Program, and sponsoring hospital officials at SBHC and hospital pharmacy locations, to test controls and perform inventory counts. During our audit, we reviewed records provided by the Department, such as annual expenditure and student enrollment reports; applicable Department, hospital, and SBHC rules and regulations; as well as records related to the procurement and distribution of medications to students.

We conducted our compliance audit in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members (some of whom have minority voting rights) to certain boards, commissions, and public authorities. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these management functions do not affect our ability to conduct independent audits of program performance.

Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

Reporting Requirements

We provided a draft copy of this report to Department officials for their review and formal comments. Their comments were considered in preparing this final report and are included in their entirety at the end of the report. In their response, Department officials generally concurred with our recommendation and indicated that they will send out a directive to the SBHCs requiring the development and implementation of appropriate policies and procedures.

Within 90 days of the final release of this report, as required by Section 170 of the Executive Law, the Commissioner of Health shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendation contained herein, and if the recommendation was not implemented, the reason why.

Contributors to This Report

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Vision

A team of accountability experts respected for providing information that decision makers value.

Mission

To improve government operations by conducting independent audits, reviews and evaluations of New York State and New York City taxpayer financed programs.

Exhibit A

Summary of Inventory Counts by School

#	School Name	Number of Items Reviewed	Number of Items Reconciled	Number of Items Over	Number of Items Under
1	PS 192	6	1	1	4
2	John F. Kennedy	10	6	1	3
3	Evander Childs	10	3	3	4
4	Lehman	10	2	3	5
5	Martin Luther King	7	1	5	1
6	Francis Scott Key	4	4	0	0
7	PS 83	4	1	1	2
8	Erasmus	10	1	2	7
9	George Washington Campus	10	8	0	2
10	Franklin K. Lane	12	7	3	2
11	Campus Magnet	9	3	3	3
Totals		92	37	22	33

Exhibit B

Medication Shortages by School

Erasmus

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
1	Amoxicillin 500 mg, bottles (each containing 30 tablets)	18	19	-1
2	Azithromycin 250 mg, tablets	28	54	- 26
3	Depo-Provera 150 mg, vials	14	17	-3
4	Desogen tablets, boxes (each containing 28 pills)	51	271	-220
5	Ortho Evra, patches	147	425	-278
6	Ortho Tri-Cyclen Lo, boxes (each containing 28 pills)	74	78	-4
7	Ortho Tri-Cyclen, boxes (each containing 28 pills)	0	10	-10
			Total	(542)

Campus Magnet

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
8	Ortho Tri-Cyclen, boxes (each containing 28 pills)	137	138	-1
9	Plan B Levonorgestrel, doses	143	144	-1
10	Azithromycin 250 mg, tablets	40	68	-28
			Total	(30)

Franklin K. Lane

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
11	Azithromycin 250 mg, tablets	0	4	-4
12	Ortho Tri-Cyclen Lo, boxes (each containing 28 pills)	2.25	3.25	-1
			Total	(5)

George Washington Campus

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
13	Desogen tablets, boxes (each containing 28 pills)	91	94	-3
14	Prednisone 20 mg	24	25	-1
			Total	(4)

Martin Luther King

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
15	Prednisone 20 mg	2	8	-6
			Total	(6)

John F. Kennedy

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
16	Amoxicillin 500 mg, bottles (each containing 30 tablets)	21	23	-2
17	Desogen tablets, boxes (each containing 28 pills)	143	147	-4
18	Erythromycin 2% pledgets (60 topical swabs in box)	8	10	-2
			Total	(8)

PS 83

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
19	EpiPen Jr. 0.15 mg	1	2	-1
20	Ventolin HFA 90 mcg inhaler	3	8	-5
			Total	(6)

Lehman

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
21	Ciprofloxacin 250 mg	2	68	-66
22	Depo-Provera 150 mg, vials	14	30	-16
23	Plan B Levonorgestrel, doses	169	208	-39
24	Ortho Tri-Cyclen, boxes (each containing 28 pills)	0	7	-7
25	Ventolin HFA 90 mcg inhaler	10	15	-5
			Total	(133)

Evander Childs

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
26	Albuterol HFA 90 mcg inhaler	0	7	-7
27	Ceftriaxone	16	20	-4
28	Ortho Evra, patches	75	200	-125
29	Sodium Chloride Nasal .9% inhalat 1x100	151	180	-29
			Total	(165)

PS 192

Medication Item Number	Medication	Actual Count	Less Expected Count	Equals Shortage
30	Ventolin HFA 90 mcg inhaler	8	11	-3
31	EpiPen Jr. 0.15 mg	2	5	-3
32	ProAir HFA 90 mcg inhaler	0	1	-1
33	EpiPen 0.3 mg	2	3	-1
			Total	(8)

Agency Comments

NEW YORK
state department of
HEALTH

Howard A. Zucker, M.D., J.D.
Acting Commissioner of Health

Sue Kelly
Executive Deputy Commissioner

November 24, 2014

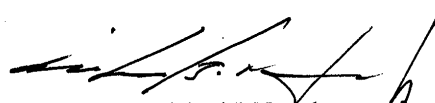
Mr. Frank Patone, Audit Director
Office of the State Comptroller
Division of State Government Accountability
123 William Street - 21st Floor
New York, NY 10038

Dear Mr. Patrone:

Enclosed are the Department of Health's comments on the Office of the State Comptroller's Draft Audit Report 2013-S-34 entitled, "New York City School-Based Health Centers: Security and Control over Medications and Related Supplies."

Thank you for the opportunity to comment.

Sincerely,



Michael J. Nazarko
Deputy Commissioner

Enclosure

cc: Sally Dreslin
Robert W. LoCicero, Esq.
Guthrie Birkhead
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**Department of Health Comments on the
Office of the State Comptroller's
Draft Audit Report 2013-S-34 entitled,
"New York City School-Based Health Centers: Security and Control
over Medications and Related Supplies"**

The following are the Department of Health's (Department) comments in response to the Office of the State Comptroller's (OSC) Draft Audit Report 2013-S-34 entitled, "New York City School-Based Health Centers: Security and Control over Medications and Related Supplies."

The Department acknowledges the key findings that the School-Based Health Centers (SBHCs) located in New York City schools sampled by OSC did not fully employ appropriate inventory controls over medications and related supplies. While it is understood that the lack of proper oversight of medication and supply inventories may result in "misuse, abuse, and harm" as noted in the draft report, the Department is not aware of the occurrence of any adverse outcomes being reported by the SBHCs sampled by OSC.

Recommendation #1

Develop guidelines for SBHCs to help ensure their compliance with governing regulations. The guidelines should include:

- Requiring SBHCs to perform periodic physical inventories of their medications and sensitive medical supplies and reconcile discrepancies as appropriate;
- Documenting all student-supplied medication transactions, including the type and quantity of the medication received or dispensed, as well as pertinent contacts with parents/guardians; and
- Documenting the disposition of expired medications.

Response #1

Within thirty (30) days of receipt of the final audit report, the Department will issue a directive to all Article 28 facilities that sponsor SBHCs in New York State that addresses the recommendation. Specifically, the directive will require that all SBHC-sponsoring facilities must develop and implement policies and procedures that require their SBHCs to:

- Perform quarterly physical inventories of medications and sensitive medical supplies kept on site;
- Reconcile inventory discrepancies as needed;
- Document all student-supplied medication transactions. Documentation must include the type and quantity of the medication received by the SBHC and the names and contact information for the student's parents/guardians; and
- Document the disposition of expired medications.

The directive will be added to the *New York State School-Based Health Center Principles and Guidelines* and all SBHC-sponsoring facilities will be required to attest to complying with the

SBHC Principles and Guidelines on an annual basis and when opening a new SBHC. Additionally, the content of the directive will be added to the program monitoring review tool used to assess SBHC-sponsoring facilities' compliance with the *SBHC Principles and Guidelines*. During on-site program reviews, SBHCs will be required to produce the policy and procedures they use to govern the control of medications and related supplies and demonstrate that they are adhering to the procedures.