

**MUNICIPAL AUDITING REPORT
CITY OF ROANOKE
PUBLIC SCHOOLS**



**Occupational and Student Health
Services**

August 31, 2015

Report Number: 16-002
Audit Plan Number: 15-112

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TABLE OF CONTENTS

Audit Objectives & Scope	1
Background	3
Objective 1 – Security of Student Medication.....	7
Objective 2 – Proper Student Medication Administration	9
Objective 3 – Security of Medical Records.....	11
Objective 4 – Payments made as Contracted	16
Summary of Management Action Plans	19
Acknowledgments	26

AUDIT OBJECTIVES & SCOPE

Audit Objectives:

1. To determine if student medication is properly secured in accordance with Roanoke City Public Schools Medication Administration Policy and Procedures.

Yes – We conclude that student medication is properly secured in accordance with Roanoke City Public Schools Medication Administration Policy and Procedures.

2. To determine if student medication is properly administered [including while on field trips] in accordance with Roanoke City Public Schools Medication Administration Policy and Procedures.

Yes – We conclude that student medication is properly administered [including while on field trips] in accordance with Roanoke City Public Schools Medication Administration Policy and Procedures.

3. To determine if medical records and accident/incident reports maintained by Roanoke City Public Schools are properly secured against unauthorized access.

Yes with Exceptions – We conclude that medical records and accident/incident reports maintained by Roanoke City Public Schools are properly secured against unauthorized access. Archived medical records are retained longer than the scheduled retention period established by the Library of Virginia. A formal process is not in place for timely deletion of system access when nurses leave the division.

4. To determine if payments are made to Carilion in accordance with the Student and Occupational Health Services Agreement effective July 2011.

No – We conclude that annual reconciliations necessary to determine that RCPS pays for services in accordance with the agreement were not consistently completed and validated.

Audit Scope:

We reviewed for the proper and secure storage of student medication for the 2014-2015 school year according to Roanoke City Public School's Medication Administration Policy and Procedures. Our review included observation of medication on-site at a sample of schools, a review of documentation for the receipt of medication onto school property, and documentation to evidence medication pickup and/or disposal. We also reviewed Medication Incident Reports for the 2014-2015 school year to assess by the nature of those incidents, whether student medication is properly secured.

We reviewed for the proper and authorized administration of student medication for the 2014-2015 school year according to Roanoke City Public School's Medication Administration Policy and Procedures. This included a review of medication administration training documentation, SNAP documentation of medication administration, documented parent/guardian permission and physician authorization, and proper completion of student medication logs. We also reviewed documentation of emergency Epi-Pen injections and medication incidents reported during the school year. **Note: SNAP stands for "School Nurse Assistant Program," and is the student health information tracking system software currently utilized by RCPS.**

We reviewed processes for the proper and secure storage of student and employee medical files/records and confidential information for the 2014-2015 school year. This included a review of information stored in the school nurse clinics and at the Ruffner Operations Center, information stored in SNAP, and record retention and destruction processes.

We reviewed processes to ensure that payments have been made to Carilion in accordance with the Occupational and Student Health Services Agreement. This included a review of the following documents identified as key to ensuring payments are in accordance with the original intent of the agreement:

- Annual Proposal showing the Cost Components
- Annual Pricing Addendum signed by RCPS and Carilion
- Annual Purchase Order
- Annual Reconciliations of the Agreed Upon Amount to Actual Costs

We also reviewed [via AptaFund] payments made to Carilion from July 1, 2011 through June 30, 2015, as well as all reconciliations performed by Carilion and RCPS during this time frame.

We did not review workers compensation as part of this audit, as it has been included in the fiscal year 2015-2016 Audit Plan as a separate audit.

End of Audit Objectives and Scope

BACKGROUND

Student Health Services is a department within Student Support Services, whose mission is to coordinate and deliver prevention and intervention services which contribute to the holistic development of children, support to families and improvement to schools. The Occupational and Student Health Services Coordinator reports to the Executive Director of Student Support Services, and oversees, plans and coordinates health and wellbeing activities for the district. The goal of Occupational and Student Health Services is to contribute to student success by helping to maintain the overall health of students and school employees.

Occupational and Student Health Services for Roanoke City Public Schools have been provided by Carilion Medical Center since July 2011. The goal of this arrangement, which is governed by the Student and Occupational Health Services Agreement between RCPS and Carilion Medical Center, was to provide expanded student health coverage and comparable occupational health coverage at a reduced cost. Carilion is an acknowledged leader in health services in the region, and Roanoke City Public Schools hoped to benefit from the depth of expertise and resources of Carilion.

The Annual Staffing Plan agreed to by Carilion and RCPS delineates performance levels for both sides. The current staffing plan provides a total of thirty [30] school nurses as follows:

- A School Nurse in each elementary [17], middle [5] and high school [2]
- One [1] School Nurse assigned to both Forest Park Academy and Noel C. Taylor Learning Academy at Oakland
- The School Nurse assigned to Patrick Henry High School will also serve students at the Roanoke Valley Governor's School
- Two [2] "float" School Nurses [1 part time and 1 full time]
- One [1] School Nurse Preceptor
- One [1] full-time Regional Special Education Nurse
- One [1] full-time School Nurse Manager

The School Nurse Preceptor, Regional Special Education Nurse and School Nurse Manager, along with the Occupational and Student Health Services Coordinator, are located at the Ruffner Operations Center. Carilion also provides a full-time Department Secretary and a part-time Occupational Health Nurse, also in this same location. The Occupational and Student Health Services Coordinator position was established in 2011 when health services were

outsourced to Carilion. The role has changed hands several times in the past few years, and the current coordinator has been in place since October 6, 2014.

Occupational and Student Health Services provides an array of services and manages various responsibilities. Occupational health responsibilities include:

- Pre-employment screenings
- Sick appointments for current employees
- Drug/alcohol testing/screening upon request by Administration
- Tuberculosis risk screening
- Infectious disease control and reporting [to RCPS superintendent]
- Review of employee accidents
- Reporting of employee accidents [depending on severity] to RCPS superintendent
- Filing of workers compensation claims
- On-going wellness initiatives

Student health responsibilities consist of:

- Providing appropriate school nurse coverage on a daily basis
- Assessing/treating student injuries and illness
- Fielding parent calls/concerns
- Student immunizations and annual reporting to the Virginia Department of Health
- Annual reporting of student immunization exemptions to the Department of Education
- Required health screening and annual reporting to the Department of Education
- Chronic disease management and annual reporting to the Department of Education
- Infectious disease control and reporting [to RCPS superintendent]

- Documenting clinic visits
- Attending to school bus incidents
- Reporting student incidents/injuries [depending on severity] to RCPS superintendent
- Medication administration and documentation
- Interaction with school principals and other school staff
- Training [Medication Administration, OSHA, etc.]

Regarding occupational health services, we determined the most significant risk to be the potential for false claims related to worker's compensation. As noted above, worker's compensation was scoped out of this audit; therefore this risk was not addressed here. We did identify the potential for unauthorized access to employee medical records and over/under payment for Carilion services to be significant risks, and designed the audit program to incorporate testing of controls for these risks.

For student health services, we determined the following to be the most significant risks:

- Administering medication that has not been properly authorized by a parent/guardian
- Administering prescription medication that has not been properly authorized by a student's physician
- Improperly administering medication on field trips [school nurses do not attend]
- Medication being stolen or misused due to unauthorized access
- Overpaying/underpaying for Carilion services
- Unauthorized access to medical records/confidential student information

The Student and Occupational Health Services Agreement specifically states that "RCPS shall be solely responsible for the security of student health information maintained in SNAP and agrees to indemnify, defend and hold harmless Carilion and its affiliates... except to the extent that such disclosure is directly attributable to Carilion's negligence or willful misconduct." Audit procedures were developed to test the controls over these significant risks.

There are a multitude of laws and regulations governing the Occupational and Student Health Services Department:

- Health Insurance Portability and Accountability Act of 1996 [HIPPA]
- Family Educational Rights and Privacy Act [FERPA]
- Nurse Practice Act
- Virginia Code
- Roanoke City Code
- Library of Virginia Record Retention Guidelines

School nurses and the occupational health nurse must remain cognizant of these laws and regulations as they perform their day-to-day responsibilities, to ensure compliance at all times.

End of Background

Objective 1: Security of Student MedicationAudit Objective:

Is student medication properly secured in accordance with RCPS Medication Administration Policy and Procedures?

Yes

Overview:

Each school clinic maintains secure cabinets [file cabinets or otherwise] in the school nurse clinic for storage of student medication. School nurses lock these cabinets and the door to the clinic whenever the nurse is not present. The principal at each location maintains a master key which can access the school nurse clinic and a spare key to the cabinet in order to access student medication if the nurse is unavailable. Each school clinic also maintains a designated refrigerator for medication storage for those medications which require refrigeration. This refrigerator does not contain any food, except food which is strictly used for medication administration purposes, and is accessible only to authorized personnel. The school nurse verifies the temperature of the refrigerator each day to ensure it is within the appropriate range for medication storage, and documents this on a weekly log.

When a parent/guardian brings medication to the school nurse for their child, the nurse promptly counts and documents the receipt of the medication, and logs it into the individual Student Medication Log. The parent/guardian [or another school employee if the parent/guardian leaves or is unable/unwilling to stay] signs off on this action to attest to the counted medication that is presented.

We visited three [3] RCPS school nurse clinics open for summer school at the time of our fieldwork [Patrick Henry High School, Woodrow Wilson Middle School, and Fallon Park Elementary School] to observe the security of student medication. All three [3] clinics appear to be in compliance with the medication storage procedures, and maintain proper documentation of the receipt of student medication. We also observed that the emergency Epi-Pen supply is properly stored in a location inaccessible to students, but accessible to staff in the event of an emergency.

RCPS Medication Administration Procedures require student medication to be picked-up by the parent/guardian by the last student day of school. Unclaimed medications are disposed of by the school nurse and witnessed by one [1] other school employee. A sample of Medication Logs for the 2014-2015 school year for each school clinic visited revealed witness signoff for medication pick-up and disposal is properly documented. Furthermore, a sample of student medications on hand at each school clinic visited confirmed that disposal processes are performed in a timely manner, as the only medications on-site were for currently enrolled

students.

A medication incident is described in the “RCPS Procedures for Medication Administration” as any incident that violates the “rights” of safe medication administration. School nurses document medication incidents on a Medication Incident Report, and submit the report to the Occupational and Student Health Services Coordinator at the Ruffner Operations Center. The Occupational and Student Health Services Coordinator reviews the incident report and elevates to Administration personnel as deemed necessary. We reviewed all four [4] Medication Incident Reports submitted for the 2014-2015 school year. Based on the volume and nature of those medication incidents, we conclude that student medication is properly secured.

End of Objective 1

Objective 2: Proper Student Medication AdministrationAudit Objective:

Is student medication properly administered [including while on field trips] in accordance with RCPS Medication Administration Policy and Procedures?

Yes

Overview:

Each school must designate at least four [4] personnel, in addition to the school nurse, to complete training in proper medication administration. Two [2] of these personnel must also complete training in the administration of insulin and glucagon for any school location in which one [1] or more students have been diagnosed with diabetes. Each school principal has a responsibility to ensure sufficient personnel have been trained and authorized to administer medication, as well as insulin/ glucagon. The principal must submit the names of those personnel to the School Nurse Manager each school year. These trained personnel are authorized to administer medication to students while on school property or on field trips.

We reviewed documentation confirming the personnel that were trained and authorized in each school location to administer medication and insulin/glucagon during the 2014-2015 school year. We noted six [6] of the twenty-seven [27] schools, or 22%, had not trained and designated at least four [4] personnel to administer medication. All schools that had at least one [1] student diagnosed with diabetes did have at least [2] personnel trained and authorized to administer insulin and glucagon.

A parent/guardian must bring prescription medication to the school in the original prescription bottle. It must be properly labeled with the student's name, name of the medication, doctor's name and how often it is to be given. They must also submit physician authorization and parental permission for designated personnel to administer prescription medication. A parent/guardian must bring over-the-counter medication to the school in the original, unopened container, and submit their permission for designated personnel to administer this medication. The school nurse establishes an individual medication log for each student that brings medication from home [prescription or over-the-counter], and records each instance of medication administration in the electronic student health information system, SNAP.

We reviewed a sample of thirty [30] medication administrations during the 2014-2015 school year: five [5] prescriptions and five [5] over-the-counter medications at three [3] different schools [Patrick Henry High School, Woodrow Wilson Middle School, and Fallon Park Elementary School]. We noted that parent/guardian permission was on file for all medications administered in the sample. We identified one [1] prescription medication administered without physician authorization/orders; however, this was not deemed significant since it was the only instance identified in the sample, and since prescriptions must be brought into the school in the original prescription package which would indicate physician authorization. All medications in the sample were administered by authorized personnel and documented in the SNAP system.

Student medication logs were properly completed for fourteen [14] of fifteen [15] prescriptions in the sample. One [1] medication in the sample was administered while on a field trip and was properly documented.

When school personnel must administer epinephrine in an emergency situation, they contact the school nurse immediately. The school nurse or authorized school personnel call 911, continue to monitor the student, administer additional medications as needed, and turnover the empty epinephrine syringe to emergency personnel once they arrive. Protocol dictates that school personnel must also contact a parent/guardian; however, the student should be treated even if a parent/guardian cannot be reached. We reviewed documentation of both emergency Epi-Pen injections that occurred during the 2014-2015 school year, and noted that the school nurse followed proper protocol, and sufficiently documented both incidents in SNAP.

When a medication incident [any incident that violates the “rights” of safe medication administration] occurs, the school nurse monitors the student’s status, identifies the incident, and notifies the principal, parent/guardian, and the student’s health care professional. The school nurse completes a Medication Incident Report, and submits the report to appropriate personnel.

We reviewed all four [4] Medication Incident Reports documented for the 2014-2015 school year and noted that the school nurse did not notify the physician in any of the four [4] instances, and did not notify a parent/guardian in two [2] of the four [4] instances as required by the RCPS Procedures for Medication Administration. We discussed the four [4] medication incidents with the Occupational and Student Health Services Coordinator and noted physician notification would not have served any meaningful purpose in regards to the student’s treatment or health outcome in three [3] of the four [4] incidents based on the nature of the incidents and the types of medications involved. A parent/guardian should be contacted in all instances; however, procedures should be reviewed from the perspective of professional judgment when deciding whether physician notification is necessary, since all school nurses hired are Registered Nurses [RN’s].

We reviewed SNAP reports showing the number of medications administered per month for each school location, and noted that over 43,000 doses of medications were administered during the 2014-2015 school year. While administering medication is only part of the school nurse job function, it can account for a significant portion of their daily responsibilities.

End of Objective 2

Objective 3: Security of Medical RecordsAudit Objective:

Are medical records and accident/incident reports maintained by RCPS properly secured against unauthorized access?

Yes, with exceptions.

Overview:Student Health Information

There is a school nurse clinic at all twenty-seven [27] RCPS locations [17 elementary, 5 middle, 2 high, 2 learning academies, and 1 governor's school]. Each clinic has a school nurse dedicated to the location, except for the governor's school which shares a nurse with Patrick Henry High School, and the two [2] learning academies which also share a nurse. The following student paperwork/medical information is maintained in locked file cabinets, drawers, or closets within the clinic during the regular school year:

- School Nurse Health Information Form
- Permission for Medication Form
- Physician Authorizations for prescription medication [included on the Permission for Medication Form]
- Student Medication Logs
- Individual Health Plans

At the end of each school year, the school nurse sends all hardcopy student records to the Ruffner Operations Center where the records are securely stored in a locked vault room within the Occupational and Student Health Service Suite until destruction. School nurses will fax Student Incident Reports directly to the Occupational and Student Health Services Coordinator, and she secures them in her desk. Once her desk is full, she boxes the reports and stores them in the locked vault room until destruction.

We visited three [3] school nurse clinics [Patrick Henry High School, Woodrow Wilson Middle School, and Fallon Park Elementary School] to observe the security of student paper medical records/information maintained at each location. At each clinic visited, the school nurse stores student medical information, permission forms, etc., in either a locked file cabinet or a locked closet. The clinics are locked each night, as well as during the day when the school nurse is not in the clinic. The school nurse maintains a key to the clinic and to any locked closets and/or file cabinets within the clinic on her person at all times. The principal and/or secretary at each school maintain backup keys in order to access medication and/or paperwork if the school nurse is away. We confirmed with the RCPS Site Safety and Security Supervisor that the principal's key at most school locations is a master key which does access the school clinic door. He

indicated that the building manager and maintenance workers at some school locations also maintain a master key which can access the school clinics, but they do not have keys to the locked file cabinets, drawers, or other doors within the clinic.

We also reviewed the security of student paper medical records/information stored at the Ruffner Operations Center. Student information is stored in a locked vault room within the Occupational and Student Health Services Suite. The following personnel have access to the key to the locked vault room:

- Occupational and Student Health Services Coordinator
- Carilion School Nurse Preceptor
- Carilion School Nurse Manager
- Carilion Special Education Nurse
- Occupational and Student Health Services Secretary

School Nurse Assistant Program [SNAP]

Student health information is also stored in the SNAP student health information tracking system. School nurses record clinic visits, medication administration, medical treatment, etc. each day. The following personnel have access to SNAP:

- All school nurses
- Occupational and Student Health Services Coordinator
- Carilion School Nurse Preceptor
- Carilion School Nurse Manager
- Occupational and Student Health Services Secretary
- Three [3] RCPS IT personnel
- Two [2] high school employees serving as registrars

The SNAP system has seven [7] pre-defined security levels and one [1] customizable security level that can be assigned to users based on the access required for their job function. Users who have medication administration rights are assigned a personal identification number [PIN], which they must enter each time they login to the Medication Administration screen. All SNAP users read and sign the "RCPS Acceptable Use Procedures" each school year.

The following personnel serve as system administrators for SNAP:

- Occupational and Student Health Services Coordinator
- Carilion School Nurse Preceptor
- Carilion School Nurse Manager

The three [3] administrators share the admin username and password, as SNAP only assigned one [1] admin user to RCPS. This does not appear to present a significant risk however, since the administrators cannot document in SNAP while signed in with the admin user name. Furthermore, all three [3] administrators are registered nurses [RN's] and are therefore authorized to access medically sensitive data. The administrative modules allow access to the following functions

- Maintenance
- Activity
- Users [add, delete, edit existing security levels, and reset passwords]
- SQL Security
- School/Options
- Auto-Backup
- Billing
- Formats
- SNAP Satellite

SNAP authorized users can only access the system from an RCPS computer, as there is currently no VPN access from home or other locations.

We reviewed all authorized SNAP users to ensure each user is a current school nurse or authorized RCPS employee. We identified one [1] active profile for a school nurse that was terminated in October 2014. The account was last used in April 2015.

We reviewed user access in relation to the security levels assigned, and determined that security levels are appropriate for each user, except for the three [3] RCPS IT personnel. The RCPS IT personnel currently have the same security level access as the school nurses, and therefore have access to medically sensitive data that may not be required to perform their job function.

We selected a sample of ten [10] Carilion employees assigned to RCPS during the 2014-2015 school year, and verified that all had signed the annual acknowledgement that they had read and would comply with the division's "Acceptable Use Procedures."

Employee Health Information

Employee medical records are secured in locked file cabinets within the Occupational and Student Health Services Suite at the Ruffner Operations Center. Terminated employee medical records are maintained in locked file cabinets within a locked room also in the suite. When RCPS employees must complete an Employee Accident Report, they either fax the completed report directly to the Occupational and Student Health Services Coordinator, or physically take the form to her at the Ruffner Operations Center. Employee Accident Reports are secured in the employee medical records.

We reviewed the security of employee medical records maintained at the Ruffner Operations Center, and noted the following personnel have access to the keys to the locked cabinets and the locked room where employee records are stored:

- Occupational and Student Health Services Coordinator
- Carilion Occupational Health Nurse
- Occupational and Student Health Services Secretary

The RCPS Site Safety and Security Supervisor confirmed that building maintenance workers maintain a master key to access the Occupational and Student Health Services Suite, but they do not have keys to any of the locked doors or file cabinets within the suite.

Records Retention Requirements

The Library of Virginia issues regulations governing the retention and disposition of state and local public records. Medical treatment and administration of medication for each student seen by school nurses is recorded in the SNAP system. This history is essentially the student cumulative health record [short-term cumulative file]. As such, the record should be destroyed five [5] years after the student leaves the division. Once destroyed, there is no risk of unauthorized access.

The long-term student cumulative file on the other hand, which contains academic and some health information, should be maintained for seventy-five [75] years after a student leaves the division. No medical records should be considered as part of the student's cumulative file unless explicitly required by law or regulation. Clinic records such as emergency and health information sheets, which may contain parent and physician contact information, or individual student health care plans, should be destroyed after each school year. Student accident/injury reports, however, must be maintained for twenty [20] years after the student's birth.

There are varying retention requirements for employee medical records as well:

- Employee health records must be retained thirty [30] years after separation from employment

- Employee accident/illness reports can only be retained for five [5] years after the event occurs
- Records documenting drug and alcohol screening or testing of employees should be retained three [3] years after the event
- Employee health certificates verifying employee's ability to perform a specific task, function, or job, or verifying that employee's health meets requirements set by the employer, must be retained for three [3] years after separation of employment

We discussed records on hand with the Occupational and Student Health Services Coordinator, and reviewed record retention procedures for the department. We noted that although the Occupational and Student Health Services Coordinator has only been in the department since October 2014, she has already made a concerted effort to organize thousands of student records for destruction.

Nevertheless, student medical information maintained in the SNAP system is backed-up to the server nightly and maintained indefinitely. Consequently, it is not destroyed in accordance with Library of Virginia guidelines.

In spite of the effort made to organize the student records, our review revealed that the department has not organized and boxed the archived employee medical records for destruction. Furthermore, they have not created a Records Locator Inventory [RM-20] to identify and quantify all records as required by the Virginia Public Records Management Manual. This inventory would further enhance the record retention and destruction process.

End of Objective 3

Objective 4: Payments made as ContractedAudit Objective:

Are payments made to Carilion in accordance with the Student and Occupational Health Services Agreement effective July 2011?

No

Overview:

RCPS and Carilion entered into an agreement for Student and Occupational Health Services in May 2011. The original agreement provided for student health services during the regular school year and stated that summer school services would be provided upon request and negotiation. Occupational health services were to be provided year-round by a part-time Occupational Health Nurse, three days each week or .6 of a full time equivalent.

The annual staffing plan and resulting contract amount was to be negotiated and agreed upon by May 31 for the subsequent school year. The school division agreed to pay one twelfth [1/12] of the annual contract amount by the fifteenth [15th] day of each month, beginning in July.

The contract specified that a reconciliation of the agreed upon amount and Carilion's actual costs would be prepared semi-annually, in February and August. The August reconciliation would be used as the basis for Carilion to invoice RCPS for an additional payment if actual costs exceeded the agreed upon amount, or to refund amounts paid that exceeded actual costs. No de minimis amounts were specified with regards to this final settlement.

The format of the reconciliation and the cost components used to arrive at Carilion's total costs were not specified in Carilion's proposal or the final contract. The responsibility for reviewing the reconciliation was not formally assigned within RCPS and the means by which the costs would be validated were not specified.

In accordance with the requirements of the contract, the school division created a position entitled "Occupational and Student Health Services Coordinator." This position is paid by RCPS and provides coordination to help ensure nurses have the proper access to buildings and systems and are aware of division policies. The coordinator works closely with Carilion's School Nurse Manager and Occupational Health Nurse to ensure quality services and adequate coverage. She is also responsible for the security and administration of the division's medical records.

We identified the following documents as key to ensuring payments are in accordance with the intent of the original contract:

- Annual Proposal Showing the Cost Components
- Annual Pricing Addendum Signed by RCPS and Carilion
- Annual Purchase Order
- Annual Reconciliations of the Agreed Upon Amount to Actual Costs

We reviewed all available internal records related to this contract and also requested relevant documents directly from Carilion. The following table shows our results:

Year:	11/12	12/13	13/14	14/15	15/16
Annual Proposal	Yes	Yes	Yes	Yes	Yes
Annual Addendum	Yes	No	Yes	Yes	Yes
Annual Purchase Order	Yes	Yes	Yes	Yes	Yes
Annual Reconciliation	No	No	Yes	Pending	NA

Under/Over Payments:

The proposal for the second year of the contract [2012-13] included notations indicating that the school division accepted the proposal. It included adding a special education nurse, an additional floating nurse, and increasing the number of weeks school nurses worked from 40 to 41. When combined with a 2% merit increase in salaries, the proposal totaled \$1,686,769. This was an increase of \$231,643 or approximately 15.9%. A “Mid-Year Review” from Carilion that was located in the division’s files indicated that Carilion indeed provided the additional services. The mid-year review of July through December services indicated that actual costs were about \$77,000 more than proposed due to higher than predicted benefit costs. The school division budgeted and paid \$1,485,888 for service in 2012/13. A year-end reconciliation was not prepared and the additional services and increased costs were not invoiced.

The proposed amount for 2013/14 was \$1,825,140 and included increasing the number of weeks school nurses worked from 41 to 42 and the weeks worked by the special education nurse from 42 to 44. It also included an increase in summer school nursing services from \$37,894 to \$85,555. Consistent with the signed addendum, the school division budgeted and paid \$1,825,140. The annual reconciliation was prepared resulting in a refund to RCPS of \$25,009.

For the school year 2014/15, the proposed pricing of \$1,953,069 included a 3% merit pay increase. The signed addendum separately itemized nursing services for summer school, costing \$91,332. The amount was overlooked when the budget was developed and therefore not incorporated into the monthly payments. The reconciliation for the 2014/15 school year has not yet been completed, but will likely show an amount due from RCPS for summer school services. *[The reconciliation was provided by Carilion the week of September 21, 2015, and RCPS received a refund of \$49,859.]*

Timely Payments:

We reviewed the timing of all payments RCPS made to Carilion from July 2011 through June 2015 to verify payments were made by the 15th of each month as required by law. We determined that 31 of 48 monthly payments (65%) were issued after the 15th and considered late. This issue appears to have been addressed by creating internal monthly invoices for all 12 months at the beginning of the year and having a tickler file to prompt payment. The last ten [10] payments [since October 2014] were issued timely.

Carilion's Costs:

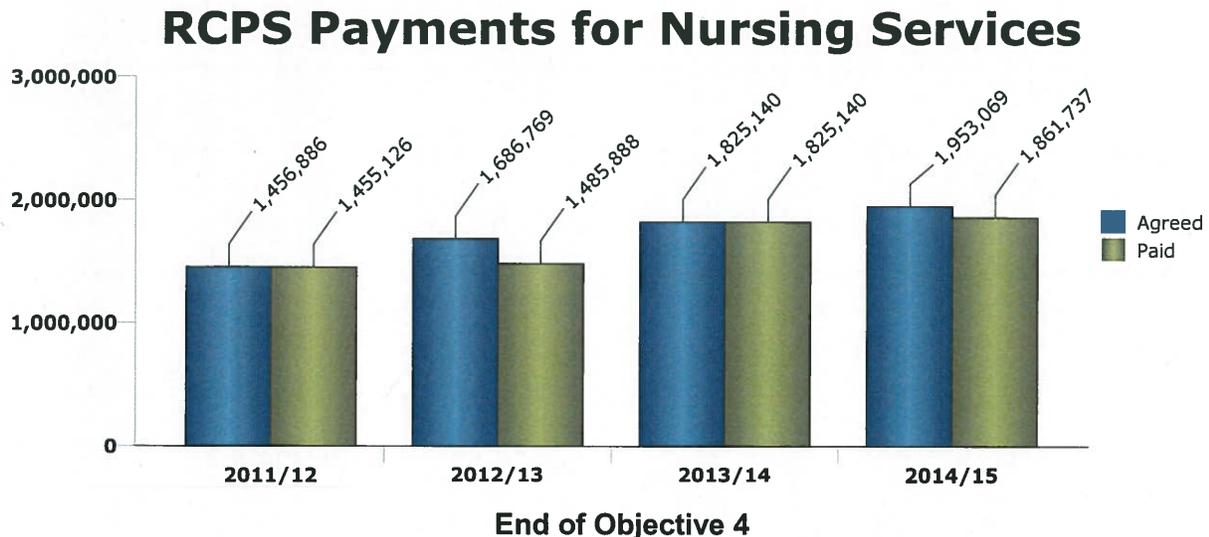
We reviewed the reconciliation process with the Financial Manager of Carilion Clinic Pediatrics in order to obtain an understanding of the basis of Carilion's costs which are used to determine if a refund or additional payment is required. The 2013-2014 reconciliation included the following cost components:

- Salaries
- Benefits
- Goods for Resale
- General Supplies
- Medical Supplies
- Travel & Education
- Supplies and Other Expenses
- Management Fee [\$500 per site per month = \$150,000]
- Revenue [9% of Expenses]

Carilion's financial systems track these costs components based on a unique customer number assigned to RCPS. The management fee and revenue component are expected to cover Carilion's indirect costs such as human resources, accounting, and administration. The management fee and revenue factor were never identified in the proposal, contract or annual addendums. There appears to be a reasonable basis for the fee and the revenue factor. However, it is important that RCPS management understand the cost components so that they can appropriately evaluate and validate the costs of services.

Carilion could only locate the 2013/14 reconciliation. The Financial Manager is new to his position and will be preparing the reconciliation for 2014/15. We were unable to find any documents that specified the format for the reconciliation or the process for validating reconciliations.

The following chart shows the annual amount agreed to for nursing services compared to the actual amounts paid since the inception of the contract in 2011.



SUMMARY OF MANAGEMENT ACTION PLANS**ROANOKE CITY PUBLIC SCHOOLS****Student Health Audit 12-112****AUDIT OBSERVATIONS****A-3.1 Medication Administration Training**

CONDITION: Six (6) out of twenty-seven (27) schools, or 22%, had less than four (4) personnel authorized to administer medication for the 2014-2015 school year. Two (2) of the five (5) middle schools (40%) and four (4) of the five (5) high schools/alternative education schools (80%) were out of compliance with RCPS Procedures for Medication Administration. Furthermore, the spreadsheet of Principal's Designees for Medication Administration, which is used to track the authorized personnel for each school, had not been updated to reflect those personnel who had completed training per the PD360 [Edivate] system.

ACTION: A verbal poll of the RCPS School Nurses by the Coordinator of Student Health Services (COSHS) was conducted following the audit. Every nurse reported that each school was compliant with the RCPS policy that each school have four (4) Principal Designees in the areas of Medication Administration, Anaphylaxis, Insulin and Glucagon Administration, as well as CPR and First Aid. This indicates that the current practice of utilizing the current spreadsheets for this information is flawed. A report process has been developed by the RCPS PD360 site manager that provides actual employee course completion in each of the health related courses as well as the mandatory annual OSHA training, allowing for more accurate information. This report, reviewed 10/7/15, indicated 100% compliance regarding trained staff in each school.

Administrative reminders will be made prior to each school year and training sessions will be offered at least annually in the health related topics. The COSHS will, in the event of non-compliance in a specific school, collaborate with the Building Administrator to ensure compliance with the RCPS Board Policy.

ASSIGNED TO: Karen Switzer, RN, COSHS

COMPLETION DATE: Corrected and ongoing

A-3.2 Notification of Medication Incidents

CONDITION: School nurses did not notify a parent/guardian of two (2) of four (4) medication incidents, and did not notify the student's physician of all four (4) medication incidents that occurred during the 2014-2015 school year.

ACTION: The RCPS Medication Administration protocol requires that the parent/guardian be notified, as well as the student's physician. The protocol will be revised to allow for the professional nurse's judgement regarding notifications. The revised protocol will require documentation by the nurse stating the reason(s) why notification of parent and/or physician did not occur. The Medication error protocol was reviewed with all RCPS school nurses prior to the beginning of the 2015-16 school year. Specifically, parent/guardian/physician notification and documentation of notification exceptions were discussed. The COSHS will review all reports of medication errors and follow-up as appropriate with any documentation discrepancies.

ASSIGNED TO: Karen Switzer, RN, COSHS and Ellen Carroll, RN, Carilion School Nurse Manager.

COMPLETION DATE: Review of this protocol will occur on an annual basis with all school nurses.

A-3.3 SNAP User Access

CONDITION: One (1) profile for a school nurse terminated on October 16, 2014 was still active on SNAP as of July 28, 2015. Furthermore, the SNAP User and System Access Information report as of July 9, 2015, shows this terminated employee's profile with an "Issue Date" of March 20, 2015.

ACTION: The Carilion School Nurse Manager will notify the COSHS of any separation of personnel. The COSHS will remove SNAP User access upon employee separation. The COSHS will notify the building Administrator of the Carilion employee's expected date of departure and then contact the administrator to ensure receipt of building and clinic keys, and the security ID badge from the Carilion employee.

ASSIGNED TO: Karen Switzer, RN, COSHS

COMPLETION DATE: Ongoing

A-3.4 Record Retention

CONDITION: Beginning Winter 2015, student records stored in the Health Services suite were reviewed, categorized and purged according to the Library of Virginia record retention regulations. Employee health records will be handled accordingly during the winter of 2016. Any record retained will be in accordance with the Library of Virginia record retention regulations.

ACTION: The Records Locator Inventory Form RM-20 is now in use to identify and quantify retained employee and student health records. The RCPS Designated Records Officer will be consulted and actively involved in any record review for destruction or storage. The Library of Virginia Archives, Records and Collections Services, Records Retention and Disposition

Schedule, General Schedule No. GS-21, County and Municipal Governments; Public School will be utilized to ensure compliance.

ASSIGNED TO: Karen Switzer, RN, COSHS

COMPLETION DATE: RCPS student record review and purge is complete and will be an ongoing process. The retained records are stored at the Ruffner Operations Center. All records are categorized labeled for future destruction per the Library of Virginia regulations.

The closed RCPS Employee Health records will be reviewed, purged and then categorized and appropriately labeled for future destruction per the Library of Virginia regulations.

A-3.5 Fiscal Year 2012-2013 Pricing Addendum

CONDITION: A signed addendum between Roanoke City Public Schools (RCPS) and Carilion is not on file for Fiscal Year (FY) 2012-2013 detailing the Annual Amount agreed to by both parties. The mid-year review prepared by Carilion indicates an approved amount of \$1,686,769; however, the budgeted amount for FY 2012-2013 was \$1,500,000.

ACTION: The COSHS will request from Darren Eversole, Carilion Pediatric Fiscal Service, a contract pricing addendum following review of, and agreement to, a total annual cost for Student and Occupational Health Services based on the projected annual staffing plan presented on or before May 31 of each contract year. The pricing addendum will be reviewed and signed by both Carilion and RCPS representatives prior to the opening of the purchase order in Aptafund. A complete new Carilion/RCPS contract document will be developed prior to the May 31, 2016 agreement date and will include all contract changes that have been agreed upon since the original contract in 2011, projected staffing plan and fiscal information.

ASSIGNED TO: Karen Switzer, RN, COSHS; Kathleen Jackson, CFO; RCPS Administration

COMPLETION DATE: May 31, 2016 and annual thereafter.

A-3.6 Late Payments

CONDITION: Roanoke City Public Schools (RCPS) has paid thirty-one (31) of forty-eight (48) or 65% of monthly payments to Carilion after the specified due date of the fifteenth (15th) day of each month.

AUDITOR RECOMMENDATION: No recommendation will be made at this time since the root cause of the issue appears to have already been addressed by the [Acting] CFO [creation of "dummy invoices" sent to Accounts Payable each month] and the A/P Procurement Specialist [creation of tickler for the 20th day of preceding month to enter the invoice]. Auditor notes that the last ten [10] payments [since October 2014] have been made on time.

A-3.7 Fiscal Year 2014-2015 Summer School

CONDITION: Roanoke City Public Schools did not budget for, and subsequently did not pay to Carilion, Fiscal Year 2014-15 summer school student health services costs totaling \$91,332.

ACTION: It is School Board and City of Roanoke policy that the School Board must approve a categorical budget no later than March 14 of the preceding fiscal year, and forward that budget to the city by March 15. The 2014-15 budget, therefore, was approved by the School Board at the March 11, 2014 meeting, and the Line Item Budget was endorsed at the May 13, 2014 School Board meeting. The contract addendum which includes the 2014-15 rates for Carilion's services is dated June 16, 2014. It is noted in budget work papers that then Executive Director for Fiscal Services, Margaret Lindsey, budgeted using the preceding year actual experience (up to that point) plus a 2% increase based on Carilion's expected salary increase for their employees. This is the best information that was available at the time the 2014-15 budget was being completed.

It does not appear that RCPS has ever paid separately for Summer School nursing services, yet in September of 2014 RCPS received a refund from Carilion of \$25,009 as a result of their 2013-14 year-end reconciliation. This would indicate that our budgeting and payments in the prior year (2013-14) were more than sufficient to cover the Annual Costs plus the additional costs of summer school services.

It is the opinion of Management that the monthly payment amounts paid during 2014-15, based on the "Annual Cost" as stated in section D.2(d) as amended, are in keeping with the terms of the contract.

Section D.1 states that "By no later than the 15th day of each month, commencing in July of each Fiscal Year, RCPS shall pay Carilion one-twelfth (1/12) of the Annual Amount."

Section D.2(d) as amended defines that "Annual Amount", stating that "For the Fiscal Year commencing July 1, 2014 and ending June 30, 2015, the Annual Cost shall be \$1,861,737.00 for Student Health Services, including Regional Special Education Nurse (which makes up \$64,391.00 of the Annual Cost) and Occupational Health Services (which makes up \$59,026.00 of the Annual Cost)."

Section D.2(e) specifies a separate amount for Summer School nursing services, but because this section states that "this cost is not part of the Annual Cost for the Fiscal Year commencing July 1, 2014 and ending June 30, 2015," Management interpreted this to mean that Carilion would be billing RCPS separately for those services, and that amount should not be included in the amount paid in 12 installments as defined in Section D.1.

On September 16, 2015, RCPS received a check for \$49,859 from Carilion Clinic, as a refund for overpayment of 2014-15 nursing services. A reconciliation supporting that amount has been provided by Carilion Clinic, and we have confirmed that Carilion Clinic has included the full 12

months of services provided, including Summer School services, in their calculation of total actual costs.

Management agrees that budgeting for all expected costs, to the extent possible based on projections available at the time budgeting must be completed, is the appropriate course of action. However, Management also feels that more information than the projections of Carilion Clinic should be considered, including past variances. It is very much in the School Division's favor that in 2014-15 we overpaid Carilion by \$49,859 instead of by \$141,191 as would have been the case had we paid an additional \$91,332 for projected Summer School service costs.

For 2015-16, RCPS had Carilion Clinic's projections in time to include those figures in the Line Item Budget. Carilion Clinic included Summer School costs in their Annual Cost projection, yet the total (excluding Occupational Health Services) is only \$12,479 higher than 2014-15's projection, which did not include Summer School. This suggests that Carilion Clinic continues to adjust their projections based on prior year experience, to hopefully help them, and RCPS, more accurately budget for actual experience.

A-3.8 Carilion Reconciliation

CONDITION: Mid-year and year-end reconciliations have not been done consistently, and no mid-year reconciliation was done in 2014-15.

ACTION: Management acknowledges that during 2014-15, the new leadership in the areas of Student Health Services and Fiscal Services were unaware that a reconciliation was due in February 2015, and therefore did not seek, nor receive, such a reconciliation from Carilion Clinic. A refund in the amount of \$49,859 was received from Carilion Clinic on September 16, 2015. The supporting reconciliation documenting how Carilion arrived at this figure was received on September 21, 2015 and has been reviewed by both the Occupational and Student Health Services Coordinator and the Chief Financial Officer.

Going Forward, RCPS's Occupational and Student Health Services Coordinator will schedule with the appropriate contacts at Carilion Clinic to receive mid-year and year-end reconciliation reports as required by contract. The Occupational and Student Health Services Coordinator will review the reconciliation and ensure that the level of service being reported and charged for the time period in review aligns with her knowledge and records of services rendered, and with the terms of the contract. Once she is satisfied with the reconciliation, she will share a copy with the RCPS Chief Financial Officer to ensure the Fiscal Services Department is informed of additional expenditures that are expected, or overpayment refunds that will be forthcoming.

A-3.9 Clarity of Total Costs Included in Carilion Clinic Contract

CONDITION: The Fiscal Year 2013-14 reconciliation includes management and revenue fees, neither of which were specifically identified as part of the costs of services to be provided.

ACTION: In the most recent reconciliation received from Carilion Clinic, Carilion clarified those expenses that had formerly been identified as management and revenue fees. They define direct costs as management fees, specifically costs associated with “Operating the practice or program. This would be the supervision, scheduling, immediate oversight, and HR.” Indirect Costs included are defined as including “TSG, Finance, Accounting, Legal, In-services, Malpractice/Risk, CMO oversight, Kronos, Lawson, etc.” In consultation with Municipal Audit, we feel these costs are adequately covered by the terms of the contract, and no addendum is needed for the current year. However, we will work with Carilion Clinic going forward to implement Municipal Audit’s recommendation that these direct and indirect costs be clearly reflected in the annual pricing addendum that is agreed to preceding each year of the contract. This will begin with the pricing agreement for 2016-17. We will further ensure that the 2016-17 annual pricing addendum, and all future pricing addenda, continue to delineate the annual costs for each service covered, such as Student Health Services, Occupational Health Services, Regional Special Education Nurse, and Summer School Nurse Services.

A-3.10 IT Access to SNAP

CONDITION: Three (3) RCPS IT personnel Maintain security level 7 access to SNAP, which is the same level of access maintained by the school nurses.

ACTION: The COSHS has communicated with RCPS IT personnel to determine the RCPS IT staff requiring SNAP access and their level of function within the program. All non-nursing SNAP users have now been adjusted to a level 5 access.

ASSIGNED TO: Karen Switzer, RN, COSHS

COMPLETION DATE: Initial action is complete. Any change in RCPS IT SNAP access will be performed exclusively by the two (2) program administrators and only if SNAP system access is essential. In that instance, the IT access will returned to level 5 following system upgrade or troubleshooting, etc.

MANAGEMENT ALERTS

A-4.1 Health Information System – Caretox

AUDITOR COMMENTS: The COSHS has been in contact with a third party regarding potentially using a new electronic information system – Caretox [which would replace SNAP]. The new system would be free of charge for the first three [3] years, with a minimal charge

thereafter. It sounds like the new system would be able to interface with RCPS and would also allow parents, doctors and other necessary third parties access as well.

Municipal Audit believes this is a sound concept to review alternative systems, especially systems that allow more integration and ease of use for all parties. If a new system is considered, however, data security should be central to the decision-making process. A third party vendor should be required to adhere to at least the same standards and level of security that are in place for RCPS's own systems. RCPS should also be sure to address other security that are in place for RCPS's own systems. RCPS should request and review a SOC 1 (Service Organization Controls) Report of Service Provider Access for any potential health information system being considered.

RESPONSE: A review/action team comprised of RCPS IT staff, school nursing staff and administrative staff has convened to review the Caretox program. Review continues and, if there is a proposal to change health documentation systems, all stakeholders will be brought to the table for review and final disposition.

A-4.2 SNAP Reporting Accuracy

AUDITOR COMMENTS: The SNAP District Report of medication administrations from August 2014 through July 2015 does not appear to be accurate. The report reflects only one (1) Epi-Pen injection for the year; however, per discussion with the COSHS and per review of SNAP visit summaries, there were actually two (2) Epi-pen injections during the school year. Additionally, the SNAP District Report identifies one (1) of the Epi-Pen injections to have occurred in February 2015, but the supporting documentation reflects that the injection actually occurred in April 2015.

RESPONSE: Investigation with a SNAP representative did not produce an explanation for the discrepancies. Monitoring of SNAP events will be ongoing to determine if this is an ongoing problem. If so, SNAP technical assistance will be notified to produce a solution.

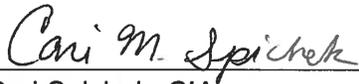
A-4.3 SNAP MAR Counts

AUDITOR COMMENTS: The SNAP Medication Administration Record (MAR) automatic counts of medication administration do not appear to be accurate. Auditor identified several instances throughout the Audit where the amount of medication "left" after a dose of medication had been administered did not appear to be mathematically correct. Auditor has attached an example of an MAR report containing errors as an illustration.

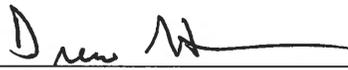
RESPONSE: Please refer to **A-4.2**

ACKNOWLEDGEMENTS

We would like to thank the Occupational and Student Health Services Department, specifically Karen Switzer, for her assistance and cooperation throughout this audit. We would also like to thank Julie Perna, Occupational and Student Health Services Secretary, Leigh Ann Nordt, Carilion School Nurse Manager, Ellen Carroll, Carilion School Nurse Preceptor, Kathleen Jackson, Acting Chief Financial Officer, Dawn Ware, Administrative Assistant, Donna Caldwell, Director of Accounting, Mary Ann Croom, Procurement Specialist, Eric Thornton, Acting Director of Purchasing and Financial Control, Peggy Long, Purchasing Manager, Curtis Dudley, Physical Plant Security Coordinator, and David Baker, Lead Librarian for their time and input. Finally, we would like to thank Darren Eversole, Financial Manager – Carilion Clinic Pediatrics, for his time and cooperation during this audit.



Cari Spichek, CIA
Senior Auditor



Drew Harmon, CPA, CIA
Municipal Auditor