

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



**ITEM: 2.17  
(ID # 19524)**

**MEETING DATE:**  
Tuesday, July 12, 2022

**FROM :** AUDITOR CONTROLLER:

**SUBJECT:** AUDITOR-CONTROLLER: Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit [District: All]; [\$0]

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Receive and file Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit

**ACTION:Consent**

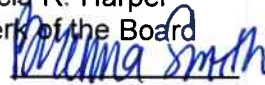
  
Tanya Harris, Assistant Auditor Controller 7/1/2022

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**MINUTES OF THE BOARD OF SUPERVISORS**

On motion of Supervisor Jeffries, seconded by Supervisor Hewitt and duly carried, IT WAS ORDERED that the above matter is received and filed as recommended.

Ayes: Jeffries, Washington and Hewitt  
Nays: Spiegel  
Absent: Perez  
Date: July 12, 2022  
xc: Auditor, RUHS-Public Health

Kecia R. Harper  
Clerk of the Board  
By:   
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
STATE OF CALIFORNIA**

<b>FINANCIAL DATA</b>	<b>Current Fiscal Year:</b>	<b>Next Fiscal Year:</b>	<b>Total Cost:</b>	<b>Ongoing Cost</b>
<b>COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>NET COUNTY COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>SOURCE OF FUNDS: N/A</b>			<b>Budget Adjustment:</b>	No
			<b>For Fiscal Year:</b>	N/A

**C.E.O. RECOMMENDATION:** Approve.

**BACKGROUND:**

**Summary**

In accordance with Board of Supervisors Resolution 83-338, we audited of the Riverside University Health System, Public Health to provide management and the Board of Supervisors with an independent assessment of internal controls over contract monitoring and software access rights.

Our conclusion and details of our audit are documented in the body of this audit report.

Please refer to the audit report for the results of the audit.

**Impact on Residents and Businesses**

Provide an assessment of internal controls over the audited areas.

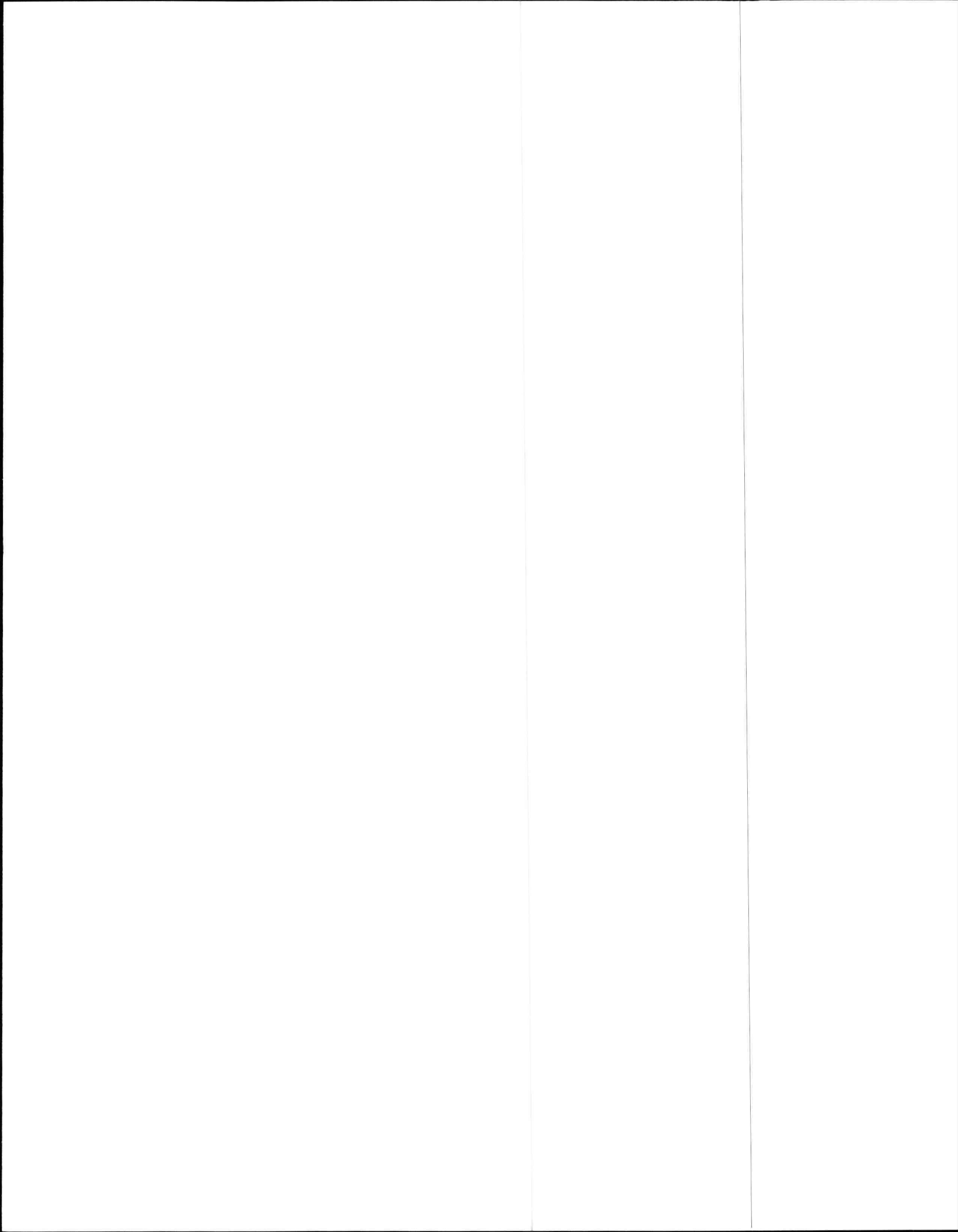
**SUPPLEMENTAL:**

**Additional Fiscal Information**

Not applicable

**ATTACHMENTS:**

A: Riverside County Auditor-Controller's Office - Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit



**Internal Audit Report 2022-017**

**Riverside University Health System,  
Public Health Audit**

**Report Date: July 12, 2022**



**Office of Paul Angulo, CPA, MA  
Riverside County Auditor-Controller  
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**ACC** | **AUDITOR  
CONTROLLER**  
**COUNTY OF RIVERSIDE**

**Paul Angulo, CPA, MA  
Riverside County Auditor-Controller**

**Tanya S. Harris, DPA, CPA  
Assistant Auditor-Controller**

July 12, 2022

Kimberly Saruwatari  
Director  
Riverside University Health System, Public Health  
4065 County Circle Drive  
Riverside, CA 92503

**Subject: Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

Dear Ms. Saruwatari:

In accordance with Board of Supervisors Resolution 83-338, we audited Riverside University Health System, Public Health to provide management and the Board of Supervisors with an independent assessment of internal controls over contract monitoring and software access rights.

We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing. These standards require that we plan and perform the audit to obtain sufficient, reliable, relevant and useful information to provide reasonable assurance that our objective as described above is achieved. An internal audit includes the systematic analysis of information to evaluate and improve the effectiveness of internal controls. We believe this audit provides a reasonable basis for our conclusion.

Internal controls are processes designed to provide management reasonable assurance of achieving efficiency of operations, compliance with laws and regulations, and reliability of financial and non-financial information. Management is responsible for establishing and maintaining adequate internal controls. Our responsibility is to evaluate the internal controls.

Our conclusion and details of our audit are documented in the body of this audit report.



**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

As requested, in accordance with paragraph III.C of the Board of Supervisors Resolution 83-338, management responded to each reported condition and recommendation contained in our report. Management's responses are included in the report. We will follow-up to verify that management implemented the corrective actions.

Paul Angulo, CPA, MA  
Riverside County Auditor-Controller

By: René Casillas, CPA, CRMA  
Chief Internal Auditor

cc: Board of Supervisors  
Jeff A. Van Wagenen, Jr., County Executive Officer  
Dave Rogers, Chief Administrative Officer  
Grand Jury

**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

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**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

**Executive Summary**

**Overview**

Public Health is a division of Riverside University Health Systems and is responsible for promoting and protecting the health of Riverside County's residents and visitors by providing health services.

Some of the services Riverside University Health System - Public Health (Public Health) provides to the public are:

- Control and prevention of communicable diseases
- Responding to public health emergencies
- Prevention and control of chronic diseases
- Promoting healthy behaviors
- Registering vital events of births and deaths
- Providing diagnosis and treatment services, case management and physical occupational therapy to children under 21 with complex life-threatening or physically handicapping medical conditions
- COVID-19 response efforts

To provide the services above, Public Health's budget is \$71.6 million and there are 658 authorized positions. *County of Riverside, Fiscal Year 2021-22 Adopted Budget Volume 1, 355.*

**Audit Objective**

Our objective is to provide management and the Board of Supervisors with an independent assessment about the adequacy and effectiveness of internal controls over contract monitoring and software access rights. Internal controls are processes designed to provide management reasonable assurance of achieving efficiency of operations, compliance with laws and regulations, and reliability of financial and non-financial information. Reasonable assurance recognizes internal controls have inherent limitations, including cost, mistakes, and intentional efforts to bypass internal controls.

**Audit Scope and Methodology**

We conducted the audit from November 9, 2021, through May 9, 2022, for operations from July 1, 2019, through May 9, 2022. Following a risk-based approach, our scope initially included the following:

- Cash Management
- Contract Monitoring



**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

- Inventory Management-Covid-19 Inventory
- Software access rights
- Vital records

Through inquiry, observations, and limited examination of relevant documentation, it was determined through a risk assessment of the business processes for cash management, inventory management-Covid-19 inventory, and vital records, that the risk exposure to Public Health associated with these processes are well mitigated with internal controls and are functioning as designed. Therefore, we focused our audit scope to internal controls over contract monitoring and software access rights.

**Audit Highlights**

*Summary of Existing Conditions*

- Vouchers were paid outside the contract terms. Obtaining services without a binding contract increases the risk of loss of funds as well as unenforceable terms and conditions.
- Invoices were paid by Public Health without supporting documentation for invoiced amounts. Supporting documentation provides a record of events or activities and provides information for researching discrepancies of goods or services received. This helps ensure the county is not overpaying for expenses or paying for services not received or approved.
- Terminated employees' access rights to critical systems linked to active directory were not terminated timely. When an account is not closed immediately after employment has ended, there is a security risk to the information maintained in the systems used by the department.
- Public Health does not maintain documentation that details when termed employees' access to department systems is terminated. Documenting access terminations will ensure that system rights are actively managed.
- Critical systems not linked to active directory and requiring manual deactivation were not deactivated after employee separated from department. When an account is not deactivated upon separation, the credentials for the individual remain active and usable. If an unauthorized individual were to obtain a terminated employee's credentials, there is a security risk to the data stored within the system.

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*Summary of Improvement Opportunities*

- Establish policies and procedures to ensure oversight and adherence to contract terms.
- Establish a policy and procedure which requires all Public Health programs to obtain proper supporting documentation as required in the contracts.
- Ensure the department is disabling active directory accounts on the day of an employee's termination or transfer from the department as required by County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*.
- Establish policies and procedures for the immediate disabling of user access rights for terminated or transferred employee in accordance with County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*.
- Establish policies and procedures which require the retention of Systems Access Request forms and ensure compliance by staff.
- Implement a process/procedure to ensure that systems that are not linked to active directory have a completed manual deactivation and verification that the individual no longer appears on an active user listing.

**Audit Conclusion**

Based upon the results of our audit, we identified opportunities for improvement of internal controls relating to contract monitoring and system access rights.

**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

## **Contract Monitoring**

### **Background**

Riverside County Purchasing and Fleet Services', *Purchasing Policy Manual (2021)*, defines a contract as "an agreement or purchase order for the purchase or disposal of commodities or services." The Purchasing Policy Manual further states, "purchase contracts shall be entered into only after it has been determined that prices to be paid are reasonable considering all of the circumstances pertaining to the particular purchase under consideration" which includes "price reasonableness [which] can be established through [competitive bidding and] supported [through a] ... cost analysis." The terms and conditions of county contracts identify the rights and responsibilities of the parties involved. Terms and conditions include, but are not limited to the following: payment, penalties, record retention, confidentiality, scope of services, and inspection of services.

Contract monitoring is a key process in ensuring compliance with contracts established terms and conditions. Contract monitoring consists of understanding the terms and conditions and the scope of work. Departments can promote contract compliance through validation of satisfactory work performance, ensuring timely performance of contracted work, maintaining adequate documentation, and proper review and approval of invoices prior to payment to a contractor.

### **Objective**

To verify the existence and adequacy of internal controls over contract monitoring.

### **Audit Methodology**

To accomplish these objectives, we:

- Obtained an understanding of board policies and applicable standards.
- Conducted interviews with department management and staff to gain an understanding of the process to monitor service contractors.
- Selected a sample of contracts and vouchers to determine the invoices were processed timely, had proper approvals, items were fully supported, and in compliance with contract.

**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

**Finding 1: Oversight and Adherence to Contracts Terms**

We identified one (14%) of the seven contracts that processed vouchers outside of the period of the contract resulting in Public Health committing funds on behalf of the county. Per the contract terms, the period of performance was between July 15, 2019, (date of execution of contract) through June 30, 2023. There were expenditures that occurred in July 2018 through early July 2019. The county is not bound by and does not recognize a promise or obligation without proper approval and adherence to procurement procedures (*Purchasing Manual, December 31, 2021, 15*). Department personnel had a misunderstanding of the contract verbiage. Contracts provide a written document that outlines the full understanding of the business relationship and scope of the work which aid in mitigating misunderstandings. Obtaining services without a binding contract increases the risk of loss of funds or services as well as unenforceable terms and conditions.

**Recommendation 1**

Establish policies and procedures to ensure oversight and adherence to contract terms.

**Management's Response**

"Concur. RUHS-PH will develop policies and procedures to document the oversight and adherence to contract terms. Staff will be educated and trained accordingly."

Actual/Estimated Date of Corrective Action: October 31, 2022

**Finding 2: Contract Management Supporting Documentation**

Based on our review of Public Health's contract management, we determined that the supporting documentation provided for eight of the thirteen (61.5%) vouchers tested was inadequate. Of the eight vouchers, the following items were identified:

- Three did not have supporting documentation for the amounts indicated on the invoices.
- Four vouchers were being paid at an hourly rate that was not outlined in the contract scope of work. The department staff states the rate was based on the total contracted amount for the year divided by the number of hours allocated for the year. However, the contract did not approve a total number of hours by year.



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- One voucher was for a percentage of a total expense but there was no measurable metric or methodology for the percentages utilized and the percentages were not a part of the contract verbiage.

In accordance with Standard Practice Manual 802, *Processing Vouchers*, it is the department's role to attach the appropriate back-up documentation to their vouchers upon remittance to the Auditor-Controller's Office for approval. Based on the California State Contracting Manual, *Chapter 2: The Basic Contracting Process*, "a contract must clearly identify the parties to the contract, the term of the contract, the contract price (or in-kind value), ... [as well as set] forth terms, conditions, and ... [include a] statement of all [the] work to be performed." Contract verbiage should be specific to detail agreed upon hourly rates, and methodologies used to pay for shared expenses to ensure that the county can then hold the vendor accountable to the terms and rates of the contract. Processes and procedures to deal with an influx of payments that were required during the COVID-19 emergency were not in place. In addition, the contracts did not include the details for the methodology used for shared expenses or total number of hours allocated for the scope of work. Supporting documentation provides a record of events or activities and provides information for researching discrepancies of goods or services received which ensures the county is not overpaying for expenses or paying for services not received or approved.

**Recommendation 2.1**

Establish a policy and procedure which requires all Public Health programs to obtain proper supporting documentation for items such as salaries and other shared expenses.

**Management's Response**

"Concur. RUHS - PH will develop a policy and procedure to require all Public Health programs to obtain proper supporting documentation for items such as salaries and other shared expenses. Staff will be educated and trained accordingly."

**Actual/Estimated Date of Corrective Action: October 31, 2022**

**Recommendation 2.2**

Ensure contract verbiage is clear and specific to the services being rendered and includes evaluations, time studies, and analysis of shared expenses as outlined in the contracts.

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**Management's Response**

**"Concur. RUHS - PH will educate and train staff to ensure contract verbiage is clear and specific to the services being rendered as outlined in the contracts."**

**Actual/Estimated Date of Corrective Action: October 31, 2022**

**Recommendation 2.3**

**Establish a process and procedure to manage vendor payments and the required supporting information in the event of an emergency.**

**Management's Response**

**"Concur. RUHS - PH will develop a process and procedure to manage vendor payments and the required supporting information in the event of an emergency. Staff will be educated and trained accordingly."**

**Actual/Estimated Date of Corrective Action: October 31, 2022**

**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

## **Software Access Rights**

### **Background**

System access controls within information systems ensure proper confidentiality, integrity, and availability to the data stored within the system. Authentication is a control which confirms a user's identity to provide access to a systems sensitive information. Sensitive information is any information that must be protected from unauthorized access to maintain the information security of an organization or an individual. Authentication is often achieved by using login credentials such as a username and password. Authentication relies on the presumption that the user is authorized to use the system and that only the user knows the login credentials to gain access.

Active directory is a directory service which allows the Public Health Information Systems (Information Systems) to manage permissions and access to network resources, and linked data applications utilized by the department. When a user ends employment with the department, Information Systems are notified through the completion of a Systems Access Request and then creation of help desk tickets to disable active directory to remove permissions and network access. These help desk tickets contain various workflow tasks such as disabling e-mail accounts, active directory, data/application systems access, badge access, reclaiming software licenses, and reclaiming any equipment that may have been issued to an employee. A help desk ticket is not closed until all tasks within have been completed by Information Systems personnel.

If a system is not linked to active directory, the system access must manually be removed to ensure the account is disabled.

### **Objective**

To verify the existence and adequacy of controls over information systems used by Public Health.

### **Audit Methodology**

To accomplish these objectives, we:

- Obtained an understanding of County of Riverside *Information Security Standard v1.0*.

**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

- Interviewed key personnel regarding the department's employee access termination processes.
- Obtained a listing of Public Health staff.
- Performed testing on 38 sampled Public Health employees terminated within the review period of the audit.
- Obtained a listing of all Public Health software systems.
- Selected a sample of systems to test; Systems included CHDP Case Manager, PHN Nursing Database, and CHDP Providers Database which are linked to active directory and EPIC and MTU Combined Database which are not active directory linked. All of these systems are critical to the operations of Public Health and contain sensitive patient information.
- Obtained a listing of active users for the systems selected.
- Verified access to systems was terminated.

**Finding 3: Timely Termination of Access Rights to Data Applications**

Twenty-five (66%) out of thirty-eight terminated employees did not have their access rights terminated or disabled within 24 hours of ending employment with Public Health. The average time lapsed to disable active directory accounts was 27 days with the longest time lapsed being 103 days and the shortest being 3 days. Additionally, one out of 38 terminated employees reviewed still had access after employment ended as of the time of testing (December 2021). County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*, states, "Accounts for terminated or transferred employees shall be disabled or removed on the day of termination or transfer." Public Health does not have written policies and procedures that detail the process and requirements for deactivating user accounts when employees end employment with the department. When an account is not closed immediately after employment has ended, there is a security risk to the information maintained in the systems used by the department. Given the sensitivity of the information Public Health maintains in their systems, safeguarding sensitive information need to be of high priority.



**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

**Recommendation 3.1**

Ensure the department is disabling active directory accounts on the day of an employee's termination or transfer from the department as required by County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*.

**Management's Response**

"Concur. The RUHS - PH Information Systems Team, in collaboration with the Riverside University Health Systems (IS) Department are responsible for selecting, deploying and maintaining information technology related services, including account and access management. RUHS - PH understands the importance of system access controls within information systems to ensure proper confidentiality, integrity, and availability to the data stored within a system. The Teams will evaluate and implement a process to ensure the disabling of active directory accounts on the day of an employee's termination or transfer from the department, as required by County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*.

The department took immediate action to disable the access of the terminated employee identified by the Internal Auditor."

**Actual/Estimated Date of Corrective Action: October 31, 2022**

**Recommendation 3.2**

Establish policies and procedures for the immediate disabling of user access rights for terminated or transferred employee in accordance with County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*.

**Management's Response**

"Concur. As noted above, RUHS - PH understands the importance of system access controls within information systems to ensure proper confidentiality, integrity, and availability to the data stored within a system. The RUHS - PH Information Systems Team, in collaboration with the Riverside University Health Systems (IS) Department will evaluate and implement a process to ensure the disabling of active directory accounts on the day of an employee's termination or transfer from the department, as required by County of Riverside *Information Security Standard v1.0, Section 4.1, Account and Access Management*."

**Actual/Estimated Date of Corrective Action: October 31, 2022**

**Internal Audit Report 2022-017: Riverside University Health System, Public Health Audit**

**Finding 4: System Access Request Documentation**

We identified eleven (29%) out of thirty-eight terminated employees did not have documentation to support account deactivation. Systems Access Request form is required for any changes made to any of the systems/applications used by the department. The Systems Access Request form will show the date the request is being made, who the request is being made for, and the appropriate approvals needed for Information Systems to make the changes. Standard Practice Manual 1001, *Internal Controls*, states, "well-documented policies and procedures are established and maintained to promote employee understanding of job duties, [and] provide day-to-day guidance to staff". It was determined that a formal policy criterion requiring retention of Systems Access Request documentation is not in place. Documenting access terminations provides an audit trail that can be used to verify and validate processes are followed and can help in identifying lapses in processes that may require correction.

**Recommendation 4**

Establish policies and procedures which require the retention of Systems Access Request forms and ensure compliance by staff.

**Management's Response**

"Concur. RUHS - PH will develop a policy and procedure which requires the retention of Systems Access Request Forms. Staff will be educated and trained accordingly."

**Actual/Estimated Date of Corrective Action: October 31, 2022**

**Finding 5: Access to Systems**

We identified seven (100%) of out of seven terminated employees continued to have access to systems not linked to active directory. An application that is not linked must be manually deactivated. Standard Practice Manual 1001, *Internal Controls*, identifies the need for "well-documented policies and procedures ... [to provide guidance to staff on the day-to-day duties]. There currently is no process or policy in place to ensure this manual step is occurring. When access to a system not linked to active directory is not manually deactivated, the credentials for the individual remain active and usable. If an unauthorized individual were to obtain a terminated employee's credentials, there is a security risk to the data stored within the system.

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**Recommendation 5**

Implement a process/procedure to ensure that systems that are not linked to active directory have a completed manual deactivation and verification that the individual no longer appears on an active user listing.

**Management's Response**

"Concur. RUHS - PH will develop a process and procedure to ensure that the two systems (EPIC and Medical Therapy Units Combined Database) that are not linked to active directories have a completed manual deactivation and verification that the individual no longer appears on an active user listing. Staff will be educated and trained accordingly."

**Actual/Estimated Date of Corrective Action: October 31, 2022**