



Audit of
Broward Addiction Recovery Center's
Information Technology Operations

Office of the County Auditor

Audit Report

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OFFICE OF THE COUNTY AUDITOR

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Honorable Mayor and Board of County Commissioners

We have conducted our audit of the Broward Addiction Recovery Center's (BARC) information technology operations.

The objectives of our audit were to determine whether information technology general controls are adequate for the ECHO and medDispense applications, to determine whether the applications are in compliance with technology related requirements of the Health Insurance Portability and Accountability Act (HIPAA), and to determine whether the applications adequately support BARC's business processes.

We conclude that the information technology general controls are not adequate for the ECHO and medDispense applications. We conclude that the applications do not comply with technology related requirements of the Health Insurance Portability and Accountability Act (HIPAA). We conclude that the medDispense system adequately supports BARC's business processes; however, the ECHO application does not. Opportunities for improvement are included in the report.

We appreciate the cooperation and assistance provided by the Broward Addiction Recovery Center and Enterprise Technology Services Divisions throughout the course of our audit.

Respectfully submitted,

A handwritten signature in blue ink that reads "Bob Melton".

Bob Melton
County Auditor

cc: Bertha Henry, County Administrator
Andrew Meyers, County Attorney
Monica Cepero, Deputy County Administrator
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EXECUTIVE SUMMARY

We conducted an audit of Broward Addiction Recovery Center's (BARC) information technology operations. BARC acquired and implemented ECHO software in 2003 to automate, track and manage operations. BARC utilizes ECHO to schedule patients, to track patient data, and to manage clinical records, treatment plans and billing. ECHO also facilitates electronic submission of activity reports to the Department of Children and Families to obtain reimbursement for eligible services. BARC, through its contractor, Advanced Pharmaceutical Consultants, uses the medDispense system to manage the amount of prescription medication dispensed to patients; however, the system itself is maintained by TouchPoint Medical. MedDispense is a medication distribution system which utilizes automated dispensing machines to enhance accountability related to the provision and management of all aspects of pharmaceutical services.

We conclude that information technology general controls are not adequate for the ECHO and medDispense applications. We conclude that the applications do not comply with technology related requirements of the Health Insurance Portability and Accountability Act (HIPAA). We conclude that the medDispense system adequately supports BARC's business processes; however, the ECHO application does not.

Inventory controls for medications and food issued to BARC clients are not adequate. The storage temperature for medications and food items in the refrigerator at the Detox facility is not consistently maintained at an appropriate temperature to ensure effectiveness of medications and the viability of food items. An alarm is triggered when the temperature exceeds the allowable temperature range for stored items; however, it was reported that nurses routinely turn-off or reset the alarm.

Advanced Pharmaceutical Consultants, Inc. (APC) does not perform an annual physical inventory of medications as required by the vendor agreement. Six of 20 (30%) medications counted at the Booher facility on October 10, 2017 and the Detox facility on October 20, 2017 did not match inventory logs provided by the pharmacist.

In two of ten (20%) patient paper charts reviewed, we observed a physician's prescription order was not in the patients' charts for medications dispensed from the medDispense unit. In both instances, the nurse overrode the medDispense unit to obtain and dispense the medication.

Forty-five of 60 (75%) of patients' paper charts reviewed did not contain one or more required pieces of information. Income verification documentation was not included in 52% of patient charts reviewed.

We also noted opportunities for improvement in areas relating to safeguarding protected health information, system access controls, and training. Our report contains a total of 26 recommendations for improvement.

INTRODUCTION

Scope and Methodology

The County Auditor's Office conducts audits of Broward County's entities, programs, activities, and contractors to provide the Board of County Commissioners, Broward County's residents, County management, and other stakeholders unbiased, timely, and relevant information for use in promoting government accountability and stewardship and improving government operations.

We conducted an audit of Broward Addiction Recovery Center's (BARC) information technology operations. Our objectives were:

1. To determine whether information technology (IT) general controls are adequate for the ECHO and medDispense applications;
2. To determine whether the applications are in compliance with technology related requirements of the Health Insurance Portability and Accountability Act (HIPAA);
3. To determine whether the applications adequately supports BARC's business processes; and
4. To determine whether any opportunities for improvement exist.

To determine whether IT system general controls are adequate for the ECHO and medDispense applications, we reviewed user access permissions, user administration procedures, change management procedures, password configuration settings, electronic media disposal procedures, incident management handling, backup monitoring, and the continuity of operations plan.

To determine whether the applications comply with technology related requirements of the Health Insurance Portability and Accountability Act (HIPAA), we reviewed users' access to electronic protected health information (ePHI), access administration procedures, and system log review procedures. In addition, we analyzed HIPAA Officer oversight, HIPAA Training compliance, data transfer procedures, data storage management, service organization control reports (where available), physical access and security, and contract terms and conditions for the Echo Group, and Advanced Pharmaceutical Consultants, Inc. (APC).

To determine whether the applications adequately support BARC's business processes, we reviewed contract administration procedures, contract terms and conditions, sliding fee scales, employee training, report distribution procedures, operational cost structures, prior third-party audit report findings, and access to vendor portals. In addition, we observed medication dispensing procedures, selected and reviewed a sample of patient records, selected and reviewed a sample of employees providing direct service to validate that chart audits were performed, and conducted medication inventory counts

Our audit included such tests of records and other auditing procedures, as we considered necessary in the circumstances. The audit period was October 1, 2016 through September 30, 2017. However, transactions, processes, and situations reviewed were not limited by the audit period.

Overall Conclusion

We conclude that information technology general controls are not adequate for the ECHO and medDispense applications. We conclude that the applications do not comply with technology related requirements of the Health Insurance Portability and Accountability Act (HIPAA). We conclude that the medDispense system adequately supports BARC's business processes; however, the ECHO application does not. Opportunities for improvement are included in the report.

Background

Established in 1973, the BARC Division of the Human Services Department provides medical and clinical treatment, substance abuse, nutrition education, and support services to Broward County (County) residents and homeless individuals who are chemically dependent and 18 years or older. BARC is accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and is licensed and regulated by the State of Florida as a substance abuse treatment program in accordance with Section 397.406, Florida Statutes.

BARC currently operates as an agency organized under the Department of Human Services in Broward County's governmental structure and provided services at the following locations throughout Broward County during our audit period:

- ❖ BARC Central, Fort Lauderdale, FL
- ❖ Edgar P. Mills Multi-Purpose Center, Fort Lauderdale, FL
- ❖ South Regional Family Success Center, Hollywood, FL
- ❖ Stephen R. Booher Facility, Coral Springs, FL

BARC's services are divided into four primary service areas: admissions, detoxification, residential, and outpatient.

- ❖ **Admissions:** The admissions unit is comprised of intake caseworkers and licensed clinicians who conduct comprehensive assessments and, in conjunction with the client, determine the most appropriate level of care to identify and address each individual's unique needs.
- ❖ **Detoxification Services (Detox):** BARC has a medically supervised 34-bed detoxification facility operating 24 hours per day, 7 days per week, for clients who are at risk of life-threatening complications from substance withdrawal as they begin treatment.
- ❖ **Residential Treatment Services (Residential):** Residential treatment services are provided at the Stephen R. Booher facility, which has a maximum capacity of 92 beds. This short term inpatient program provides clients with counseling, education, and medical care. In addition to its standard intensive residential treatment program, BARC also offers a perinatal addiction program, which provides treatment services to pregnant women, or the mothers of young children. Intensive residential treatment typically lasts for 30 days; the perinatal addiction program lasts for sixty days or, for pregnant women, until the birth of the child.
- ❖ **Outpatient Services:** Outpatient Services consists of three programs: Non-Residential Day Treatment, Outpatient Treatment (OP), and Intensive Outpatient Treatment (IOP):
 - **Non Residential Day Treatment (NRD):** NRD is a four-week daytime program for individuals who need more intensive treatment than that provided by typical outpatient services, and have completed, or are determined to be inappropriate for, Residential Treatment. NRD services are provided at BARC Central.
 - **Outpatient Treatment (OP):** Outpatient services are offered to clients who do not require more intensive treatment services, or as a 'step down' for those who have completed other components of BARC services. Outpatient Services are provided at the Edgar P. Mills Multi-Purpose Center, and include a flexible schedule of day and evening meetings, individual and group therapy, and education.
 - **Intensive Outpatient Treatment (IOP):** Intensive Outpatient services is a six- week program, offering similar services as standard Outpatient services, but is more intense, as clients receive services three times per week. Intensive Outpatient Services are provided at the Edgar P. Mills Multi-Purpose Center.

Subsequent to our review, BARC opened a new treatment facility located in Fort Lauderdale to increase current capacity for Detox services and to offer various outpatient treatment services.

In fiscal year (FY) 2016, BARC had revenues of approximately \$127,000 and had appropriations of approximately \$8.5 million. BARC is operated by approximately 100 licensed and certified medical and counseling professionals.

Health Insurance Portability and Accountability Act (HIPAA)

BARC is required to be in compliance with HIPAA. HIPAA is a federal law designed to provide standards to protect patients' medical records and other health information provided to health plans, doctors, hospitals, and other health care providers. Broward County's HIPAA Security Policy and Procedures outline the HIPAA requirements for BARC's systems.

BARC's Information Technology

BARC acquired and implemented ECHO software in 2003 to automate, track and manage its operations. BARC utilizes two ECHO software modules, Clinician Desktop (CDT) and Revenue Manager (RM) to schedule patients, to track patient data, and to manage clinical records, treatment plans and billing. ECHO also facilitates electronic submission of activity reports to the Department of Children and Families (DCF) required to obtain reimbursement for eligible services. ECHO was developed and is supported by The ECHO Group. Support includes system upgrades, and problem resolution.

In December 2013, Broward County entered into an agreement with Advanced Pharmaceutical Consultants, Inc. for in-house pharmacy management services at BARC's residential facilities. Under this Agreement, Advanced Pharmaceutical Consultants, Inc. (APC) provides in-house pharmacy and medication management services to Broward County residents receiving substance abuse detoxification and intensive residential treatment. APC uses the medDispense system to manage the amount of prescription medication dispensed to patients; however the system itself is maintained by TouchPoint Medical. MedDispense is a medication distribution system which utilizes automated dispensing machines to enhance accountability related to the provision and management of all aspects of pharmaceutical services.

OPPORTUNITIES FOR IMPROVEMENT

Our audit disclosed certain policies, procedures and practices that could be improved. Our audit was neither designed nor intended to be a detailed study of every relevant system, procedure or transaction. Accordingly, the Opportunities for Improvement presented in this report may not be all-inclusive of areas where improvement may be needed.

1. Inventory of Medications and Food Should be Managed to Maintain Viability and Reduce Theft and Loss.

Inventory controls for medications and food issued to BARC clients are not adequate. During our review, we noted the following:

- A. The storage temperature for medications and food items in the refrigerator at the Detox facility is not consistently maintained at an appropriate temperature to ensure effectiveness of medications and the viability of food items. On October 20, 2017, we observed that the temperature of the refrigerator storing insulin and other medications was 51 degrees Fahrenheit. The Pharmacy Technician indicated the temperature is supposed to be between 37 - 41 degrees Fahrenheit for food items and 36 - 46 degrees Fahrenheit for medications. The effectiveness of medications and the viability of food items may be reduced or may cause harm to recipients without appropriate temperature controls.
- B. An alarm is triggered when the refrigerator's temperature exceeds the allowable temperature range for stored items; however, appropriate procedures have not been implemented to adequately address these incidents, and it was reported that nurses routinely turn-off or reset the alarm. Overloading the refrigerator with food items is one cause of temperature variances.
- C. Advanced Pharmaceutical Consultants, Inc. (APC) does not perform an annual physical inventory of medications as required by the vendor agreement. Amended Exhibit D - Scope of Services, Section I.A.8. of the APC contract requires APC to perform a minimum of one (1) physical inventory count per contract year. Without periodic physical inventories, the risk of theft or loss of medications going undetected is increased.
- D. Six of 20 (30%) medications counted at the Booher facility on October 10, 2017 and the Detox facility on October 20, 2017 did not match inventory logs provided by the pharmacist. Specifically, we noted that:

- i. For one of the six instances, the inventory log indicated that 130 nicotine patches were available in inventory. Our count found 52 patches available leaving 78 patches unaccounted for. This discrepancy could be due to theft or other misappropriation of the patches. These patches are dispensed as over the counter medications.
- ii. For five of the six instances, the count varied by one pill. These medications were dispensed using the medDispense equipment.

Without adequate inventory controls, medication and food may spoil or become less effective causing harm to residents, or may be lost or stolen without detection. A periodic inventory count assists management in identifying errors or irregularities in the use or misuse of medications.

We recommend management:

- A. Ensure appropriate temperature monitoring equipment is in place and functioning for the storage of medication and food items requiring refrigeration.
- B. Ensure incident response procedures and employee training are updated to require documentation of the nature, duration and resolution of temperature variances that fall outside established guidelines.
- C. Require APC to perform a minimum of one physical inventory count per contract year as required by the vendor agreement.
- D. Develop and implement procedures to periodically detect and resolve inventory discrepancies.

Management's Response:

- A. Agree in part. Management disagrees with the inference that appropriate temperature monitoring equipment is not in place. To ensure appropriate temperatures for the storage of medication and food items requiring refrigeration, BARC has digital temperature logs on the refrigerator and maintain handwritten temperature logs (refrigerator temperatures are checked by the nursing staff every shift; 7-3, 3-11, 11-7). Department staff reviewed both the handwritten temperature logs (noted twice by the nursing staff) and the digital temperature log taken by the recording thermometer for 10.20.2017 for the identified refrigerator at the Detox facility.

Notwithstanding, BARC reviewed its temperature logs and our process for notification if there is an errant temperature. To improve on the process, the following changes were made, effective 3.1.2018: BARC designated a new log that indicates the ideal ranges for

the refrigerator and the freezer units. The new form includes directives for action if the refrigerator is out of range. The form provides a narrative field for staff to note the immediate action taken when too high or too low temperatures occur. Additionally, the review of the temperature logs indicated a wide range of temperatures throughout several months, and while the temperatures were in range, BARC replaced the identified refrigerator with a new model that has a separate freezer unit to manage temperature control. The new refrigerator was placed into use in March 2018.

- B. Agree in part. BARC has had a procedure in place for action when refrigerator temperatures are out of range and staff are trained. Notwithstanding, the new temperature log (described above), which includes an action area on the log, provides an opportunity for staff to observe the completed action directly on the same form as the temperature disparity, instead of having to ask for work orders and emails to facilities staff to repair issues with the refrigerator.
- C. Agree. Advanced Pharmaceutical Consultants, Inc. (APC) will complete one physical inventory count per contract year. To that end, APC completed a physical inventory count on 12.7.2017 at BARC Central and 12.8.2017 at BARC Booher. Going forward APC business operations will include an annual physical inventory slated for completion by September 30 of each year. For 2018, this inventory was completed on 10.4.18.
- D. Agree. BARC has developed procedures to periodically detect and resolve inventory discrepancies. Specifically, BARC has created a perpetual inventory using the annual inventory created on 12.7.17 and 12.8.17. Each month, APC will provide the perpetual inventory of medications ordered vs medications dispensed to the Pharmacy and Therapeutics Committee. Upon review of the list, the Committee will select 5 random medications to count directly to confirm no diversion and no medication dosing issues. Due to the issues cited in this audit, Nicotine patches will be included in the monthly count to increase accountability.

2. Medications Should not be Dispensed Without a Physician's Prescription or Appropriate Documentation for Exceptions.

In two of ten (20%) patient paper charts reviewed, we observed a physician's prescription order was not in the patients' charts for the medication dispensed from the medDispense unit. In both instances the nurse overrode the medDispense unit to obtain and dispense the medication. Appropriate documentation was not maintained to explain the override. Medication should only be dispensed to patients with a physician's prescription order. In instances where nurses are required to override the medDispense system to serve patients, the reasons for the override

should be documented. Dispensing medications without a physician's prescription may jeopardize patient care.

We recommend management enhance medication dispensing procedures to require adequate documentation and management review of any medications dispensed from medDispense without a physician's prescription.

Management's Response:

Agree in part. Management disagrees with the conclusion or inference from the Audit that medications were dispensed without Physician's prescriptions. In the two instances referenced in the Audit report where medications were allegedly dispensed without physician orders, the medications were not dispensed and not given to patients. In one instance, the medication was lidocaine. BARC utilizes lidocaine only if an individual is receiving an injectable and requires administration site numbing. In the instance cited, the BARC nurse removed the lidocaine from the Med Dispense machine but did not administer the lidocaine to a patient. From a documentation perspective, the medication should be returned to inventory in the Med Dispense machine. This did not occur on this occasion. The second instance occurred with a temp agency nurse who dispensed Cozaar for one patient under the name of another patient. The nurse realized the error and did not administer the medication to the patient. From a documentation perspective, the medication should be returned to inventory in the Med Dispense machine, and it was not.

Regarding the dispensing of medications by override, this is sometimes necessary as APC is not a 24/7 pharmacy, and there are times when medications are ordered for patients at admission or while in treatment that occur after hours. In those instances, nurses override the system to retrieve medication. The physician's order is noted in the patient record at the time a verbal order is made, but it is not entered by pharmacy staff into the pharmacy record until they re-open during their business hours.

To improve this process, BARC staff will ensure the following:

- i. All overrides will require a 2-nurse verification that there is an order from the physician, and the shift supervisor will sign off on the override.
- ii. All overrides will be presented in the Pharmacy and Therapeutics Committee (a committee required for accreditation), which is responsible for continuous quality improvement each month and will be included on the pharmacy dashboard for review at each meeting.

3. Employees Should be Adequately Trained to Avoid Error and Ensure Compliance With County Policy.

During our review of employee training, we noted the following as of December 4, 2017:

- A. Forty-six of 49 (94%) BARC employees tested have not taken the required training on the HIPAA Sanctions Policy, and 31 of 49 (63%) have not taken the required training on the HIPAA Privacy Policy. Lack of training increases the risk of non compliance with the County's HIPAA policies and the risk of exposure to protected health information. All County employees that work with patient medical data are required to complete all relevant HIPAA training. Management has not implemented adequate procedures to ensure all BARC employees complete required HIPAA training courses annually.
- B. For eight of ten (80%) employees sampled with access to the ECHO application, evidence of training on ECHO could not be provided. For two of ten (20%) employees sampled with access to the medDispense system, evidence of training on the medDispense equipment could not be provided. Without adequate documentation, management is not able to demonstrate that all authorized users have been adequately trained. Inadequate training on the ECHO application may negatively impact patient care through inaccurate medical records and patient billing. Inadequate training on medDispense increases the likelihood of error in dispensing medications and tracking the medication inventory.

BARC provides training on ECHO; however, adequate documentation is not retained. APC is contractually required to provide training to the nurses and authorized operators on the medDispense equipment; however, documentation of the training provided to nurses is not adequately maintained.

We recommend management:

- A. Implement adequate procedures to ensure all BARC employees complete required HIPAA training courses annually.
- B. Maintain adequate training documentation for all ECHO application and medDispense system operators.

Management's Response:

- A. Agree. The training referenced in the Audit that was non-compliant was partially the result of new HIPAA policies that the agency had not completed training. As of 2.16.18, all BARC employees are compliant with all required HIPAA and security trainings. Further, BARC implemented a process to include a more robust tracking system, managed by the BARC HR liaison, that will ensure that all staff stay up to date on annual trainings when

due. The Broward County HIPAA Privacy Officer has agreed to send monthly reports to ensure that all staff remain compliant and communicate directly with the BARC HR Liaison and the Assistant Director to share the roll-out of new required trainings.

- B. Agree in part. Management disagrees with the conclusion or inference from the audit report that appropriate training documentation is not maintained. Notwithstanding, in reviewing internal procedures and process for training and competencies, it was determined that in many instances, BARC supervisors were maintaining on-the-job training records in staff supervision files, which are stored on the individual's assigned unit, instead of within the BARC personnel file. A review of supervisory records located 6 of the missing 8 individuals identified in the audit for the ECHO training, and both of the training records for the individuals missing Med Dispense training.

Accordingly, to improve tracking and management of training records, the procedure at BARC has been updated to ensure that all trainings, sign in sheets and competencies are maintained in one file, which is housed with the HR liaison in BARC administration. This individual began entering all training in Pathlore to ensure an accurate record of all staff trainings. Additionally, BARC updated its onboarding procedures to include an ECHO competency to ensure that all staff have a working ability to utilize our electronic health record.

4. Management should Ensure Technology Adequately Supports Business Operations.

During our review of technology processes, we noted the following concerns:

- A. BARC currently maintains a dual client chart system using paper charts and electronic records within ECHO. Management uses paper charts as the official record for each patient. Paper charts include assessment information, treatment plans, physicians' orders, and clinical progress notes. Some of this information is duplicated within ECHO along with billing information. Maintaining dual patient record systems is inefficient and increases the risk of error.
- B. Forty-five of 60 (75%) of patients' paper charts reviewed did not contain one or more required pieces of information. Specifically, we noted the following:
 - i. Appropriate identification documentation was not included in 12% of patient charts reviewed.
 - ii. Proof of address was not included in 27% of patient charts reviewed.

- iii. Income verification documentation was not included in 52% of patient charts reviewed.
- iv. Household family size was not included in 15% of patient charts reviewed.
- v. Documentation of eligible services and funding based on residency (all are Florida residents) was not included in 8% of patient charts reviewed

Incomplete patient records increases the likelihood of error in financial assistance eligibility determinations.

- C. BARC does not have adequate controls to ensure that the billable activity recorded in patients' paper charts matches the billable activity recorded in ECHO. During our review we noted the following in 3 of 15 (20%) patients' paper charts reviewed:
 - i. In one patient's paper chart, a billable activity was not recorded in ECHO and therefore was not flagged for billing.
 - ii. In two patients' paper charts, four billable activities were not included in the paper charts but were recorded in ECHO. The patients' paper charts were not complete.

Omission of medical services and activities from ECHO may result in the services not being captured and invoiced in the billing process. Omission of medical services and activities from patients' paper charts may result in errors in patient care, and incomplete patient records.

We recommend management:

- A. Evaluate the feasibility of using a single patient record system and technologies that may assist in this process.
- B. Implement procedures to ensure all required documentation is contained in each patient record.
- C. Strengthen record keeping controls to ensure all billable activity is entered in each patients' record and adequately billed.

Management's Response:

- A. Agree in part. Contrary to the finding in the Audit report, BARC does not maintain a dual chart system. At the time of the Audit report, BARC was in a transition from a paper chart to an electronic chart, with ECHO being the electronic record and paper as the official record. All events that were in ECHO were printed out and placed in the paper chart for a complete official record. There was no duplication of work. Since May 2018, all medical and nursing forms are now electronically accessed and completed via ECHO.

- B. Agree in part. These findings are related to the BARC intake process. As previously indicated, the maintenance of charts is transitioning from a paper to electronic format. Intake Staff have been retrained to confirm that in addition to scanning documentation into ECHO, that documentation must be printed and placed in the paper record. Once the transition is completed, charts will be maintained only in an electronic format.

To address comments in the Audit report, BARC further improved its intake process with the following changes:

- i. An alert was added to ECHO on 12/12/2017 that will inform the user when an individual client is missing photo identification. The alert remains until the information is entered in ECHO. A report has been added into the administrative report section of ECHO which is run weekly on Mondays and sent out to staff for review and update.
 - ii. BARC policy FIOO01 clearly indicates the admission parameters for acceptance into treatment at BARC, including proof of residency, income and family size, which will be required by the individual prior to receiving services at BARC.
- C. Agree in part. Management disagrees with the conclusion or inference that BARC does not have adequate controls in place. In this finding, 15 clients with a total of 548 activities were reviewed. The Audit identified three activities as having an issue. This equates to approximately one-half of 1% of the total activities reviewed. Two of the three service activities identified in this finding were documented in ECHO and the process of printing the note and placing in the paper file was not followed. The third clinical activity was completed on paper and filed in the paper chart. However, the clinical activity was not entered in ECHO. Notwithstanding, BARC continues to move towards a complete, electronic health record which should further strengthen record keeping controls.

5. BARC Should Implement a Process to Adequately Reconcile Billable Units, Invoices, and Payments.

BARC uses ECHO to identify billable activities for payment, manually creates invoices using multiple methods, and manually processes payments into the County's accounting system (PeopleSoft); however, a process to adequately reconcile these activities has not been implemented. During our review, we noted 12 of 27 (44%) transactions where the billable amount recorded in ECHO and the amount posted in PeopleSoft did not match. Six of the 12 occurrences were Broward Behavioral Health Coalition (BBHC) transactions that, according to the Business Manager, will not match ECHO because:

- A. The agreement with BBHC requires BARC to provide a cash match of \$355,000, and
- B. BARC is expected to provide \$650,000 in uncompensated units (free services). These uncompensated units may or may not be reimbursed by the Florida Department of Children and Families (DCF).

Billable units in ECHO should be periodically reconciled against invoices generated and payments posted to PeopleSoft to ensure completeness and accuracy. Discrepancies should be identified and investigated. Lack of reconciliation controls may reduce the integrity of the County's financial records.

We recommend management implement appropriate procedures to periodically reconcile billable units, invoices, and payments. In addition, management should explore acquiring technology to assist with billing and payment processes.

Management's Response:

Agree in part. BARC administration does perform periodic reconciliation of amounts received against contract requirements. Due to multiple systems used for tracking different types of invoices, it is not possible to track payments to the individual transaction, but it can be done on an aggregate basis. Accordingly, BARC will implement appropriate procedures to periodically reconcile billable units, invoices, and payments within the next 90 calendar days.

6. Protected Health Information Entrusted to Vendors Should be Adequately Protected.

Broward County is not in receipt of Service Organization Controls (SOC) reports from The Echo Group and Touchpoint Medical to obtain assurance about the controls relevant to security, availability, processing integrity of the ECHO and medDispense systems used to process County data, and to obtain assurance about the confidentiality and privacy of ePHI. These reports play an important role in:

- ❖ Vendor oversight
- ❖ Vendor management programs
- ❖ Internal County governance and risk management processes
- ❖ Regulatory oversight

Although management has outsourced specific functions to The ECHO Group and TouchPoint Medical, management has a responsibility over the data entrusted to these vendors and is required to ensure that the data is adequately protected. Neither The ECHO Group nor

TouchPoint Medical issues SOC reports. Without a SOC report, management is unable to gain assurance over the security, availability, processing integrity, confidentiality, and privacy of the County's data managed by these vendors.

We recommend management obtain SOC reports from all vendors with access to ePHI to gain assurance over the security, availability, processing integrity, confidentiality, and privacy of the County's data.

Management's Response:

Agree. Our initial contract with the vendor did not require ECHO to complete a System and Organization Control (SOC) report. One year later, ETS requested that SOC 2, type 2 be completed. ECHO refused to complete without Broward County paying for it. Consequently, Broward County decided to host our own data. ETS staff is working to secure the data and the current timeframe is that Broward County will have access to, and maintenance of, our data in 3-4 months, consistent with recent Board approval to bring hosted services inhouse.

7. Access to Electronic Protected Health Information (ePHI) Should be Restricted Based on Job Responsibilities to Prevent Unauthorized Exposure.

During our review of access controls to ePHI, we noted the following:

- A. Thirteen of 26 (50%) terminated employee accounts within the ECHO system and two of 26 terminated (8%) employee accounts within the medDispense system were not disabled within one day of termination from Broward County. It took an average of 11 days to disable sampled terminated employee accounts with values ranging from three to 35 days. Notifications of employee terminations are not made timely to system administrators contributing to the delay. It is an industry standard to remove or disable user accounts immediately upon termination. Allowing terminated employee accounts to remain enabled after the date of termination increases the risk of unauthorized or inappropriate access to ePHI.
- B. BARC's IT Team routinely adjusted the account termination date in ECHO to reflect the date the employee was terminated from the County, not when the respective user's account was actually disabled within ECHO. Management should ensure an accurate record is maintained of the date on which all system transactions occur, including the date an account is disabled. Failure to maintain an accurate record reduces management's ability to rely on data produced by the system and can hamper investigations should a breach occur.

- C. The web portal used by BBHC does not restrict user access to ePHI based on job responsibilities. As a result, we noted that 4 of 10 (40%) users sampled have access beyond what is required to perform their job responsibilities. A feature was added for Counselors and Behavioral Clinicians to access the web portal and place patients in a queue for assistance from other agencies. This access also allows users to access all patient ePHI uploaded for reimbursement. Access to ePHI should be restricted based on job responsibilities. Inappropriate access to ePHI increases the risk of exposure and non compliance with County policy and HIPAA requirements.
- D. BARC does not have a formal process for requesting, removing and modifying user access to medDispense. User access requests are made either verbally or via email increasing the risk of unauthorized or inappropriate access. The user administration process should document the level of access an employee is authorized to have as well as management's approval of that access.
- E. Access to ECHO reports is not restricted based on employee job responsibilities. The functionality to restrict report access in ECHO is in development and currently most reports are accessible to all ECHO users. Additionally, management's procedures require that a Forms and Report Committee approves new forms and reports. We noted that the committee was not involved in approval of the most recent new form. The form was approved by BARCS's Director only. Unrestricted access to reports and the creation of new forms and reports without appropriate approval may provide users with access to sensitive medical information that is not needed for them to perform their job.

We recommend management:

- A. Disable or remove terminated employee accounts within County systems upon employee termination;
- B. Ensure that internal procedures are updated to accurately record the date employee accounts are disabled from County systems;
- C. Work with BBHC to restrict user access to ePHI within the web portal based on job responsibilities;
- D. Enhance current user administration practices by implementing a formal process for requesting, removing and modifying user access to medDispense. Management should ensure that the access requested, as well as management's approval of that access, is clearly documented; and
- E. Continue efforts to restrict access to reports in ECHO based on job responsibilities and revise policies and procedures related to the approval of forms and reports.

Management's Response:

- A. Agree in part. Management disagrees with the conclusion or inferences from the Audit report that individuals had access to pertinent specific systems due to a failure to disable accounts. Neither ECHO nor Med Dispense is a web-based platform, and therefore, in order to access either system for BARC purposes, staff must be logged into the Broward County system which only can be accessed through a secure portal. For all the individuals identified in the Audit report, Broward County access was disabled at the time of the staff departure from the-County, preventing those individuals from being able to access or log in to either system. While Management acknowledges that the best practice is to terminate access from both systems as recommended in the Audit report, the individuals identified in the Audit report were not able to access either system because the individuals were removed from the County system. Management further understands that these applications could be misused by other individuals with County network access and will continue to take the actions necessary to disable or remove terminated employee accounts in a timely fashion.
- B. Agree. BARC adjusted its termination process with IT to reflect an accurate termination date in ECHO, effective 2.15.2018.
- C. Agree in part. Management agrees in part with this recommendation, however, BARC has no authority or control over BBHC which uses a web portal (Concordia) that the County is not the only client. BARC spoke to BBHC and had an initial conversation regarding the issues identified in the audit regarding the Concordia portal. BARC was advised that the portal is a national portal and per Concordia staff, meets all regulatory requirements as needed by Concordia.
- D. Agree. The previous process for requesting access to Med Dispense required an email, forwarded by the nurse supervisor, to request access to APC. Only nurse supervisors had the ability to make the request to APC, so management was aware and involved in the access request. Additionally, a monthly report of Med Dispense Access is sent to an identified nurse supervisor who reviews the access list to confirm that all staff are still employed, then signs off on the access list and keeps a copy on file. To further develop a more streamlined process for access request, APC and BARC created an access form that will be completed at time of hire for new employees and any time roles change or access is to be rescinded.
- E. Agree. ECHO recently completed an update to allow user group assignment for report view features. This was not an option previously. The BARC Forms and Reports Committee is now reviewing all ECHO reports to determine which groups require access to which

reports, and access will be reduced to only those who require access. It is anticipated that all reports will be based on user groups by 2nd Quarter of FY19.

8. System Password Requirements Should be Enhanced to Prevent Unauthorized Access to ePHI.

Passwords represent the keys to County systems. We noted the following concerns:

- A. Password configurations for ECHO do not comply with County policy. Passwords are set to expire every 180 days as opposed to the 45 days required by Section 5.5 of CAPP, Volume 7: ETS, Chapter 2: Acceptable Use Policy.
- B. Management has not determined whether the password configuration for the medDispense system complies with minimum requirements of the County's password policy. Without knowledge of the current password configuration, management is unaware of security vulnerabilities that may be exploited. The medDispense System is used by APC, but it is managed and maintained by a third-party. APC does not have the ability to view the security settings.

Password settings that are not configured to the latest County security standards increase the risk of unauthorized or inappropriate access to ePHI.

We recommend management

- A. Work with The Echo Group to update the password configuration for the ECHO system to meet or exceed County policy.
- B. Work with APC and medDispense's vendor to obtain and review the minimum password configuration for the medDispense system and evaluate the configuration for compliance with County policy.

Management's Response:

Agree in part. The 2 applications addressed in the Audit report were ECHO and APC. ECHO passwords were on a 180-day expiration cycle. This has been updated and all staff passwords were reset to a 45-day expiration as of 2.12.2018. A review of APC process found that APC passwords expire every 30 days, which is more stringent than County policy (i.e., 45 days).

9. Physical Access Controls Should Comply with Federal Regulations and County Policy.

During our review of physical access controls we noted the following:

- A. BARC did not perform an annual review of the physical access controls for their facilities for fiscal year 2017 as required by County policies. Section 1.11 of County Administrative Policy and Procedure (CAPP), Volume 7: Enterprise Technology Services (ETS), Chapter 6: HIPAA Security requires that agencies validate physical access controls annually and provide evidence of the review to the HIPAA officers within 30 days of completion. Failure to perform an annual review of physical access controls increases the risk of unauthorized or inappropriate access to BARC facilities containing protected health information and results in non-compliance with the County's HIPAA policies.
- B. Although management has a formal process for authorizing physical access to secure areas within BARC through the Facilities Management Division, we noted that:
 - i. Four of 11 (36%) physical access request forms selected were processed without the required approval from the Agency Director. The individuals that signed the forms on behalf of the Agency Director were not authorized to do so. Granting physical access without the appropriate approval increases the risk of unauthorized or inappropriate access to BARC's facilities containing protected health information and results in non-compliance with County policy.
 - ii. The Security Division received notification to remove the physical access for one of seven (14%) employee terminations selected, 15 days after the employee was terminated from Broward County. Section 9.2 of CAPP, Volume 7: ETS, Chapter 3: IT Administration requires access rights to secure areas be revoked immediately for personnel terminated or who no longer require access. Failure to remove physical access rights for terminated employees increases the risk of unauthorized or inappropriate access to BARC's facilities containing protected health information and results in non-compliance with County policy.
- C. Eight of 10 (80%) physical access cards to the pharmacy room where both prescription and over the counter medications are stored at the Boohar facility could not be accounted for during our audit. As a result, Security deactivated the missing cards on November 21, 2017. We reviewed the card activity report and noted activity on one of the missing cards as recent as November 3, 2017. Access to medications should be restricted to authorized personnel. Failure to adequately restrict access may result in theft, loss, or tampering with medications and medication dispensing equipment.

- D. A physical key is used to provide access to the medication room at the Detox facility. A key log is used to track possession of the key to this room. However, this log is not consistently used and there is no automated record of who entered the room and at what times increasing the risk of theft, loss or tampering with medications and medication dispensing equipment. Access to the medication room should be tracked and monitored.

We recommend management:

- A. Perform an annual review of physical access controls and submit the results of the review to the HIPAA Officers within 30 days of completion as required by County policy.
- B. Ensure that requests for physical access are appropriately authorized and submitted timely to the Facilities Management Division according to County Policy.
- C. Review and enhance controls surrounding the issuance of physical access cards to sensitive areas. Such controls should include a periodic validation of all active cards as well as an inventory of any stored cards. In addition, management should perform a periodic review of access logs to identify any unusual activity.
- D. Explore the use of electronic physical access cards to the Detox medication room to improve tracking and employee accountability. In addition, we recommend that if a physical key is used, management should implement additional monitoring controls; such as security cameras, and should ensure the possession of the physical key is adequately tracked.

Management's Response:

- A. Agree: BARC requested a list of all individuals who have access to BARC locations from Facilities and is currently in the process of reviewing that list to ensure that access is limited to those individuals who require it for their job. The review was completed and submitted to the HIPAA Officer. Going forward, this responsibility has been added to the Environment of Care and Joint Commission Liaison's job responsibilities for annual review.
- B. Agree in part. Management disagrees with the conclusion or inference in the Audit report that physical access to facilities was not maintained. BARC has a formal process for authorizing physical access that is consistent with County policy.

Disagree with the findings in the Audit report that:

- i. Four of 11 access forms were processed without required approval from Agency Director.
- ii. Security received notification to remove physical access for one of 7 employees 15 days after the employee was terminated from Broward County.

A review of the four access forms determined that these forms were authorized and approved during a period when there was no Division Director in place at BARC. The interim director, who was the clinical director at BARC, gave authority to senior staff to sign access forms for continuity of operations.

With respect to the one terminated employee, a review of the employee records determined that the identified staff person did turn in the physical access badge at time of termination. The badge was sent to security consistent with County procedures. Once an employee's badge is collected by BARC staff and signed off, it is sent to security for termination and their process is outside the scope of BARC.

- C. Agree in part. BARC recently transitioned from having multiple access cards for specific areas to have one badge access card with appropriate access authorizations. During the transition, the old access cards were placed in the shred box when they no longer worked, consistent with the instructions provided by Johnson Controls. County IDs were implemented to have the badge as the access card. There are 2 extra cards available for temp nurses that are stored in the narcotics room. To access a temp card, the nurse and a supervisor must sign off on a log that a temp badge was given to a staff person. Once returned by staff, the log is updated to reflect the card has been returned. The 8 old access cards identified as unaccounted for in the Audit report were deactivated.
- D. Agree. Cameras were installed in the pharmacy in 2016 on the inside that faces the door, which meets the recommendations given by the auditors at the time of the audit. When BARC moves to the new facility, this issue will be addressed as there is no key access for any pharmacy space in the new facility. Physical access cards will be used that will improve tracking and employee accountability.

10. Appropriate Records Should be Maintained of Items Submitted to the HIPAA Security Officer for Review.

The HIPAA Security Team does not maintain an appropriate audit trail to demonstrate when documents are submitted to, and reviewed by the HIPAA Security Officer. CAPP, Volume 7: ETS, Chapter 6: HIPAA Security, requires the following documents be submitted to the HIPAA Security Officer for review:

- ❖ All findings from the regular review of information system activity and log-in attempts by agencies;
- ❖ The review of workforce member access to ePHI performed at least annually by agencies;
- ❖ Suspected or known security incidents;
- ❖ Continuity of Operations and Disaster Recovery plan test results;

- ❖ Evidence of annual physical access control review; and
- ❖ Certificates of Destruction for electronic media.

Management should be able to demonstrate that these due diligence activities have been completed and submitted to the HIPAA Security Officer in compliance with HIPAA Security Policies. Lack of appropriate documentation that these activities have occurred and have been submitted increases the risk of non compliance with County policy and HIPAA regulations.

We recommend management maintain appropriate records of items submitted to the HIPAA Security Officer to demonstrate compliance with the County's HIPAA Security Policy.

Management's Response:

Agree in part. Notifications were provided on an informal basis through informal and formal meetings. This has been addressed internally with a new formal notification process.

11. Contract Administration Activities Should be Enhanced.

BARC is performing monitoring of APC's compliance with the pharmacy services agreement; however, the monitoring activities are not reported to, or coordinated by, the Contract Administrator. During our review, we noted the following;

- A. The contract requires APC to perform, at a minimum, one physical inventory count per contract year. At the time of our review this activity had not been performed.
- B. APC maintains time sheets for each employee providing services at BARC facilities; however, BARC does not request the timesheets to reconcile total hours worked during the month invoiced.

Contract Administrators should monitor vendors for compliance with contract requirements and performance. Lack of adequate contract monitoring may result in the County paying for services not received or performed according to contract provisions.

We recommend management enhance contract administration for the APC agreement to ensure vendor compliance with key provisions of the agreement, such as the annual physical inventory count. In addition, management should review APC timesheets to account for total hours and agree the amount to the monthly invoice.

Management's Response:

- A. Agree. See Response to 1C herein.

- B. Agree. BARC established a process with APC that they will now send all timesheets with their monthly invoice for review and comparison. BARC's Accountant and Contract Administrator are responsible for reconciling the timesheets against their contract.

Management's General Response:

Management has reviewed the County Auditor's Report regarding Broward Addiction Recovery Center's (BARC) Information Technology Operations.

First, it should be noted that in addition to other competing time pressures, this response has been delayed due to the number and technical nature of the items addressed in the report, many of which were initiatives that were already underway.

While Management agrees that some of the information technology general controls can be improved, Management does not agree with the conclusion that the County or its applications are not in compliance with the information technology requirements of the Health Insurance Portability and Accountability Act (HIPAA). Furthermore, Management agrees with the conclusion that the ECHO application (which has been in use for well over ten years) does not adequately support BARC's business processes. The Human Services Department will be seeking funding for a new system in the Fiscal Year 2020 budget.