



**University of Kentucky Internal Audit (UKIA)
Activity Report for UK HealthCare (UKHC)**

September 13, 2019



I. Risks and Concerns

II. UKIA Structure for
UK HealthCare

III. Work Product
(Previous, Current, Future)



UK HealthCare Profile

Public Exposure

- 40,909 patient discharges in 2018 – an average of 113 per day
- 677,996 hospital outpatient visits
- 1.7 million ambulatory clinic visits

External Factors

- Grants
 - Federal/state
 - Private
- Contracts
 - Vendor
 - Partnerships
- Industry accreditation
 - The Joint Commission

Materiality

- \$1.7 billion in revenue
- Building Efficiencies through Strategic Transformation (BEST)
- Pharmacy
 - Retail
 - Hospital

Audit Duration

- Annual financial statement audit
- Regulatory compliance audits
 - Federal
 - State

Control Environment 1

- Key leadership changes
- 8,875 Full-time equivalent employees
- Ancillary locations

Control Environment 2

- Implementation of Electronic Health Record (EHR) system
- Numerous applications (50+)
- Physical infrastructure
 - Data centers
 - Network



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Regulatory Compliance Common Events



Industry-wide

- Pharmacy Regulations
Drug Pricing Program
- Fair Labor Standards Act
(FLSA)
- Health Insurance
Portability and
Accountability Act
(HIPAA)
- False Claims Act
- Emergency Medical
Treatment and Labor Act
(EMTALA)
- Stark Law



Regulatory Compliance Common Events



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- Pharmacy Regulations
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- False Claims Act
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- Stark Law



UK HealthCare

- Dispensing
- Non-Compliance with HIPAA
- Time Reporting



Information Technology Common Events



Industry-wide

- Cybersecurity
- Disaster Recovery
- Infrastructure
- Capacity Management
- Access Management
- Mobile Device Management



Information Technology Common Events



Industry-wide

- Cybersecurity
- Disaster Recovery
- Infrastructure
- Capacity Management
- Access Management
- Mobile Device Management



UK HealthCare

- Single Enterprise EHR Platform Maintenance and Updates
- Role-based Access
- Deprovisioning
- Encryption
- Access Management
- Endpoint and Mobile Device Management
- Server Configuration



Business Operations Common Events



Industry-wide

- Health Information Management
- Billing and Collections
- Charge Capture
- Coding



Business Operations Common Events



Industry-wide

- Health Information Management
- Billing and Collections
- Charge Capture
- Coding



UK HealthCare

- Contract Management
- Tracking Transactions
- Cash Handling
- Manual Coding
- Inventory Management



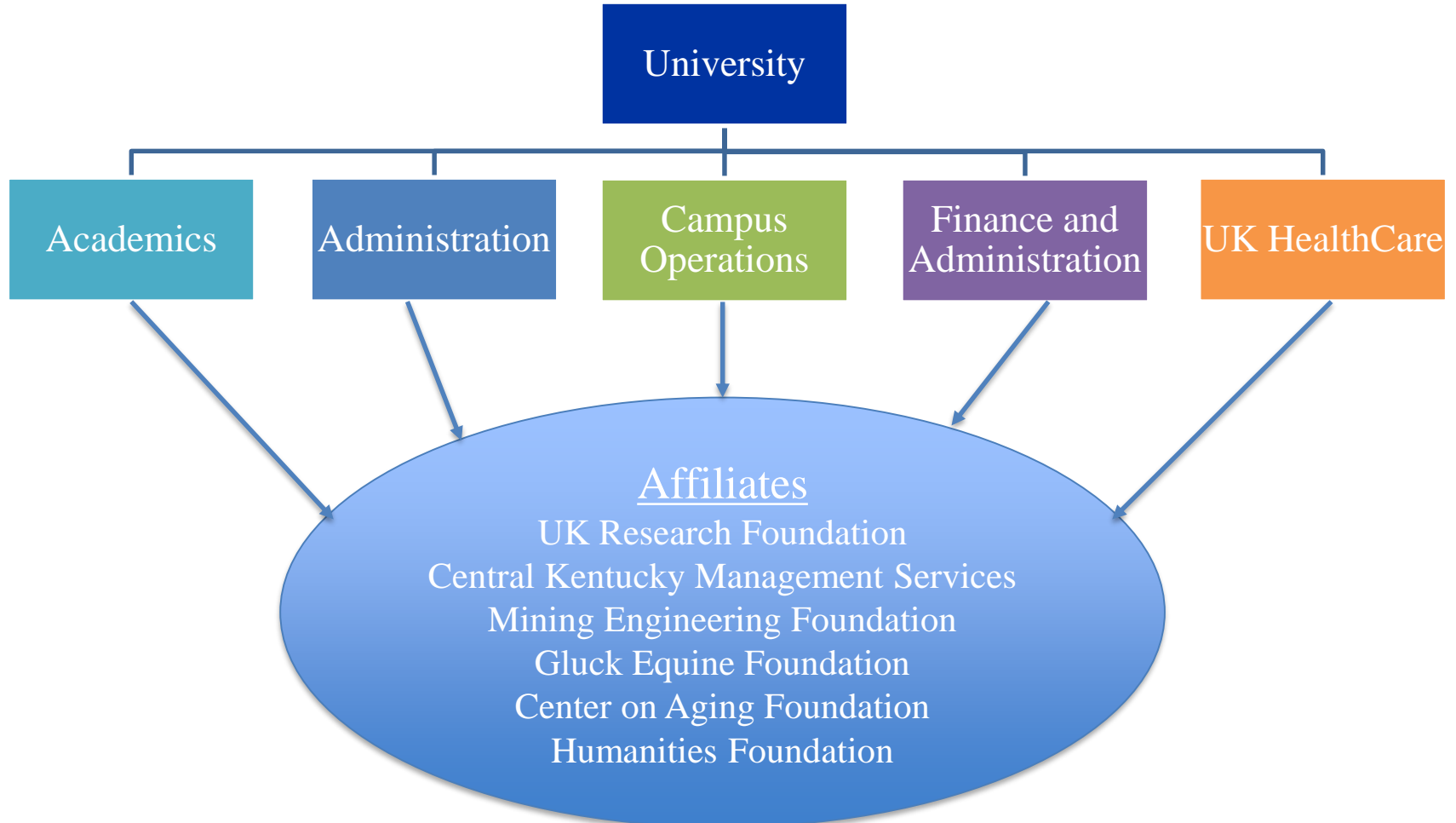
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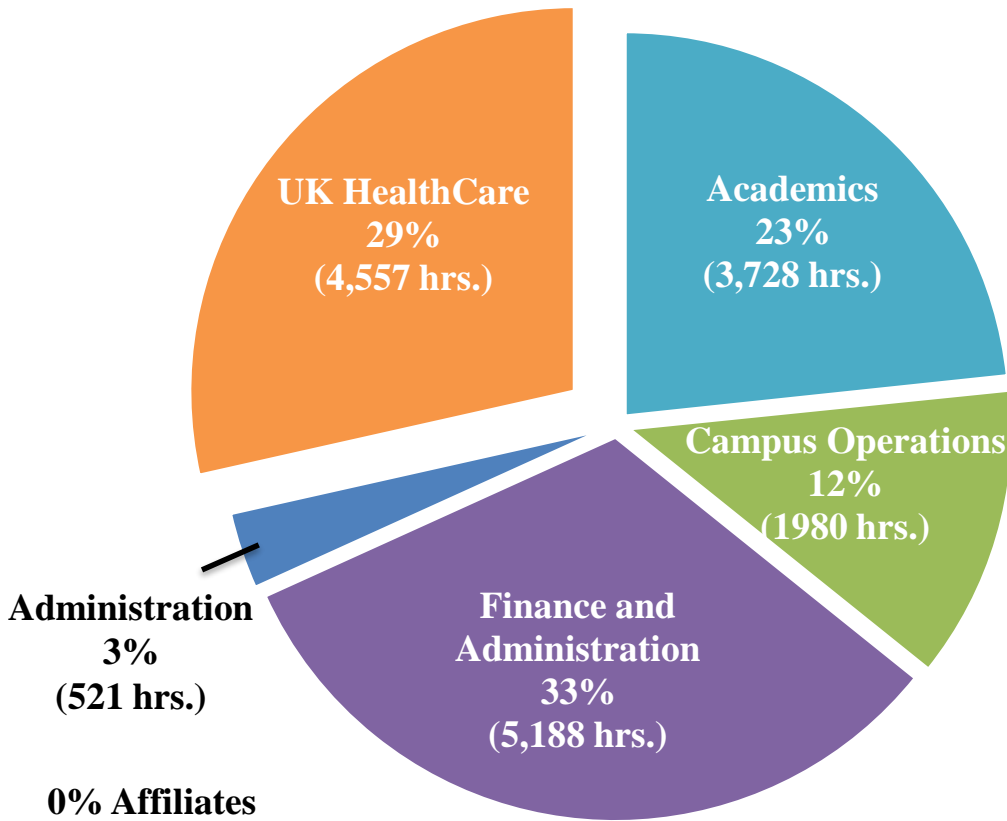
Auditing Structure By Enterprise Divisions





UKIA Hours By Enterprise Division

Fiscal Year 2019 Hours

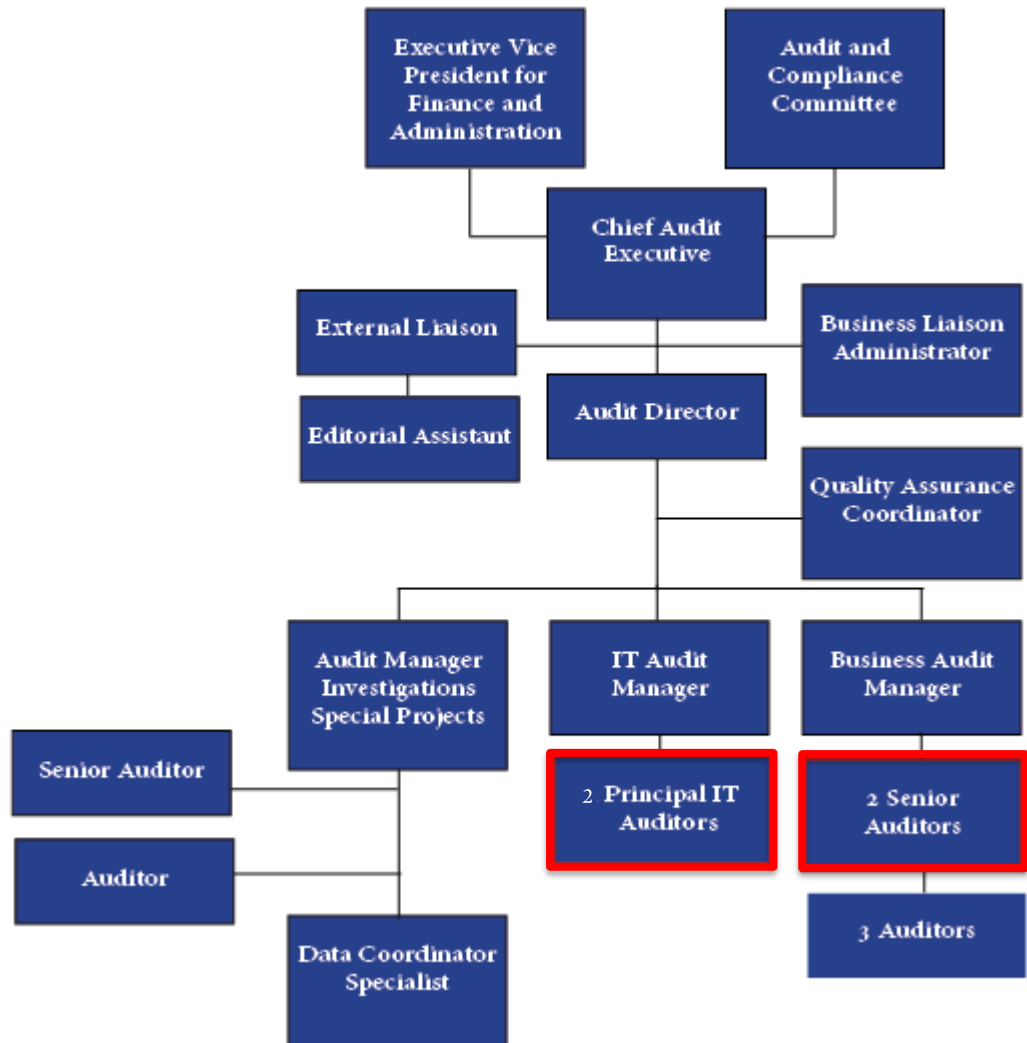


| Enterprise Division | FY 17 | FY 18 |
|----------------------------|------------------------|------------------------|
| Academics | 21.46% | 20.77% |
| Campus Operations | 11.87% | 5.6% |
| Finance and Administration | 12.98% | 34.83% |
| Administration | .4% | 3.12% |
| Affiliates | .11% | 1.1% |
| HealthCare | 53.18% (8,857 hrs.) | 34.57% (4,667 hrs.) |



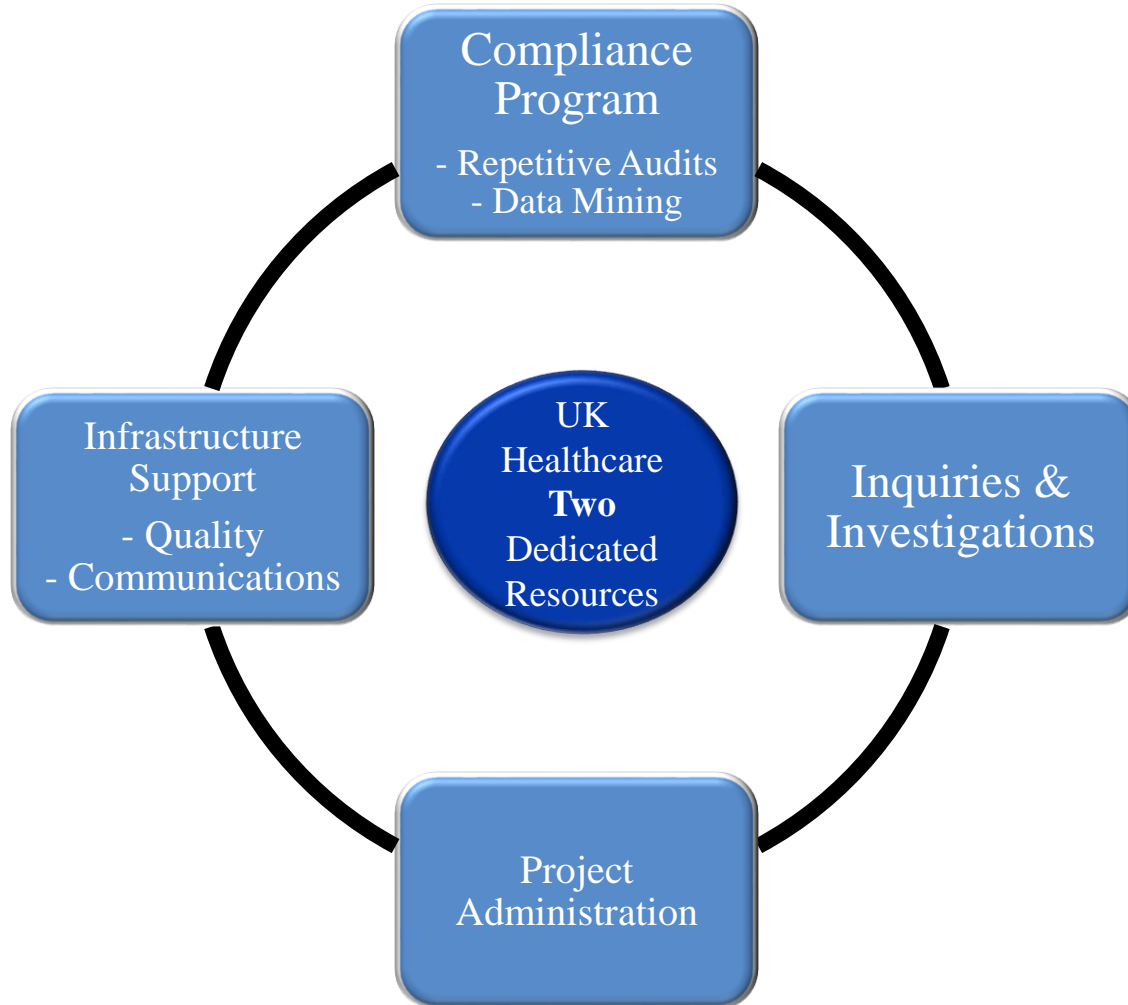
UKIA Resources Dedicated to UK HealthCare

- As of March 2019, UKIA dedicated one principal IT auditor and one senior business auditor to work with UKHC.
- The two audit consultants now collaborate with the infrastructure team for UKHC inquiries and investigations.





UKIA Structure





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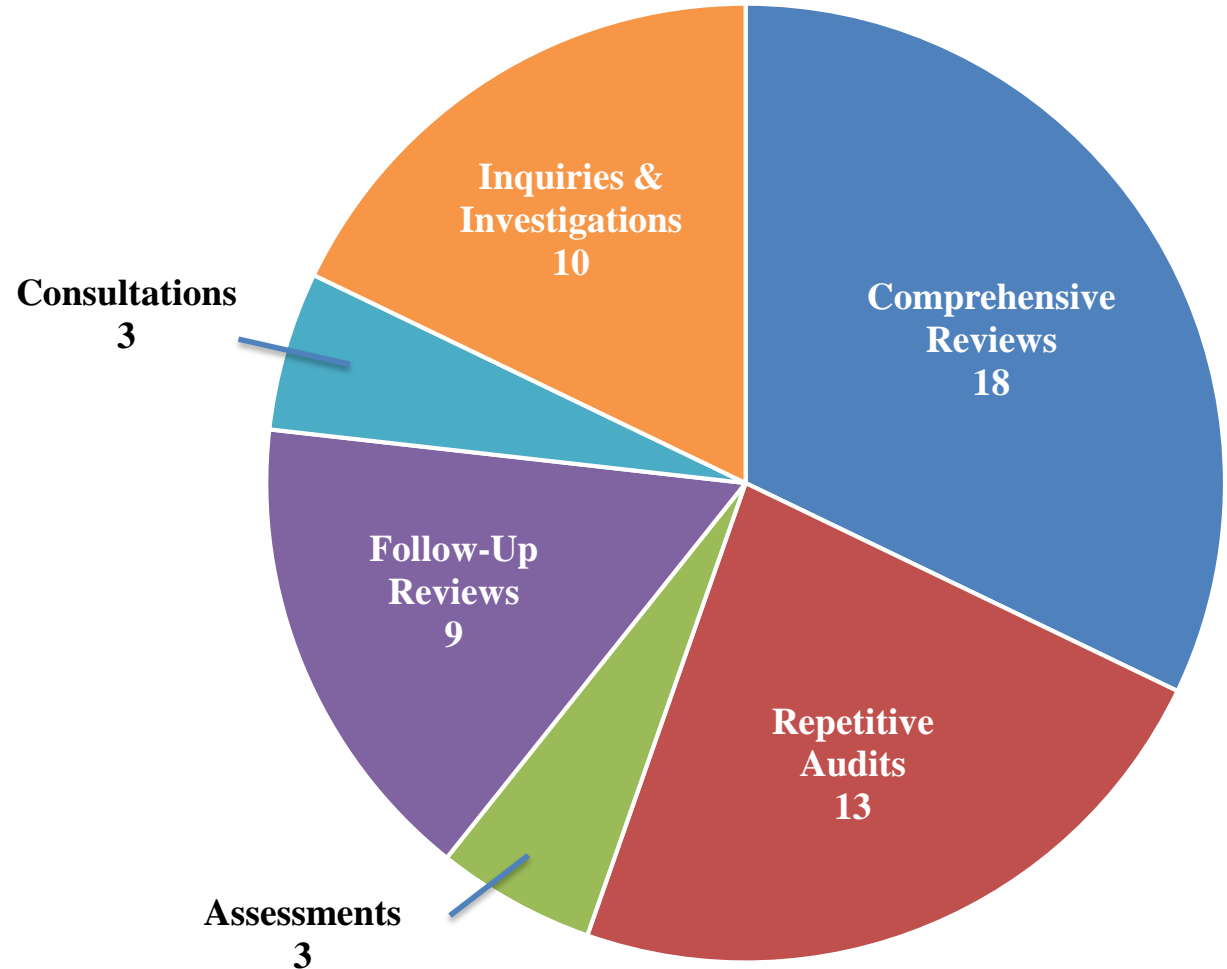


UKIA Activity in UK HealthCare

Nine UKIA Services

- Comprehensive Reviews
- Repetitive Audits
- Assessments
- Follow-up Reviews
- Consultations
- Inquiries & Investigations
- Information Technology Reviews
- Data Mining
- Training

Fiscal Years 2017 - 2019





Approved Work Prioritization

| | Processes |
|----|---|
| 1 | Contract Management |
| 2 | Family Educational Rights and Privacy Act (FERPA) |
| 3 | Health Insurance Portability and Accountability Act (HIPAA) |
| 4 | Conflicts of Interest |
| 5 | Regulatory Compliance |
| 6 | Student Fees |
| 7 | Agency Accounts |
| 8 | ProCard |
| 9 | Cash Handling |
| 10 | Vendor Master File |
| 11 | Deprovisioning |
| 12 | Capital Construction |



Approved Work Prioritization

| | Processes | Units |
|----|---|---|
| 1 | Contract Management | Alumni Associations |
| 2 | Family Educational Rights and Privacy Act (FERPA) | Shared Services |
| 3 | Health Insurance Portability and Accountability Act (HIPAA) | Service Centers |
| 4 | Conflicts of Interest | 501(c)(3) Entities |
| 5 | Regulatory Compliance | Required by Kentucky Revised Statutes (KRS) |
| 6 | Student Fees | Academic Units |
| 7 | Agency Accounts | |
| 8 | ProCard | |
| 9 | Cash Handling | |
| 10 | Vendor Master File | |
| 11 | Deprovisioning | |
| 12 | Capital Construction | |



Approved Work Prioritization

| | Processes | Units | Applications |
|----|---|---|-----------------------|
| 1 | Contract Management | Alumni Associations | In-house Applications |
| 2 | Family Educational Rights and Privacy Act (FERPA) | Shared Services | Server Configuration |
| 3 | Health Insurance Portability and Accountability Act (HIPAA) | Service Centers | Unit Applications |
| 4 | Conflicts of Interest | 501(c)(3) Entities | |
| 5 | Regulatory Compliance | Required by Kentucky Revised Statutes (KRS) | |
| 6 | Student Fees | Academic Units | |
| 7 | Agency Accounts | | |
| 8 | ProCard | | |
| 9 | Cash Handling | | |
| 10 | Vendor Master File | | |
| 11 | Deprovisioning | | |
| 12 | Capital Construction | | |



FY2020 UK HealthCare Work Prioritization: Current Activities

| Approved Work Prioritization | Project Name | Risk Factor Components* | | |
|----------------------------------|--|------------------------------|--------------------------------|------------------------------|
| Contract Management | 2019 MC02 Crothall | (15) Operational | (16) Event Identification | (7) Industry Compliance |
| Regulatory Compliance | 2020 MC01 Center of Excellence in Rural Health | (5) State Regulations | (2) Customer Type | (18) IS Applications |
| | 2019 MC04 Ryan White Grant Clinical Review | (1) Customer Type | (6) Federal Regulations | (20) Management Requests |
| | 2020 RA03 UK HealthCare Nursing Trauma and Acute Care Surgical Services (ACSS) | (6) Federal Regulations | (5) State Regulations | (16) Event Identification |
| Cash Handling, Expanded Scope | 2019 MC05 Patient Financial Services | (16) Event Identification | (9) Transaction Volume | (12) Internal Audits |
| Academic Unit | 2019 CP06 College of Medicine Expansion | (4) Program Visibility | (20) Management Requests | (6) Federal Regulations |
| Clinical Unit, Expanded Scope | 2020 PP06 Family and Community Medicine | (16) Event Identification | (2) Customer Type | (15) Operational |

* See Appendix A at the end of this presentation.



FY2020 UK HealthCare Work Prioritization: Follow-Up Activities

| Approved Work Prioritization | Responsible Area | Project Name | Business Risk Factor Components* |
|------------------------------|------------------------------|---|---|
| Contract Management | UK HealthCare Administration | Network Medical Devices Review | (7) Industry Compliance (15) Operational (20) Management Requests |
| Clinical Unit | College of Medicine | Ophthalmology - Administrative Procedures | |
| Clinical Unit | College of Medicine | Sanders Brown Center on Aging | |
| Cash Handling | Pharmacy Services | UK Pharmacy Cash Management Kentucky Clinic Pharmacy Cash Handling Turfland Retail Pharmacy Cash Handling University Health Pharmacy Cash Handling Specialty Pharmacy Cash Handling | |
| ProCard | Pharmacy Services | UKHC Pharmacy Services ProCard | |
| Regulatory Compliance | UK Police Department | UKHC Good Samaritan Security UKHC Chandler Security UKHC Eastern State Hospital Security | |

*See Appendix A at the end of this presentation.



FY2020 Audit Projects *Affecting* UK HealthCare

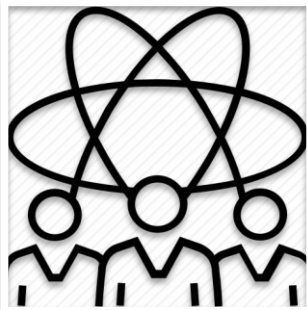
| Approved Work Prioritization | Project Name | Risk Factor Components* | | |
|------------------------------|----------------------------------|---------------------------|--------------------------|-----------------------|
| Contract Management | 2020 CP01 Cost Savings Analysis | (15) Operational | (20) Management Requests | |
| Regulatory Compliance | Grants | (7) Industry Compliance | (6) Federal Regulations | (5) State Regulations |
| Vendor Master File | Vendor Master File (Campus-wide) | (9) Transaction Volume | (5) Operational | (18) IS Applications |
| Conflicts of Interest | 2020 CC02 Conflicts of Interest | (16) Event Identification | (12) Internal Audits | |

* See Appendix A at the end of this presentation.



UKIA/UKHC Partnership

Ongoing Meetings, Committees, and Partnerships

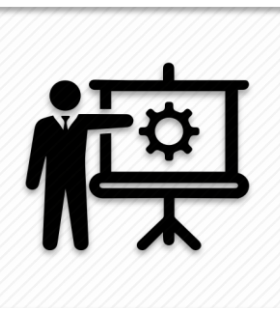


Information Gathering and Updates

Office of Corporate Compliance
Vice President and Chief Financial Officer
Chief Information Officer
Office of Legal Counsel

Partnerships for Discovery and Resolution

Risk Management Advisory Committee
Compliance Ethics Committee
Office of Sponsored Projects Administration (OSPA) Advisory Group
UKIA also has an *internal* Healthcare Committee which meets biweekly to discuss UKHC issues, trends, and priorities.



UKIA Trainings Include UK HealthCare Employees

The Business of Fraud
Advanced Fraud
BOTT – Business Operations Training Transformation



UK HealthCare Monthly Dashboard



Once a month, UKIA provides UKHC and main campus administration with a status update on the projects that are underway in UK HealthCare. The monthly “dashboard” includes:

- 1) Audit Service Type
- 2) Project Name and Objectives
- 3) Project Phase and Expected Completion Date

| UK HealthCare | | | | | | | | | | July Activity Update as of 7/25/2019 | |
|----------------------------|---------------------|--|--------|--|-----------------------|-----------|---------------------|---|--------------------------|---|--|
| Audit Services | Unit Name | Project Name | Status | Project Objective | Current Project Phase | | | Statement of Work | Expected Completion Date | Comments | |
| | | | | | Planning | Fieldwork | Reporting/Completed | | | | |
| Comprehensive | UK Hospital | 2019 MCO3 Contract | U | UKIA audit objectives are to focus on contract management and compliance in the following areas: • Appropriate expenditures • Accurate invoicing • Cost center reconciliations • Assessment of key performance indicators | | | | Scope will be developed after risk assessment completed | 8/30/2019 | Planning - Obtaining and reviewing documentation. Client and Clinical Engineering (CEN) interviews will continue to be conducted. Review and analysis of documentation received to date is in progress. Projected completion date changed to 8/30/2019. | |
| | College of Medicine | 2019 MCO4 Flynn White Grant Review | U | Review Flynn White grants for adherence to federal regulations and reporting requirements. | | | | Scope will be developed after risk assessment completed | 8/30/2019 | Planning - Risk assessment and analysis complete for Operations, the primary segments to be begin interviews and to incorporate risk review. Scope to be determined. | |
| | UK Hospital | 2019 MCO5 UK HealthCare Patient Financial Services | U | To assess the payment process and monitor receipts issued to patients. | | | | Scope will be developed after risk assessment completed | 11/1/2019 | Planning - Obtaining and reviewing documentation. This comprehensive project requires the scope expansion of 2019 RACS UKHC Patient Account Services - Cash Handling, which has been closed and removed from the dashboard. UKIA has communicated the revised objective to Corporate Compliance and is efforts to keep communication channels open. Projected completion date changed to 11/1/2019. | |
| | UK Hospital | 2020 MCO1 Center of Excellence in Rural Health | U | To evaluate the Center of Excellence in Rural Health's (COERH) FY19 financial performance, including revenue, expenses and associated information systems and provide detailed financial statement audits to the Council on Postsecondary Education and the Legislative Research Commission for each program function in the Center of Excellence in Rural Health (COERH). | | | | Scope will be developed after risk assessment completed | 8/30/2019 | Planning - Client notified of audit on 8/16/19. On-site will occur July 10th - 12th for information gathering and test observations. | |
| | All UK HealthCare | 2020 CO202 Conflict of Interest | N | To evaluate how potential conflicts of interest are monitored, identified, communicated, addressed and documented across all UK HealthCare. | | | | Scope will be developed after risk assessment completed | 12/1/2019 | Planning - Clients and key stakeholders notified of audit on 07/19/2019. Interviews and documentation gathering to be begin in August. | |
| Inquiries / Investigations | College of Medicine | 2019 IN028 Family and Community Medicine | U | To substantiate claims of inappropriate activity. | | | | The scope period for this review will be FY17-19 and will be expanded as necessary. Audit activity will be determined during the planning phase. | 8/30/2019 | Planning - In addition to evaluation of proper activities, review will be expanded to a comprehensive review. The comprehensive review will be assigned a new audit number, which will appear on next month's dashboard. Site visits completed at Turfway, Hazlet, and Highland locations, two locations remain to be visited. Obtaining and reviewing documentation. | |
| Data Mining | Purchasing | 2019 DA02 Duplicate Vendor | R | UKIA will analyze data that is found within the Vendor Master File tables to find duplicate vendors or erroneous entries. | | | | Scope will be developed after risk assessment completed | Closed | FY19 project will be closed and removed from dashboard. Objectives will be re-evaluated before projects resumed in FY20. | |
| Unannounced | UK Hospital | 2019 RA02 UKHC Training - Cardiovascular and Thoracic Intensive Care Unit (CVT-CU) - Non-Swamp Overtime Compensation | U | To evaluate the unit's adherence to the Fair Labor Standards Act regulations (FLSA), Kentucky status and University policy regarding rest periods and compensation. | | | | Review adherence to federal, state and university regulations for non-swamp overtime. Comparison of CVT-CU employees for January - February 2019. | Complete | Complete - Final communication distributed on 5/10/2019. Project will be closed and removed from the dashboard. | |
| | | 2020 RA03 UK HealthCare Nursing - (Trauma & ACS) Non-Swamp Overtime Compensation | N | To evaluate the unit's adherence to the Fair Labor Standards Act regulations (FLSA), Kentucky status and University policy regarding rest periods and compensation. | | | | Review adherence to federal, state and university regulations for non-swamp overtime. Comparison of CVT-CU employees for January - February 2019. | 8/6/2019 | Fieldwork - Analyzing transactions and verifying process weaknesses related to current practice. | |
| Partnerships | All University | 2020 CP01 Cost Savings Analysis - Purchasing/UKHC | U | To evaluate University-wide strategic initiatives for cost savings. | | | | Internal meetings to discuss the development of UKIA tools to validate cost savings. | Ongoing | UKIA to review procurement model to validate short and long-term university-wide cost savings. Data is currently being reviewed to measure and validate the first of 54 cost savings measures identified. | |
| | College of Medicine | 2019 CP06 College of Medicine Expansion Project | — | To examine processes used in the creation of College of Medicine remote campuses. | | | | UKIA is responsible for leading the Internal Audit Risk Group to identify risk and report identified risk appropriately. | Ongoing | Continuing to keep apprised of UKU campus operations. | |
| Training and Seminars | All University | The Business of Fraud Training | — | To teach participants industry trends, benchmarking data, fraud prevention, organizational impact, and fraud indicators. | | | Yes | UKIA prepares and updates a presentation for each session to include overview of UK's organizational structure and areas that are at high risk for fraud. | 8/1/2019 | Next training scheduled on 8/1/2019. | |
| | All University | Advanced Fraud Training | — | To teach participants strategies to prevent and detect fraud in their units through enhanced controls. | | | Yes | UKIA prepares and updates a presentation for each session to include current fraud trends and existing risks. | 8/6/2019 | Next training scheduled on 8/6/2019. | |



UK Internal Audit Mission Statement

To support UK in its pursuit of excellence by providing expert analysis and advice to champion the achievement of management objectives.

Appendix A: Risk Factors and Risk Components

| Business Risk Factor | Component | Scoring Criteria | Rating Scale |
|----------------------|----------------------------|---|---|
| Public Exposure | (1) Media Coverage | Frequently covered areas increase exposure | H = International and National |
| | | | M = Local (City and State) |
| | | | L = University outlets |
| | (2) Customer Type | Areas interacting with external patrons increase exposure | H = External to University |
| | | | M = External to unit |
| | | | L = Internal clientele*** |
| | (3) Current Affairs | Increased public awareness increases risk | H = International and National |
| | | | M = Local (City and State) |
| | | | L = Internal to the University |
| | (4) Program Visibility | Areas of prominence increase risk | H = International and National |
| | | | M = Local (City and State) |
| | | | L = Internal to the University |
| External Factors | (5) State Regulations | Highly regulated areas increase risk | H = Direct University/unit impact |
| | | | M = Impact to organizations |
| | | | L = Limited or no impact to University or organizations with ties to University |
| | (6) Federal Regulations | Mandatory regulations increase risk | H = Direct University/unit impact |
| | | | M = External clientele impact |
| | | | L = Limited impact to University, unit or external clientele |
| | (7) Industry Compliance | Compliance decreases risk | H = Internal or External area with little to no compliance |
| | | | M = Internal or External area with limited compliance |
| | | | L = Internal or External area with moderate to good compliance |
| Materiality | (8) Source of Revenue | Increased number of sources decrease unit risk | H = One source of revenue |
| | | | M = Two to three sources of revenue: one not stable |
| | | | L = Multiple stable revenue sources |
| | (9) Transaction Volume | Higher volume increases risk | H = High level of daily transactions |
| | | | M = Moderate amount of daily transactions |
| | | | L = Sparse amount of daily transactions |
| | (10) Budget Breakdown | Limited source reliance increases risk | H = All revenue sources unstable **Stable vs. Unstable |
| | | | M = One stable revenue source with the rest unstable |
| | | | L = All stable/renewable revenue sources |

Appendix A: Risk Factors and Risk Components

| Business Risk Factor | Component | Scoring Criteria | Rating Scale |
|------------------------------------|--|--|--|
| | (11) Transaction Complexity | Process with higher number of steps increases the risk | H = Multiple steps and individuals involved |
| | | | M = Moderate number of steps and individuals involved |
| | | | L = Appropriate and simple to follow steps with appropriate individuals involved |
| Audit Duration | (12) Internal Audits | The longer the unit has gone without an audit, the higher the risk | H = More than five years since audited |
| | | | M = Two to five years since audited |
| | | | L = Two or less years since audited |
| | (13) External Audits | The longer the unit has gone without an audit, the higher the risk | H = More than ten years since audited |
| | | | M = Four to nine years since audited |
| | | | L = Three or less years since audited |
| (14) Other Audits | The longer the unit has gone without an audit, the higher the risk | H = More than 8 years since audited | |
| | | M = Four to seven years since audited | |
| | | L = Three or less years since audited | |
| Control Environment 1 | (15) Operational | Process complexity increases risk | H = Involves multiple personnel and multiple tasks (4 or more tasks) |
| | | | M = Moderately complex with several personnel involved |
| | | | L = Simplified process with appropriate number of personnel involved |
| | (16) Event Identification | More incidents will increase risk | H = Catastrophic/extreme impact to University |
| | | | M = Significant impact to University |
| | | | L = Limited damage to University |
| (17) Key Position Turnover Rate | Leadership and strategic changes increase risk | H = Dysfunctional turnover (costly to University) | |
| | | M = Voluntary turnover | |
| | | L = Involuntary or Functional (low-performer leaves) turnover | |
| Control Environment 2 | (18) IS Application | System criticality determines risk | H = Essential |
| | | | M = Operational Enhancement |
| | | | L = Non-Essential |
| | (19) Data Centers | Centers managed outside of IT increases risk | H = Low monitoring of high-level access personnel |
| | | | M = Moderate monitoring of high-level access personnel |
| | | | L = High monitoring of high-level access personnel |
| (20) Management Requests | Level of expertise determines risk | H = Source and knowledge | |
| | | M = Customer complaint | |
| | | L = Second-hand information (hearsay) | |