

# Incorporating Continuous Monitoring in High-Risk Areas within the Healthcare Setting

# Meet the Speakers

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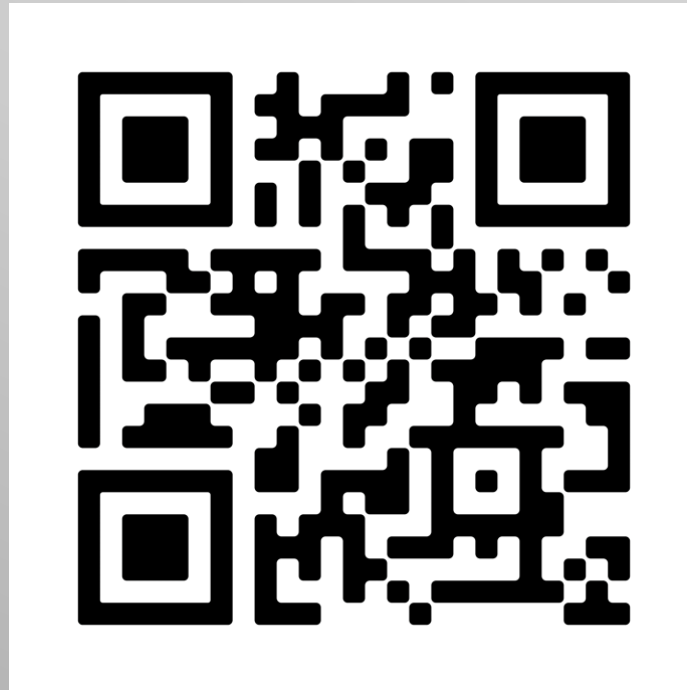
*Partner, Risk Assurance,  
Automation & Analytics*



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*Manager, Automation & Analytics*

# Healthcare Data Analytics Capabilities Survey





# Agenda

- Overview
  - What Is Continuous Monitoring?
  - Benefits and Challenges
  - Basic Questions to Get Started
- Strategies & Best Practices
- Technology & Tools
- Use Case Examples

# Continuous Monitoring Overview

# Setting the Stage

## Health Care Organizations

- Increasing size, complexity and reach
- Access to more data than ever before
- Unable to effectively drive meaningful insights and impact

## Finance, Risk Management, & Internal Audit

- Evolving business/risk landscape - scope and responsibilities
- Data, Analytics, & AI capabilities are increasing rapidly and have potential to more efficiently and effectively to support and complement people-based solutions
- Organizational approaches must evolve to bring value and improve operations and risk management practices
- Adoption and implementation of technology is critical to that evolution, and data analytics and AI are important capabilities for Organization's to have in their tool kit
- Data driven approaches require training and growth of skillsets and mindsets



# Continuous Monitoring vs. Continuous Auditing



Continuous monitoring are internal controls / tasks performed by management to determine if internal controls are operating effectively.



Continuous auditing are audit procedures / tasks performed by internal audit to routinely perform risk and control assessments.



An organization which utilizes robust continuous monitoring typically requires less continuous auditing.

# What does Continuous Monitoring Look Like?



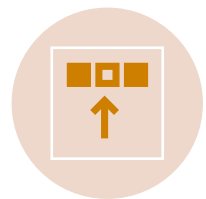
Verification of control effectiveness



Detection of policy violations



Confirmation of process errors



Compliance monitoring











Identification of bottlenecks and inefficiencies



Automation of reconciliation and review



# Why Implement Continuous Monitoring?

-  100% transaction testing to reduce operational processes.
-  Reduce compliance and financial risks.
-  Provide cost savings and stop revenue leakage.
-  Facilitate fraud detection.
-  Enhance control environment as employees become aware of the level of detail review.
-  Increase timeliness of control failure detection and quickly mitigate the risk of ongoing control failures.
-  Increase efficiency and effectiveness of the internal audit department.
-  Provide a quick response to operational changes when used as a risk assessment tool.

# Benefits & Challenges

## BENEFITS

- More in depth and proactive procedures
- Better understanding of business operations
- Better risk coverage
- May reduce SOX work
- Better understanding of data available from systems
- Identification of control weaknesses
- Re-performable
- Identify red flags and trends

## CHALLENGES

- Analyzing vast amounts of information
- Gaining support from the business
- Being consumed by the results
- Lack of technical resources
- Gaining the understanding
- Boiling the ocean
- Data quality and availability
- Technology choices
- Complex business processes

# What Can AI Do?

- Technology is an enabler, not the solution.
  - AI Can
    - Automate repetitive tasks to increase efficiency
    - Help identify potential risk areas to improve reporting quality
  - AI Cannot
    - Interpret complex and ambiguous information
    - Use professional judgement, build relationships, and understand nuances
    - Replace the required need for business/risk/process understanding to guide analytic steps
    - Provide intuition and investigation needed for planning, testing, and reporting decisions

# What Background do Data Analysts Need?

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Technical ability to continue to improve tools, enhance results, and adjust as operations and systems change.



Holistic understanding of systems, processes, risks, data, and controls.



Communication plan for managing detailed results, research, and reporting.

# Data-Centric Approach

*Improve integrity of results and efficiency, and enhance quality and impact of insights and response*

## Discover

- Business and Industry
- Systems, Processes and Data

## Design

- Identify risks and objectives ideal for continuous monitoring
- Develop analytic objectives and align with overall business objectives
- Understand data expectations

## Prepare and Validate

- Validate accuracy and completeness of available data
- Identify data cleansing necessary and re-validate
- Compare validation to expectations

## Analyze & Act

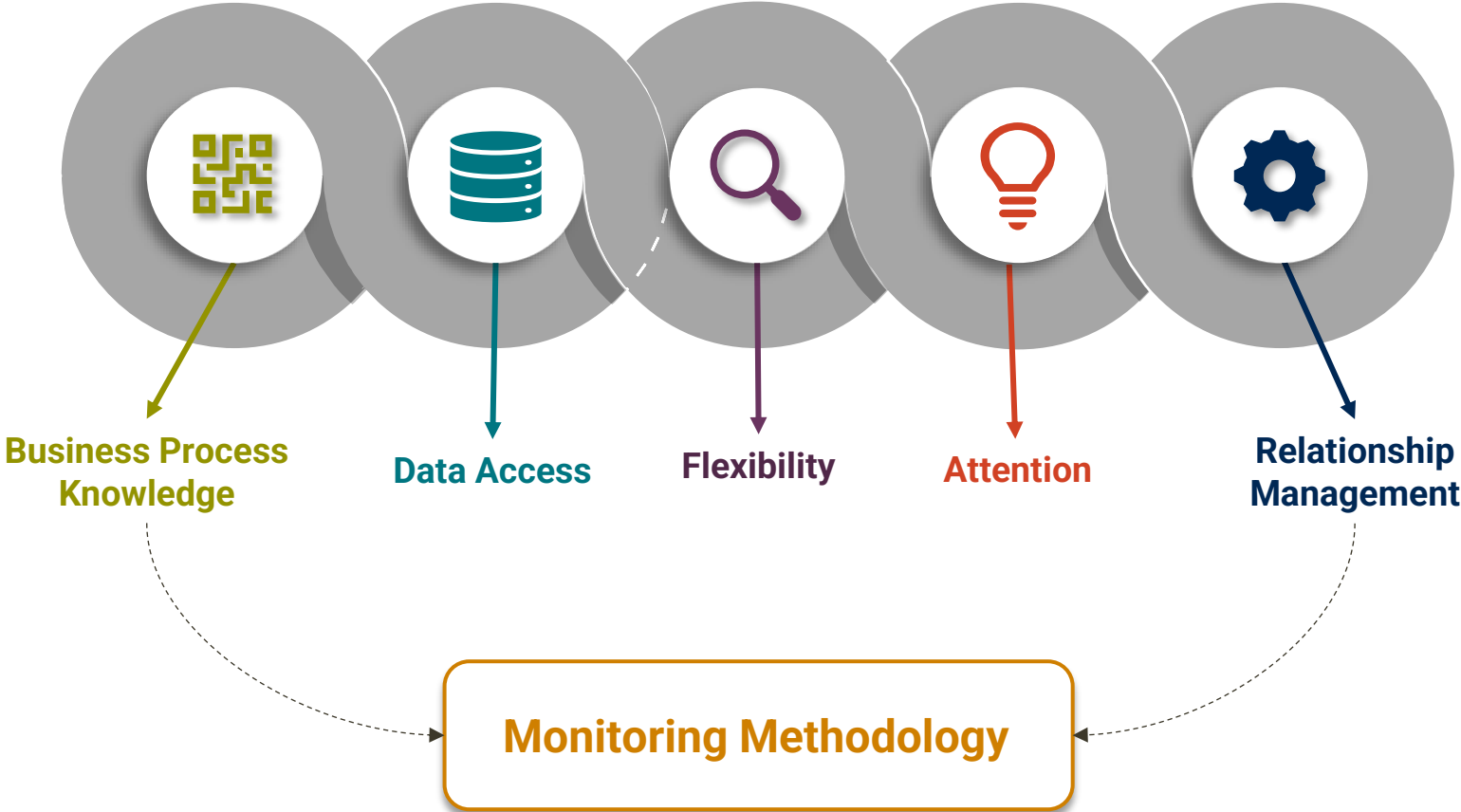
- Perform analysis and review results
- Refine analysis to increase precision
- Report results visually for impact

## Enhance

- Identify value in results for performing reviews more regularly
- Develop scripts and process to support continuous monitoring

# Strategies & Best Practices

# Key Success Factors



## CCM PROGRAM FRAMEWORK

### PURPOSE

Define goals & objectives of the initiative  
Define benefits, challenges, & critical success factors

### STAFFING

Identify necessary skills and key personnel.  
Consider in-sourcing, co-sourcing, and outsourcing

### TRAINING

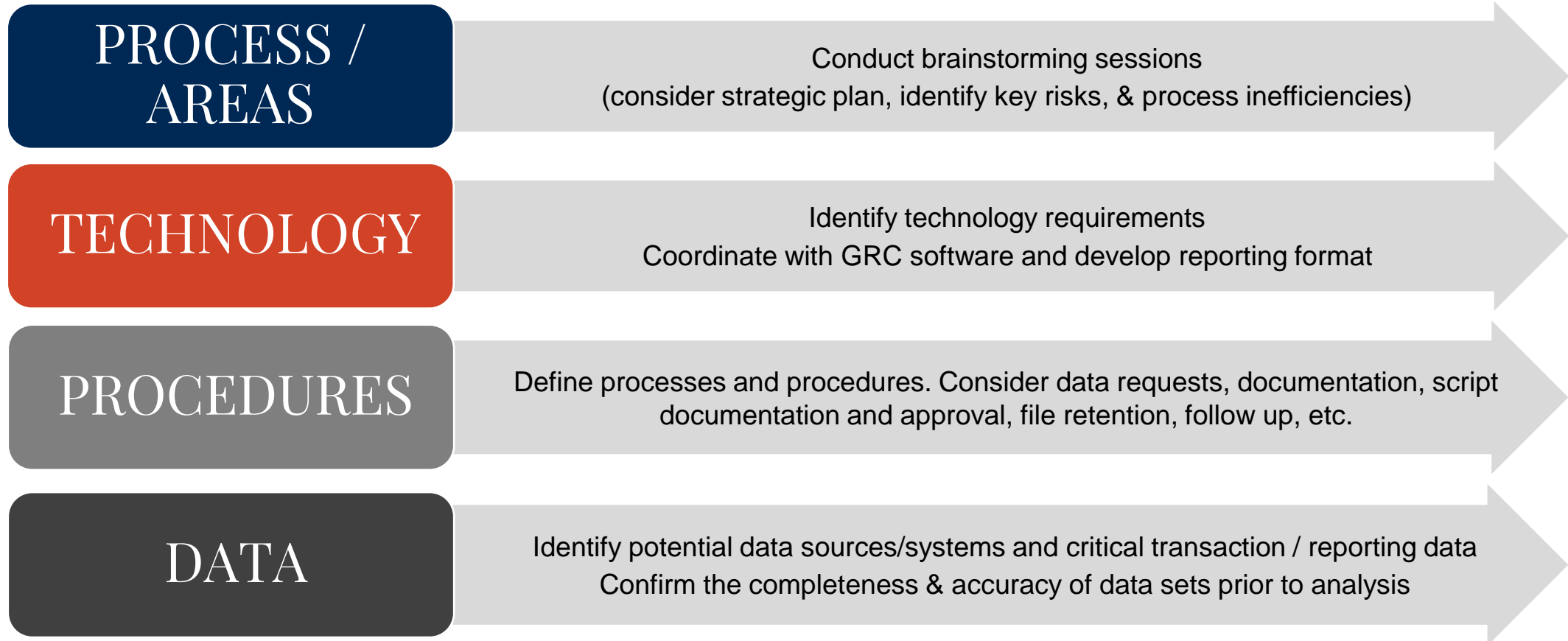
Determine training needs for analysts & managers & develop training plan

### MILESTONES

Determine key milestones with an associated timeline  
Consider training, business process areas, and extent of analysis



## CCM PROGRAM FRAMEWORK



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# Risk & Test Identification

1. What would you like to monitor for ongoing risk assessment?
2. What are your areas of highest risk?
3. Where do you have large amounts of data?
4. Do you have disparate systems that may increase risk?
5. What analysis is currently time intensive?

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# Planning Considerations

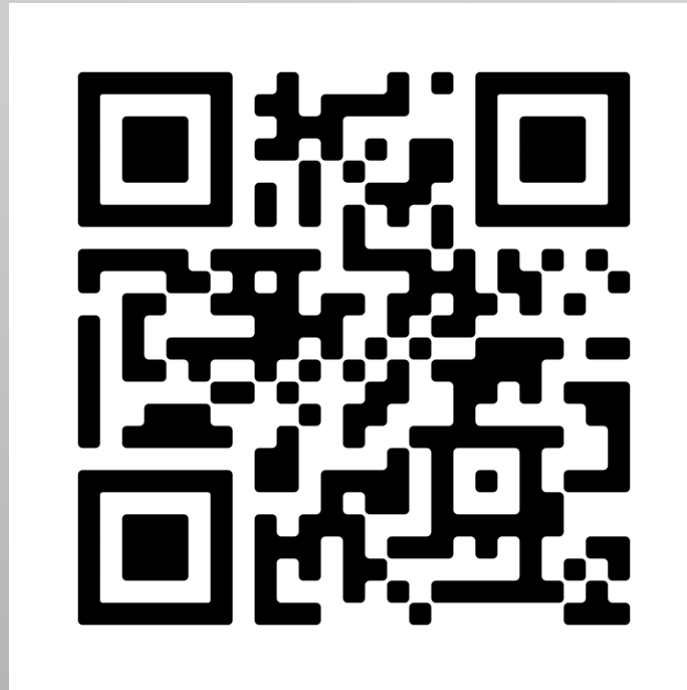
1. How frequently would you like to run the analysis?
2. How will follow up of the exceptions be performed?
3. What data is necessary to perform the analysis?
4. How do you want to handle the data?

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# Best Practices

1. Obtain buy in from leadership
2. Start small with a basic transaction process
  - Discrete process
  - Recognized need
  - Quick time to value
  - Manage the ROI achievement
3. Match monitoring workflow to established policies and procedures
4. Introduce analytics iteratively and over time
5. Review, analyze, and update your CCM strategy

# Healthcare Data Analytics Capabilities Survey



# Technology & Tools

# Identify your Tools

Data Access

alteryx

Microsoft | Power BI

suralink

Data Analysis

wdesk

datasnipper

Microsoft | Power Automate

SS&C | blueprism®

Validis™

Galvanize

is now Diligent



Reporting & Visualization

Automation & Workflow



## Vendors



## Invoices



## Payments

# Vendors

1558



# Records

1850

# Invoices

6309



# Records

6309

# Payments

5581



# Records

6392

Earliest Create Date

2/23/2015

Latest Create Date

4/24/2024

# Payments

5517

# Vendors

1570

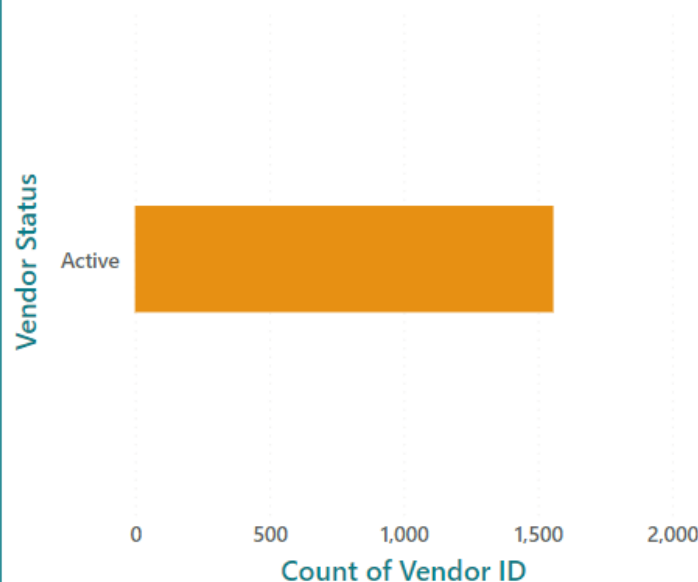
Total Payment Amount

\$64.0M

# Vendors

1573

### Vendors IDs by Status



Earliest Invoice Date

1/1/2023

Latest Invoice Date

4/25/2024

Earliest Payment Date

1/3/2023

Latest Payment Date

4/29/2024

Earliest Post Date

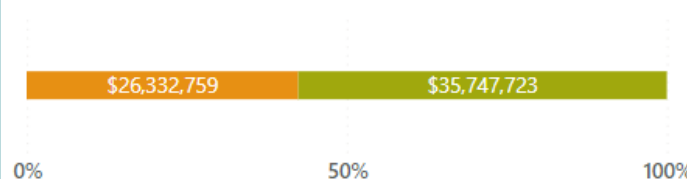
7/23/2024

Latest Post Date

7/23/2024

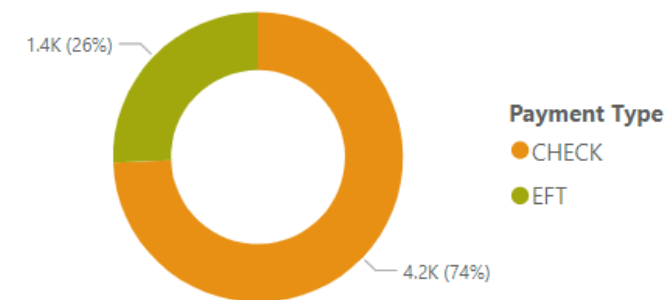
### Invoice Amount by Status

Invoice Status ● Paid (Payment cleared) ● Paid (Payment not cleared)



### Count by Type

Amount







Vendor

Invoice

Payment



# Rounded Invoice Amount

**37K**

\$ Rounded Invoice Amount

**\$246M**

# Duplicate Vendor/Invoice/Amount/Date

**4**

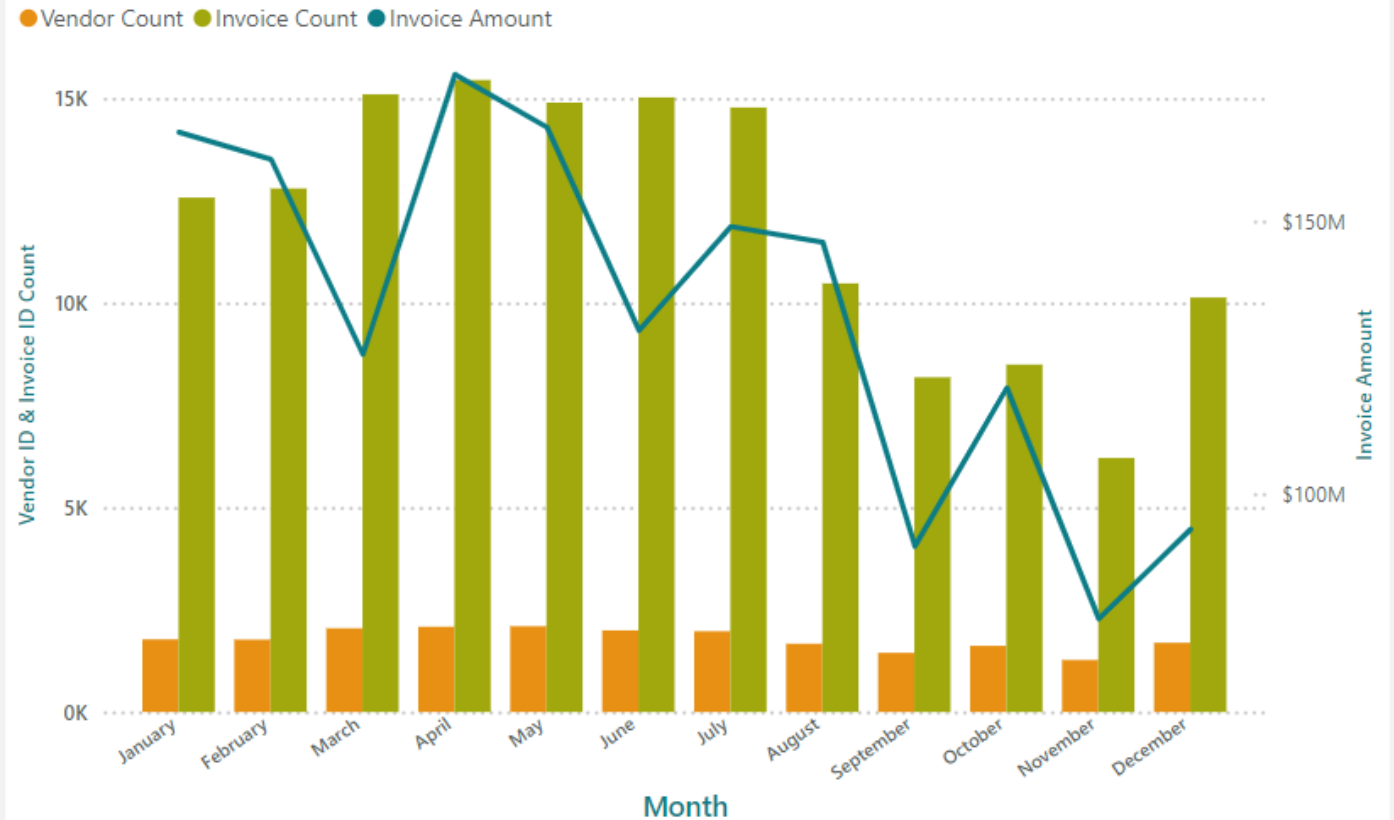
\$ Duplicate Vendor/Invoice/Amount/Date

**\$522**

## Invoice Creator Summary

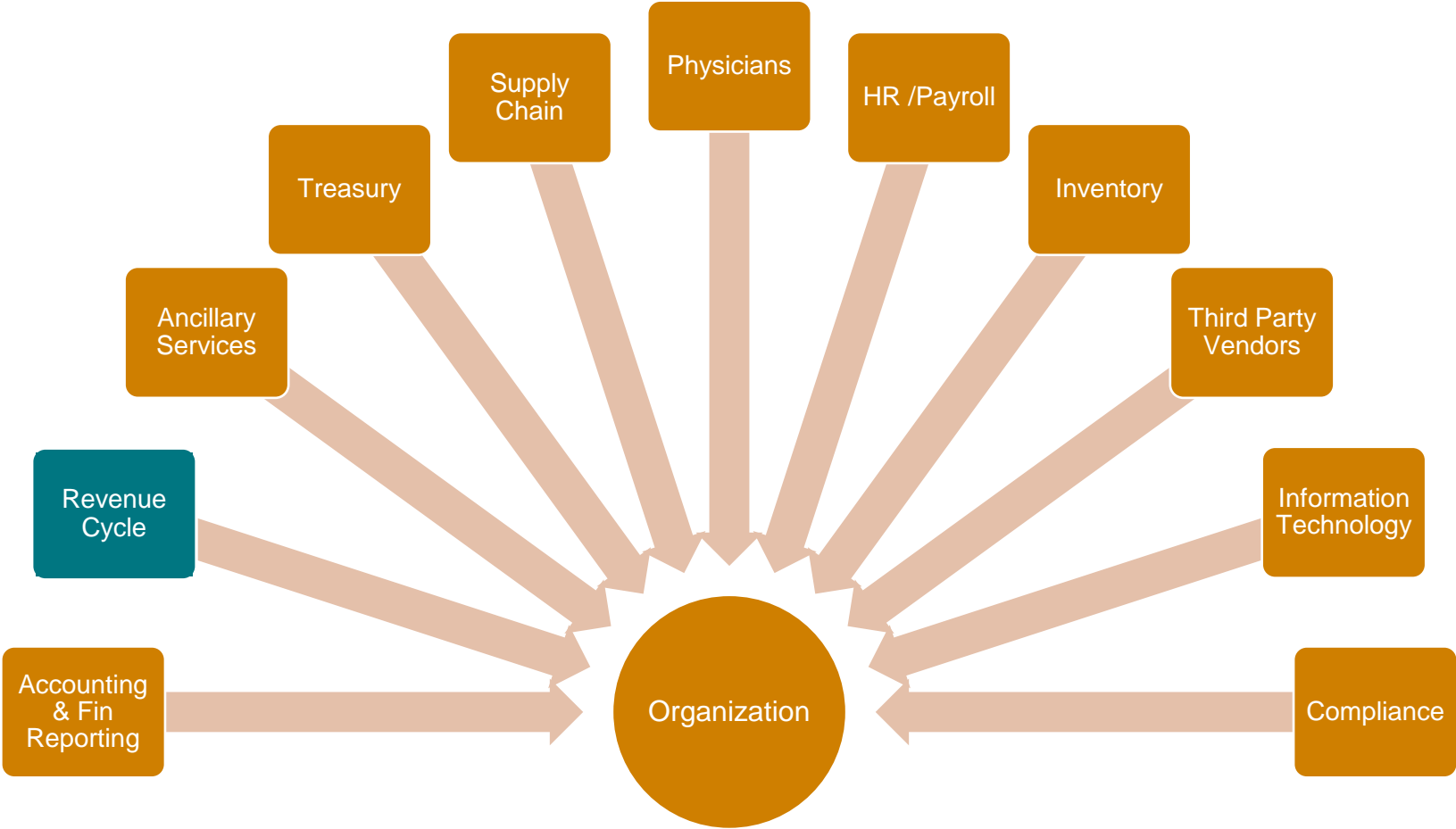
User ID - Added By	Invoice Count	Invoice Amount
FM0010	183	\$601,568,810.79
FM0R41	2189	\$280,022,754.77
FM0R32	295	\$78,542,564.26
CS0C1M	865	\$61,874,946.33
PD2898	12927	\$61,133,110.40
FM0R08	1787	\$58,137,445.19
HY3CCH	709	\$38,563,178.28
HY3FAA	1340	\$37,289,804.15
HY3LLM	1137	\$33,245,580.61
FM0R77	374	\$23,112,142.92
FM0R17	718	\$22,973,236.33
HY3VLS	10330	\$18,412,826.29
HE0Z192	8949	\$16,140,666.60
PW0L5F	4924	\$15,615,758.93
FM0R59	593	\$15,013,887.90
PK0F52	100	\$12,164,510.06
PW0ASB	1523	\$12,012,851.11
FM0R70	116	\$11,718,040.78
CS0SRH	78	\$11,291,598.59
HE0Z5F	7433	\$11,221,350.96
Total	135525	\$1,602,932,266.38

## Vendors, Invoices, and Invoice Amount by Month



# Use Case Examples

# Focus Your Efforts



# Narrow Your Focus



# Revenue Cycle Monitoring

## RISKS

- Timeliness, completeness and accuracy of charge capture
- Inaccurate coding and insufficient support
- Completeness and accuracy of charge master
- Increasing denial rates and resolution delays
- Improper valuation of transactions (contractual adjustments)
- Employees performing inappropriate system transactions

## CONSIDERATIONS

- Revenue cycle is large and complex – start with smaller/high impact areas
- What systems/processes controls are in place for:
  - Charge capture and supporting documentation
  - Ancillary services
  - Master files such as CDM
  - Billing and A/R
- Key performance indicators to monitor revenue cycle performance

# Data Analytic Testing – Revenue Cycle

- Identify charges with unexpected relationships (e.g., C-section and manual delivery)
- Identify charges typically billed together. Verify patient accounts with specific charges had the related co-dependent charges
- Identify providers billing more time-based CPT codes than is reasonable within a day, week or month timeframe
- Analyze manual adjustments to identify trends and outliers by payor, bundles or claims type
- Identify CPT/HCPCS codes in the hospital CDM not found in the current CMS file
- Identify hospital CDM items that appear to be an implant or pacemaker device, but do not have an appropriate revenue code assigned

# Data Analytic Testing – Revenue Cycle

- For hospital systems with multiple hospitals, compare hospital pricing
- Denial Rate: Analyze claims denied by payer compared to the total number of claims submitted
- Analyze reason codes for denied claims along with average number of day to resolve
- Days in A/R: Measure the average number of days it takes to collect payments from payers and patients
- Payment Posting Accuracy: Monitor the accuracy of payment postings to ensure that payments are correctly applied to patient accounts
- Billing Cycle Time: Measure average time from service delivery to final payment to assess the overall efficiency of the revenue cycle

# Procure to Pay Monitoring

## RISKS

- A fraudulent vendor is paid.
- An employee related vendor is paid.
- Purchases are not approved.
- Payments are being processed inaccurately and/or multiple times.
- Payments are processed outside of contractual terms or company policies.

## CONSIDERATIONS

- Is there a separation of duties between vendor management, purchasing, receiving, and payment processing?
- What system/process controls are in place for:
  - Purchasing/spend access and authority?
  - Receipt processing?
  - Payment processing?
- What spending controls are in place? Prior approved contract, 3-way match, dual invoice approval?



# Data Analytic Testing – P2P

- Blank or unusual purchase order (“PO”), receipt, disbursement/invoice fields
- Identify split PO’s
- Identify unauthorized PO approvals
- Identify POs dated after the invoice
- Identify duplicate payments/invoices
- Compare vendor master records to purchasing and/or disbursement/payment records
- Perform 3-way match between PO, Receipt, Invoice data
- Identify anomalous transactions based upon factors such as size, payee, location, timing, transaction history, etc.
- Identify inconsistent invoice numbering conventions for vendor

# HR & Payroll Monitoring

## RISKS

- A fake/ghost employee is paid.
- An employee is not being paid accurately (Regular, OT, Incentive Comp, PTO, etc.)
- Payroll payments are not deposited accurately (e.g., inappropriate changes to employee banking information).
- Payroll taxes or employee benefits are not calculated or paid accurately.
- Conflicts of interest arise between employees and vendors.

## CONSIDERATIONS

- How are duties segregated within the HR/payroll process?
- How is different compensation derived – e.g., hourly, salaried, incentive compensation?
- How are employee paychecks generated? Is a third-party administrator used?
- How are employee master and payroll changes processed and approved?
- Who has access to add/modify employee info, pay info and/or benefits?

# Data Analytic Testing – HR & Payroll

- Identify missing/unusual/duplicate employees/data or changes to key employee master file information
- Identify potential ghost employees or duplicate payments
- Identify employees (names, addresses, SSN) that are also receiving vendor payments
- Identify employees with the same bank account but with different names/last names/addresses
- Identify payments to employees before or after employment dates
- Compare time clock data to payroll data
- Identify occurrences of large or unusual nonstandard payments (e.g., bonuses or excessive overtime) by analyzing transactions outside the norm
- Assess the consistency and reasonableness of deductions and withholdings
- Validate the accuracy of gross and net pay and payroll accruals
- Verify premium pay is being calculated in accordance with incentive program structure (e.g., critical shift bonuses)
- Identify employees with unusual or unallowed shift type combinations

# Purchase Card Monitoring

## RISKS

- Purchase card transactions are invalid or inappropriate.
- Purchase cards are issued to unauthorized employees.
- Duplicate purchases.
- Expense reports are submitted late.

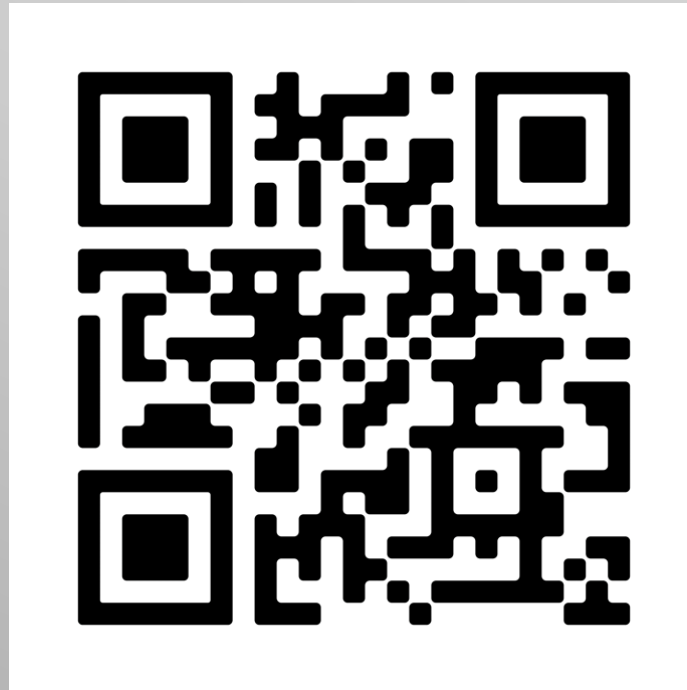
## CONSIDERATIONS

- Who has access to issue purchase cards?
- Does the system have controls in place to catch duplicate or inappropriate transactions?
- Are employees required to submit their expense reports at the end of the month?
- How often are cards reviewed for inactivity?
- Are credit limits established?
- What type of transactions are prohibited in the policy? Is this enforced by the financial institution?

# Data Analytic Testing – Purchase Cards

- Identify employees with multiple cards or active cards belonging to terminated employees
- Identify cardholders with no spend or cards that have not been used in X months
- Identify purchases that should have not been made to the P-Card (e.g., equipment, IT purchases, gifts)
- Identify purchases to a prohibited merchant category code
- Identify transactions with the same vendor's name, department, and transaction date but different Employee ID
- Identify transactions with more than 30 days from transaction date to posting date
- Identify card balances that are excessive and/or above established limits
- payroll accruals

# Healthcare Data Analytics Capabilities Survey





THANK YOU  
Questions?