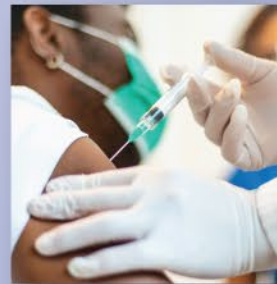# Bring the People to the Data

Kenneth Howard
Director, Division of Shared Services
Information Systems Group
CCSQ

AGENDA

- CCSQ Data & Analytics Mission, Values, and Goals
- Current State of CDR environment
- By the Numbers
- Future Analytic Offerings
- Advantages to Users
- Q&A

1

Center for Clinical Standards and Quality (CCSQ) Data & Analytics Mission

Bring the People to the data

CCSQ Data & Analytics Values

- Maintain a high level of data security

- Reduce data duplication

- Increase visibility on data usage

- Improve the usability of the Centralized Data Repository (CDR) by engaging with users to understand pain points and deliver user-driven solutions

CCSQ Data & Analytic Goals

Program Objectives
Increase stability and performance across all systems and applications on the platform
Provide high-quality data and metadata to support program analytics
Establish standards and governance to drive visibility, quality, access control, usage, lineage, and security of data
Establish data standards and governance around data sharing to promote data collaboration at the community level
Provide training, guidance, and collaboration to end users for all platform services and datasets in CDR

Current State

CDR

CCSQ Data & Analytics By the Numbers

- **Approximately 2,000 users**

- **On average 50,000 to 70,000 Statistical Analysis System (SAS) jobs each quarter**

- **150 organizations using the CDR**

CCSQ Data & Analytics Improvements

New Databricks (DBX) Notebook Solution

- **Languages supported:** R, SQL, Python, and Scala
- **New features available:** numerous libraries, notebook sharing/collaboration, job scheduling, AutoML, and organization level personal compute

SAS Viya Lustre File System Migration

- Faster, performance for all workloads that write or read from workbench folders

Medicare Severity Diagnosis related Groups (MSDRG)

- Implemented MSDRG software in the cloud and integrated with weekly claims refresh to provide DRG classification information to CDR users

Future State

CDR

CCSQ Data & Analytics Future State

DBX SQL integration with SAS Viya

Data & Analytics Portal

Data Lineage

Expansion of QuickSight

Evaluation of standard data models

DBX SQL integration with SAS Viya

Phase II of the Databricks launch will provide integration of SAS Viya with the Databricks

Benefits: Organization level personal compute, and ability to write output of SAS Viya queries to Databricks tables

What will the community need to do

Databricks SQL uses ANSI SQL standards, HIVEQL code will need to be update to ANSI SQL standard

The team will provide guidance documentation for common conversions

CMS Quality 2023 Conference
Building Resilient Communities:
Having an Equitable Foundation for Quality Healthcare

Data & Analytics Portal

New Data & Analytics portal will provide a single place for everything Data & Analytics

- Landing Page with links to all analytic tools

- Public portal to replace current public confluence pages

- Ability to upload pdf of DUA to govern access **(Minimum Viable Product)**

- Ability to see what access users have

- Enable Data Sharing between CDR users with proper authorization

CMS
Quality 2023
Conference
Building Resilient Communities:
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Data & Analytics Portal HCD Initiatives

We Need you!

Look for announcements about opportunities to participate in user discovery interviews, and usability testing in the coming year

Data Lineage

What does data lineage mean?

- Complete visibility into where data is, where it came from, and where it is going

Why is it important?

- CCSQ data is being used to make policy, payment, and measure development decisions that have direct impact the lives of patients

- It is important to make sure that those decisions are made on high quality, accurate data, sourced from the proper systems

13

Expansion of QuickSight

What is QuickSight?

- QuickSight is a modern interactive dashboard tool for reporting
- It includes the ability to create paginated reports

What's next for QuickSight?

- Ability to embed dashboards into existing secure applications or portals

CCSQ Pilot Approach for Analytic Tools

The data and analytics team will be piloting many tools and functionality

- Benefits of pilots
  - Input from the community on the effectiveness, usability, and performance of enhancements
  - Testing integration with existing tool suite before settling on a tool
  - Iterative expansion of analytic tool kit

- Look for opportunities to engage in User Acceptance Testing (UAT) for pilots

- Near-Term Pilots
  - Data Catalog, Data Lineage
  - SAS code conversion
  - Data Lose Prevention (Auditing)