

Epic Data Sources: Reporting Workbench

Intro to Query Tools for Research

Spring 2021



**Mount
Sinai**

Epic at a glance

- In place at MSH since 2011, MSQ since 2013
- In clinics since 2008 (now hundreds)
- Documentation from providers, nurses
- Visit details, timestamped events
- Orders, “flowsheets”
- Pulls in data from ADT, Bed Mgmt, Labs, Rads, Muse, Echo, Cath, Path, financials & more

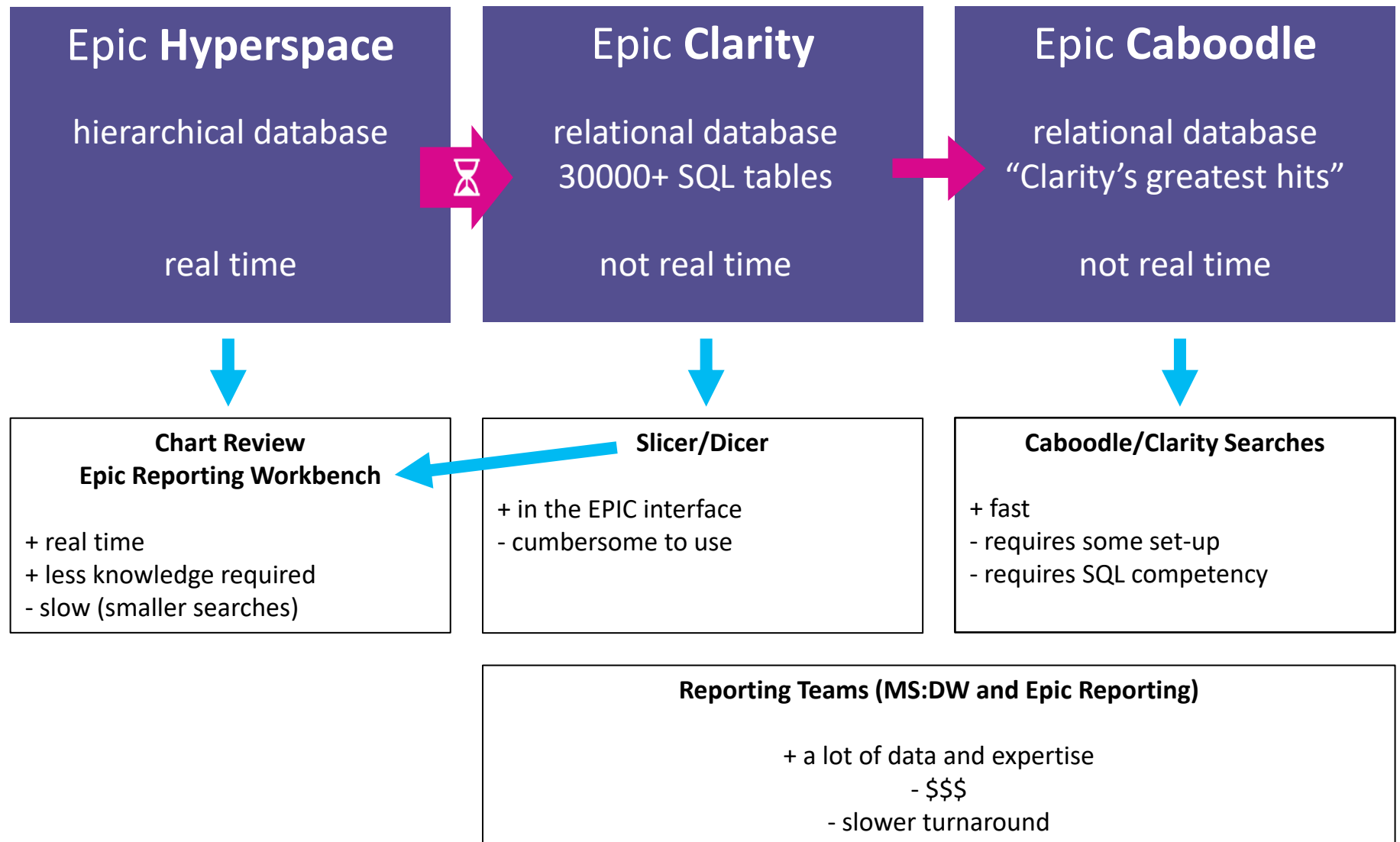


Self Service Tools

- Built in Epic Tools
 - Slicer Dicer
 - Reporting Workbench
- Need to Work with Data Team
 - Caboodle (not self-service)
- Other Sources
 - Mount Sinai Data Warehouse (MSDW)



Data in Epic



Epic Reporting Workbench

- Hierarchical
 - Slow. And don't bother pre-filtering
(sometimes a lack of specificity is good)
- Identify active/recent patients that match specific criteria
- Can return data on 10,000+ fields



Epic Reporting Workbench

- ALWAYS PHI
 - Links to chart
 - Very precise
- Current Uses
 - Administrative/Operations Reports
 - Data-gathering before meetings
 - Abstracts (May require IRB)
 - Grant proposals (May require IRB)



Epic Reporting Workbench

- Admin Use Examples:
 - Who currently meets sepsis criteria in ED?
 - Among patients discharged 24+ hours ago, which providers haven't signed their notes?
 - What is the turnaround time for nurses on 10C to acknowledge new orders?
 - Which patients got procedural sedation last week (and was the documentation satisfactory?)



Epic Reporting Workbench

- Research Use Examples:
 - Providers ignoring BEERS criteria upon elderly d/c
 - Is “10/10” pain more likely to be admitted?
 - What are patient characteristics in mis-triaged visits?



Epic

Track Board

ED Manager

In Basket

ED Dashboard

My Reports

My Dashboards

ED Chart

Patient Station

Patient Lists

MERS

Documents

ED Contacts List

I-STOP

UpToDate

ED V

Reports

My Reports

My Favorite Reports

Folders

ED Metrics

ED Chart Query Tool

Research Tools

Library

ED Metrics

ED Metric: Dispo to Admit to Depart Time

Ready to run

ED Metric: LBTC (Past Month)

Ready to run

ED Metric: Average LOS (Disch/Treat and Release)

Ready to run

ED Metrics

Ready to ru

ED Metric: Average LOS (Admitted)

Ready to run

ED Metric: Arrival to Triage and Attending Time

Ready to run

ED Actual Timings Report

Ready to run

ED Bed to ,

Ready to ru

ED Bed to Nurse Time

Ready to run

ED Bed to Resident Time

Ready to run

ED Time to Provider

Ready to run

ED Boarder

Ready to ru

ED Chart Query Tool

ED Chart Query Tool - Research (de-identified)

Ready to r

ED Chart Query Tool (up to 6 months historical)

Ready to run

Research Tools

ED Admissions by Hour of the Day

Ready to run

ED Find Orders and Results - Research (de-identif...

Ready to run

ED Moment in Time (My Patients)

Ready to run

ED Moment

Ready to ru

ED Moment in Time (@ 12)

Ready to run

ED Moment in Time Occupancy Report

Ready to run

ED Patients by # of Visits Last 30 Days

Ready to run

ED Patients

Ready to ru

ED/IP Find My Procedure Notes

Ready to run

Genes-Pain

Ready to run

Create a new folder

Recent Results

Saved Results (0)

Report

Status

☆ MSQ ED DB - Arrivals by Zone (Last Hour)

Valid until 07/14/2017 1:44 PM

Ready to view

10 results

☆ ED DB - Arrivals by Zone (Last Hour)

Valid until 07/14/2017 1:44 PM

Ready to view

13 results

☆ ED DB RN (Nurse)

Valid until 07/14/2017 1:44 PM

Ready to view

79 results

☆ MSQ ED DB RN (Nurse)

Valid until 07/14/2017 1:44 PM

Ready to view

48 results

☆ ED DB RN (Nurse)

Valid until 07/14/2017 1:44 PM

Ready to view

79 results

☆ ED DB Provider Metrics By First Team

Valid until 07/14/2017 1:44 PM

Ready to view

79 results

☆ ED DB - Arrivals by Zone (Last Hour)

Expired on 07/14/2017 1:39 PM

Expired

14 results

☆ MSQ ED DB RN (Nurse)

Expired on 07/14/2017 1:39 PM

Expired

49 results

☆ ED DB RN (Nurse)

Expired

You can find RWB under the Epic main menu. Look for Reports.

Library

equipp

ED Find Orders

Matching reports

- ☆ EQUIPPED Be
- ☆ EQUIPPED Be
- ☆ EQUIPPED Rx
- ☆ EQUIPPED Rx

Additional reports

EQUIPPED Rx shared [579612]

Criteria Display Appearance Summary Print Layout Toolbar General

Find Orders

From date: 7/6/2017 (T-8) Time: [Warning Icon] [Clock Icon]

To date: 7/13/2017 (T-1) Time: [Warning Icon] [Clock Icon]

Filter criteria + Add

- ☐ Medication Grouper
- ☐ Rx: Last Verifying Pharmacy
- ☐ Rx: Last Verifying 1st Dose Pharmacy
- ☒ ED Episode
- ☐ Department Name
- ☐ Ordering Provider
- ☐ Resulting Lab
- ☒ Ordering Mode
- ☒ Patient contact dept

Enter Search Values

	Relationship	Ordering Mode
1	Equal to	Outpatient [1]
2		

Info

All of the above And Or

Find Orders between 7/6/2017 (T-8) 12:00 AM and 7/13/2017 (T-1) 11:59 PM with

Search Base:

- Creation time

AND Order Class:

- Print [66] OR
- E-Prescribing [7] OR
- Fax [64]

Notify Run Save As Restore Close

You can search for existing reports in the Library

Report criteria can be modified as needed

Library

equipp Search Clear

ED Find Orders

Matching reports

- ☆ EQUIPPED B
- ☆ EQUIPPED B
- ☆ EQUIPPED R
- ☆ EQUIPPED R

Additional reports

EQUIPPED Rx shared [579612]

Criteria Display Appearance Summary Print Layout Toolbar General

Available Columns

Column Name
Order Start Time [30400001]
Order Status (for RW) [51223]
Ordering Provider Specialty [100972]
Patient Age At Encounter [89553]
Patient Age in Years (EPT) [2260]
PATIENT ARRIVAL DATE [34572]
Patient ID [48004]
PATIENT LANGUAGE [1132]
Patient Sex (EPT) [130]
PATIENT SMARTDATA ELEMENT (OR
PATIENT TRANSPLANT COORDINATC
PATIENT TRANSPLANT TYPE (ORD) [
Provider (SER) Specialty from Ordering
RETIRED - IP INITIAL ANTIBIOTIC REC
BY DISPENSE AMOUNT [84050]

Add > Remove < Clear <<

Selected Columns

Column Name	Width
Age (EPT)	900
Sex (EPT)	600
PROBLEM LIST	2250
MS ED Pain score - FLO Data	600
ED Arrival Date/Time	2000
ED Attending Provider - First	2400
Authorizing Provider	3000
ORDERING PROVIDER	2000
Login Department of User Ord...	1440
MSH ED Attending First and L...	150
ED Attending Provider - Last	2400
Order ID	1440
ORDER DATE	1440
ORDER TIME	1440
BY ORDER NAME	1100

Double-click column name to change width

Edit/View Add Remove Edit/View Default Associate

Detailed View Display Name

1	
---	--

☐ Load all results by default

☐ Notify Run Save As Restore Close

Select the
information you
want to see in
your report

Library

equipp Search Clear

ED Find Orders

Matching reports

- ☆ EQUIPPED B
- ☆ EQUIPPED B
- ☆ EQUIPPED R
- ☆ EQUIPPED R

Additional reports

EQUIPPED Rx shared [579612]

Criteria Display Appearance Summary Print Layout Toolbar General

Available Columns Selected Columns

Column Name Search or Create Columns

Search Existing Columns

hba1c Search Advanced

LAST HBA1C VALUE [17092] Last HBA1C

Data type: Numeric
Master file: EPT
Extension: LAST RESULT VALUE (BY BASE NAME) [17091]
Displays the last HBA1C value for the patient

LAST HBA1C DATE [17094] Last HBA1C Dt

Data type: Date
Master file: EPT
Extension: LAST RESULT DATE (BY BASE NAME) [17093]
Last HBA1C resulting date

LAST HEMOGLOBIN A1C VALUE [82020] Last HBA1C Value

Data type: Numeric
Master file: EPT
Extension: BI METRIC DATA [99506]
This column displays the patient's most recent hemoglobin A1C (HbA1C) value. Only numeric lab values are stored in this column. Non-numeric lab values entered are displayed as null. This column requires Analytics registries. Extension record 99506-BI METRIC DATA retrieves this information by looking to section 1, Metric String Value [I RDT 230], corresponding to metric DM LAB LAST HEMOGLOBIN A1C [R CER 82200]. Note that this report column can only be used with Reporting Workbench template 82005-Patient Disease Registry Search because it needs setup data extension BI RW PATIENT SETUP DATA PP-99505.

LAST HEMOGLOBIN A1C DATE [82021] Last HBA1C Date

Data type: Date
Master file: EPT
Extension: BI METRIC DATA [99506]
This column displays the date as per the prioritized instant of the patient's most recent hemoglobin A1C

14 records total, all records loaded.

☐ Make this column available to other reports from this report's template

Accept Cancel

You can search for more information about the available variables

Library

equipp Search Clear

ED Find Orders

Matching reports

- ☆ EQUIPPED B
- ☆ EQUIPPED B
- ☆ EQUIPPED R
- ☆ EQUIPPED R

Additional reports

EQUIPPED Rx shared [579612]

Criteria Display Appearance **Summary** Print Layout Toolbar General

? There's a new way to summarize. Do you want to convert this report? Yes - Convert

Select Viewer Contents: Select Summary Format:

☐ Detail only ☐ Hierarchical

☐ Summary only ☒ Other

☒ Table ☐ Additional graph

☐ Pie chart

Create Summary:

Grouping

	Group By
1	ORDERING PROVIDER [1150]
2	IP RW ORD DISPLAY NAME [36030]

Add Delete

Group on the following values:

	From Value	To Value	Color
1			

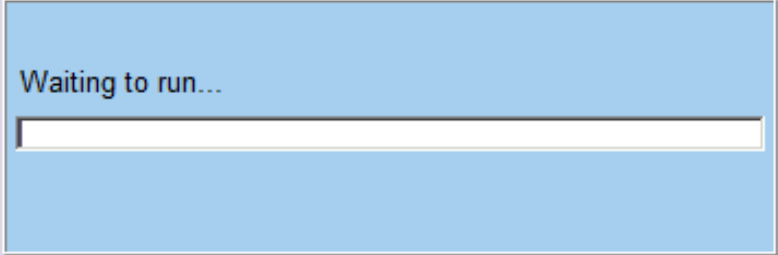
☐ Group blank values ☐ Group other values

Summarize the following columns at the last grouping level:

	Report Column	Function
1	Order ID	Unique Count [6]
2		

Notify Run Save As Restore Close

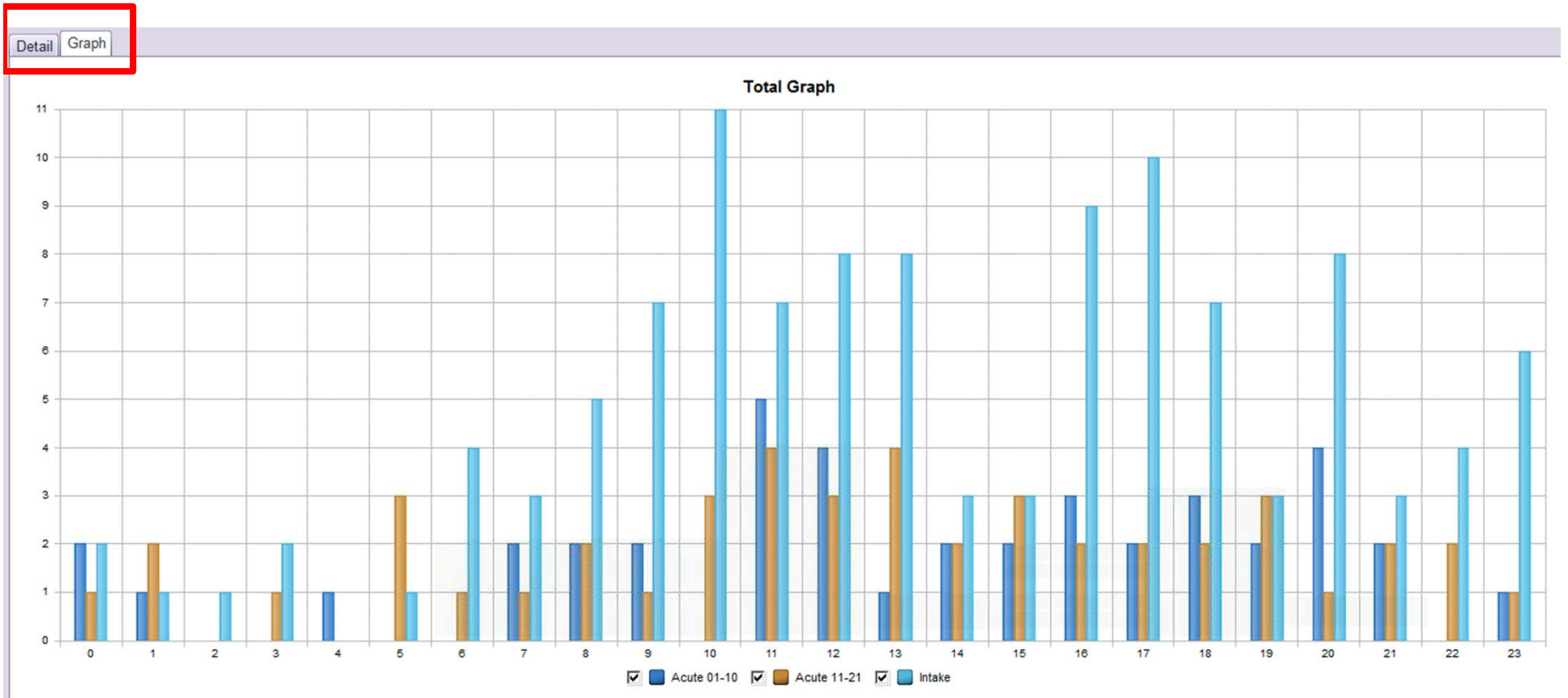
The summary tab allows for you to group your results and sum variables



Waiting to run...

Be Patient!
Some reports may take time to run

RWB Graphing Capabilities



Epic Reporting Workbench

- Pros:
 - No external costs
 - Very precise
 - Can adapt existing reports for your own needs
 - Can return almost anything related to a visit
 - Easy to export to Excel or jump into chart
 - *Some* reports can be automated/e-mailed
- Cons:
 - Struggles above “visit-level” (patient, department)
 - Limited within visits information (flowsheets, movements)
 - Sloooooooooowwww
 - Requires Epic access (read only is fine)
 - May require two queries (e.g. orders+notes) and join tables

Important to Remember

- How are you using the data:
 - Research requires an IRB!!!
 - Speak with research faculty about requirements
 - IRB determines if study is exempt
- Start with least amount of PHI necessary
- You are responsible for your data
 - Keep data secure (computer, email, drives)
 - Reported data must be aggregated for research purposes



Next Steps

- Read and complete the attestation
- If you are unsure of how to proceed:
 - Submit a [request](#) to the EM Analytic Core
 - Review the tutorials
 - Discuss your project with a research faculty member
- Check out the research trainings offered

