

# MUSC TriNetX Guide

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[TriNetX.com](http://TriNetX.com)

[More info](#)

# Creating a Study

**TriNetX** Demo Study Alex Smith - TriNetX Live  
Community | Help

**My Studies**

Filter by: Shared With Me Search...

RIC Phenotype Algorithm - RNR - MUSC  
60 Total Patients

**Click Create New Study**

**Create New Study**

**A list of all of your studies**

**Create New Study** Created by Alex Smith on Oct 09, 2019

Study Name Full Protocol Title Study Status  
Select study status

**Descriptive Information**

Study Phase Primary Therapeutic Area Secondary Therapeutic Area Indication  
Select study phase Select therapeutic area Select therapeutic area

Summary

Sponsor Name Study Identifier  Rare Disease  Placebo Controlled

**Administrative Information**

NCT Number EudraCt Number  
Validate Validate

**Save** **Cancel**

**Fill out all the information that applies to your study. Click Save**

# Basic Navigation

The screenshot displays the TriNetX interface with several callout boxes highlighting key features:

- Start search button:** Points to the search input field in the 'MUST Have' section.
- Search for terms with the MUST Have search box. You can search with words, ICD9, or ICD10 codes:** Points to the search input field in the 'MUST Have' section.
- Exclude terms with the CANNOT Have search box:** Points to the search input field in the 'CANNOT Have' section.
- A list of recent queries for later use:** Points to the 'New Query' list on the right side of the interface.

**Results Summary:**

Category	Count
PATIENTS	960
HCOs	1

**Search Criteria:**

- Network:** Medical University of South Carolina (1 of 1 HCOs online)
- Population:** Any age / Any sex (882,547 patients on network)
- MUST Have:** G40 Epilepsy and recurrent seizures (15,320); AND 2002 Carbamazepine (Any route, Any brand, Any strength) (3,060)
- CANNOT Have:** (Empty search box)

**Recent Queries:**

Query Name	Patients	HCOs	Created By	Created At
Unnamed	960	1	Alex Smith	Oct 09, 2019, 8:07 am

# Population View

960 PATIENTS 1 HCOS  
Oct 09, 2019, 8:07 am Alex Smith Medical University of South Carolina.

Count Patients

New Query

Filter By: Filter Sort

Population Any age / Any sex  
882,547 patients on network

CANNOT Have  
Search Term...

15,320  
3,060

Click the pencil icon on the right to change population criteria

This window lets you edit the age range and sex of your query and shows the results

Network Medical University of South Carolina  
1 of 1 HCOs online

Population Any age / Any sex  
882,550 patients on network

Population  
Medical University of South Carolina

Measurement of Time  
Months (0-36) Years (0-89)

Type of Graph  
Grouped Stacked

Number of Patients

Age in years

Patients over 90: 12,726

Select Age Range

Greater than or equal to  years

Less than or equal to  years

Select Sex

Any Sex

Male (391,020)

Female (491,340)

Save Criteria Cancel

# Demographics

Click Demographics to see a more in depth view.

Click Run to see the demographics for this cohort

TriNetX
Demo Study
Alex Smith - TriNetX Live  
Community | Help

Unnamed

**960** PATIENTS  
Oct 09, 2019, 9:04 am Alex Smith Medical Universit

**1** HCOs

**Run**

[View History](#)

Filter By: Filter    Sort By: Most Recent

Unnamed

Medical University of South ...

960 Patients    1 HCOs  
Oct 09, 2019, 8:07 am  
By Alex Smith

Demographics

Grouped   Stacked    Show months (0-36)   F M

Total Patients	Minimum Age	Maximum Age	Mean Age	Standard Deviation
<b>960</b>	<b>4</b>	<b>90</b>	<b>43</b>	<b>20</b>

**Sex**

Male 50%

Female 50%

Unknown Gender 0%

**Race**

White 60%

Black or African American 34%

Unknown Race 4%

American Indian or Alaska Nat... 1%

Asian 1%

Native Hawaiian or Other Paci... 0%

**Ethnicity**

Not Hispanic or Latino 95%

Unknown Ethnicity 3%

Hispanic or Latino 2%

Patients Over 90: 3

- Explore Cohort
- Demographics
- Diagnoses
- Procedures
- Medications
- Labs
- Genomics
- Analyze Criteria
- Rate of Arrival
- Healthcare Organizations (HCOs)
- Study Management
- Design Assistance
- Browse Network
- Analytics

# Query List

Create a new blank query

New Query

Hide

Hide the query list

Filter By: Filter

Sort By: Most Recent

☆ Unnamed

-- Patients HCOs

Medical University of South ... Oct 09, 2019, 10:04 am

☆ Diabetes

72,920 Patients 1 HCOs

★ Seizures and Carbamazepine

960 Patients 1 HCOs

A list of past queries.  
Click them to reference them again

Click the star icon to favorite a query to have it stand out from the others.  
Click the pencil to rename a query

# Events

Drag and drop terms into the Create an event button to create a new event. With events you can add time restraints or set up relationships between terms

MUST Have

Search Term...



C34 Malignant neoplasm of bronchus and lung  
Any Stage, Any Histology, Any Cancer Properties

5,210

Drag & Drop

+ Create an event

Add Related Event  
Example:  
Patients who first were diagnosed with cancer, then were diagnosed with depression

MUST Have

Search Term...



CANNOT Have

Search Term...



Event 1A

+ Add Time Constraint

+ Add Related Event



C34 Malignant neoplasm of bronchus and lung  
Any Stage, Any Histology, Any Cancer Properties

5,210

Add Time Constraint  
Example:  
Patients who have been diagnosed with lung cancer within the last 2 years

# More Complex Logic

Take a look at this query and try to think about what kind of patients will be returned

... Population  $\geq 50$  years, Any sex  
382,950 patients on network

**MUST Have**

Search Term...

9037	Hemoglobin a1c/hemoglobin.total in blood $\geq 7\%$ , most recent value	116,550
<b>OR</b>		
9037	Hemoglobin a1c/hemoglobin.total in blood $\leq 5\%$ , most recent value	116,550
<b>AND</b>		
	Black or african american	233,560

**CANNOT Have**

Search Term...

6809	Metformin Any route, Any brand, Any strength	58,840
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Event 1A: This event occurred since 1 year ago [+ Add Related Event](#)

Add terms

E08-E13	Diabetes mellitus	75,020
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**Answer: This query will return patents who...**  
**Have been diagnosed with diabetes at least 1 year ago**  
**AND who have a hemoglobin a1c lab result of  $\geq 7\%$**   
**OR who have a hemoglobin a1c lab result of  $\leq 5\%$**   
**AND who are black or African American**  
**AND  $\geq 50$  years old**  
**but ARE NOT taking Metformin**



# Sidebar Options



# Other Tips

The screenshot shows the TriNetX interface with a sidebar on the left containing navigation options: My Studies, Trial Connect, Query Builder, Explore Cohort, Analyze Criteria, Rate of Arrival, Healthcare Organizations (HCOs), Study Management, Design Assistance, Browse Network, and Analytics. The main area displays a query for 'Medical University of South Carolina' with 960 patients and 1 HCO. The query is currently set to 'AND' and shows two criteria: 'G40 Epilepsy' (15,320) and '2002 Carbapenem Any route, any dose' (3,060). A 'Count Patients' button is visible, along with a camera icon for taking a screenshot. A 'Create an event' button is also present.

**How many Health Care Organizations (HCOs) have patients that meet your criteria**

**Click the AND button to change the conditional type to OR**

**Click the camera button to take a screen shot of any screen your in. This can be used for reports or presentations**

# TriNetX vs. I2B2

## TriNetX

- ◆ **Quicker searches**
- ◆ **Easier to navigate**
- ◆ **Epic encounter data since 5/17/2012**
- ◆ **Problem list and Dx codes are lumped together**
- ◆ **ICD9 Codes are mapped to ICD10 codes**

## I2B2

- ◆ **More specific queries**
- ◆ **Populated from data stored in the Research Data Warehouse (RDW)**
- ◆ **ICD9 and ICD10 code are separate**