REAL WORLD EVIDENCE

SEMANTIC EXPLORER (Create concepts that answer a question)

Search/browse for concepts and/or concept groups

I have a question I need to answer. I need to search

As I find concepts and/or concept groups that for concepts, bc I know the info contained in those concepts will help me answer those questions.

Search terms that match concepts, concept gro from a company-defined list, or concept groups that I've previously defined..

OUTPUTS:

Specific concepts that match medical codes, with the information necessary to answer my question.

Pick any concepts that can be used to answer my question.

MOTIVATIONS:

I want the information necessary to answer a

question about a cohort and a condition for research purposes.

contain the information I'll need to answer my question, I can create groups out of them. I need each concept in a group to answer my question.

My own searched for concepts, concepts from a pre-defined list of concepts created by my organization or by myself, or pre-defined groups of concepts created by my organization or myself.

A group of specific concepts that when put together can anwer my question.

Pick all the concepts that can be used to answer my question.

MOTIVATIONS:

I want to group concepts that contain the information I need to get a better answer to my

Build groups of concepts

Once I have my concepts, I need to pick a data source so I can use my concepts to only pick people from the chosen data source that match those concepts.

INPUTS:

OUTPUTS:

GOALS:

MOTIVATIONS:

insurance sources.

study and answer my question.

A population dataset created from EMR/EHR and/or

A population with members that I can trim down to

Select a population that I can use for my study.

I want a relevant group of people to study that

match with the question I'm trying to answer.

Select population dataset

the question I'm trying to answer.

INPUTS:

GOALS:

MOTIVATIONS:

Existing cohort definition from a list that my

A cohort definition I can apply to my dataset.

Pick a pre-existing cohort definition I can apply to

I'm trying to save time or there's already a good

I want to pick an existing cohort definition because MOTIVATIONS:

definition and I want to achieve consistency against just people that are relevant to the question I'r

company created, and/or a list I created.

COHORT GENERATOR (Create a meaningful population to study)

Select pre-defined cohort definition

can select a pre-defined cohort definition to save time if there is already a company-defined or personally-defined cohort definition that matches

INPUTS:

OUTPUTS:

GOALS:

trying to answer.

it to create a cohort definition.

relevant population to study.

exclude specific data.

A population that can have a filters applied against

A cohort definition I can apply to my dataset.

Filter the population dataset I've selected in order

to create a cohort definition that will result in a

I want to limit the people in the dataset I chose to

checking and make it more specific to the question the dataset I selected in order to create a I'm trying to answer. I'm making sure to include and meaningful population of people to use to answer

Apply cohort definition to dataset

Derive new variables to augment cohort Define sub-group to augment cohort

Check descriptive statistics

using that data. These new variables will help me answer my question in a more accurate manner. need to understand what available variables will

compare to each other, based on the available variables, if my study design will call for it.

INPUTS:

OUTPUTS:

GOALS:

MOTIVATIONS:

I need to save my cohort(s) and/or subgroups so that I can perform an analysis on them, either in the RWE tool or in another tool.

A cohort that meets the criteria created by my question and has been filtered further to be a better match to what I'm trying to answer.

A cohort of individuals relevant to my study.

INPUTS:

help me do this.

GOALS:

Create a cohort of only individuals that are relevant to the question I'm trying to answer.

MOTIVATIONS:

INPUTS:

OUTPUTS:

I want a group of individuals that I can study to answer a question, and I want my group to be relevant so that my study is high-quality.

A cohort that meets the criteria created by my question and has been filtered further to be a better match to what I'm trying to answer

A cohort that has been augmented with additional variables that will be relevant to studying my data,

Adataset that represents a population of individuals

to just individuals that are relevant to my study.

and a cohort definition that will limit that population

extrapolated using the existing data. GOALS:

MOTIVATIONS: I want to augment the cohort I've created with data that will be useful for answering my question.

Create additional data that will be relevant to my

study and the answers I'm looking for.

aren't present in the original data, but can be

INPUTS:

A relevant cohort I can use to answer my question, that may have been divided into groups based on splitting existing variables or derived variables.

The data defining a group or groups of people that A cohort that's been divided into groups based or splitting existing variables or derived variables.

Create groups within my cohort that can be Export my group or groups to study. compared to each other.

study them to answer my question. I want to see how different sections of my cohort are affected by the question I'm trying to answer.

MOTIVATIONS:

OUTPUTS:

GOALS:

ANALYTIC TOOLKIT (Compare my populations to answer my question)

When starting this process I should already have known what study design I wanted. I need to confirm it at this step, now that I have prepared the data I need to do my analysis.

INPUTS: The cohort I created and several possible methods of analyzing my data.

Confirm study design

OUTPUTS:

My cohort and my chosen method.

GOALS: Confirm the study design I'll use to analyze my

> Have two cohorts so I can draw conclusions by comparing them to each other.

> > **MOTIVATIONS:**

GOALS:

I want to choose a study design appropriate to

cohort.

MOTIVATIONS:

I want to export my group or groups so that I can answering my question. Define comparator group (optional)

another populate depending on my study design I'll either select the sub-groups I defined in my cohort against each other, or go back to the cohort generator and create a new cohort using the same

concepts, or select a pre-existing cohort.

INPUTS:

INPUTS: My cohort, divided into groups, or my first coho and a new cohort created the same way or selected from a pre-created list.

OUTPUTS:

Two cohorts to be studied.

I want to have two cohorts to compare to each

other so I can answer my question.

MOTIVATIONS:

Run analysis

I need to have my cohorts analyzed to create a propensity score for each individual. This is a new variable that indicates how well each individual adheres to the question being asked. Then each cohort goes through a matching exercise. I need each individual in a cohort to match an individual in the other cohort.

Two cohorts of individuals to be studied and the terms that define the question being asked. methods of analysis. Variables to compare and

Two smaller cohorts that have been matched against each other so that every individual b

Create two cohorts made up of individuals that are GOALS: a good match for each other.

I want my cohorts to be comparable so that my study can be accurate.

happens. Based on the method I choose I'll need to choose variables and specify confidence levels.

OUTPUTS:

studied has a counterpart to compare with.

GOALS:

INPUTS:

OUTPUTS:

GOALS:

MOTIVATIONS:

Do something with my output

Various file formats and/or rendered visualizations

that allow me to answer my question or prepare

To display and share the results of my study for

I want to share the work I did so myself and others

the data to be rendered elsewhere.

can study it and draw conclusions.

Based on my selections in the previous step I get I need to run my statistical analysis against my two matching cohorts so I can create a set of insights on my screen in the app. I can decide if there's a that answers my original question. I need to pick an format I want/need to output them in. analysis method, but I probably already know which one I want. I may try others to see what

INPUTS: Two cohorts that have been matched against each The data that creates visualizations and other other to be as comparable as possible. Available output to be studied.

Visualizations of my statistical analysis that can be studied to try and answer my question.

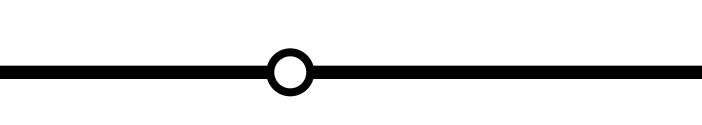
needed confidence levels.

To get a statistically significant variation to helps further analysis. me answer my question, or to find out that I need to alter/redo my study because it isn't answering my question yet.

MOTIVATIONS:

I want to answer my original question.

INSIGHTS SUITE (Share my answer and insights with others)



Lorem ipsum.

INPUTS:

Lorem ipsum.

OUTPUTS:

GOALS:

Lorem ipsum...

Lorem ipsum...

MOTIVATIONS

Lorem ipsum...

Lorem ipsum..

Lorem ipsum..

Lorem ipsum..

MOTIVATIONS: Lorem ipsum..

INPUTS:

Lorem ipsum..

OUTPUTS:

GOALS: