

Leaf and ATLAS Query Tools

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Agenda

1. The Mount Sinai Data Warehouse
2. Introduction to Leaf & ATLAS Cohort Query Tools
3. Leaf
4. ATLAS
5. MSDW Custom Data Set Request

Mount Sinai Data Warehouse

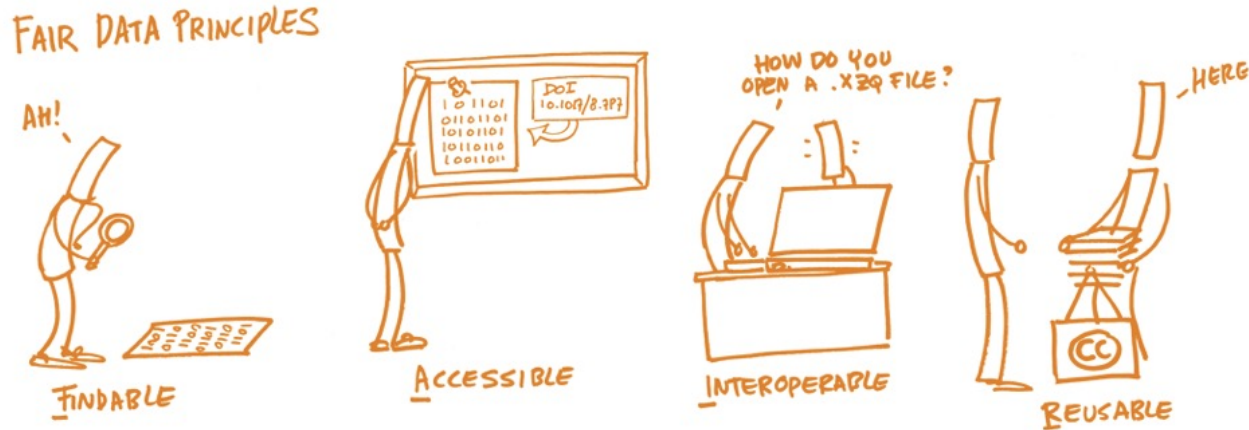
Scientific Computing FAIR Principles for Data

F_indable

A_accessible

I_interoperable

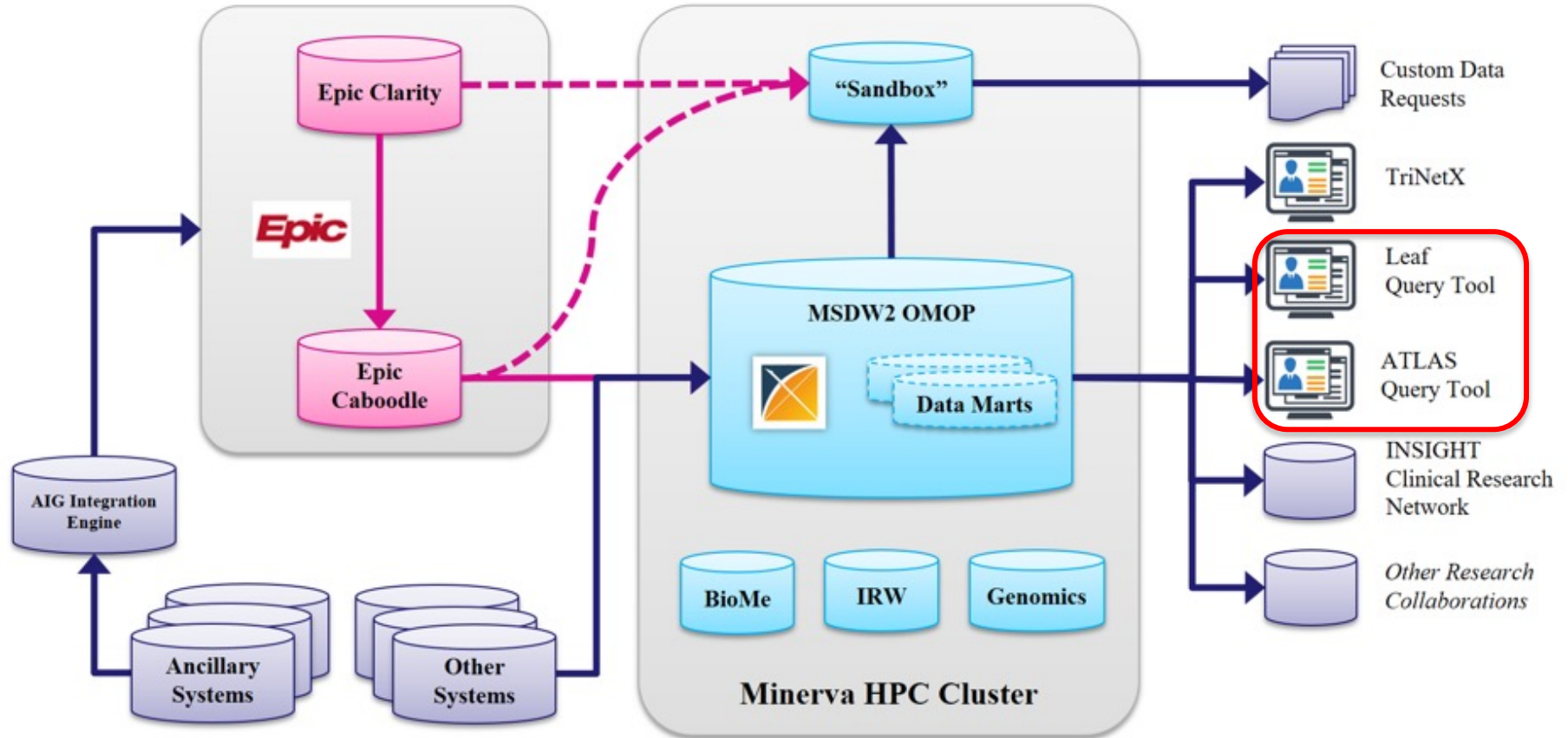
R_eusable /
R_eproducible



Source: NIH's Big Data to Knowledge (BD2K) Initiative (<https://commonfund.nih.gov/bd2k>)

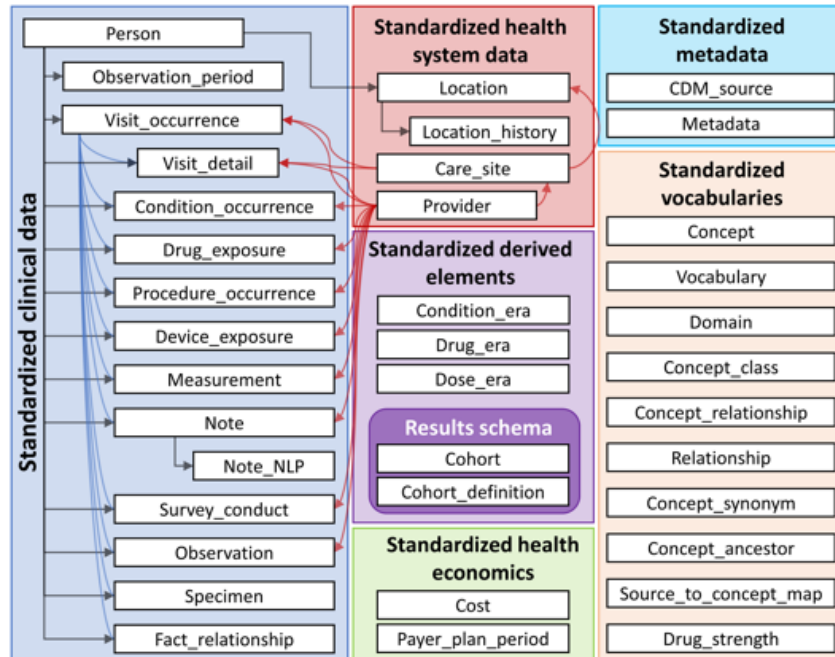
Image Source: <https://book.fosteropenscience.eu/>

Mount Sinai Data Warehouse Ecosystem



OMOP Common Data Model Requirements

1. Standardize **data structure** via common format



2. Standardize **data content** via mapping EHR codes to standard healthcare vocabularies

OMOP Domain	Standard Vocabularies	Non-standard Vocabularies
Condition	SNOMED-CT	ICD-10-CM, ICD-9-CM
Drug	RxNorm, CVX	ATC, NDC, Multum
Measurement	LOINC	SNOMED-CT, Nebraska Lexicon
Procedure	CPT4, HCPCS, ICD-10-PCS	ICD-9-Proc
Observation	SNOMED-CT, LOINC	ICD-10-CM, ICD-9-CM
Race, Ethnicity	OMOP Race, OMOP Ethnicity	SNOMED-CT, Nebraska Lexicon
Provider (Specialty)	NUCC, Medicare Specialty	SNOMED-CT, Nebraska Lexicon
Route	SNOMED-CT	Nebraska Lexicon
Unit	UCUM	SNOMED-CT, Nebraska Lexicon



MSDW Data Contents *(examples as of Nov 2023)*

OMOP Table	Record Type	Distinct Patients	Record Count
person	Patient Demographics	11,618,055	11,618,055
death	Patient Date of Death	48,349	48,349
visit_occurrence	Mobile Unit Encounter	77,079	126,565
visit_occurrence	Inpatient Hospitalization from ED Visit	293,832	560,477
visit_occurrence	Hospital Outpatient Visit	929,432	2,610,177
visit_occurrence	Urgent Care Visit	7,076	7,602
visit_occurrence	ED Visit	1,197,045	2,920,056
visit_occurrence	Inpatient Hospitalization	624,675	935,809
visit_occurrence	Chart Documentation Event	5,688,703	93,774,141
visit_occurrence	Outpatient Visit	4,264,078	78,712,464
visit_occurrence	Telehealth Visit	656,059	2,801,848
condition_occurrence	Hospital Problem	879,697	3,283,115
condition_occurrence	Encounter Diagnosis	4,039,195	110,395,725
condition_occurrence	Problem List	2,347,872	12,481,579
condition_occurrence	Billing Diagnosis	2,392,793	51,295,990
measurement	Vital Signs	3,592,852	607,783,616
measurement	Flowsheet Measurement	1,710,926	200,514,861
measurement	Lab Component Result	3,980,934	1,002,803,421

See MSDW website for the complete list: <https://labs.ica hn.mssm.edu/msdw/data-sources/>

Introduction: Leaf & ATLAS Cohort Query Tools

Self-Service Cohort Query Tools

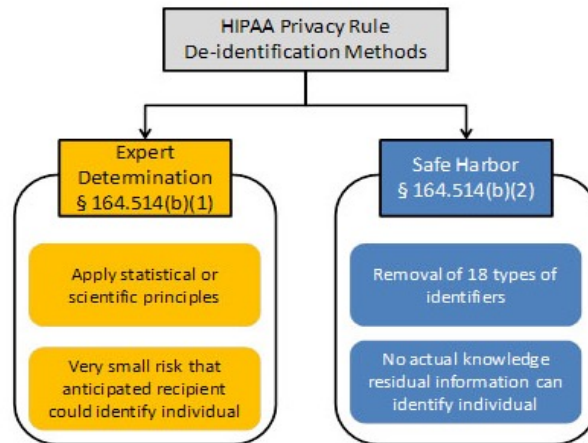
	Leaf 	Atlas 
Development	Nic Dobbins, Univ. of Washington, plus collabs., including at ISMMS	OHDSI community: www.ohdsi.org
License	Free and Open-Source Software (FOSS)	
Tradeoff	Easier, quicker, less powerful	Harder, laborious, more powerful
Data available	De-identified only	De-identified
Capabilities	<ul style="list-style-type: none"> • Simple Boolean logic • Predefined stats & visualizations • Can download lists of patients (with masked IDs) 	<ul style="list-style-type: none"> • Sophisticated logic • Customized stats & visualizations • Save your work and reuse parts • Run entire statistical analyses • No data downloads

See more details at <https://labs.icaahn.mssm.edu/msdw/services/>

What is PHI? What is De-identification?

“**PHI** (Protected Health Information) is information (demographic, financial, social, clinical) relating to an individual’s past, present, or future health history, treatment, or payment for health care services that is held or transmitted by a CE or its BA that identifies the individual or **for which there is a reason to believe it can be used to identify the individual.**”

De-identification is the process by which PHI is rendered not individually identifiable. The HIPAA Privacy Rule establishes two methods to de-identify PHI:



Types of Identifiers

- Name
- Street Address, city, county, zip code (the first three digits of the zip code may be used if there are more than 20,000 people in the zip code)
- All element of dates (except year), including dates of birth, admission, discharge or death
- All ages over 89
- All telephone/fax numbers
- Fax number
- E-mail addresses
- Social Security Number (SSN)
- Medical Record Number (MRN)
- Health plan beneficiary number
- Account numbers (health plan IDs, credit card, bank, invoice #s)
- Certificate/License numbers
- Vehicle identifiers, including license plate numbers
- Device identification and/or serial number
- Uniform Resource Locator (URL)
- Internet Protocol (IP) address
- Biometric identifiers (finger, voiceprints, etc)
- Full face photographic images and other comparable images
- Any other unique identifying number, characteristic, or code

Leaf Query Tool

Features of the Leaf Application

- ▶ Open-source, model-agnostic and data-driven web application for cohort discovery
- ▶ Simple drag-and-drop user interface
- ▶ Simple Boolean logic-based searches
- ▶ View pre-defined basic stats and visualizations on your cohort
- ▶ Save queries for later

Accessing Leaf

- All Mount Sinai Faculty, staff or students can access Leaf at <https://leaf.mssm.edu>
- Requires VPN access and use of your Mount Sinai Login credentials

1. Specify usage type

https://leaf.mssm.edu

leaf ITHS Institute of Translational Health Sciences
ACCELERATING RESEARCH. IMPROVING HEALTH. NATIONAL CENTER FOR DATA TO HEALTH

Patient data restricted to De-Identified mode only

I want to find information for

Quality Improvement Research

Do you have an Approved IRB

No Yes

I would like Protected Health Information

De-Identified Identified

2. Read & Accept Consent

leaf ITHS Institute of Translational Health Sciences
ACCELERATING RESEARCH. IMPROVING HEALTH. NATIONAL CENTER FOR DATA TO HEALTH

Patient data restricted to De-Identified mode only

Research - De-identified Go Back I Agree

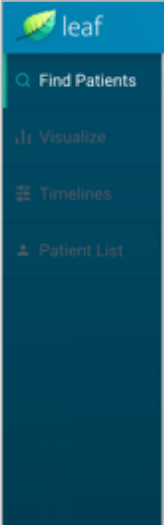
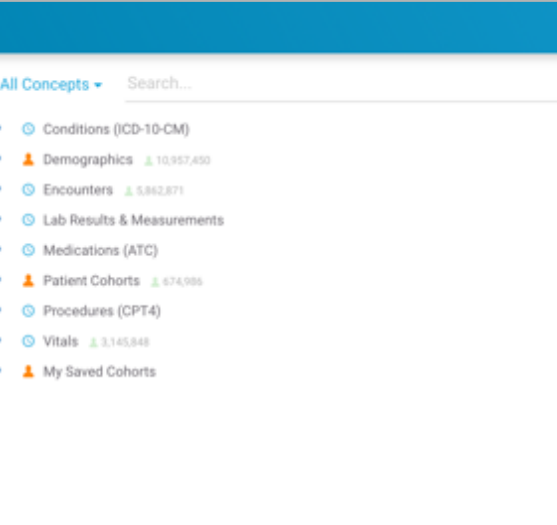
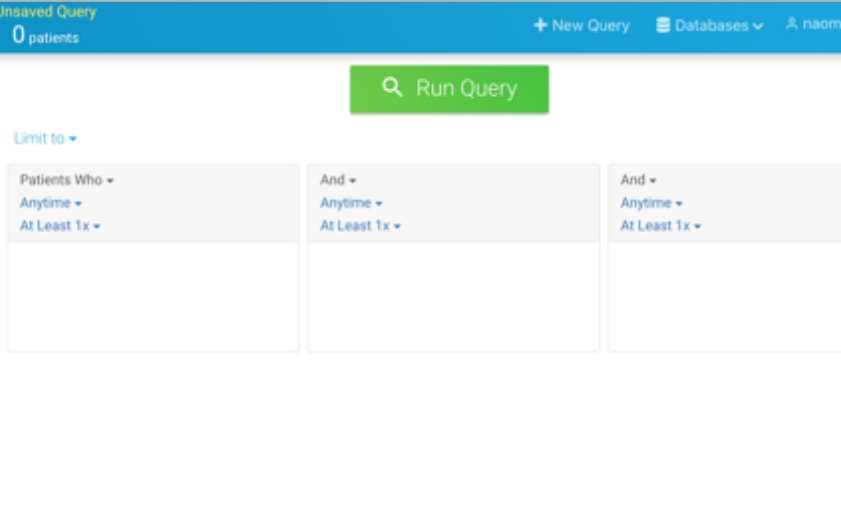
By logging in you agree to the following:

1. For Human Subjects research uses, I certify that I have completed Mount Sinai training required by the Program for Protection of Human Subjects, and agree to abide by all PPHS requirements pertaining to access, storage, sharing and review of data.
2. I will limit my review of data elements in the Data Warehouse, or any Datamarts, to only those data elements and date ranges in the scope of my IRB approved project, or for authorized Hospital uses as necessary to carry out my job responsibilities.
3. For any custom reports or datasets that I request, I will limit my request to only those data elements and date ranges in the scope of my IRB application and approval, or for authorized Hospital uses as necessary to carry out my job responsibilities.
4. When using data provided without identifiers for research purposes I will not attempt to re-identify patients from any data that I may see in the Data Warehouse or any Datamarts or reports. This restriction applies to all uses, including data being used in preparation of a project, or for purposes of research that is considered not federal regulated human subjects research.
5. For any identified (i.e., containing PHI) Datamarts, data sets or reports made available to me, I will exclude any subjects personally known to me or co-investigators except in a formal provider/patient relationship.
6. Data supplied for projects with IRB approval shall not be re-used or re-disclosed without explicit permission from the IRB.
7. I certify that I understand and agree to abide by the guidelines of the PPHS, the rules and regulations of the Mount Sinai Medical Center, and all applicable federal and state laws and regulations.
8. I understand that all access is audited, and that unauthorized access or inappropriate usage of data may result in disciplinary action up to and including termination.

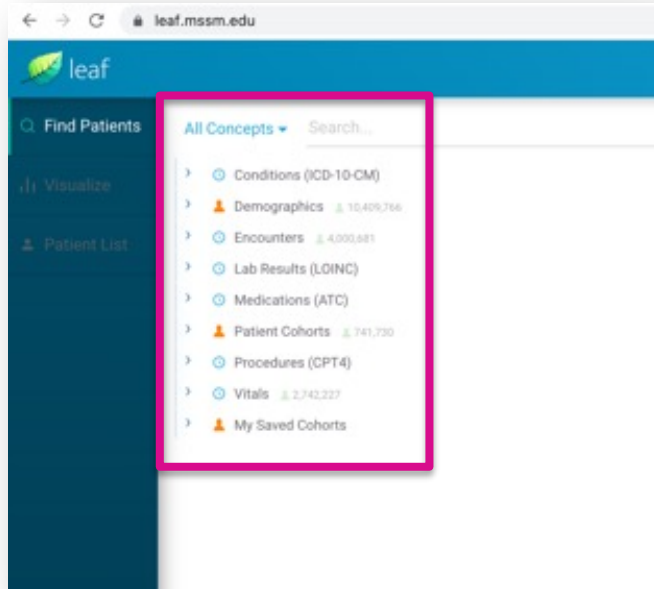
A De-identified Data Set with the following limitations:

- Patients with an age of 89 and older are masked with a value of "Greater than 89".
- Cohorts less than 10 are masked with a value of "Less than 10".
- Dates in the dataset are shifted equally per patient based on the date shift value. This ensures that the relative distance between dates in the patients' chronology remains intact.

Leaf Landing Page

Left Side Navigation	Concept Search Bar	Build and Run Query
		
Toggle screens	Search by text or code	Use select concepts and Boolean logic to build query

Searchable Data Domains



Domains	Vocab	Content	Time
Conditions	ICD-10-CM	Descriptive diagnoses and codes	Encounter-based
Demographics		Age, Gender, Race, Ethnicity, Vital Status	Time-invariant
Encounters		ED visit, Inpatient, Ambulatory, Telehealth	Encounter-based
Lab Results	LOINC	Lab Orders	Encounter-based
Medications	ATC	Medications Orders and Administrations	Encounter-based
Procedures	CPT-4	Procedures	Encounter-based
Vitals	LOINC	BMI, O2 sat, Pulse, Respiratory Rate, etc.	Encounter-based

Identifying Concepts

- ▶ Two ways to search for concepts
 - Free Text search
 - Expand concept trees using left-hand arrows
- ▶ Each concept is denoted by a population quantity to the right
- ▶ To select a concept, click on it and drag it to the query box
 - The concept and all the dependent nodes will be included

The screenshot shows the leaf.mssm.edu web application. The search bar at the top right contains the text "breast". The search results are displayed in a tree view on the right side of the page. The tree view shows a hierarchy of concepts, with "Malignant neoplasms of breast" highlighted by a pink box. The left sidebar contains navigation options: "Find Patients", "Visualize", and "Patient List". The top bar indicates "Unsaved Query" and "0 patients".

Conditions (ICD-10-CM) breast

- All Concepts
- Conditions (ICD-10-CM)
- Demographics
- Encounters
- Lab Results (LOINC)
- Medications (ATC)
- Patient Cohorts
- Procedures (CPT4)
- Vitals

Limit to

Patients Who

Anytime

At Least 1x

- Personal history of in-situ and benign neoplasms and neoplasms of uncertain behavior (ICD10CM.Z86.000-Z86.03)
- Personal history of in-situ neoplasm (ICD10CM.Z86.000-Z86.008)
- Personal history of in-situ neoplasm of breast (ICD10CM.Z86.000)
- Personal history of malignant neoplasm (ICD10CM.Z85.00-Z85.9) 44,345
- Personal history of malignant neoplasm of breast (ICD10CM.Z85.3) 14,140
- Neoplasms (C00-D49) (ICD10CM.C00.0-D49.9)
- Malignant neoplasms of breast (C50) (ICD10CM.C50.011-C50.929)
- Malignant neoplasm of breast (ICD10CM.C50.011-C50.929) 29,528
 - Malignant neoplasm of axillary tail of breast (ICD10CM.C50.611-C50.629) 251
 - Malignant neoplasm of axillary tail of breast, male (ICD10CM.C50.621-C50.629)
 - Malignant neoplasm of axillary tail of unspecified male breast (ICD10CM.C50.629) 6
 - Malignant neoplasm of breast of unspecified site (ICD10CM.C50.911-C50.929)
 - Malignant neoplasm of breast of unspecified site, female (ICD10CM.C50.911-C50.919)
 - Malignant neoplasm of unspecified site of left female breast (ICD10CM.C50.912) 9,133
 - Malignant neoplasm of central portion of breast (ICD10CM.C50.111-C50.129)
 - Malignant neoplasm of central portion of breast, male (ICD10CM.C50.121-C50.129)
 - Malignant neoplasm of central portion of unspecified male breast (ICD10CM.C50.129) 2
 - Malignant neoplasm of lower-outer quadrant of breast (ICD10CM.C50.511-C50.520) 1,100

Institutional Patient Cohorts are Searchable in Leaf

The screenshot displays the Leaf web application interface. The top navigation bar includes the 'leaf' logo, a search bar, and buttons for '+ New Query', 'Databases', and a user profile. The left sidebar contains navigation options: 'Find Patients', 'Visualize', 'Timelines', and 'Patient List'. The main content area is divided into two panels. The left panel, titled 'All Concepts', lists various data categories with patient counts: Conditions (ICD-10-CM), Demographics (11,039,936), Encounters (5,930,599), Lab Results & Measurements, Medications (ATC), Patient Cohorts (1,694,118), Procedures (CPT4), Vitals (1,332,897), and My Saved Cohorts. The right panel, titled 'Patient Cohorts', shows a list of specific cohorts with their respective patient counts. A red box highlights the 'Cancer Patient Cohort' with 255,376 patients. A red line connects this box to the 'Patient Cohorts' section in the left sidebar, indicating the source of the data.

Cohort Name	Count
Conditions (ICD-10-CM)	
Demographics	11,039,936
Encounters	5,930,599
Lab Results & Measurements	
Medications (ATC)	
Patient Cohorts	1,694,118
Procedures (CPT4)	
Vitals	1,332,897
My Saved Cohorts	

Cohort Name	Count
BioMe Biobank	45,273
BioMe Biobank Global Diversity Array (Sema4)	15,591
BioMe Biobank Global Screening Array (Regeneron)	23,491
BioMe Biobank Whole Exome Sequencing (Regeneron)	22,805
Cancer Institute Biorepository	13,464
Cancer Patient Cohort	255,376
Digitized Pathology Slides Cohort	104,346
Imaging Research Warehouse 1.0	467,674
Imaging Research Warehouse 2.0	1,547,288

Use Leaf to query the Cancer Patient, BioMe or IRW Cohorts

Leaf – Patient Cohorts

Patient Cohorts on Leaf	Description
BioMe Biobank	Patients who submitted tissue samples to Mount Sinai's BioMe Biobank
BioMe Biobank Global Diversity Array - Sem4	Patients who submitted tissue samples to Mount Sinai's BioMe Biobank and have had their DNA analyzed with Illumina's Global Diversity Array by Sema4
BioMe Biobank Global Screening Array – Regeneron	Patients who submitted tissue samples to Mount Sinai's BioMe Biobank and have had their DNA analyzed with Illumina's Infinium Global Screening Array by Regeneron
BioMe Biobank whole Exome Sequencing – Regeneron	Patients who submitted tissue samples to Mount Sinai's BioMe Biobank with whole exome sequence (WES) data generated by Regeneron
Cancer Institute Biorepository	
Cancer Patient Cohort	Patients who have been diagnosed with cancer, refreshed on a monthly basis around the 15th of every month
Imaging Research Warehouse 1.0	Patients who have image data in version 1.0 of the Imaging Research Warehouse (IRW)
Imaging Research Warehouse 2.0	Patients who have image data in version 2.0 of the Imaging Research Warehouse (IRW)

Building a Query



Unsaved Query

1,856 patients

+ New Query

Databases

naomi.so

Patients Who
In Past 12 Months
At Least 1x

Had diagnosis of Malignant neoplasms of breast (C50) (ICD10CM:C50.011-C50.929)

Patients Who
In Past 12 Months

Anytime

Custom Date Range

In Past 24 Hours

In Past 48 Hours

In Past 72 Hours

In Past 7 Days

In Past 30 Days

In Past 6 Months

In Past 12 Months

In Past 2 Years

In Past 3 Years

In Next 10 Days

In Next 30 Days

In Next 6 Months

And
Anytime
At Least 1x

Are between 40 and 60 years old

In the Same Encounter

And
Anytime
At Least 2x

Treated with ANTINEOPLASTIC AGENTS

or

Treated with ENDOCRINE THERAPY

In the Same Encounter

And
Anytime
At Least 2x

At Least 1x

At Least 2x

At Least 3x

At Least 4x

At Least 5x

At Least 6x

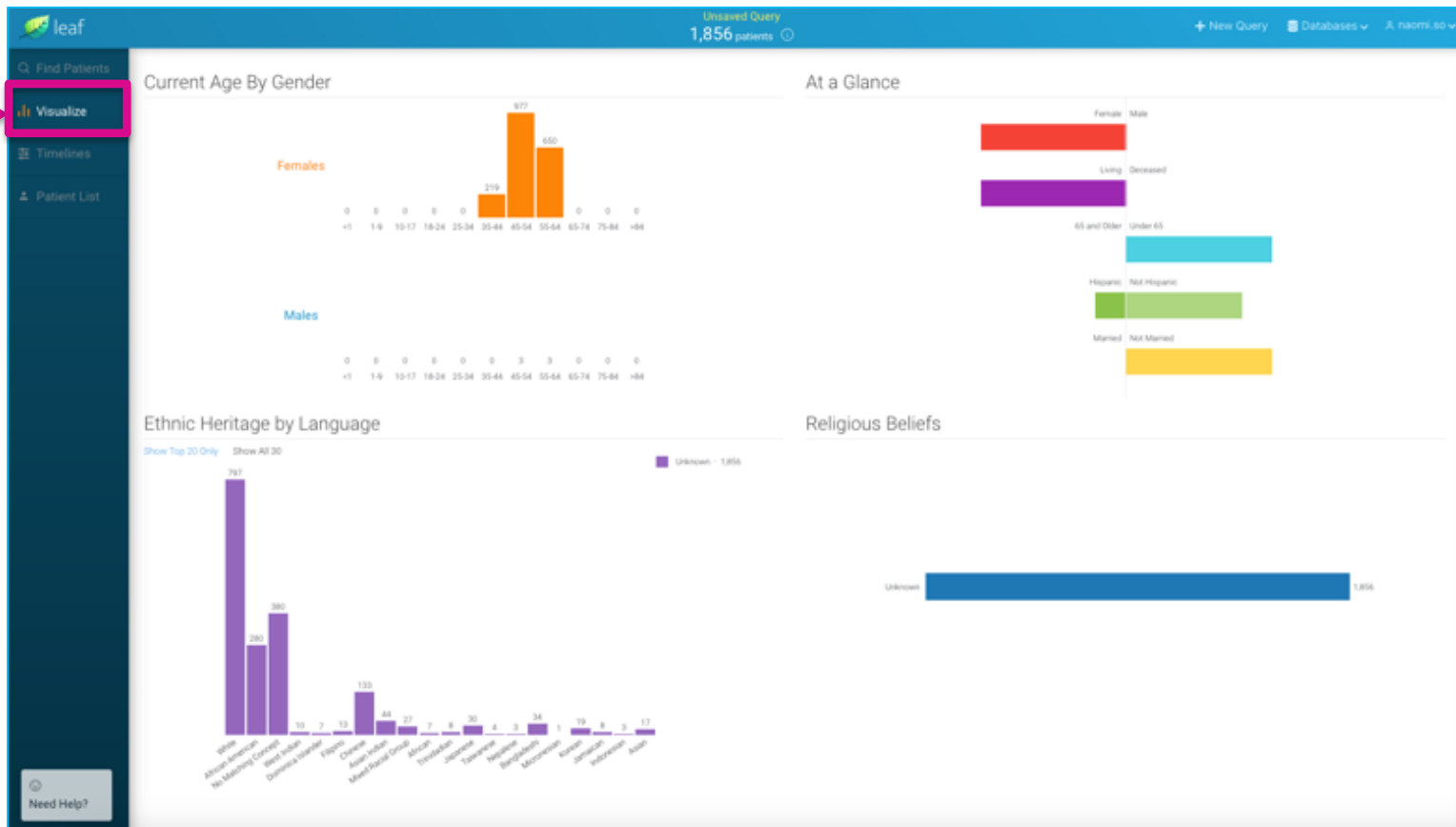
At Least 7x

At Least 8x

At Least 9x

At Least 10x

Basic Cohort Demographics



Patient List

leaf

Unsaved Query
1,856 patients

+ New Query

Databases

nlomix.sg

Find Patients

Visualize

Timeline

Patient List

Need Help?

Current Datasets (click to edit columns): Basic Demographics

Export Data

Displaying 1,856 de-identified patients with 1,856 rows of data

What is de-identification?

<

1

2

3

4

5

6

...

37

38

>

	Person Id	Patient Of	Address Postal Code	Address State	Age	Ethnicity	Gender	Language	Marital Status	Race	Religion
View details (0 rows)	02ADf636E4E30852ED011FD5B8B4F952F60697F86C980C72CDEF94868E42C2B	Mount Sinai Health System	Unknown	Unknown	56	Not Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	6542CD25821083695770B4C4F8B8E7B50CB6C1CD9A67B40FACD7F876D9B978B3	Mount Sinai Health System	Unknown	Unknown	56	Not Hispanic or Latino	FEMALE	Unknown	Unknown	African American	Unknown
View details (0 rows)	8D5F451B237584F9D256720B8BCE48596B5047D4D3447574A93CC3A91F545C5	Mount Sinai Health System	Unknown	Unknown	50	Not Hispanic or Latino	FEMALE	Unknown	Unknown	No matching concept	Unknown
View details (0 rows)	69692F8CA8F6CAAACD78AE234D01B19E3D5F38D9B5FC1643A9307F901D0A	Mount Sinai Health System	Unknown	Unknown	46	Not Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	EA893FD498804201C426688515B309A662AB440FE36256397D8078EC98D86AA	Mount Sinai Health System	Unknown	Unknown	43	Not Hispanic or Latino	FEMALE	Unknown	Unknown	African American	Unknown
View details (0 rows)	6F9676EA0950500F4E532646991952767E98BFC7D7EE63E800435C384CCCA9D	Mount Sinai Health System	Unknown	Unknown	51	Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	294AF279AAEFD12F2468A53344644DC56F0AEE973EE380C2C765C135804D25	Mount Sinai Health System	Unknown	Unknown	42	Not Hispanic or Latino	FEMALE	Unknown	Unknown	West Indian	Unknown
View details (0 rows)	A193D764DA8FCAFA3979850151FDDFD798671D0F32E10ED3B1F8B2EF31F27	Mount Sinai Health System	Unknown	Unknown	51	Not Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	39D6A4150496CE2975D4CD98F135A7513D7CB65965705A85C72855CDF93326D0	Mount Sinai Health System	Unknown	Unknown	54	Hispanic or Latino	FEMALE	Unknown	Unknown	Dominica Islander	Unknown
View details (0 rows)	836D0235C779B7D21F06A7019CD01FDF6DE747904E846FEA205C846A480B3	Mount Sinai Health System	Unknown	Unknown	49	Not Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	9C2946D080E3440A490423EE15A64F0D05E82027C89E893B89664F60779972B	Mount Sinai Health System	Unknown	Unknown	53	Not Hispanic or Latino	FEMALE	Unknown	Unknown	African American	Unknown
View details (0 rows)	89C8A72BA7F2A562F588C78C9C9C3783C7B04709687BA87EDF81D06AD473774	Mount Sinai Health System	Unknown	Unknown	42	Hispanic or Latino	FEMALE	Unknown	Unknown	African American	Unknown
View details (0 rows)	5CEE758E24C298BA69A428B08BC1D0752073B5CF58BF85DCEA110FC2447097C	Mount Sinai Health System	Unknown	Unknown	54	Hispanic or Latino	FEMALE	Unknown	Unknown	No matching concept	Unknown
View details (0 rows)	34CEFA220A0AF5FE87C0F57278A0E2AC55B08E04EBC7076E586E0276C927	Mount Sinai Health System	Unknown	Unknown	55	No matching concept	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	8E32139E70C734508D34BC421E9549C22733548EE6AE0B69D14A420135EF75	Mount Sinai Health System	Unknown	Unknown	53	Not Hispanic or Latino	FEMALE	Unknown	Unknown	Filipino	Unknown
View details (0 rows)	9F6D5058E827331A96553FEC08B5061816AC1FB2448386AED08D052807386498	Mount Sinai Health System	Unknown	Unknown	47	Not Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	81B69C283F75592C82C76CC6A885A62F794CD7B3A17FC6278FD3FF36734A2D	Mount Sinai Health System	Unknown	Unknown	45	Not Hispanic or Latino	FEMALE	Unknown	Unknown	Chinese	Unknown
View details (0 rows)	7C8D79849281C4F922802CC1448AC07C6914E1F9E7751E0EE3A2CAE952219CC	Mount Sinai Health System	Unknown	Unknown	56	Not Hispanic or Latino	FEMALE	Unknown	Unknown	Asian Indian	Unknown
View details (0 rows)	5895AA028E6258E58A85879CE7E035F048C70711598FD267025264575B10CAE9	Mount Sinai Health System	Unknown	Unknown	57	Not Hispanic or Latino	FEMALE	Unknown	Unknown	White	Unknown
View details (0 rows)	F743996E0807507308901F43511835A7C074174C11EFD73141F7292CFD2641	Mount Sinai Health System	Unknown	Unknown	53	Hispanic or Latino	FEMALE	Unknown	Unknown	No matching concept	Unknown

Leaf - Timeline

Used to explore temporal relationships of additional clinical events (aka concepts) to your defined patient cohort.

Sample Query:

How many patients ≥ 18 y.o. with a diagnosis of COPD (Chronic Obstructive Pulmonary Disease) had an ED visit in the past 12 months?

Secondly, what percentage of these patients had any of the following clinical events after their ED visit?

- **An inpatient visit**
- **Diagnosis of Lung Cancer**

Leaf - Timeline

1. Build and Run query to identify patient cohort
2. Click on **Timelines** from the left-hand menu

The screenshot displays the Leaf application interface. On the left, a dark blue sidebar contains a menu with the following items: Find Patients, Map, Visualize, **Timelines** (highlighted with a red box and a red arrow pointing to it), Patient List, and Admin. The main content area has a blue header with the 'leaf' logo, a red box around 'Unsaved Query' and '2,253 patients', and links for '+ New Query', 'Databases', and 'Admin'. Below the header, there's a search bar and a list of concepts: Conditions (ICD-10-CM), Demographics (10,940,825), Encounters (5,854,150), Lab Results & Measurements, Medications (TC), Patient Cohorts (665,168), Procedures (CPT4), Vitals (3,030,090), and My Saved Cohorts. On the right, a green 'Save Query' button is visible. Below it, a 'Limit to' section contains three blue boxes with filters: 'Patients Who' (Anytime, At Least 1x), 'Are >= 18 years old', and 'In the Same Encounter'; 'And' (Anytime, At Least 1x), 'Had diagnosis of Chronic obstructive pulmonary disease, unspecified (ICD10CM.J44.9)', and 'In the Same Encounter'; and 'And' (In Past 12 Months, At Least 1x), 'Had Emergency Room Visit encounter', and 'In the Same Encounter'.

Leaf - Timeline

Identify an **Index Event** for your cohort. This is the starting point for your timeline and allows you to view other clinical events (aka concepts) that happened before and/or after, at defined time intervals.

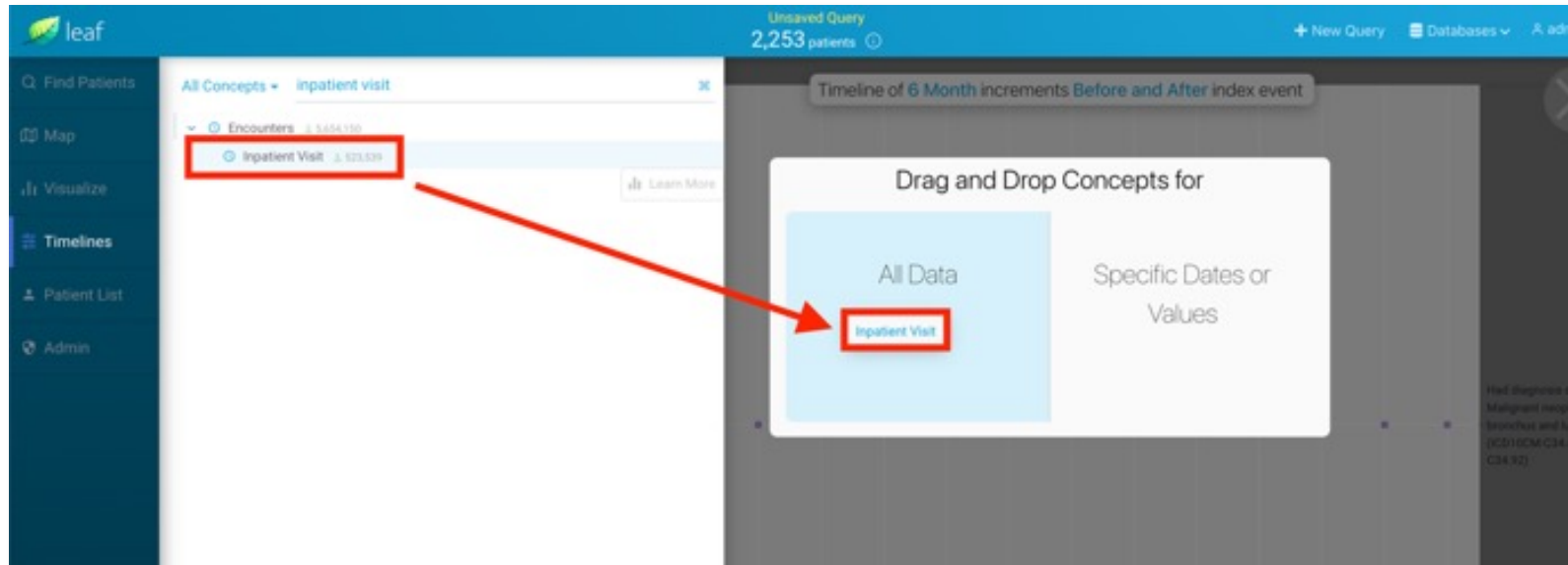
The screenshot displays the Leaf Timeline interface. On the left, a sidebar contains navigation options: Find Patients, Map, Visualize, Timelines (selected), Patient List, and Admin. The main area shows a step-by-step guide for creating a timeline. Step 1, 'Choose an index event', is highlighted with a red box. A red arrow points from this step to a larger window titled 'Which event should be the index event?'. This window contains three panels for selection:

- Panel 1:** Labeled 'Panel has no associated encounters or dates'. It contains filters: 'Patients Who' (Anytime, At Least 1x), 'Are >= 18 years old', and 'In the Same Encounter'.
- Panel 2:** Contains filters: 'And' (Anytime, At Least 1x), 'Had diagnosis of Chronic obstructive pulmonary disease, unspecified (ICD10CM:J44.9)', and 'In the Same Encounter'.
- Panel 3:** Highlighted with a red box. It contains filters: 'And' (In Past 12 Months, At Least 1x), 'Had Emergency Room Visit encounter', and 'In the Same Encounter'.

The top of the interface shows 'Unsaved Query' and '2,253 patients'.

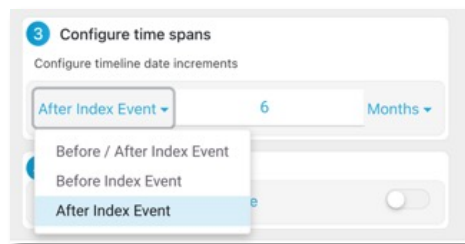
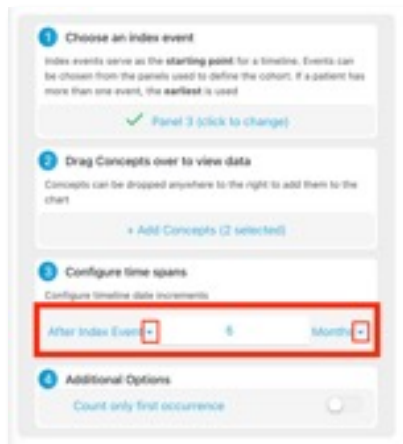
Leaf - Timeline

Add concepts of interest to your timeline by dragging and dropping from the **All Concepts** menu on the left to the **Drag and Drop Concepts for** window on the right.

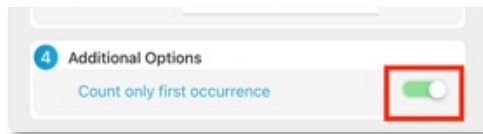


Leaf - Timeline

Under **Configure Time Spans**, adjust timeline intervals..

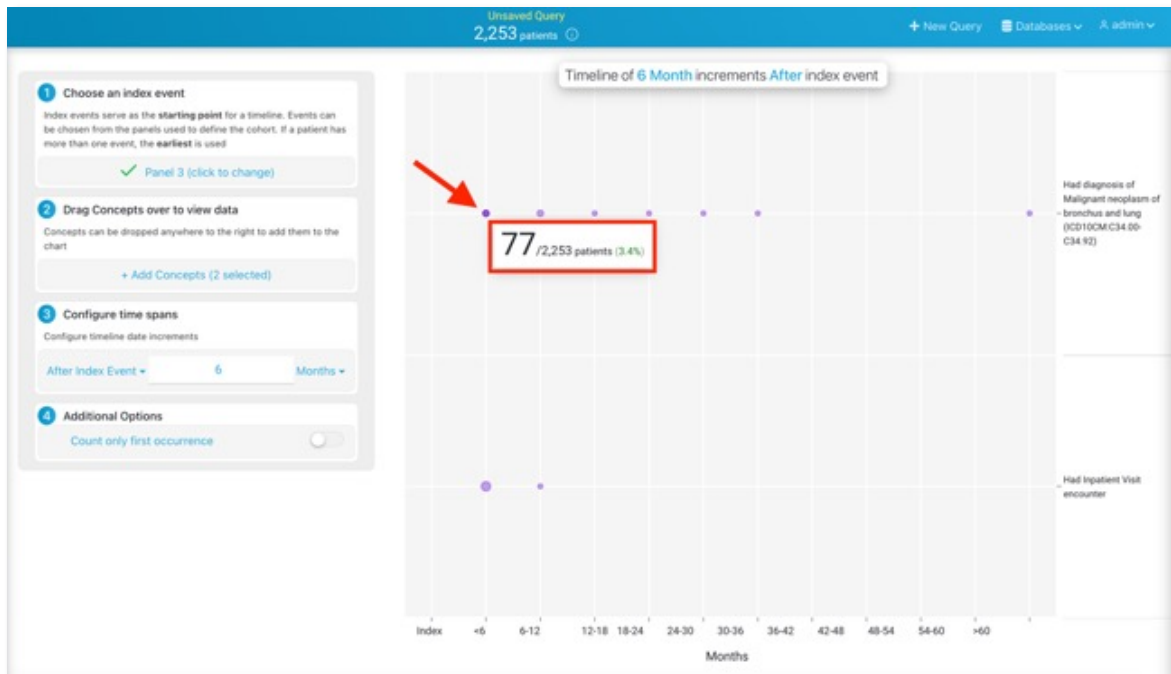


Under **Additional Options**, click on **Count only first occurrence** to *only* take into consideration the first time that each event took place (this applies to all added concepts in your timeline)



Leaf's Timeline

Hover over the circles in your timeline to view how many patients from your initial cohort fall within that category (as defined by the concept and time interval)



To remove a clinical event (aka concept) from your timeline, hover over it and click on the **X**

Live Demo - Leaf

ATLAS Query Tool

ATLAS

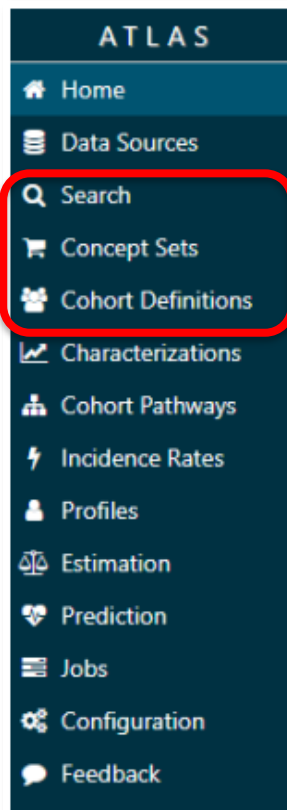
- A web-based application - design and execute observational analyses to generate real world evidence from patient level clinical data
- **Common Data Model** - A convention for representing healthcare data that allows portability of analysis
- **Concept** - A term (with a code) defined in a medical terminology, all clinical events in the OMOP CDM are expressed as concepts
- **Concept set** is an expression representing a list of concepts that can be used as a reusable component in various analyses
- **Cohort** is a set of persons who satisfy one or more inclusion criteria for a duration of time



ATLAS Access

- All Mount Sinai Faculty, staff or student can access ATLAS at <https://atlas.msdw.mountsinai.org>
- Requires VPN access and Mount Sinai School Credentials to log in
- Mount Sinai users with a Hospital account may navigate to SailPoint and request a Mount Sinai School account.
- You will be required to read and accept the SNOMED INTERNATIONAL SNOMED CT LICENSE AGREEMENT
- Sign in using your school credentials through the button on the top right corner of the interface

ATLAS - Interface



Home: Permalink redirects you to the Atlas landing page.

Data Sources: Provides capability to review standardized reporting for each of the data sources configured for your Atlas environment. Here, review available populations and data sets. From select drop-down menus, select from any available observational database(s). Subsequently, select from any of the corresponding standardized reports available within the previously selected source.

Search: Enables you to search the OMOP standardized vocabularies, and understand and apply concepts within those vocabularies.

Concept Sets: Enables you to create your own set of codes that will be used throughout the standardized analyses. These sets can be saved and reused in all your analyses.

Cohort Definitions: Provides ability to construct a set of persons who satisfy one or more criteria for a duration of time, and these cohorts can serve as a basis of inputs for all subsequent analyses.

Characterizations: Allows you to look at one or more of your defined cohorts and summarizes characteristics about those patient populations in an analytic capability.

Cohort Pathways: Reviews the sequence of clinical events that that occur within one or more populations.

Incidence Rates: Provides the ability to estimate the incidence of outcomes within target populations of interest.

Profiles: Explores an individual patient's longitudinal observational data to summarize an individual's situation.

Estimation: Conducts population-level effect estimation studies using a comparative cohort design. Comparisons between one or more target and comparator cohorts can be explored for a series of outcomes.

ATLAS - Search

- Enables you to search the OMOP standardized vocabularies, and understand and apply concepts within those vocabularies

The screenshot displays the ATLAS Search interface. A red box labeled "Search" points to the search bar at the top, which contains the text "hypertension". A red box labeled "Filters" points to the left sidebar, which contains a list of filter categories such as Vocabulary, Class, Domain, Standard Concept, Invalid Reason, Has Records, and Has Descendant Records. A red box labeled "Record Count" points to the "RC" column in the search results table. A red box labeled "Descendant Record Count" points to the "DRC" column in the search results table. The search results table shows a list of concepts with columns for Id, Code, Name, Class, RC, DRC, Domain, and Vocabulary. The first row is "Essential hypertension" with RC 632 and DRC 7,540. The second row is "Benign hypertension" with RC 6,908 and DRC 6,908. The third row is "Benign essential hypertension" with RC 3,403 and DRC 4,149. The fourth row is "Pulmonary hypertension" with RC 0 and DRC 2,018. The fifth row is "Hypertension AND/OR vomiting complicating pregnancy childbirth AND/OR puerperium" with RC 0 and DRC 1,804. The sixth row is "Hypertension in the obstetric context" with RC 1,072 and DRC 1,795. The seventh row is "Secondary hypertension" with RC 247 and DRC 1,360. The eighth row is "Maternal hypertension" with RC 519 and DRC 1,113. The ninth row is "Pregnancy-induced hypertension" with RC 0 and DRC 1,042. The tenth row is "Venous hypertension" with RC 895 and DRC 895. The eleventh row is "Malignant essential hypertension" with RC 0 and DRC 895. The twelfth row is "Malignant hypertension" with RC 175 and DRC 691. The thirteenth row is "Pre-existing hypertension in obstetric context" with RC 523 and DRC 675. The fourteenth row is "Chronic kidney disease due to hypertension" with RC 652 and DRC 652. The fifteenth row is "Ocular hypertension" with RC 652 and DRC 652.

Id	Code	Name	Class	RC	DRC	Domain	Vocabulary
320128	59621000	Essential hypertension	Clinical Finding	632	7,540	Condition	SNOMED
4028741	10725009	Benign hypertension	Clinical Finding	6,908	6,908	Condition	SNOMED
312648	1201005	Benign essential hypertension	Clinical Finding	3,403	4,149	Condition	SNOMED
4322024	70995007	Pulmonary hypertension	Clinical Finding	0	2,018	Condition	SNOMED
4024560	106005003	Hypertension AND/OR vomiting complicating pregnancy childbirth AND/OR puerperium	Clinical Finding	0	1,804	Condition	SNOMED
4279525	367390009	Hypertension in the obstetric context	Clinical Finding	1,072	1,795	Condition	SNOMED
319826	31992008	Secondary hypertension	Clinical Finding	247	1,360	Condition	SNOMED
4118910	288250001	Maternal hypertension	Clinical Finding	519	1,113	Condition	SNOMED
4167493	48194001	Pregnancy-induced hypertension	Clinical Finding	0	1,042	Condition	SNOMED
312935	234072000	Venous hypertension	Clinical Finding	895	895	Condition	SNOMED
317898	78975002	Malignant essential hypertension	Clinical Finding	0	895	Condition	SNOMED
4289933	70272006	Malignant hypertension	Clinical Finding	175	691	Condition	SNOMED
4311246	86041002	Pre-existing hypertension in obstetric context	Clinical Finding	523	675	Condition	SNOMED
44782429	104931000119100	Chronic kidney disease due to hypertension	Clinical Finding	652	652	Condition	SNOMED
381290	4210003	Ocular hypertension	Clinical Finding	652	652	Condition	SNOMED

ATLAS – Search

- ▶ Clicking on a term will open a more detailed view within the vocabularies with the following tabs:
 - **Details** presents Vocabulary ID, Concept ID, Concept Code, and other property values connected to the record
 - **Related Concepts** provides other vocabulary for similar terms that may specify or broaden the search
 - **Hierarchies** indicates parents and children of the concept within the OMOP vocabulary
 - **Record Counts** displays the source of the records as well as the quantity

ATLAS

Home Data Sources Search Concept Sets Cohort Definitions Characterizations Cohort Pathways Incidence Rates Profiles Estimation Prediction Jobs

Vocabulary > Concept

Essential hypertension

Details Related Concepts Hierarchy Record Counts

Property	Value
Concept Name	Essential hypertension
Domain Id	Condition
Concept Class Id	Clinical Finding
Vocabulary Id	SNOMED
Concept Id	320128
Concept Code	59621000
Invalid Reason	Valid
Standard Concept	Standard

☐ Exclude ☐ Descendants ☒ Mapped Add To New Concept Set

ATLAS – Concept Sets

- Building blocks of ATLAS queries
- Expression that allow for identifying sets of concepts that can be grouped together and used as a reusable component in various analyses
- Can contain any set of concepts across any of the domains within the OMOP standardized vocabulary. These can be customized so that different terms can be expressed in one item.

ATLAS

Home
Data Sources
Search
Concept Sets
Cohort Definitions
Characterizations
Cohort Pathways
Incidence Rates
Profiles
Estimation
Prediction
Jobs
Configuration
Feedback

Concept Sets

List Export

Column visibility Copy CSV Show 15 entries

Showing 1 to 15 of 89 entries

	ID	Name	Created	Modified	Author
Created	123	PID	10/03/2023 8:51 PM	10/03/2023 8:51 PM	oconnp06
2+ Weeks Ago (87)	122	PID_dti	10/03/2023 8:45 PM	10/03/2023 8:45 PM	oconnp06
This Week (2)	121	NSCLC	09/19/2023 1:35 PM	09/19/2023 1:35 PM	vaikp01
Modified	120	lung onc	09/19/2023 1:22 PM	09/19/2023 1:22 PM	vaikp01
2+ Weeks Ago (87)	119	High Risk Pediatric Cardiac Patients	08/22/2023 2:09 PM	08/22/2023 2:09 PM	mostr07
This Week (2)	118	Deliveries	08/04/2023 12:25 PM	08/04/2023 12:25 PM	robak101
Author	117	CAQ	07/25/2023 5:39 PM	07/25/2023 5:39 PM	shang01
medabp01 (12)	116	PICU	07/21/2023 12:14 PM	07/21/2023 12:14 PM	mostr07
sampat01 (8)	115	Total Shoulder Arthroplasty	07/12/2023 4:48 PM	07/12/2023 4:48 PM	sternb06
korieu01 (6)	114	Concept set BCDM	05/30/2023 4:19 PM	05/30/2023 4:41 PM	leitea01
sternb06 (5)	113	DM2	05/30/2023 4:09 PM	05/30/2023 4:09 PM	leitea01
leitea01 (1)	112	GLP	05/30/2023 3:02 PM	05/30/2023 4:06 PM	leitea01
Other designs (87)	111	SGLT2	05/30/2023 11:41 AM	05/30/2023 12:52 PM	leitea01
My designs (2)	109	Migraine_Test	05/23/2023 11:32 AM	05/23/2023 11:41 AM	son01
	108	Diabetes_Test_AJ	05/22/2023 2:44 PM	05/22/2023 2:48 PM	cabera01

Showing 1 to 15 of 89 entries

Previous 1 2 3 4 5 6 Next

Search: Search...

Create New Concept Set

New Concept Set

ATLAS – Create New Concept Set

New Concept Set

1. Title your Concept Set (i.e. *Hypertension – NS Test*)
2. **Add concepts** → Search for concepts of interest (i.e. *essential hypertension*)
 - Select concepts to include or exclude, along with any of their associated Descendants
3. View **Included Concepts** and **Included Source Codes** under respective tabs
4. Click **Save**

The screenshot shows the ATLAS interface for 'Concept Set #126'. The title field contains 'Hypertension - NS test'. The 'Included Concepts' tab is active, showing a table of 4 entries. The 'Add concepts' button is visible at the bottom left. The 'Save' button is highlighted in the top right corner. Red boxes and arrows indicate the steps: 1. Title, 2. Add Concepts, 3. Included Concepts & Source Codes, and 4. Save.

Concept Set #126
created by son01 on 2023-10-08 1:04, modified by son01 on 2023-10-08 1:04

Hypertension - NS test

Concept Set Expression | Included Concepts | Included Source Codes | Export | Import | Compare

Show 25 entries

Showing 1 to 4 of 4 entries

<input type="checkbox"/>	Concept Id	Concept Code	Concept Name	Domain	Standard Concept Caption	<input type="checkbox"/> Exclude	<input checked="" type="checkbox"/> Descendants	<input type="checkbox"/> Mapped
<input checked="" type="checkbox"/>	4167493	48194001	Pregnancy-induced hypertension	Condition	Standard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	4118910	288250001	Maternal hypertension	Condition	Standard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	317898	78975002	Malignant essential hypertension	Condition	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	320128	59621000	Essential hypertension	Condition	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Remove selected concepts | Add concepts

Classification Non-Standard Standard

ATLAS – Cohort Definitions

- Where you define the cohort inclusion criteria that must be satisfied for a duration of time
- Can serve as a basis of inputs for subsequent analyses
- Click **New Cohort** to create a new definition

The screenshot shows the ATLAS Cohort Definitions interface. The left sidebar contains navigation links: Home, Data Sources, Search, Concept Sets, Cohort Definitions (highlighted), Characterizations, Cohort Pathways, Incidence Rates, Profiles, Estimation, Prediction, Jobs, Configuration, and Feedback. The main content area is titled 'Cohort Definitions' and shows a table of cohort definitions. A red box labeled 'New Cohort' points to a 'New Cohort' button in the top right corner. The table displays the following data:

Id	Name	Created	Updated	Author
116	UBM_P10	10/03/2023 7:16 PM	10/03/2023 7:16 PM	ocomp06
115	Test Cohort	10/02/2023 11:40 AM	10/02/2023 11:40 AM	arora010
114	Pts with Surgeries 9.1.22 - 8.31.23	09/27/2023 1:49 PM	09/27/2023 1:49 PM	arora010
113	Lung onc	09/19/2023 1:24 PM	09/19/2023 1:24 PM	vaikp01
112	Total Shoulder Arthroplasty	07/12/2023 4:50 PM	07/12/2023 4:51 PM	sternb06
111	DMBCwomred	05/30/2023 4:25 PM	05/30/2023 4:55 PM	leitea01
101	# Patients with Diabetes during CY2022	02/23/2023 12:29 PM	05/22/2023 2:53 PM	cabera01
104	Pediatric ECMO 3.8.2023	03/08/2023 2:41 PM	04/03/2023 10:52 AM	mostr07
109	CPT_Protect_Test	03/23/2023 2:55 PM	03/23/2023 2:55 PM	sicarr01
108	Test	03/21/2023 2:32 PM	03/21/2023 2:32 PM	cabera01
107	Heart transplant cts	03/16/2023 9:31 PM	03/16/2023 9:31 PM	kapoca07
106	Cannabis	03/15/2023 3:54 PM	03/15/2023 3:54 PM	silbee02
102	Pediatric ECMO	03/07/2023 3:49 PM	03/07/2023 4:03 PM	mostr07
92	Down Syndrome	11/30/2022 9:19 PM	11/30/2022 9:19 PM	gansaw01
91	MRC PARP inhibitors	11/29/2022 2:31 PM	11/29/2022 2:34 PM	casasn01

ATLAS – Cohort Definitions

Cohort Criteria:

- **Cohort Entry Event:** What must be observed so that someone enters the cohort?
- **Inclusion Criteria:** Use concept sets to apply specific criteria to cohort entry event to identify subpopulation
- **Cohort Exit:** How does person leave the cohort of interest?

The screenshot displays the ATLAS Cohort Definitions interface for Cohort #117. The sidebar on the left includes navigation options: Home, Data Sources, Search, Concept Sets, Cohort Definitions (highlighted with a red box), Characterizations, Cohort Pathways, Incidence Rates, Profiles, Estimation, Prediction, Jobs, Configuration, and Feedback. The main panel shows the cohort definition for Cohort #117, created by son01 on 2023-10-08 15:21. The cohort description is "New Users of ACE inhibitors with a prior diagnosis of hypertension". The main panel is divided into three sections: Cohort Entry Events, Inclusion Criteria, and Cohort Exit. Each section is highlighted with a red box and an arrow pointing to it. The Cohort Entry Events section includes a text input for the cohort definition description, a section for Cohort Entry Events with a "Restrict Initial Events" button, and a section for Inclusion Criteria with a "New Inclusion Criteria" button. The Cohort Exit section includes a section for Cohort Exit with a "Restrict Initial Events" button, a section for Event Persistence with a dropdown menu, and a section for Censoring Events with a "Restrict Initial Events" button.

Cohort Entry Events

Events having any of the following criteria:

with continuous observation of at least days before and days after event index date

Limit initial events to: per person.

Inclusion Criteria

New inclusion criteria

Limit qualifying events to: per person.

Cohort Exit

Event Persistence:

Event will persist until:

Censoring Events:

Exit Cohort based on the following criteria:

No censoring events selected.

ATLAS – Cohort Definitions: Cohort Entry Events

Cohort Entry Events - *Example: New Users of ACE Inhibitors*

1. Add Initial Event (ie. *add Drug Exposure*)
2. Import Concept Set (*i.e. ACE Inhibitor – NS Test*)

1. Add Initial Event

2. Import Concept Set

Events having any of the following criteria:

a drug exposure of **Any Drug**

with days before and days after event index date

Limit per person.

+ Add attribute

- Add Condition Era**
Find patients with specific diagnosis era.
- Add Condition Occurrence**
Find patients with specific diagnoses.
- Add Death**
Find patients based on death.
- Add Device Exposure**
Find patients based on device exposure.
- Add Dose Era**
Find patients with dose eras.
- Add Drug Era**
Find patients with exposure to drugs over time.
- Add Drug Exposure**
Find patients with exposure to specific drugs or drug classes.
- Add Measurement**
Find patients based on Measurement.
- Add Observation**
Find patients based on lab tests or other observations.
- Add Observation Period**
Find patients based on Observation Period.
- Add Payer Plan Period**
Find patients based on Payer Plan Period.
- Add Procedure Occurrence**
Find patients that experienced a specific procedure.
- Add Specimen**
Find patients based on Specimen.
- Add Visit**
Find patients based on visit information.

ATLAS – Cohort Definitions: Cohort Entry Event (cont.)

3. Add Attributes (i.e. Add First Exposure Criteria)

- Add First Exposure Criteria to define First time users
- Add Age at Occurrence Criteria (Aged ≥ 18)
- Add Start Date Criteria (drug start date after 1/1/2000)

3. Click to Add Attributes

The screenshot shows the 'Cohort Entry Events' configuration page. A red box highlights the criteria section, which includes:

- ☒ for the first time in the person's history
- ☒ occurrence start is: After 2000-01-01
- ☒ with age Greater or Equal To 18

Red arrows point from the text 'Added attributes display here' to these criteria. Below this, a green box highlights the 'Restrict initial events' checkbox, with a red arrow pointing from the text '4. Click to Restrict Initial Events'.

On the right, a dropdown menu is open, showing a list of criteria to add. A red box highlights the '+ Add attribute...' button, with a red arrow pointing from the text '3. Click to Add Attributes'. The list of criteria includes:

- Add First Exposure Criteria
- Add Age at Occurrence Criteria
- Add Gender Criteria
- Add Start Date Criteria
- Add End Date Criteria
- Add Drug Type Criteria
- Add Visit Criteria
- Add Stop Reason Criteria
- Add Refills Criteria
- Add Quantity Criteria
- Add Days Supply Criteria
- Add Route Criteria
- Add Effective Dose Criteria
- Add Dose Unit Criteria
- Add Lot Number Criteria

ATLAS – Cohort Definitions: New Inclusion Criteria

Inclusion Criteria

New inclusion criteria

1. have a prior diagnosis of hypertension

have a prior diagnosis of hypertension **1. Add description**

enter an inclusion rule description

having **all** of the following criteria:

with **at least** **1** using **all** occurrences of:

a condition occurrence of **Hypertension - NS test** **3. Import Concept Set**

where **event starts** between **All** days **Before** and **0** days **Before** **index start date** **4. Time Parameters**

2. Add Inclusion Criteria + Add criteria to group...

+ Add attribute

Limit qualifying events to: **earliest event** per person.

Add Demographic
Filter events based on demographic criteria.

Add Condition Era
Find patients with specific condition era.

Add Condition Occurrence
Find patients with specific conditions.

Add Death
Find patients based on death.

Add Device Exposure
Find patients based on device exposure.

Add Dose Era
Find patients with dose eras.

Add Drug Era
Find patients with drug eras.

Add Drug Exposure
Find patients with exposure to specific drugs or drug classes.

Add Location Region
Find patients within geographical area.

Add Measurement
Find patients based on measurements.

Add Observation
Find patients based on observations.

Add Observation Period
Find patients based on observation periods.

Add Payer Plan Period
Find patients based on Payer Plan Period.


Add Procedure Occurrence
Find patients that experienced a specific procedure.

Add Specimen
Find patients based on specimen.

Add Visit

1. Add text description (i.e. have a prior diagnosis of hypertension)
2. Add criteria to group (i.e. Add Condition Occurrence)
3. Import Concept Set (i.e. Hypertension – NS test)
4. Define when the event (i.e. Hypertension) should occur relative to the index start date (aka Cohort entry event)

ATLAS – Cohort Definitions: Cohort Exit

- ▶ Define how a person leaves the cohort
 - select from the drop-down menu that the event will persist until a selected end
- ▶ Remember to SAVE cohort definition 



Cohort Exit

Event Persistence:
Event will persist until: ✓ end of continuous observation
fixed duration relative to initial event
end of a continuous drug exposure

Censoring Events
Exit Cohort based on

Cohort Exit

Event Persistence:
Event will persist until: end of a continuous drug exposure

Continuous Exposure Persistence:
Specify a concept set that contains one or more drugs. A drug era will be derived from all drug exposure events for any of the drugs within the concept set, using the specified persistence window as a maximum allowable gap in days between successive exposure events and adding a specified surveillance window to the final exposure event. If no exposure event end date is provided, then an exposure event end date is inferred to be event start date + days supply in cases when days supply is available or event start date + 1 day otherwise. This event persistence assures that the cohort end date will be no greater than the drug era end date.

Concept set containing the drug(s) of interest: Ace Inhibitor - NS Test **Import Concept Set**

- Persistence window: allow for a maximum of 30 days between exposure records when inferring the era of persistence exposure
- Surveillance window: add 0 days to the end of the era of persistence exposure as an additional period of surveillance prior to cohort exit.
- Use days supply and exposure end date for exposure duration. [change](#)

Censoring Events:
Exit Cohort based on the following criteria:
No censoring events selected.

[+ Add Censoring Event](#)

ATLAS – Cohort Definitions: Generate Cohort

From the **Generation** tab, generate your cohort

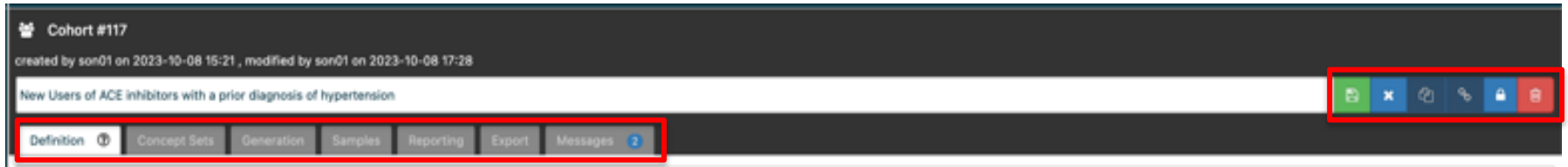
The screenshot displays the ATLAS Cohort Definitions interface. At the top, a navigation bar includes tabs for Definition, Cohort, **Generation**, Samples, Reporting, Export, and Messages. The **Generation** tab is selected and highlighted with a red box and a red arrow. Below the navigation bar, the title "New Users of ACE inhibitors with a prior diagnosis of hypertension" is visible. The main section is titled "Available CDM Sources" and contains a table with columns: Source Name, Generation Status, People, Records, Generated, and Generation Duration. The table lists three sources: MSDW2, MSDW_PRD_deid, and New Source. The MSDW_PRD_deid source is highlighted with a red box, and its "People" value, 60,066, is also highlighted with a red box and a red arrow. A red box labeled "Cohort Count" points to the "People" column. To the left of the table, a red box labeled "Generate" points to the "Generate" button for the MSDW_PRD_deid source. Below the table, there is an "Inclusion Report" section. The report title is "Inclusion Report for MSDW_PRD_deid". It includes a table with columns: Match Rate, Matches, and Total Events. The Match Rate is 45.76%, Matches are 60,066, and Total Events are 131,268. Below this, there is an "Inclusion Rule" table with columns: Inclusion Rule, N, % Satisfied, and % To-Gain. The rule is "1. have a prior diagnosis of hypertension", with N = 60,066, % Satisfied = 45.76%, and % To-Gain = 54.24%. To the right of the inclusion rule table, there is a "Population Visualization" section with a red box labeled "Switch to attrition view". The visualization shows a green bar and a red bar.

Source Name	Generation Status	People	Records	Generated	Generation Duration
MSDW2	n/a	n/a	n/a	n/a	n/a
MSDW_PRD_deid	COMPLETED	60,066	60,066	10/08/2023 5:34 PM	00:04:06
New Source	n/a	n/a	n/a	n/a	n/a






Match Rate	Matches	Total Events
45.76%	60,066	131,268

Inclusion Rule	N	% Satisfied	% To-Gain
1. have a prior diagnosis of hypertension	60,066	45.76%	54.24%

ATLAS – Cohort Definitions: Additional Features



- **Concept Sets** – review concept sets within your definition
- **Export** – review a full description of what the Cohort Definition represents
- **Messages** – review warnings or memos regarding potential errors or incomplete aspects of the defined search criteria

-  Close Cohort Definition
-  Copy
-  Create Link to Share Direct Access
-  Configure Access
-  Delete

ATLAS – Patient List Extraction

- If you are interested in extracting the patient list, you can put in a JIRA ticket with the following details:

Question

ATLAS Cohort Patient List

Please ask the specific question here.

Description

Cohort Definition ID:
Cohort Definition Name:

<https://scicomp.mssm.edu/jira/servicedesk/customer/portal/4/create/100>

Cohort Definitions

Column visibility Copy CSV Show 15 entries

Showing 1 to 15 of 29 entries

	ID	Name
T Created	117	New Users of ACE inhibitors with a prior diagnosis of hypertension
2+ Weeks Ago (75)	116	Cancer Risk
This Week (2)	115	Test Cohort
Within 24 Hours (1)	114	Pts with Surgeries 9.1.22 - 8.31.23
Last Week (1)	113	Lung onc
T Updated	112	Total Shoulder Arthroplasty
2+ Weeks Ago (75)	111	DMBCwomed
This Week (2)	101	# Patients with Diabetes during CY2022
Within 24 Hours (1)	104	Pediatric ECMO 3.8.2023
Last Week (1)	100	COVID-19 Test
T Author		
medabp01 (11)		
sampaf01 (8)		
korieu01 (4)		

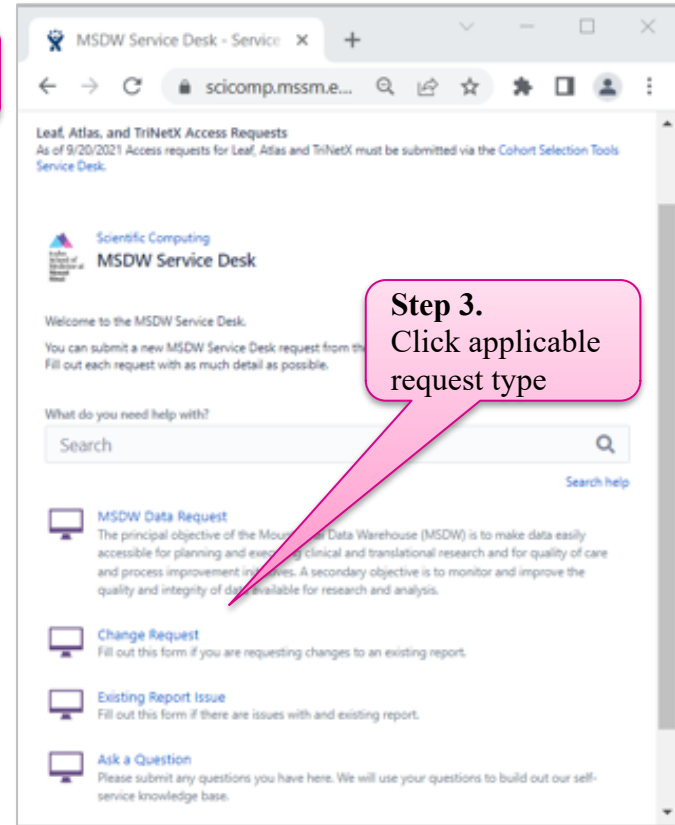
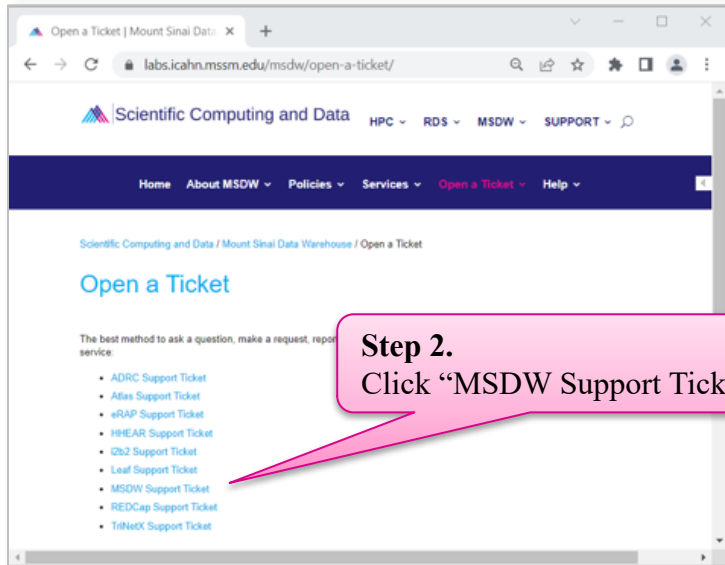
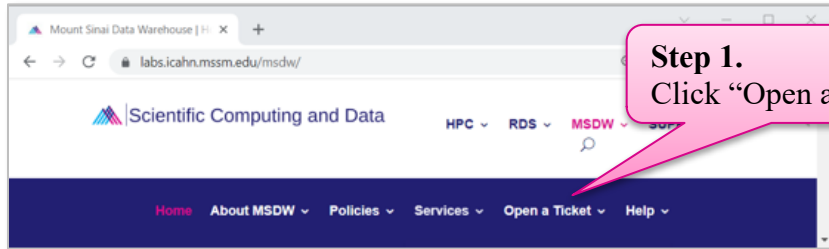
MSDW Custom Data Request

When You Need Custom Data

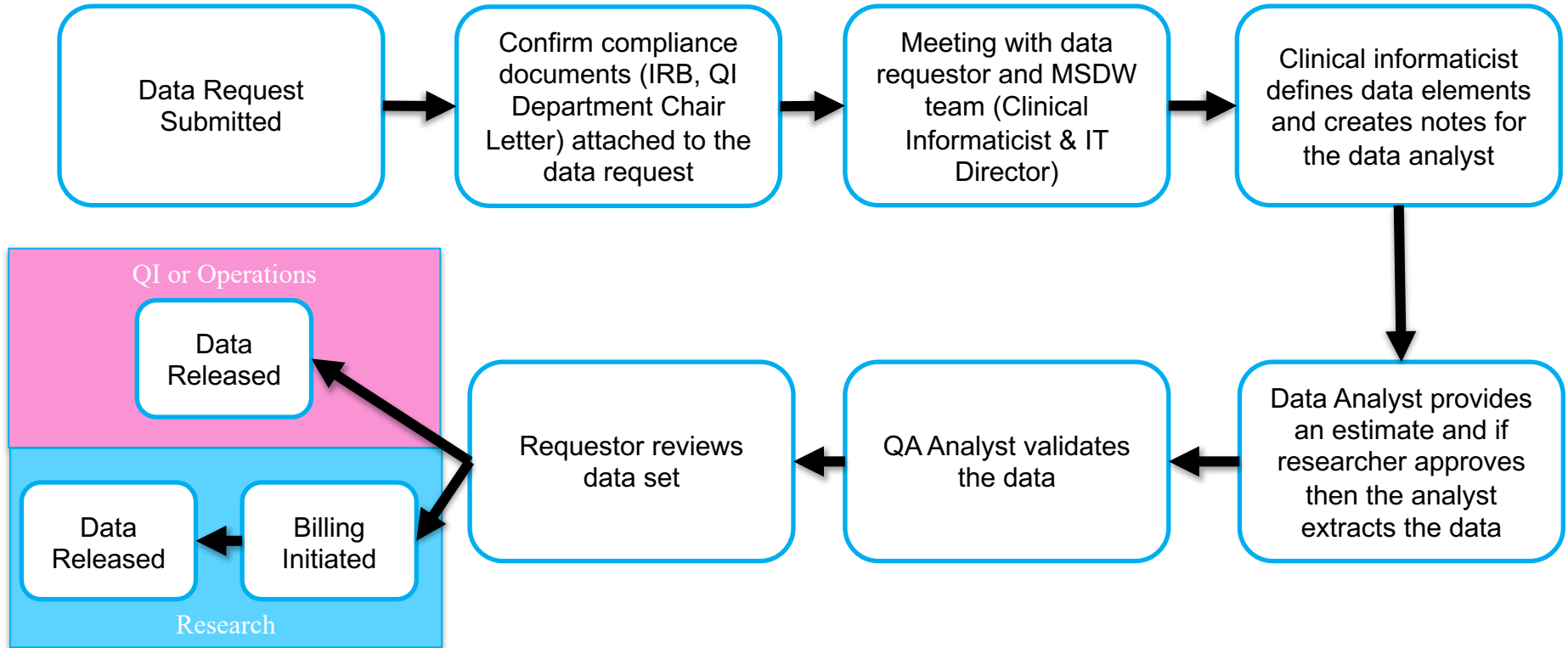
- ▶ Complex question that cannot be answered with one of the self-service query tools
- ▶ Need additional data that is not included in a de-identified data set
- ▶ Need PHI data for your analysis

<https://scicomp.mssm.edu/jira/servicedesk/customer/portal/4>

How to Open an MSDW Request Ticket



Workflow Once Data Request Submitted



JIRA ticketing system used to monitor the status of data requests

Acknowledgements

Encourage MSDW Users to Acknowledge CTSA

The screenshot shows the Mount Sinai Data Warehouse (MSDW) website. The browser address bar displays <https://labs.icahn.mssm.edu...>. The navigation bar includes links for Home, About MSDW, Policies, Services, Open a Ticket, and Help. The main heading is "Acknowledge Mount Sinai in Your Work". Below this, a paragraph states: "All publications must include the following language in the acknowledgments section: "This work was supported in part through the Mount Sinai Data Warehouse (MSDW) resources and staff expertise provided by Scientific Computing and Data at the Icahn School of Medicine at Mount Sinai."". A blue button labeled "SEE DATA USE AGREEMENT" is positioned below the paragraph. A pink callout box highlights the acknowledgment text. At the bottom of the page, a dark blue footer contains the copyright notice: "© 2023 Icahn School of Medicine at Mount Sinai | Privacy Policy". A second pink callout box highlights this footer text.

Mount Sinai Data Warehouse | S: x

<https://labs.icahn.mssm.edu...>

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Acknowledge Mount Sinai in Your Work

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SEE DATA USE AGREEMENT

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Your Publications

Report publications to Scientific Computing and Data:

All publications that resulted from Scientific Computing and Data resources and services, including Leaf and ATLAS, should be reported annually.

To report your publications, submit them here:

<https://redcap.mountsinai.org/redcap/surveys/?s=HPEMDCYLNTXF3E3E>

For 20 or more publications, email Maria at marajulia.castro@mssm.edu

Learn more about MSDW and Clinical Query tools from the links below:

<https://labs.icahn.mssm.edu/msdw/>

<https://labs.icahn.mssm.edu/msdw/services/>

<https://labs.icahn.mssm.edu/msdw/data-sources/>

“Walk-in” Digital Concierge service hosted by the MSDW

- Every Wednesday from 3:30 PM to 4:30 PM



Thank you!

Thank you for your time! We hope you enjoyed this presentation.

Please take a minute to complete a short survey to provide your feedback and help improve our services:



<https://redcap.link/6ovwc3pz>