

# Data Explorer

A new research tool brought to you by  
**University of California Research Exchange (UCReX)**

# Overview

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- *UC Data Explorer* and the *UC-ReX Virtual Clinical Data Repository*, with **11.8 million patient records** is one of the largest federated clinical data repositories in the US. In typically less than 30 seconds, *UC Data Explorer* allows authorized UC researchers to query de-identified diagnosis and procedure data across all patient records of the five UC academic medical centers in the *UC-ReX Virtual Repository*.

# Data Explorer Highlights

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- Includes select de-identified data from all 5 UC biomedical campuses:
  - Davis
  - Irvine
  - Los Angeles
  - San Diego
  - San Francisco
- Provides secure, web based, local access to a shared database network
- Includes patient demographics, diagnoses and procedures data
- Enables cohort discovery

# Demographic Variables

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- Age
- Ethnicity
- Gender
- Language
- Marital Status
- Race
- Religion

# Diagnosis: ICD-9 Codes

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- International Statistical Classification of Diseases and Related Health Problems
- A medical diagnosis ontology
- Selective granularity

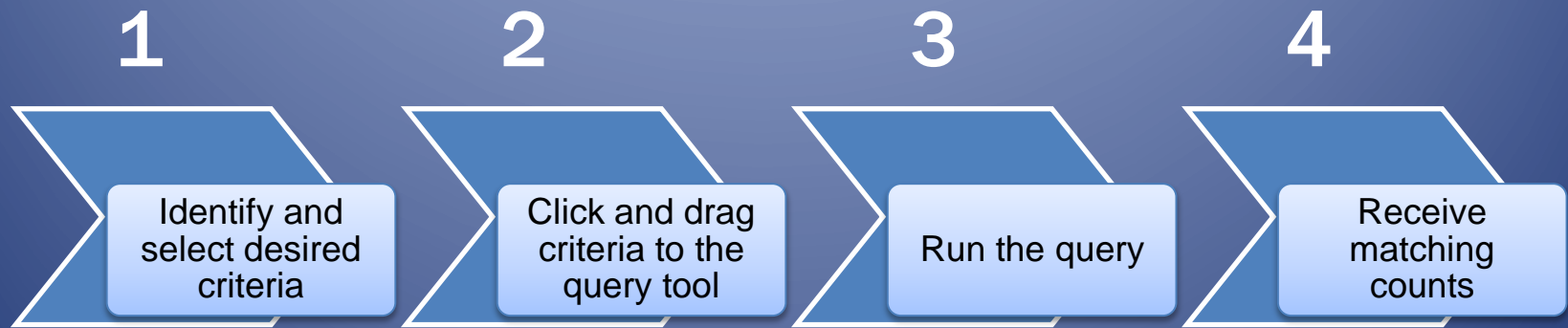
Example:

- Injury and Poisoning
  - Toxic effects of non-medicinal substances
    - Toxic effect of alcohol
      - Toxic effect of ethyl alcohol

# Identifying Cohorts

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Utilizing the tool is simple.



Navigate Terms

Find Terms

- SHRINE Ontology
  - Demographics
    - Age
    - Ethnicity
    - Gender
    - Language
    - Marital Status
    - Race
    - Religion
  - ICD-9-CM

**NAVIGATE** through

- Demographic variables
- ICD-9 codes

Query Tool

Query Name:

Group 1			Group 2			Group 3		
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude
drag a term to here								

Run Query   New Query   Print Query   0 Groups  

Previous Queries

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Query Status

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Navigate Terms **Find Terms**

Search by Names

Search by Codes

contains

diabetes

Find

Any Category

Alternatively, **SEARCH**  
for desired terms

- Diabetes insipidus(253.5)
- Diabetes mellitus complicating pregnancy, childbirth, or the puerperium(648.0)
- Diabetes mellitus complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication(648.03)
- Diabetes mellitus complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication(E
- Diabetes mellitus complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum conc
- Diabetes mellitus complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication(648.04)
- Diabetes mellitus complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable(6
- Diabetes mellitus with hyperosmolarity(250.2)
- Diabetes mellitus with hyperosmolarity, type I [juvenile type], not stated as uncontrolled(250.21)

Previous Queries

Query Tool

Query Name:

Group 1			Group 2			Group 3		
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude
drag a term to here								

Run Query

New Query

Print Query

0 Groups

New Group

Query Status



Navigate Terms Find Terms

- SHRINE Ontology
  - Demographics
    - Age
      - 0-9 years old
      - 10-17 years old
      - 18-34 years old
      - 35-44 years old
      - 45-54 years old
      - 55-64 years old
      - 65-74 years old
      - 75-84 years old
      - >= 65 years old
      - >= 85 years old
      - not recorded

**SELECT** desired variable(s) and drag into Query tool

Query Tool

Query Name:

Group 1			Group 2			Group 3		
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude
18-34 years old								

one or more of these AND drag a term to here

Run Query New Query Print Query 1 Group New Group

Previous Queries

Empty area for previous queries.

Query Status

Empty area for query status.

Navigate Terms

Find Terms

- malicious injury, excluding those with strain fracture(930-934)
- Late effects of injuries, poisonings, toxic effects, and other external causes(905-909)
- Open wound(870-897)
- Other and unspecified effects of external causes(990-995)
- Poisoning by drugs, medicinal preparations, poisons, and chemicals(900-904)
- Sprains and strains of joints and ligaments(860-869)
- Superficial injury(910-919)
- Toxic effects of substances chemically or physically defined(980-989)
  - Toxic effect of alcohol(980)
  - Toxic effect of carbon monoxide(981)
  - Toxic effect of corrosive acids, alkalis, and salts(982)
  - Toxic effect of lead and its compounds(983)
  - Toxic effect of noxious substances eaten as food(988)
  - Toxic effect of other gases, fumes, or vapors(987)
  - Toxic effect of other metals(985)

Once all desired variables have been selected, simply **RUN** the query

Query Tool

Query Name: 18-34-Femal-Toxic@23:21:30

Group 1			Group 2			Group 3				
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude		
	18-34 years old			Female			Toxic effect of carbon monoxide			
one or more of these			AND	one or more of these			AND	one or more of these		

Run Query New Query Print Query 3 Groups New Group

Previous Queries

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Query Status

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Navigate Terms

Find Terms

Query Tool

Query Name: 18-34-Femal-Toxic@23:22:54

**Finished Query: "18-34-Femal-Toxic@23:22:54"**

UCSF SHRINE - 10 patients or fewer

FINISHED [10.0 secs]

UCSD SHRINE - 10 patients or fewer

FINISHED [27.4 secs]

UCI SHRINE - 14 ±3 patients

FINISHED [19.1 secs]

UCD SHRINE - 18 ±3 patients

FINISHED [6.0 secs]

Toxic effect of noxious substances eaten as food(988)

Toxic effect of other gases, fumes, or vapors(987)

Toxic effect of other metals(986)

Run Query

New Query

Print Query

3 Groups

New Group

Previous Queries

Query Status

**Finished Query: "18-34-Femal-Toxic@23:22:54"**

UCSF SHRINE - 10 patients or fewer

FINISHED [10.0 secs]

UCSD SHRINE - 10 patients or fewer

FINISHED [27.4 secs]

UCI SHRINE - 14 ±3 patients

FINISHED [19.1 secs]

UCD SHRINE - 18 ±3 patients

FINISHED [6.0 secs]

Your query RESULTS  
will display upon  
completion