

NEW TOOLS & FEATURES:

# Using SHRINE and i2b2 for Feasibility Studies

Nich Wattanasin

Bhaswati Ghosh

David Wang

Shawn Murphy, MD, PhD

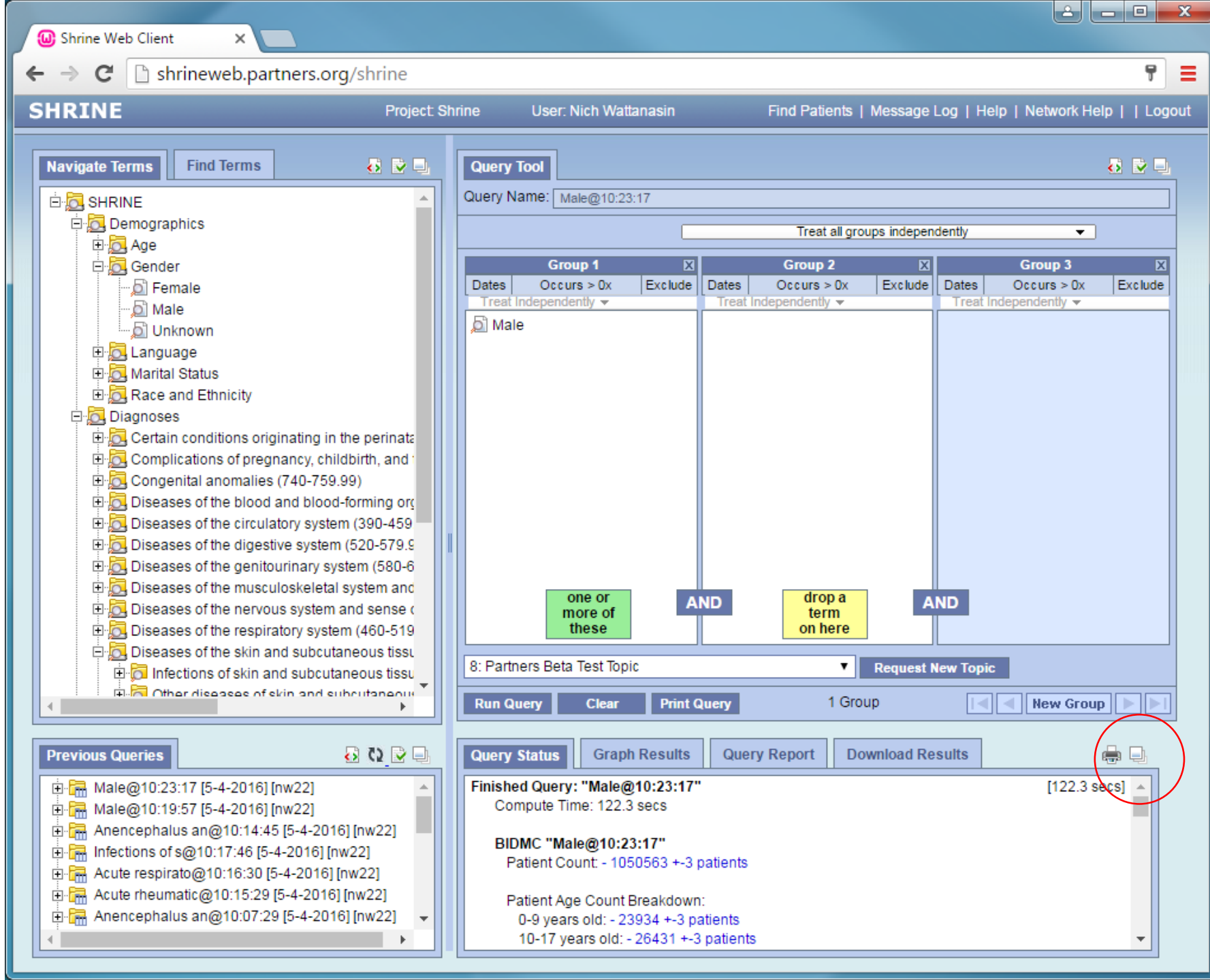
I2b2 AUG & SHRINE Annual Conference

June 21<sup>st</sup>, 2016

## NEW FEATURE:

# Zoom Query Status

User can now expand the query status window to view full screen results.



The screenshot displays the SHRINE web client interface. The browser address bar shows `shrineweb.partners.org/shrine`. The page header includes "SHRINE", "Project Shrine", "User: Nich Wattanasin", and navigation links: "Find Patients | Message Log | Help | Network Help | Logout".

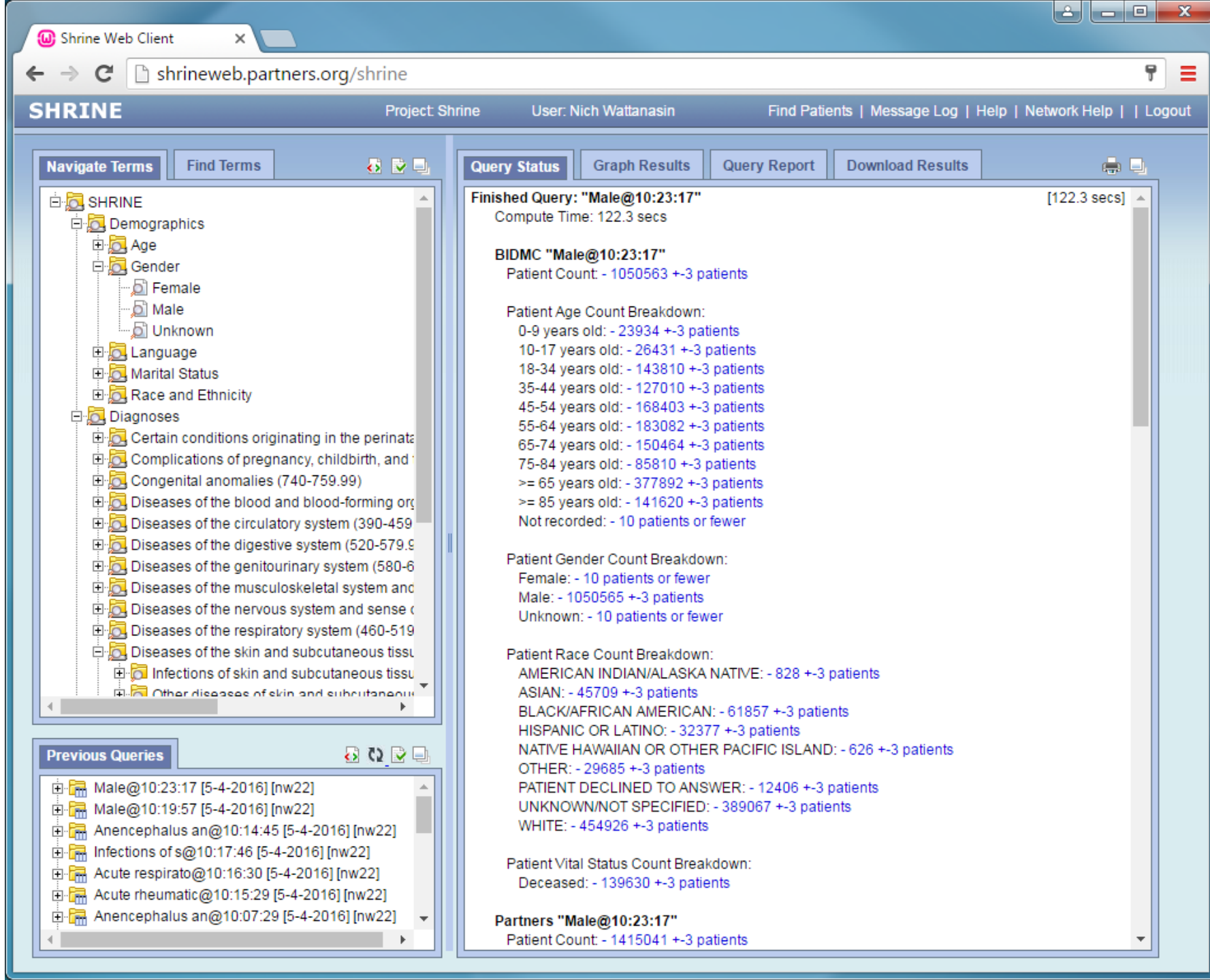
The main interface is divided into several sections:

- Navigate Terms / Find Terms:** A tree view on the left showing categories like Demographics (Age, Gender, Language, Marital Status, Race and Ethnicity) and Diagnoses (various medical conditions).
- Query Tool:** A central area for building queries. It shows a "Query Name" of "Male@10:23:17" and a dropdown set to "Treat all groups independently". Below this are three columns for "Group 1", "Group 2", and "Group 3", each with sub-columns for "Dates", "Occurs > 0x", and "Exclude". A "Male" term is visible in Group 1. There are buttons for "one or more of these", "AND", and "drop a term on here".
- Previous Queries:** A list of recent queries, including "Male@10:23:17 [5-4-2016] [nw22]".
- Query Status:** A window at the bottom right showing details for the "Finished Query: 'Male@10:23:17'" with a compute time of 122.3 seconds. It lists "BIDMC 'Male@10:23:17'" with a patient count of - 1050563 +3 patients and a "Patient Age Count Breakdown" showing 0-9 years old: - 23934 +3 patients and 10-17 years old: - 26431 +3 patients. A red circle highlights the "Print" and "Download" icons in the top right corner of this window.

## NEW FEATURE:

# Zoom Query Status

User can now expand the query status window to view full screen results.



The screenshot shows the SHRINE web client interface. The browser address bar displays `shrineweb.partners.org/shrine`. The page header includes "SHRINE", "Project Shrine", "User: Nich Wattanasin", and navigation links: "Find Patients | Message Log | Help | Network Help | Logout".

The main content area is divided into several sections:

- Navigate Terms / Find Terms:** A tree view showing the hierarchy of terms. The "Diagnoses" section is expanded, showing various medical categories like "Certain conditions originating in the perinatal period", "Complications of pregnancy, childbirth, and the puerperium", etc.
- Query Status:** A window titled "Finished Query: 'Male@10:23:17'" with a compute time of 122.3 seconds. It displays detailed breakdowns for:
  - BIDMC "Male@10:23:17":** Patient Count: - 1050563 +3 patients. Patient Age Count Breakdown: 0-9 years old: - 23934 +3 patients, 10-17 years old: - 26431 +3 patients, 18-34 years old: - 143810 +3 patients, 35-44 years old: - 127010 +3 patients, 45-54 years old: - 168403 +3 patients, 55-64 years old: - 183082 +3 patients, 65-74 years old: - 150464 +3 patients, 75-84 years old: - 85810 +3 patients, >= 65 years old: - 377892 +3 patients, >= 85 years old: - 141620 +3 patients, Not recorded: - 10 patients or fewer.
  - Patient Gender Count Breakdown:** Female: - 10 patients or fewer, Male: - 1050565 +3 patients, Unknown: - 10 patients or fewer.
  - Patient Race Count Breakdown:** AMERICAN INDIAN/ALASKA NATIVE: - 828 +3 patients, ASIAN: - 45709 +3 patients, BLACK/AFRICAN AMERICAN: - 61857 +3 patients, HISPANIC OR LATINO: - 32377 +3 patients, NATIVE HAWAIIAN OR OTHER PACIFIC ISLAND: - 626 +3 patients, OTHER: - 29685 +3 patients, PATIENT DECLINED TO ANSWER: - 12406 +3 patients, UNKNOWN/NOT SPECIFIED: - 389067 +3 patients, WHITE: - 454926 +3 patients.
  - Patient Vital Status Count Breakdown:** Deceased: - 139630 +3 patients.
- Partners "Male@10:23:17":** Patient Count: - 1415041 +3 patients.

- Previous Queries:** A list of recent queries, including "Male@10:23:17 [5-4-2016] [nw22]", "Male@10:19:57 [5-4-2016] [nw22]", "Anencephalus an@10:14:45 [5-4-2016] [nw22]", "Infections of s@10:17:46 [5-4-2016] [nw22]", "Acute respirato@10:16:30 [5-4-2016] [nw22]", "Acute rheumatic@10:15:29 [5-4-2016] [nw22]", and "Anencephalus an@10:07:29 [5-4-2016] [nw22]".

## NEW FEATURE:

# Graph Results

Query results can now be visualized as interactive graphs. Breakdown results are also graphed.

The screenshot displays the SHRINE web client interface. The browser address bar shows `shrineweb.partners.org/shrine`. The user is logged in as 'User: Nich Wattanasin'. The interface includes a navigation tree on the left, a 'Previous Queries' list at the bottom left, and a main content area with three interactive graphs.

**SHRINE Navigation Tree:**

- SHRINE
  - Demographics
    - Age
    - Gender
      - Female
      - Male
      - Unknown
    - Language
    - Marital Status
    - Race and Ethnicity
  - Diagnoses
    - Certain conditions originating in the perinatal period
    - Complications of pregnancy, childbirth, and the puerperium
    - Congenital anomalies (740-759.99)
    - Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
    - Diseases of the circulatory system (390-459.9)
    - Diseases of the digestive system (520-579.9)
    - Diseases of the genitourinary system (580-644.9)
    - Diseases of the musculoskeletal system and connective tissue
    - Diseases of the nervous system and sense organs
    - Diseases of the respiratory system (460-519.9)
    - Diseases of the skin and subcutaneous tissue
    - Infections of skin and subcutaneous tissue
    - Other diseases of skin and subcutaneous tissue

**Previous Queries:**

- Male@10:23:17 [5-4-2016] [nw22]
- Male@10:19:57 [5-4-2016] [nw22]
- Anencephalus an@10:14:45 [5-4-2016] [nw22]
- Infections of s@10:17:46 [5-4-2016] [nw22]
- Acute respirato@10:16:30 [5-4-2016] [nw22]
- Acute rheumatic@10:15:29 [5-4-2016] [nw22]
- Anencephalus an@10:07:29 [5-4-2016] [nw22]

**Patient Count (Pie Chart):**

Category	Count
BIDMC Patient Count	050563
Partners Patient Count	141504
DFCI Patient Count	(Small slice)

**Patient Age Count Breakdown (Stacked Bar Chart):**

Age Group	Partners Patient Count	BIDMC Patient Count	DFCI Patient Count
0-9 years old	0	0	~100,000
10-17 years old	0	0	~100,000
18-34 years old	0	~100,000	~300,000
35-44 years old	0	~100,000	~200,000
45-54 years old	0	~100,000	~200,000
55-64 years old	~10,000	~100,000	~200,000
65-74 years old	~10,000	~100,000	~200,000
75-84 years old	~10,000	~100,000	~100,000

**Patient Gender Count Breakdown (Bar Chart):**

Gender	Count
Male	~2,400,000
Female	~2,400,000
Unknown	~2,400,000

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# Graph Results

Query results can now be visualized as interactive graphs. Breakdown results are also graphed.

SHRINE Web Client

shrineweb.partners.org/shrine

SHRINE Project Shrine User: Nich Wattanasin Find Patients | Message Log | Help | Network Help | Logout

Navigate Terms Find Terms

- SHRINE
  - Demographics
    - Age
    - Gender
      - Female
      - Male
      - Unknown
    - Language
    - Marital Status
    - Race and Ethnicity
    - Diagnoses
      - Certain conditions originating in the perinatal period (900-909)
      - Complications of pregnancy, childbirth, and the puerperium (630-649)
      - Congenital anomalies (740-759.99)
      - Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (580-589)
      - Diseases of the circulatory system (390-459)
      - Diseases of the digestive system (520-579.9)
      - Diseases of the genitourinary system (580-629)
      - Diseases of the musculoskeletal system and connective tissue (710-739)
      - Diseases of the nervous system and sense organs (340-359)
      - Diseases of the respiratory system (460-519)
      - Diseases of the skin and subcutaneous tissue (610-629)
      - Infections of skin and subcutaneous tissue (040-059)
      - Other diseases of skin and subcutaneous tissue (680-689)

Query Status Graph Results Query Report Download Results

Number

Female Male

Patient Race Count Breakdown

Number of Patients

Asian	
BIDMC	45709
DFCI	3974
Partners	54687

AMERICAN INDIAN/ALASKA NATIVE

Patient Vital Status Count Breakdown

Number of Patients

Alive Deceased

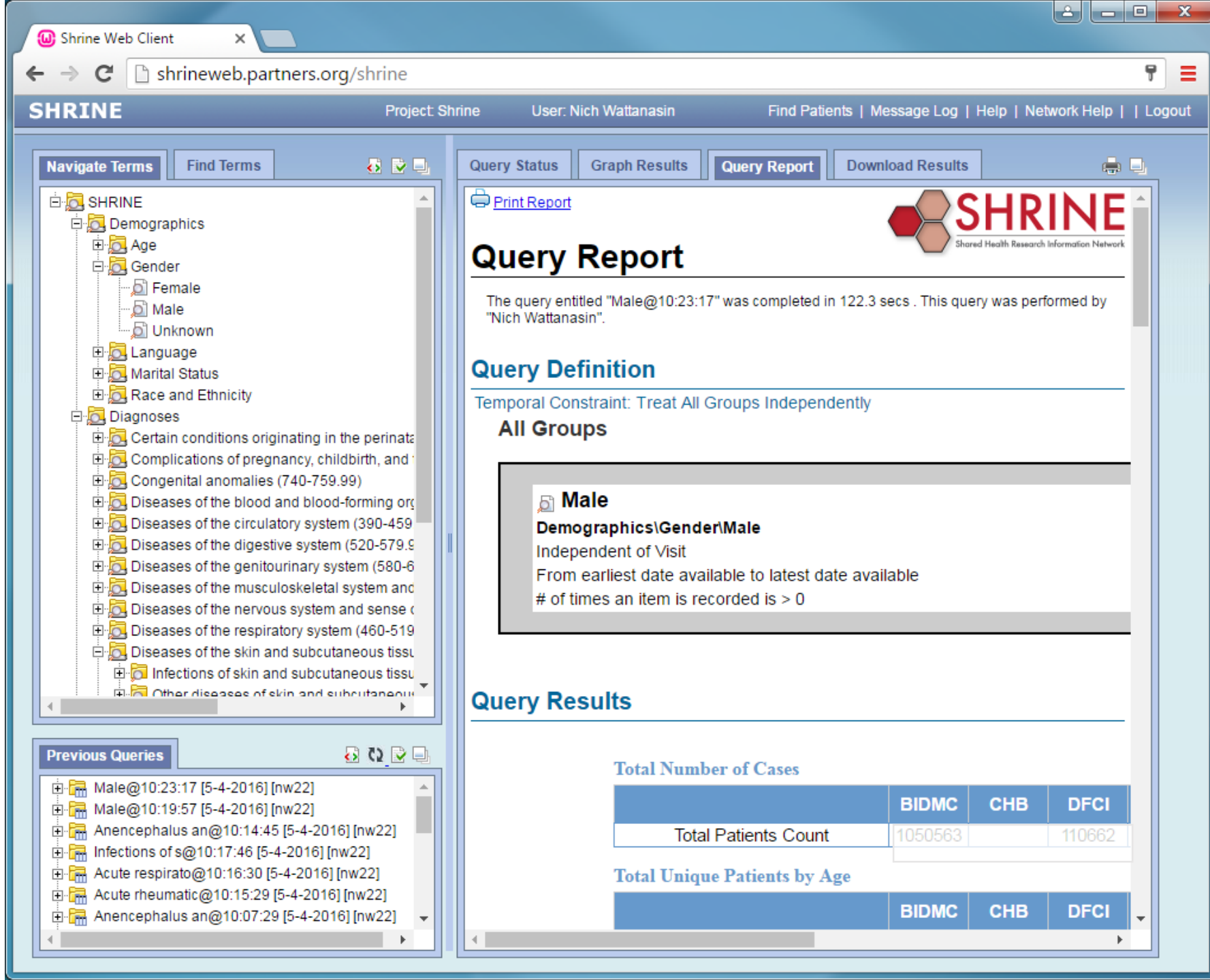
Previous Queries

- Male@10:23:17 [5-4-2016] [nw22]
- Male@10:19:57 [5-4-2016] [nw22]
- Anencephalus an@10:14:45 [5-4-2016] [nw22]
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- Acute respirato@10:16:30 [5-4-2016] [nw22]
- Acute rheumatic@10:15:29 [5-4-2016] [nw22]
- Anencephalus an@10:07:29 [5-4-2016] [nw22]

## NEW FEATURE:

# Print Query Report

A printer-formatted query report has been added allowing the user to easily print query results with graphs.



The screenshot shows the SHRINE web client interface. The browser address bar displays 'shrineweb.partners.org/shrine'. The user is identified as 'User: Nich Wattanasin'. The interface includes a navigation tree on the left, a 'Previous Queries' list at the bottom left, and a main content area on the right. The main content area is titled 'Query Report' and includes a 'Print Report' button, the SHRINE logo, and a summary of the query: 'The query entitled "Male@10:23:17" was completed in 122.3 secs. This query was performed by "Nich Wattanasin".' Below this is the 'Query Definition' section, which specifies 'Temporal Constraint: Treat All Groups Independently' and 'All Groups'. A highlighted box shows the definition for 'Male': 'Demographics\Gender\Male', 'Independent of Visit', 'From earliest date available to latest date available', and '# of times an item is recorded is > 0'. The 'Query Results' section contains two tables: 'Total Number of Cases' and 'Total Unique Patients by Age'.

**SHRINE**  
Shared Health Research Information Network

**Query Report**

The query entitled "Male@10:23:17" was completed in 122.3 secs . This query was performed by "Nich Wattanasin".

**Query Definition**

Temporal Constraint: Treat All Groups Independently

**All Groups**

**Male**  
Demographics\Gender\Male  
Independent of Visit  
From earliest date available to latest date available  
# of times an item is recorded is > 0

**Query Results**

**Total Number of Cases**

	BIDMC	CHB	DFCI
Total Patients Count	1050563		110662

**Total Unique Patients by Age**

	BIDMC	CHB	DFCI

## NEW FEATURE:

# Print Query Report

A printer-formatted query report has been added allowing the user to easily print query results with graphs.

The screenshot shows the Shrineweb Client interface. On the left, a print dialog is open with the following settings:

- Print**: Total: 3 sheets of paper. Buttons: **Print**, **Cancel**.
- Destination**: OCC79957. Button: **Change...**
- Pages**:  All,  e.g. 1-5, 8, 11-13
- Copies**: 1. Buttons: +, -
- Layout**: Portrait
- Color**: Color
- Options**:  Simplify page,  Two-sided
- + More settings**
- Print using system dialog... (Ctrl+Shift+P)**

On the right, the **Query Report** is displayed for the date 5/4/2016. The report title is "Query Report" and the SHRINE logo is visible. The query definition is "Male" with the following details:

- Male**
- Demographic/Gender/Male
- Independent of Visit
- From earliest date available to latest date available
- # of times an item is recorded is > 0

The **Query Results** section contains three tables:

**Total Number of Cases**

	BIDMC	CHB	DFCI	Partners
Total Patients Count	1050563		110662	1415041

**Total Unique Patients by Age**

	BIDMC	CHB	DFCI	Partners
Age <9 years old	23934		1532	96193
Age 10-17 years old	26431		2369	96960
Age 18-34 years old	143810		7385	262460
Age 35-44 years old	127010		6833	186527
Age 45-54 years old	168403		13601	208231
Age 55-64 years old	183082		23557	211216
Age 65-74 years old	150464		28132	180584
Age 75-84 years old	85810		18444	115227
Age >= 85 years old				48991
Age >= 65 years old	377892			353398
Age >= 85 years old	141620		8862	57591
Age Not recorded	0			0
Age > not recorded				0

**Total Unique Patients by Gender**

	BIDMC	CHB	DFCI	Partners
Gender Female	0		0	0
Gender Male	1050565		110663	1415036
Gender Unknown	0		0	0

**Total Unique Patients by Race**

	BIDMC	CHB	DFCI	Partners
Race AMERICAN INDIAN/ALASKA NATIVE	828			
Race Asian	45709		3974	54687
Race Aleutian				0
Race Am Ind Or Alaska Native/White				0
Race American Indian				2011
Race American Indian or Alaska Native			2005	
Race Asia/Nat Hawaii Or Oth Pac Isl			0	
Race Asian Pacific Islander				292
Race Asian/Amer Ind Or Alaska Nat			0	
Race Asian/White			0	
Race BLACK/AFRICAN AMERICAN	61857			
Race Black				55005
Race Black or African American			48650	
Race Black/Asian			0	
Race Black/White			1089	
Race Blk/Am Ind Or Alaska Native			0	
Race Blk/Nat Hawaii Or Oth Pac Isl			0	

The browser address bar shows "shrineweb.partners.org/shrine". The status bar at the bottom indicates "http://localhost:dev-shrine-webclient/#" and "1/3".

## NEW FEATURE:

# Download Results

Query results can now be tabular formatted and exported as an Excel/CSV file.

The screenshot shows the SHRINE web client interface. The browser address bar displays 'shrineweb.partners.org/shrine'. The page header includes 'SHRINE', 'Project Shrine', 'User: Nich Wattanasin', and navigation links like 'Find Patients', 'Message Log', 'Help', 'Network Help', and 'Logout'. The main content area is divided into several sections:

- Navigate Terms / Find Terms:** A tree view showing the hierarchy of terms under 'SHRINE', including Demographics (Age, Gender, Language, Marital Status, Race and Ethnicity) and Diagnoses (various medical conditions).
- Query Status / Graph Results / Query Report / Download Results:** A set of tabs with 'Download Results' selected. A 'Download CSV File' link is visible.
- SHRINE QUERY RESULTS (OBFUSCATED PATIENT COUNTS):** A table displaying patient counts for various age groups and genders across four institutions: BIDMC, CHB, DFCI, and Partners.
- Previous Queries:** A list of recent queries with details like 'Male@10:23:17 [5-4-2016] [nw22]'.

SHRINE QUERY RESULTS (OBFUSCATED PATIENT COUNTS)				
	BIDMC	CHB	DFCI	Partners
All Patients	1050563		110662	1415041
Age 0-9 years old	23934		1532	96193
Age 10-17 years old	26431		2369	96960
Age 18-34 years old	143810		7385	262460
Age 35-44 years old	127010		6833	186527
Age 45-54 years old	168403		13601	208231
Age 55-64 years old	183082		23557	211216
Age 65-74 years old	150464		28132	180584
Age 75-84 years old	85810		18444	115227
Age > 85 years old				48991
Age >= 65 years old	377892			353398
Age >= 85 years old	141620		8862	57591
Age Not recorded	0			
Age zz not recorded				0
Gender Female	0		0	0



# SHRINE

NEW FEATURE:

## Download Results

Query results can now be tabular formatted and exported as an Excel/CSV file.



The screenshot shows an Excel spreadsheet with the following data:

	BIDMC	CHB	DFCI	Partners
SHRINE QUERY RESULTS (OBFUSCATED PATIENT COUNTS)				
All Patients	1050563		110662	1415041
Age   0-9 years old	23934		1532	96193
Age   10-17 years old	26431		2369	96960
Age   18-34 years old	143810		7385	262460
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Age   75-84 years old	85810		18444	115227
Age   > 85 years old				48991
Age   >= 65 years old	377892			353398
Age   >= 85 years old	141620		8862	57591
Age   Not recorded	0			
Age   zz not recorded				0
Gender   Female	0		0	0
Gender   Male	1050565		110663	1415036
Gender   Unknown	0		0	0
Race   AMERICAN INDIAN/ALASKA NATIVE	828			
Race   Asian	45709		3974	54687
Race   Aleutian				0
Race   Am Ind Or Alaska Native/White			0	
Race   American Indian				2011
Race   American Indian or Alaska Native			2005	
Race   Asia/Nat Hawaii Or Oth Pac Isl			0	
Race   Asian Pacific Islander				292
Race   Asian/Amer Ind Or Alaska Nat			0	
Race   Asian/White			0	

## EXISTING FEATURE:

# Flagging Query

SHRINE queries of interest can be flagged with a custom message to be later identified/retrieved by a local site administrator.

The screenshot shows the SHRINE web client interface. The browser address bar displays `shrineweb.partners.org/shrine`. The page header includes "SHRINE", "Project Shrine", "User: Nich Wattanasin", and navigation links like "Find Patients", "Message Log", "Help", "Network Help", and "Logout".

The main interface is divided into several sections:

- Navigate Terms / Find Terms:** A tree view on the left shows a hierarchy of terms under "SHRINE", including "Demographics" (Age, Gender, Language, Marital Status, Race and Ethnicity) and "Diagnoses" (various medical conditions).
- Query Tool:** A central area for building queries. It shows a "Query Name" of "Male@10:23:17" and a dropdown set to "Treat all groups independently". Below this are three columns for "Group 1", "Group 2", and "Group 3", each with sub-columns for "Dates", "Occurs > 0x", and "Exclude". A "Male" term is visible in the first group. A yellow box says "drop a term on here" and an "AND" button is present.
- Previous Queries:** A list of recent queries. A context menu is open over the query "Male@10:23:17 [5-4-2016]", showing options: "Rename", "Delete", "Refresh All", "Flag" (highlighted), and "Unflag".
- Query Status / Graph Results / Query Report / Download Results:** A section at the bottom right with a "Download CSV File" link and a table of results.

The table at the bottom right is titled "SHRINE QUERY RESULTS (OBFUSCATED PATIENT COUNTS)":

	BIDMC	CHB	DFCI	Partners
All Patients	1050563		110662	1415041

## EXISTING FEATURE:

# Flagging Query

SHRINE queries of interest can be flagged with a custom message to be later identified/retrieved by a local site administrator.

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The main interface is divided into several sections:

- Navigate Terms / Find Terms:** A tree view on the left showing categories like Demographics (Age, Gender, Language, etc.), Diagnoses, and Previous Queries.
- Query Tool:** A central area for building queries. It includes a "Query Name" field (containing "Male@10:23:17"), a dropdown for "Treat all groups independently", and a table with columns for "Group 1", "Group 2", and "Group 3". Each group has sub-columns for "Dates", "Occurs > 0x", and "Exclude".
- Flag Query Dialog:** A modal dialog box is open, titled "Flag Query". It contains the text "Please type a message:" followed by a text input field containing "Flagged Query of Interest". There are "OK" and "Cancel" buttons at the bottom.
- Previous Queries:** A list at the bottom left showing recent queries such as "Male@10:23:17 [5-4-2016] [nw22]".
- Query Status / Graph Results / Query Report / Download Results:** A section at the bottom right with a "Download CSV File" link and a table of results.

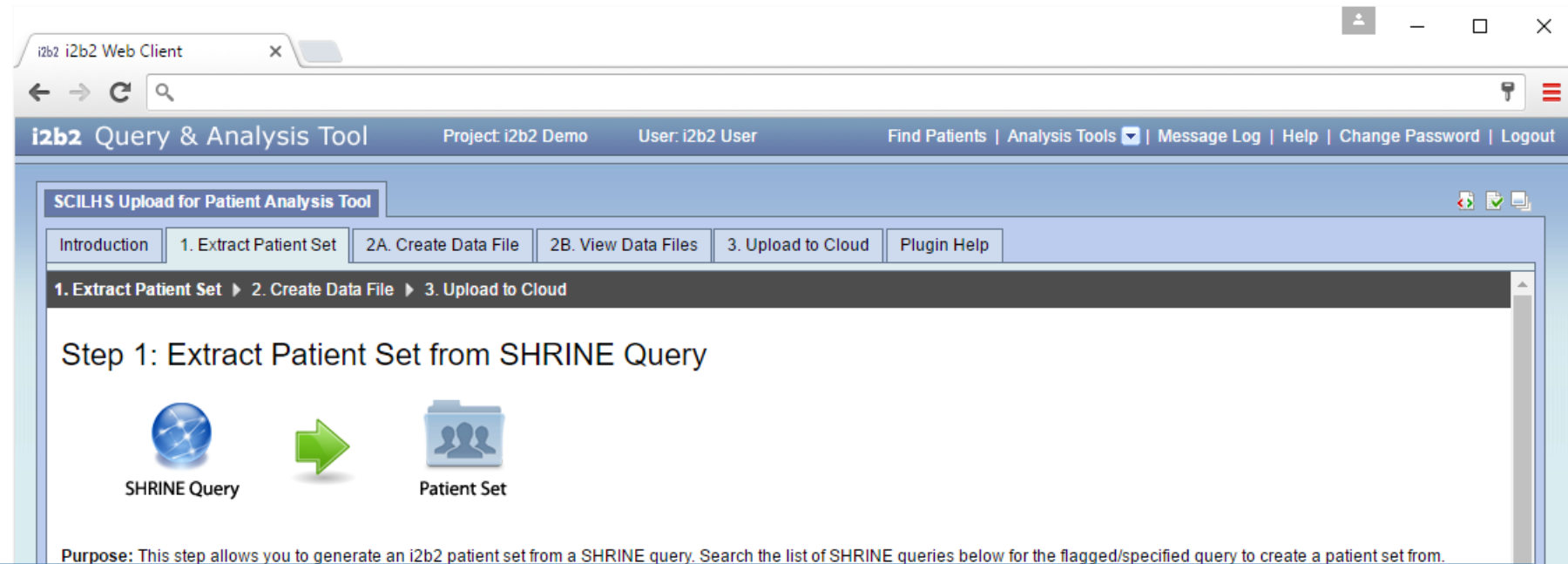
The "SHRINE QUERY RESULTS (OBFUSCATED PATIENT COUNTS)" table is as follows:

	BIDMC	CHB	DFCI	Partners
All Patients	1050563		110662	1415041

## NEW PLUGIN:

Extract Patient Sets  
from SHRINE

From the local i2b2, the designated administrator finds the flagged SHRINE



SCILHS Upload for Patient Analysis Tool









Introduction | 1. Extract Patient Set | 2A. Create Data File | 2B. View Data Files | 3. Upload to Cloud | Plugin Help

1. Extract Patient Set > 2. Create Data File > 3. Upload to Cloud

Step 1: Extract Patient Set from SHRINE Query

SHRINE Query → Patient Set

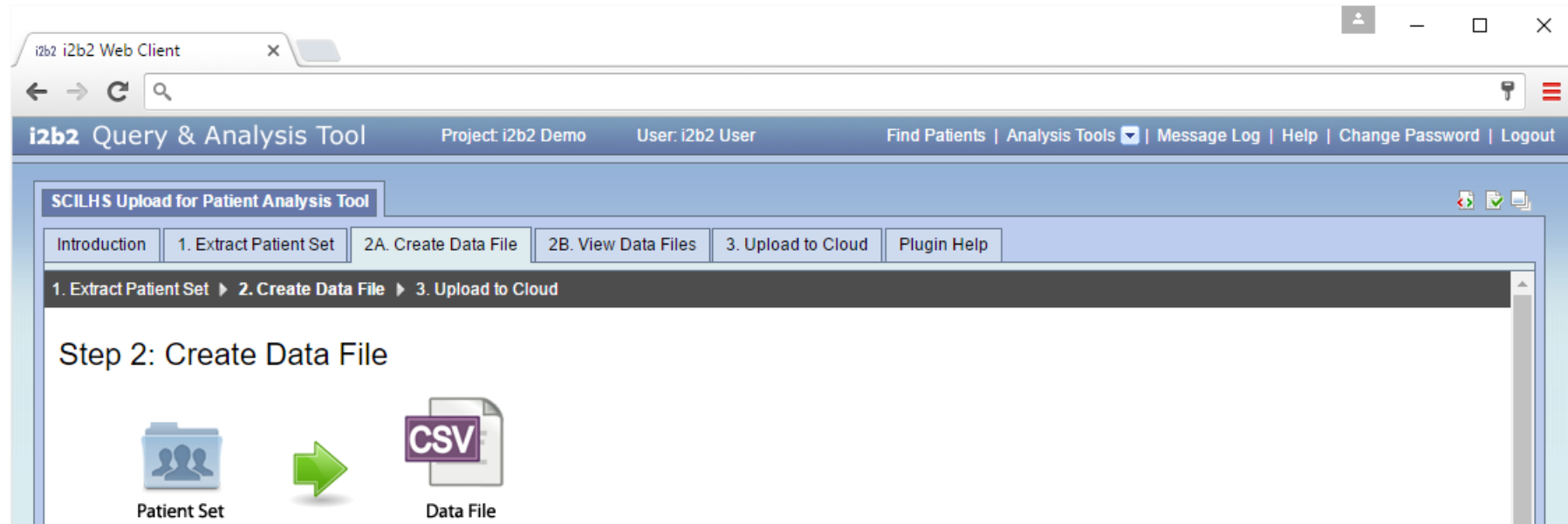
Purpose: This step allows you to generate an i2b2 patient set from a SHRINE query. Search the list of SHRINE queries below for the flagged/specified query to create a patient set from.

User ID	SHRINE Query Name	Timestamp	Flagged	Comment	Actions
researcher	 Rheumatic chore@11:30:14 [5-17-2016]	2016-05-17T11:30:21.387-04:00	Yes	Testing 123	Load Query   Create Patient Set
researcher	 Rheumatic chore@10:04:14 [5-17-2016]	2016-05-17T10:04:24.467-04:00	Yes	This looks like a great query.	Load Query   Create Patient Set
researcher	 Anencephalus an@10:26:38 [5-16-2016]	2016-05-16T10:26:48.743-04:00	Yes	No Message	Load Query   Create Patient Set
researcher	 Maternal causes@09:25:47 [5-11-2016]	2016-05-11T09:26:07.567-04:00	Yes	Testing 123	Load Query   Create Patient Set
researcher	 Unknown@13:39:55 [5-9-2016]	2016-05-09T13:40:07.460-04:00	Yes	Testing Flag	Load Query   Create Patient Set
researcher	 Male@10:23:17 [5-4-2016]	2016-05-04T10:23:50.893-04:00	Yes	No Message	Load Query   Create Patient Set
researcher	 Maternal causes@09:11:30 [4-26-2016]	2016-04-26T09:11:38.323-04:00	Yes	No Message	Load Query   Create Patient Set
researcher	 Rheumatic chore@02:01:36 [1-30-2015]	2015-01-30T02:01:40.463-05:00	Yes	No Message	Load Query   Create Patient Set

NEW PLUGIN:

## Patient Set Downloader

From the local i2b2, the designated



Previous Query:

Rx Si-Chemi-Diagn@21:01:26 [Patient Set]

Concept(s)

OR [Load Table Definition](#)

Drag & Drop additional concepts here from *Navigate Terms*

Concept	Constraints	Aggregation Option	Include In File
Patient ID		Value ▼	<input checked="" type="checkbox"/>
Sex		Value ▼	<input checked="" type="checkbox"/>
Age in Years		Value ▼	<input checked="" type="checkbox"/>
Birth Year		Value ▼	<input checked="" type="checkbox"/>
Race		Value ▼	<input checked="" type="checkbox"/>
Diseases of the circulatory system		All Concepts (Codes) ▼	<input checked="" type="checkbox"/>

Aggregation Option	Description
Existence (Yes/No)	Whether or not patient has observation
Date (First)	Date of earliest observation
Date (Most Recent)	Date of the most recent observation
Count	Total number of observations
All Concepts (Names/Text)	All concept names are listed
Most Frequent Concept (Names/Text)	Most frequent concept name
All Concepts (Codes)	All concept codes are listed
Most Frequent Concept (Codes)	Most frequent concept code
Minimum Value	Minimum value of all numerical values observations
Maximum Value	Maximum value of all numerical values observations
Median Value	Median value of all numerical values observations
Average Value	Average value of all numerical values observations
Mode (Most Frequent Value)	Most frequent value for numerical, enum, blob observations
List of All Values	List of all values for numerical, enum, blob observations

## NEW PLUGIN:

## Manage Data Files

From the local i2b2, the designated administrator finds the flagged SHRINE network query.

i2b2 i2b2 Web Client


i2b2 Query & Analysis Tool Project: i2b2 Demo User: i2b2 User Find Patients | Analysis Tools | Message Log | Help | Change Password | Logout

SCILHS Upload for Patient Analysis Tool


Introduction | 1. Extract Patient Set | 2A. Create Data File | 2B. View Data Files | 3. Upload to Cloud | Plugin Help


1. Extract Patient Set ▶ 2. Create Data File ▶ 3. Upload to Cloud

### Step 2: View Data Files



Patient Set





Data File

**Purpose:** This step will enable you to automatically create the Data File in CSV format. Drag & Drop a Previous Query with a Patient Set, and one or more Concepts (Ontology Terms) into the input boxes below, and then click the "Render Patient View Table" button to start the creation process.

**Results:**

User ID	Timestamp	Patient Set Size	Aggregation Options	Status
pcori	2016-06-13T11:30:21.387-04:00	133	<ul style="list-style-type: none"> <li>Patient ID [Value]</li> <li>Sex [Value]</li> <li>Age in Years [Value]</li> <li>Birth Year [Value]</li> <li>Race [Value]</li> <li>Diseases of the circulatory system [All Concepts (Codes)]</li> </ul>	<b>Completed!</b> <a href="#">Download CSV</a>   <a href="#">Upload to Cloud</a>
pcori	2016-06-13T10:04:24.467-04:00	133	<ul style="list-style-type: none"> <li>Thoracic aortic aneurysm- without rupture [Existence (Yes/No)]</li> <li>Thoracic aortic aneurysm- ruptured [Existence (Yes/No)]</li> <li>Aortic dissection-Oncall [Existence (Yes/No)]</li> </ul>	Cancelled by User

[Continue to Step 3: Upload to Cloud >](#)

## NEW FEATURE:

## CSV Data File

Data is pivoted into a one patient per line in the CSV file output

	A	B	C	D	E	F
1	Patient ID	Sex	Age in Years	Birth Year	Race	Diseases of the circulatory system
2	1000000029	M	25	1985	hispanic	ICD9:448.9 (2)
3	1000000001	F	24	1985	black	ICD9:458.9 (2), ICD9:427.9 (2)
4	1000000033	M	28	1981	asian	ICD9:401.9 (2)
5	1000000007	M	29	1981	asian	ICD9:427.89 (2), ICD9:427.9 (1)
6	1000000003	M	41	1969	asian	ICD9:427.31 (1), ICD9:401.9 (1)
7	1000000040	M	18	1992	black	ICD9:427.32 (2)
8	1000000023	M	33	1976	hispanic	ICD9:424.0 (2)
9	1000000009	F	21	1989	hispanic	ICD9:394.9 (2), ICD9:401.9 (2), ICD9:427.31 (2)
10	1000000016	F	26	1983	indian	ICD9:429.3 (1)
11	1000000012	F	19	1991	black	ICD9:401.9 (2)
12	1000000046	M	18	1991	hispanic	ICD9:425.4 (1)
13	1000000064	M	25	1984	asian	ICD9:423.9 (1), ICD9:427.1 (2)
14	1000000041	M	16	1994	hispanic	ICD9:427.89 (1)
15	1000000052	M	38	1972	asian	ICD9:427.9 (1)
16	1000000002	F	38	1972	asian	ICD9:410.60 (1)
17	1000000050	F	21	1989	black	ICD9:401.9 (1)
18	1000000049	M	44	1966	black	ICD9:454.9 (1)
19	1000000047	M	39	1971	black	ICD9:456.4 (2)
20	1000000044	M	16	1994	asian	ICD9:447.6 (1)
21	1000000042	F	31	1979	black	ICD9:443.9 (1)
22	1000000028	M	41	1969	hispanic	ICD9:401.9 (1)
23	1000000063	F	48	1962	black	ICD9:443.0 (1)
24	1000000024	M	30	1979	black	ICD9:427.9 (2)
25	1000000061	M	41	1969	asian	ICD9:427.9 (1)
26	1000000037	M	19	1991	indian	ICD9:401.9 (1)
27	1000000074	F	45	1964	hispanic	ICD9:414.9 (2)



*Thank you!*

DEVELOPERS:

Nich Wattanasin  
David Wang  
Bhaswati Ghosh  
Reeta Metta

I2B2 TEAM:

Mike Mendis  
Lori Phillips  
Janice Donahoe  
Wayne Chan

LEADERSHIP:

Shawn Murphy  
Vivian Gainer  
Doug MacFadden

SPECIAL THANKS:

SHRINE Team