

User Guide to i2b2 Web Client Plugins

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Navigating Plugins

Note: When running a query, select the “patient set” option in the “Run Query” pop-up box to produce a patient set necessary to use plugins.

Access the plugins page by clicking “Analysis Tools” in the top right-hand corner of the screen.

Select desired plugin from the “Plugins” field at the bottom of the screen.

The Tabs:

- Select the “**Specify Data**” tab to provide input.

To locate your patient set(s), expand your query folder under “Previous Queries” in the lower left-hand corner, expand the results folder, and drag the patient set into the appropriate box. If you do not have a patient set, see the **Note** above.

Drag and drop one or more concepts (ontology terms) from the “Navigate Terms” field into the concepts input box, when applicable.

- Select the “**View Results**” tab to see results.
- Select the “**Plugin Help**” tab for more detailed information about the plugin.

ExportXLS

This plugin creates a table of user-selected concepts as they are observed on a user-selected set of de-identified patients, with the option to download the resulting table as a file.

For more information, see <https://community.i2b2.org/wiki/display/ExportXLS/ExportXLS+Home>.

Instructions for Use:

1. Follow the instructions under the “Specify Data” tab. Drag and drop a patient set and one or more concepts into the input boxes.

Note: It is important to specify a subset of the patient set to use if your query contains thousands of patients and/or lots of concepts. This can overwhelm the server (i2b2 hive) and cause it to fail, resulting in no result returned.

The 'Number of Patients' contains all patients by default. If you would like to split up a group of 1000 patients, you may first specify 500 with 'Starting Patient' 1, then 500 more starting with 501, for example. Specify a "Query Subgroup Size", generally 20 to 50, to break a patient set into smaller subgroups to be run individually before being recombined.

For more information, click the "Help" button next to the input boxes.

2. Navigate to the "Output Options" tab to select the output format and options. For more detailed descriptions, see the "Plugin Help" tab.

'Resolve Concept/Modifier Codes' outputs the denotations of concept codes. For example, male gender will be displayed in the table as `Male [DEM|SEX:m]` instead of `DEM|SEX:m`.

'Include Ontology Path of Concepts' outputs the ontology path to the concept code. For example, a male gender concept code in Demo displays as

`[\i2b2_DEMO\i2b2\Demographics\Gender\Male\DEM|SEX:m]` instead of `[DEM|SEX:m]`.

Note: Checking 'Resolve Concept/Modifier Codes' and/or 'Include Ontology Path of Concepts' will require massive database querying and can therefore cause a very long running time or crash. Select these options only when you are no longer varying your query and are ready to export your dataset.

Note: The default export CSV file encloses all data cells in quotation marks ("), which can confuse some statistics software. Check the 'Exclude CSV Cell Delimiter (") Where Possible' box to resolve this. Cells with special characters will still be enclosed in quotation marks and will have to be removed manually.

3. Finally, select the "View Results" tab.

The **CSV Export** button will download a comma separated values file named 'i2b2-export_patient-observations_[timestamp].csv' onto your desktop.

The **HTML/XLS Export** button will download an HTML encoded file named 'i2b2-export_patient-observations_[timestamp].html.xls' that can be directly opened in Excel. If you wish to open it in a web browser, simply remove the '.xls' suffix.

Result Table for >65 years old Patient Set with a Gender Concept:

Click on one of the buttons on the right to download the following table in the appropriate format.

CSV Export

HTML/XLS Export

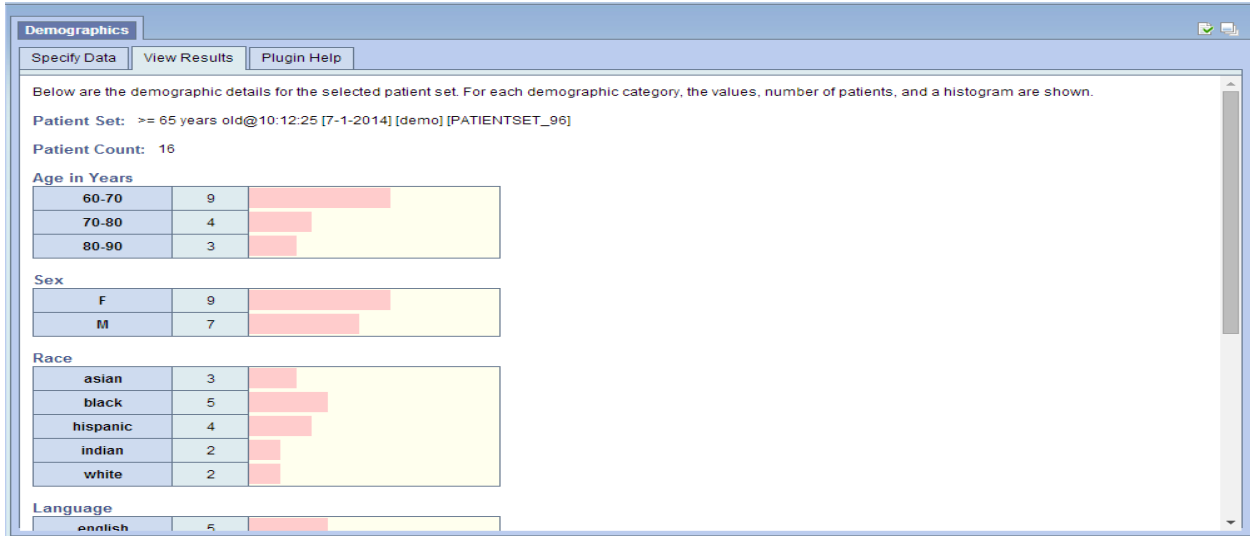
Patient Information (for patients 1 - 17)
of Patient Set '>= 65 years old@10:12:25 [7-1-2014] [demo] [PATIENTSET_06]'

	Patient ID	Gender
1	1000000076	DEM SEX:m
2	1000000013	DEM SEX:f
3	1000000083	DEM SEX:f
4	1000000025	DEM SEX:f
5	1000000018	DEM SEX:m
6	1000000085	DEM SEX:f
7	1000000045	DEM SEX:f
8	1000000026	DEM SEX:m
9	1000000043	DEM SEX:m
10	1000000054	DEM SEX:f
11	1000000071	DEM SEX:f
12	1000000096	DEM SEX:f
13	1000000105	DEM SEX:m
14	1000000108	DEM SEX:m
15	1000000109	DEM SEX:m

Demographics (1 Patient Set)- Simple Counts

This plugin displays demographic information about a patient set across several different categories, including age, sex, race, language, and vital status(vital status only covers patients who died at the hospital at any given time).

Sample output:



Instructions for Use:

1. Follow the instructions under the "Specify Data" tab. Drag and drop a small* patient set into the input box.

* A patient set of 1000 ran in under 1 second with no issues.

2. Select the "View Results" tab to retrieve demographic details, including a patient count and the values, number of patients, and histogram representation for each demographic category.

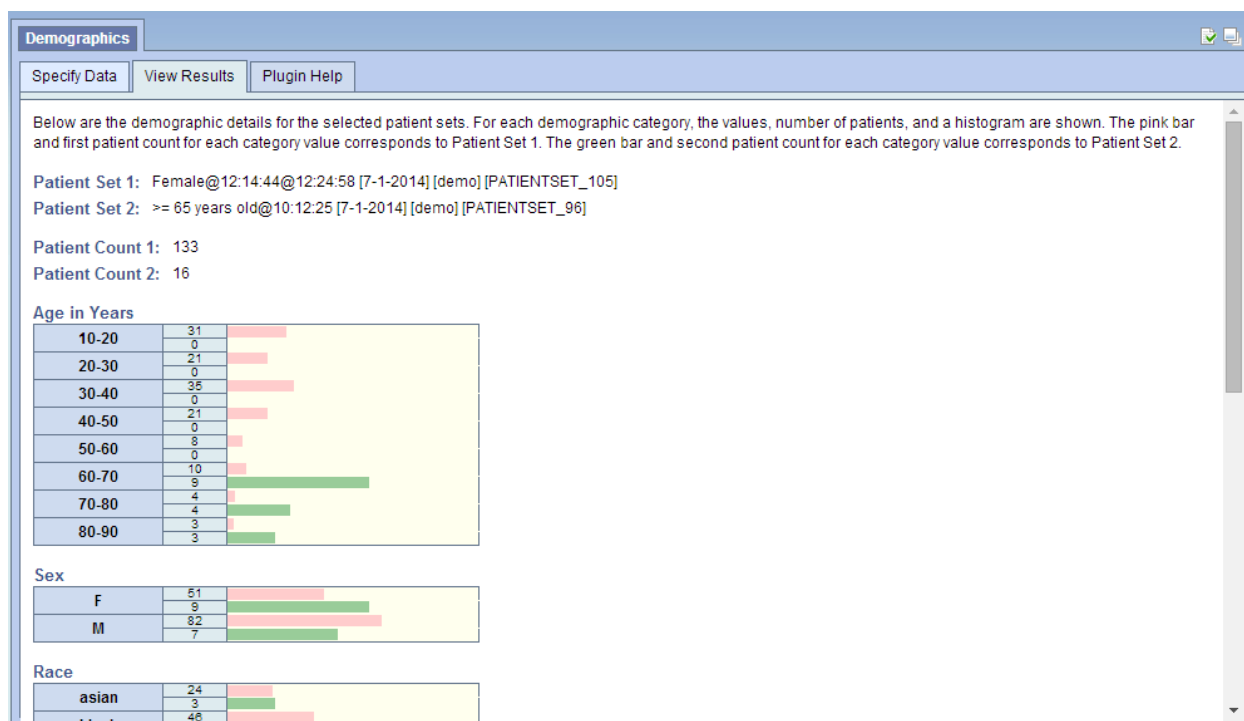
Demographics (2 Patient Sets)- Simple Counts

This plugin provides the same output as the Demographics 1 plugin above, but in the form of a comparison between two patient sets.

Patient Set 1 is always shown in pink while patient set 2 is shown in green.

The top count for each demographic subcategory represents Patient Set 1 while the bottom count represents Patient Set 2.

Sample output:



Instructions for Use:

1. Follow the instructions under the "Specify Data" tab. Drag and drop two small patient sets into the input box.
2. Select the "View Results" tab to retrieve demographic details, including a patient count and the values, number of patients, and histogram representation for each demographic category. A description on how to read the results is provided.

Timeline

This plugin displays patient data on a graphical timeline, creating a visual representation of when selected concepts are observed within a given patient set.

Instructions for Use:

1. Follow the instructions under the "Specify Data" tab. Drag and drop a small patient set and one or more concepts into the input boxes. Each instance of the concepts will be shown on the timeline for each patient in the patient set.
2. Select the "View Results" tab to create the timeline. The first ten patients are shown by default. Adjust which patients are shown using the arrows in the top left corner or the "start" and "size" boxes, specifying how many patients to display starting with which patient number. Displaying many patients at once will take longer than scrolling through several pages of patients.

The time scale at the top of the timeline indicates the start and end range of data being shown. Use the zoom and pan buttons at the top right to change the visible date range.

Click on a mark on the timeline to bring up the "Observation Details" for that specific event, including the event ID, patient ID, concept ID, observer ID, start date, and time value character.

Timeline Output for >65 years old Patient Set and Diagnoses Concept:

