Westat

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WesDaX® Quick Start Guide

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WesDaX® Quick Start Guide

WesDaX enables clients, collaborators, and Westat staff to run online analyses and display various types of reports quickly without programming and without directly exposing individual records. The WesDaX demonstration site (https://www.wesdax.com) provides a means of familiarizing yourself with WesDaX using real data. With WesDaX, you can create a simple summary table from a complex survey sample in less than 20 seconds with only four clicks. This guide will show you how to get off to a quick start exploring the data.

There are five required steps to get a result:

- Step 1: Log in
- Step 2: Click on "Create a Query"
- Step 3: Select a year
- Step 4: Select a topic
- Step 5: Get results

A number of optional steps provide additional ways to examine the data:

- Step 6: Cross-tabulations
- Step 7: Statistical options and population limits

Each of these steps is described in a separate section below.

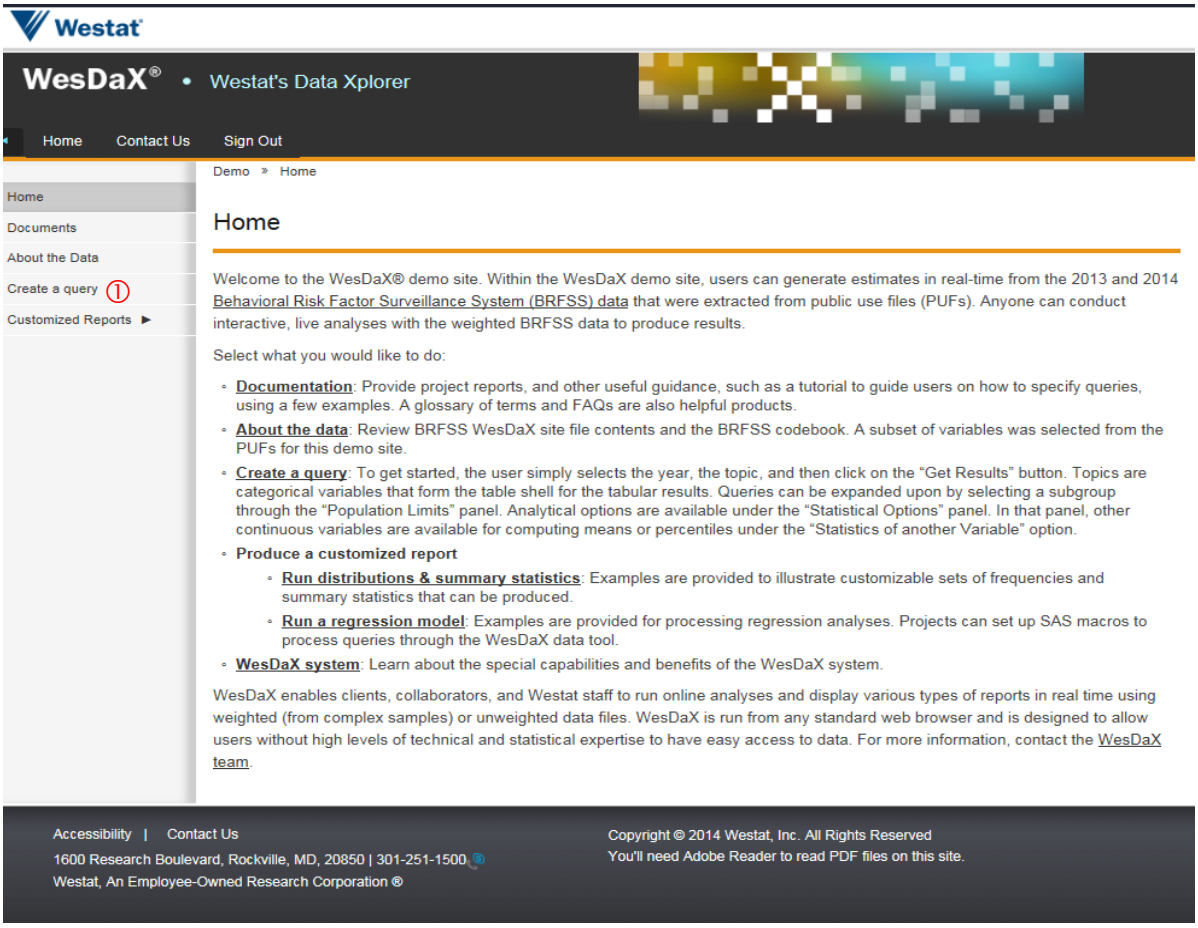
Step 1: Log in with the User Name (Email) "demouser" and the Password "Westat!1"

The site has been set up with multiple public use datasets. For this guide, we use 2013 and 2014 data from the Behavioral Risk Factor Surveillance System (BRFSS). You can get more information about the BRFSS data from the "About the Data" link on the WesDaX home screen (see Figure 1).

The "Documents" link on the left-hand side of the screen contains a number of documents created outside of WesDaX that demonstrate the ability for a project to disseminate information that may be of interest to users.

The "Customized Reports" links show some of the power of WesDaX in action. For the purposes of this guide, we will use the "Create a Query" link ① (see Figure 1).

Figure 1. Home screen



You can use WesDaX to summarize datasets in many ways including simple frequency counts and crosstabs. You can then display the summary information in a variety of tables, charts, and graphs. Steps 2 through 7 show you how WesDaX works.

Step 2: Click on the "Create a Query" link① in the left panel of the Home screen to see the START NEW QUERY screen (see Figure 2).

Figure 2. START NEW QUERY screen

The three tabs you need initially to run analyses are YEAR, TOPIC(S), and GET RESULTS. Tabs OPTIONAL FILTERS and SAVED QUERIES let you produce more elaborate analyses and re-use previously used queries.

1. **YEAR:** Select 2013, 2014, or both (option "Include All").
2. **TOPICS:** Choose the variable(s) to analyze.
3. **GET RESULTS:** View the results.
4. **OPTIONAL FILTERS:** Refine your query after you have seen initial results.
   A. The POPULATION LIMITS panel lets you subset data to your population of interest.
   B. The STATISTICAL OPTIONS panel lets you add another variable to compute means, percentiles, or ratios.
5. **SAVED QUERIES:** Re-use a query you have already developed if you saved it.

Step 3: Select a Year

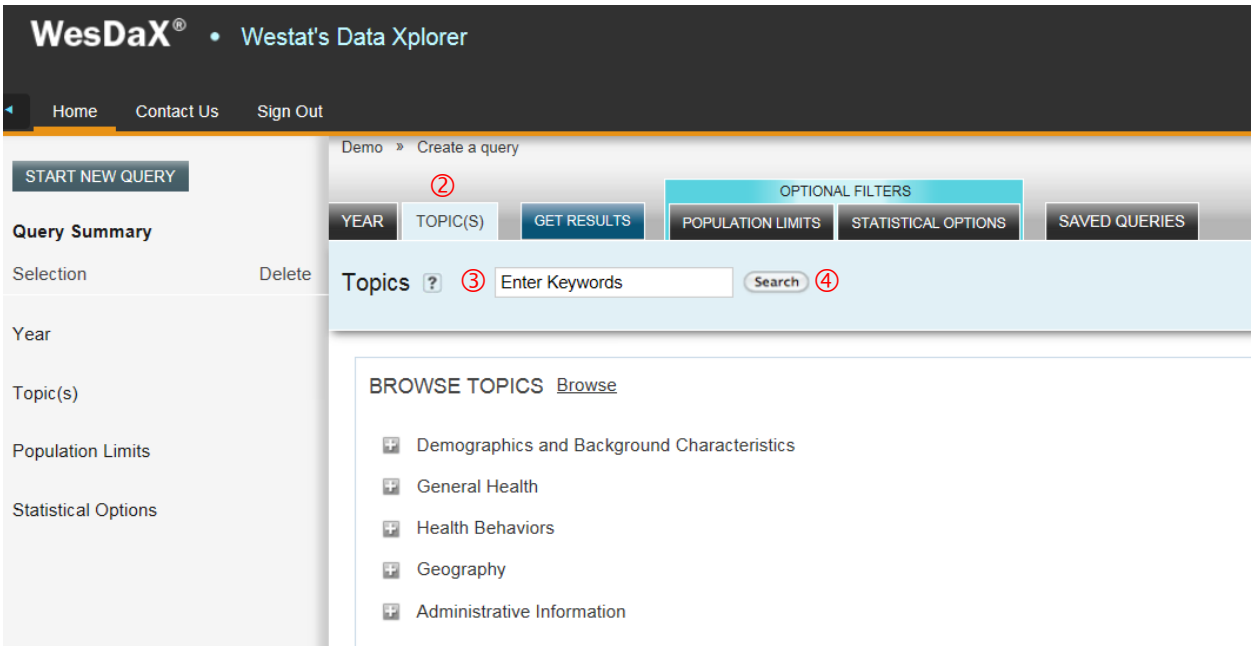
Click on the YEAR tab. Depending on the goals of your analysis, you might want to subset the data to a single year or all the years (option "Include All") for which data are available.[1] If you select all years, the data are aggregated. If you want to analyze only a single year, select that year.

For purposes of this demonstration so you can produce the same results as in this tutorial, leave the default year selections (i.e., 2013, 2014 selected) in place.

Step 4: Topics

Step 4.1: Click on the "TOPIC(S)" tab②. Your screen will now display the TOPIC(S) window. Here, you can review variables available in the dataset and select the ones you want to analyze (see Figure 3).

Figure 3. BROWSE TOPICS screen

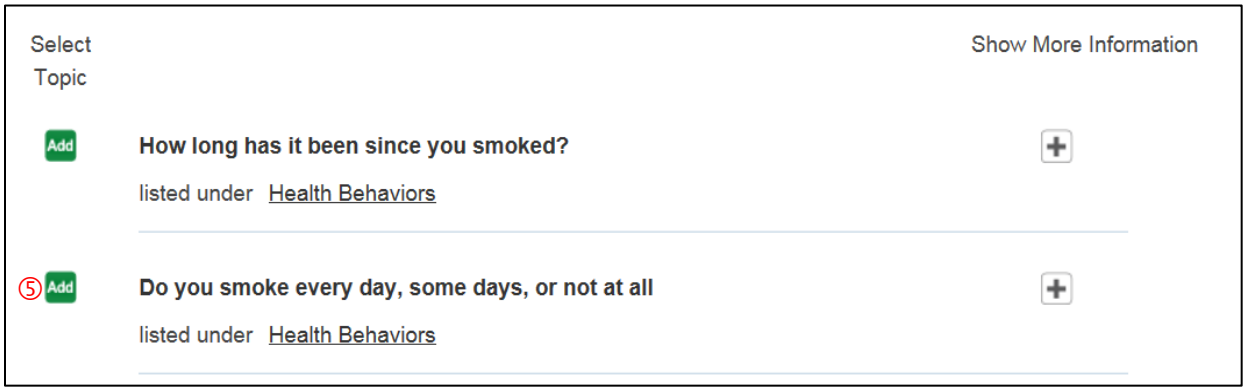


There are two ways to find and select the variables to use for analysis. If you know the variable name or a word in the questionnaire item, you can enter it in the "Enter Keywords" ③ window and click "Search" ④.

[1] Year is an optional filter, configured for the specific demonstration dataset. Some projects choose not to include a year filter.

Step 4.2: To try finding a variable, enter “smo” in the search window. The search will display two possible survey items, as shown in Figure 4.

Figure 4. Possible topics with "smo"



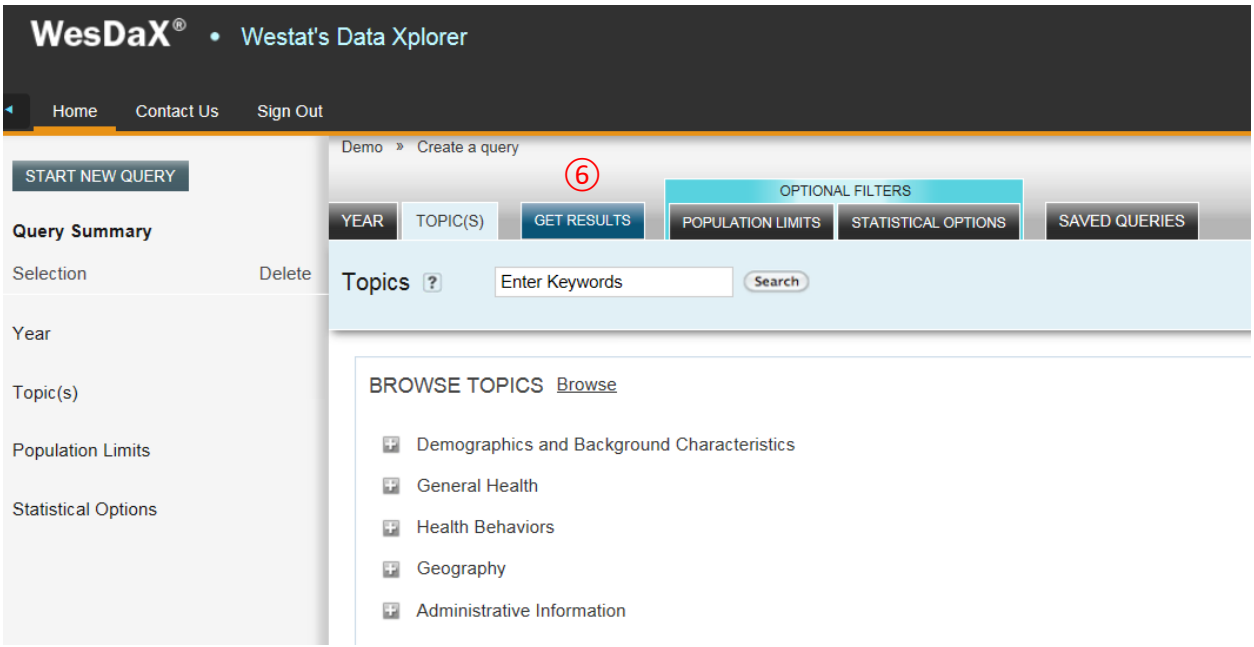
You can get detailed information about any of the variables in a list by clicking on the “+” sign to the right of the variable.

Step 4.3: Click on the “+” sign next to “Do you smoke every day, some days, or not at all.” You will learn that the variable name in the dataset is “SMOKDAY2,” and that there are five possible response options, including “Refused” and “Don’t know/Not sure.”

Step 4.4: To select the variable “Do you smoke every day, some days, or not at all,” click the green “Add” button⑤ (see Figure 4) to the left of the variable. The Topic(s) item in the left hand panel will expand to show the selected question. A red “X” to the right of the question will let you remove the item if you no longer need it.

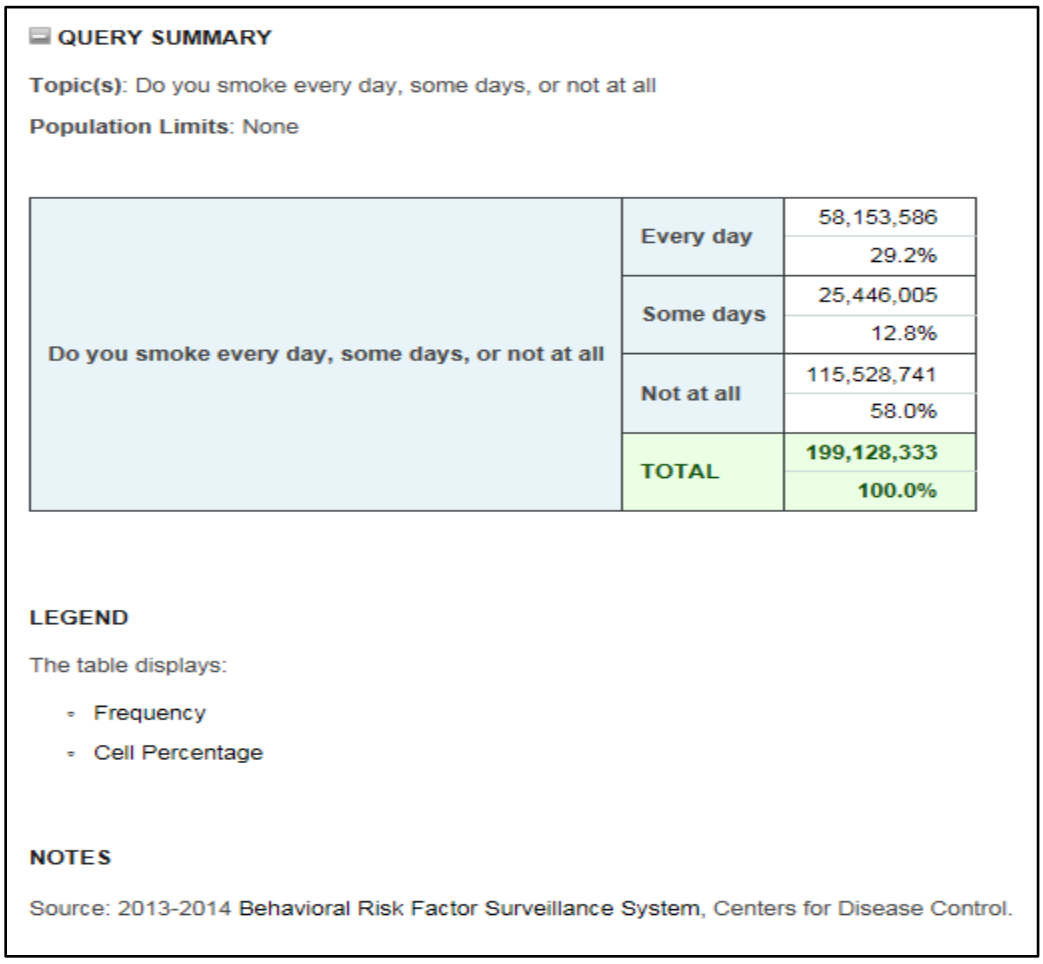
Step 5: Get Results

Figure 5. BROWSE TOPICS screen



Step 5.1: Click the GET RESULTS tab⑥ (see Figure 5). You will get the frequency distribution of the variable (see Figure 6). The table includes both frequency counts and the percentages of observations in each row. Note that the QUERY SUMMARY, above the table, tells you the Topic(s) included in the table and the Population Limits (in this example, "None"). Below the table, you will see LEGEND that shows what is displayed in the table and NOTES indicating the source of the data (see Figure 6).

Figure 6. Frequency distribution for the question "Do you smoke every day, some days, or not at all"



QUERY SUMMARY

Topic(s): Do you smoke every day, some days, or not at all

Population Limits: None

Do you smoke every day, some days, or not at all	Every day	58,153,586
		29.2%
	Some days	25,446,005
		12.8%
	Not at all	115,528,741
		58.0%
	TOTAL	199,128,333
		100.0%

LEGEND

The table displays:

- Frequency
- Cell Percentage

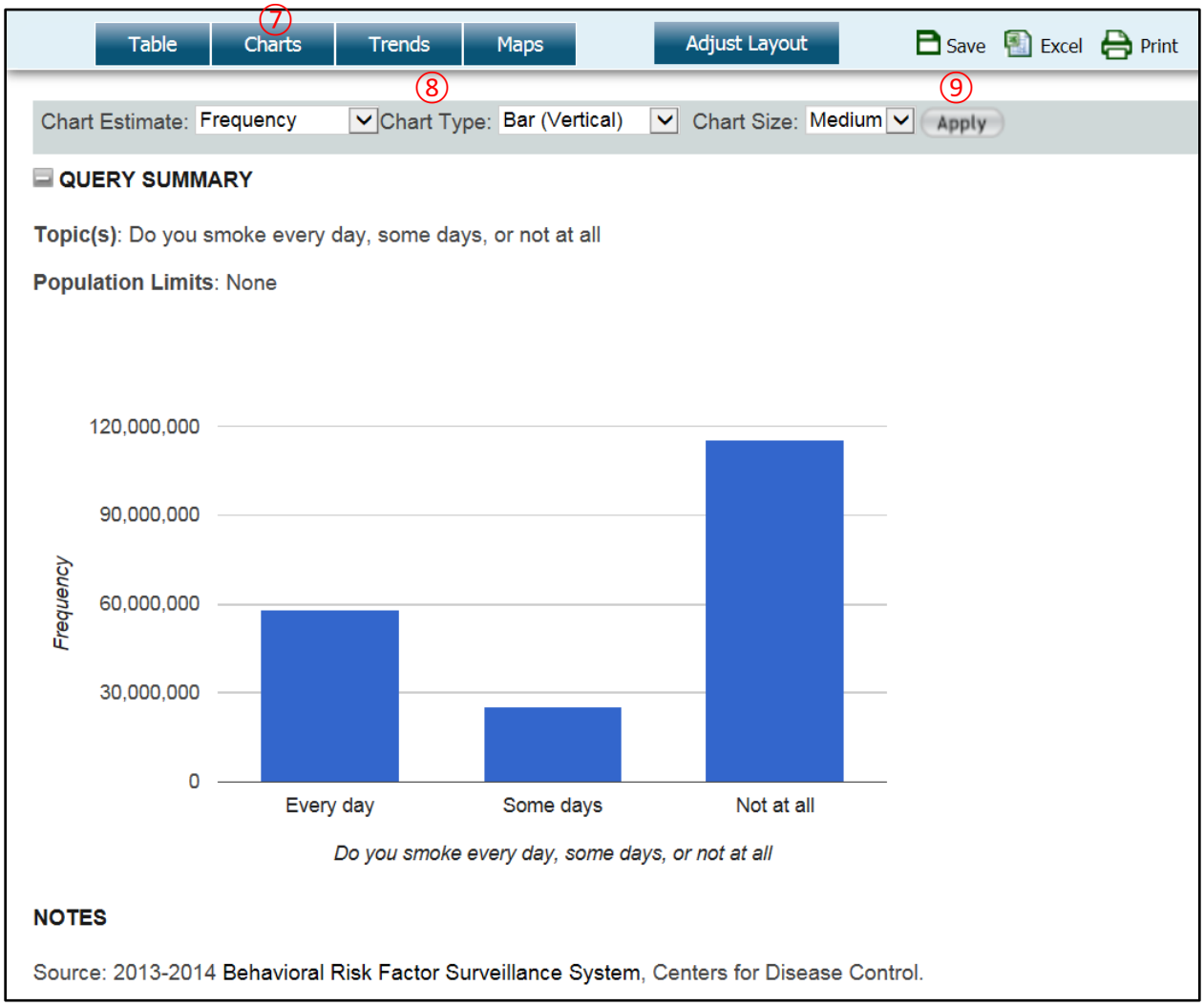
NOTES

Source: 2013-2014 Behavioral Risk Factor Surveillance System, Centers for Disease Control.

Step 5.2: Charting (optional)

To see the results displayed as a bar chart, click the "Charts" tab ⑦, located next to the "Table" tab, under "Query Results." WesDaX automatically generates a bar chart showing the results (see Figure 7).

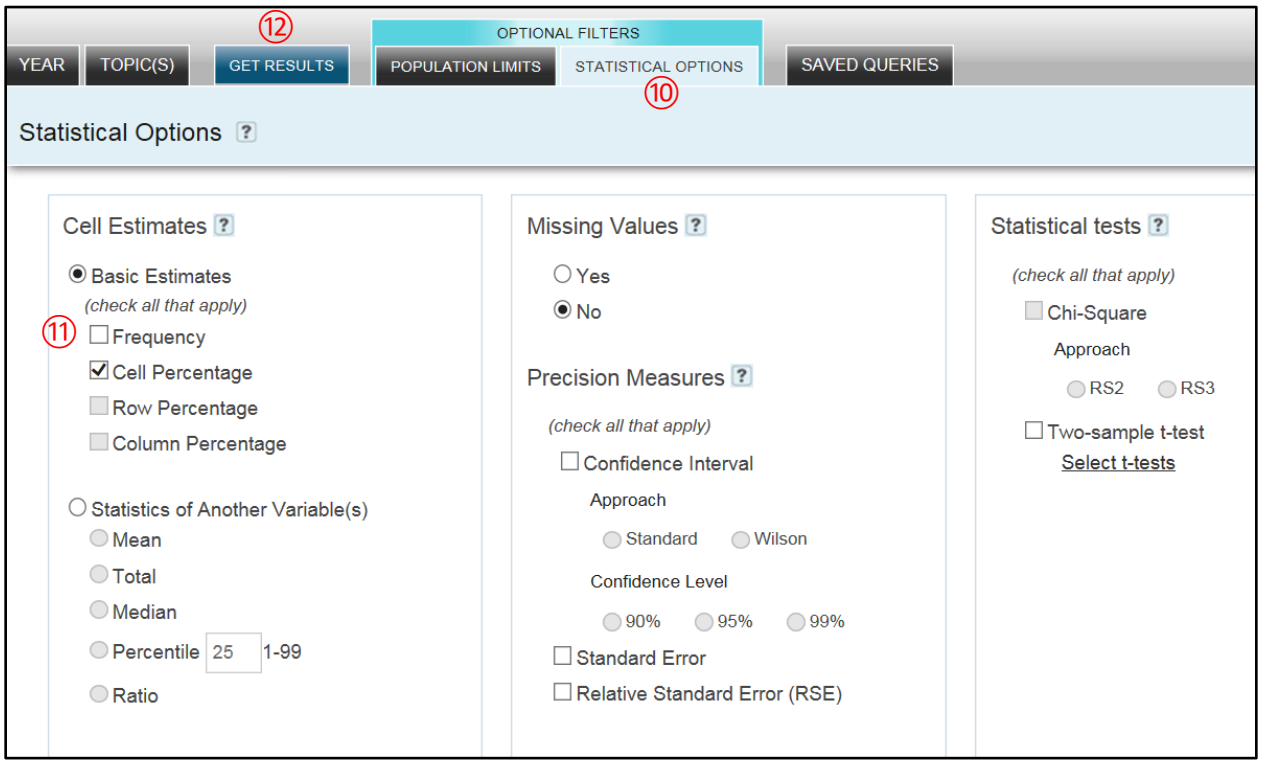
Figure 7. Bar chart showing smoking frequency responses



If you would like to see the results displayed in another format, select the chart type you want from the "Chart Type" drop-down list ⑧ and click Apply ⑨.

Step 5.3: To view only the percentages without the frequency counts, go to the "Statistical Options" tab ⑩ (see Figure 8). In the left box, titled "Cell Estimates," uncheck "Frequency." ⑪ Click on the GET RESULTS tab ⑫, and WesDaX will generate a simplified table. (Similarly, to see only the frequencies, you can uncheck "Cell Percentage".)

Figure 8. Statistical options tab with Frequency unchecked



Selecting only “Cell Percentage” will produce the table in Figure 9.

Figure 9. Table of mean values of responses to smoking question

QUERY SUMMARY

Topic(s): Do you smoke every day, some days, or not at all

Population Limits: None

Do you smoke every day, some days, or not at all	**Every day**	29.2%
	Some days	12.8%
	Not at all	58.0%
	TOTAL	**100.0%**

LEGEND

The table displays:

- Cell Percentage

NOTES

Source: 2013-2014 Behavioral Risk Factor Surveillance System, Centers for Disease Control.

Step 6: Crosstabulations (optional)

To see how the counts (or percentages) are distributed by gender, click on the TOPICS tab. If you haven't removed the question, you will see that "Do you smoke every day, some days, or not at all" is already selected as the Row Topic (Figure 10).

You can now select a column variable. Under BROWSE TOPICS, click the "+" sign ⑬ to the left of "Demographics and Background Characteristics." This will expand the available demographic variables.

Figure 10. TOPICS window after selecting the "Do you smoke" question

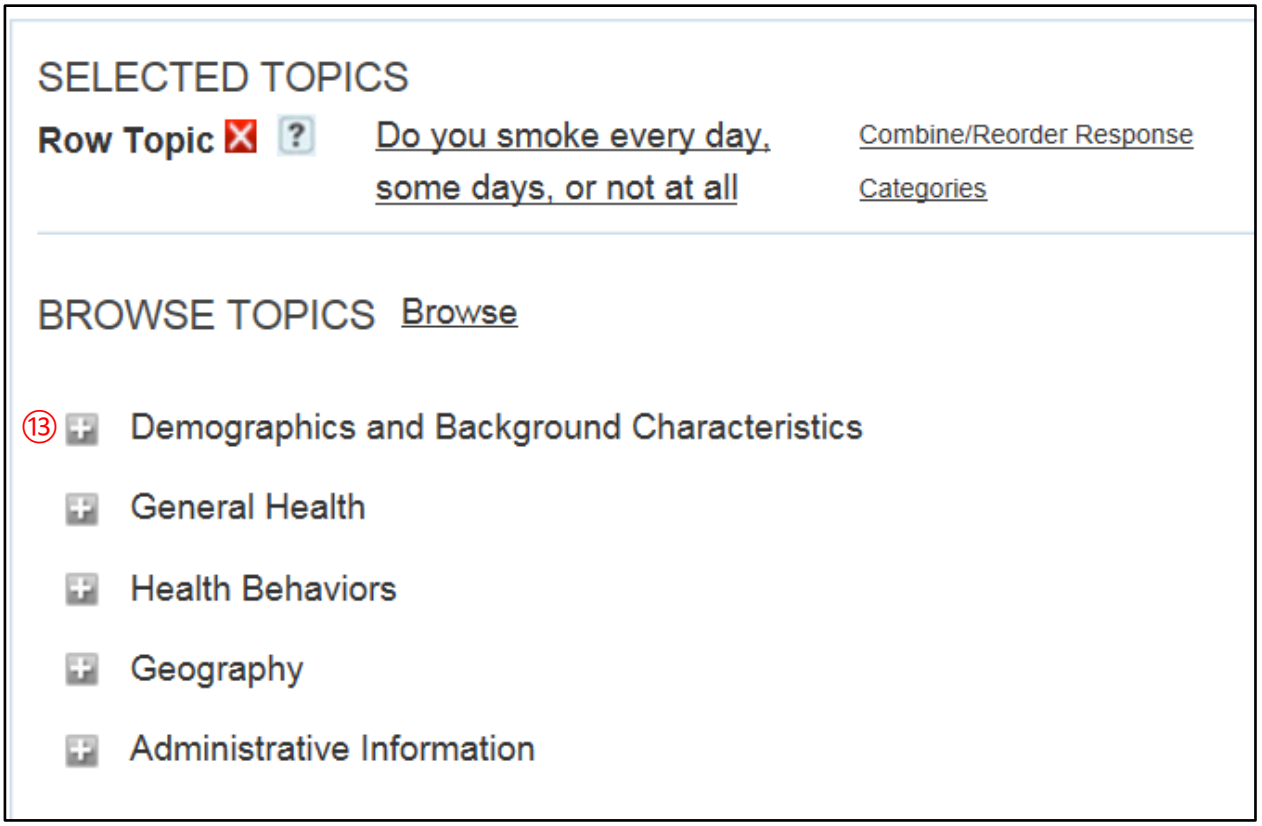
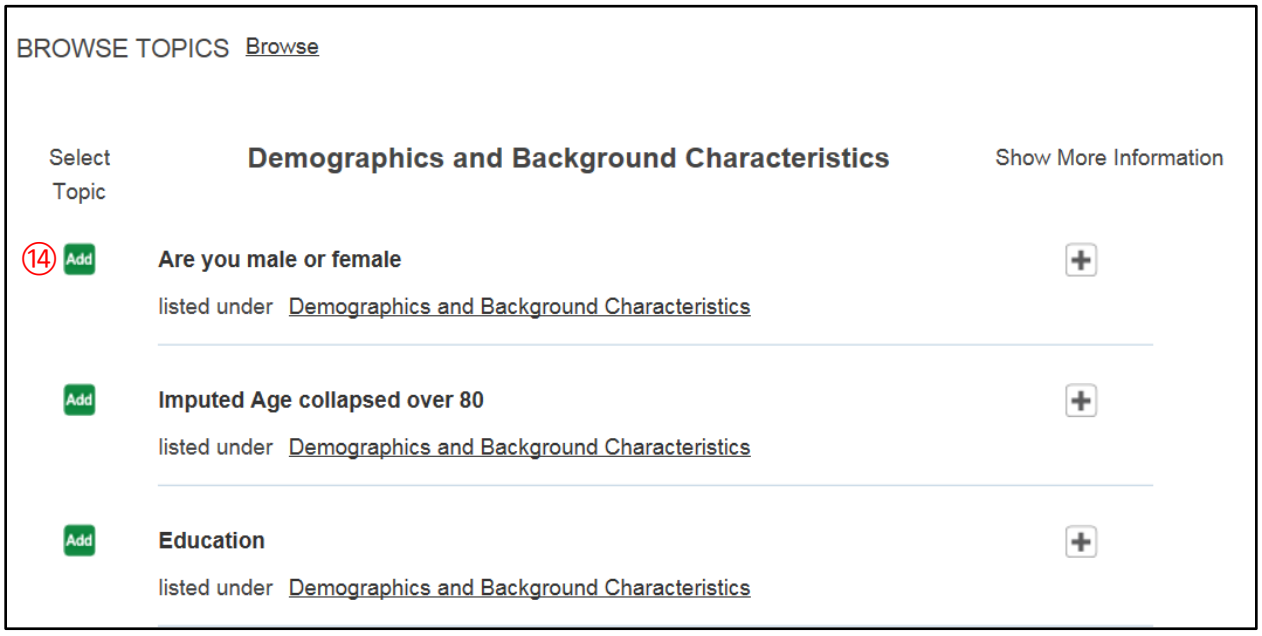


Figure 11 shows a partial list of demographic variables.

Figure 11. Partial list of demographic variables



Step 6.1: Add the variable "Are you male or female" by clicking the green Add button ⑭ (see Figure 11).

Step 6.2: Click on GET RESULTS to see the new table (Figure 12).

Figure 12. Smoking responses by gender

QUERY SUMMARY

Topic(s): Do you smoke every day, some days, or not at all; Are you male or female

Population Limits: None

		Are you male or female		
		Male	Female	TOTAL
Do you smoke every day, some days, or not at all	Every day	31,521,879	26,631,707	58,153,586
	Some days	14,604,379	10,841,626	25,446,005
	Not at all	64,252,720	51,276,021	115,528,741
	TOTAL	110,378,979	88,749,354	199,128,333

Step 7: OPTIONAL FILTERS: Statistical Options and Population Limits

WesDaX allows you to replace the counts in the table produced above with statistics calculated on a third variable.

Step 7.1: Getting Means

To generate a table with the means of a third variable by row and by column variables, as shown in Figure 16, use the STATISTICAL OPTIONS tab:

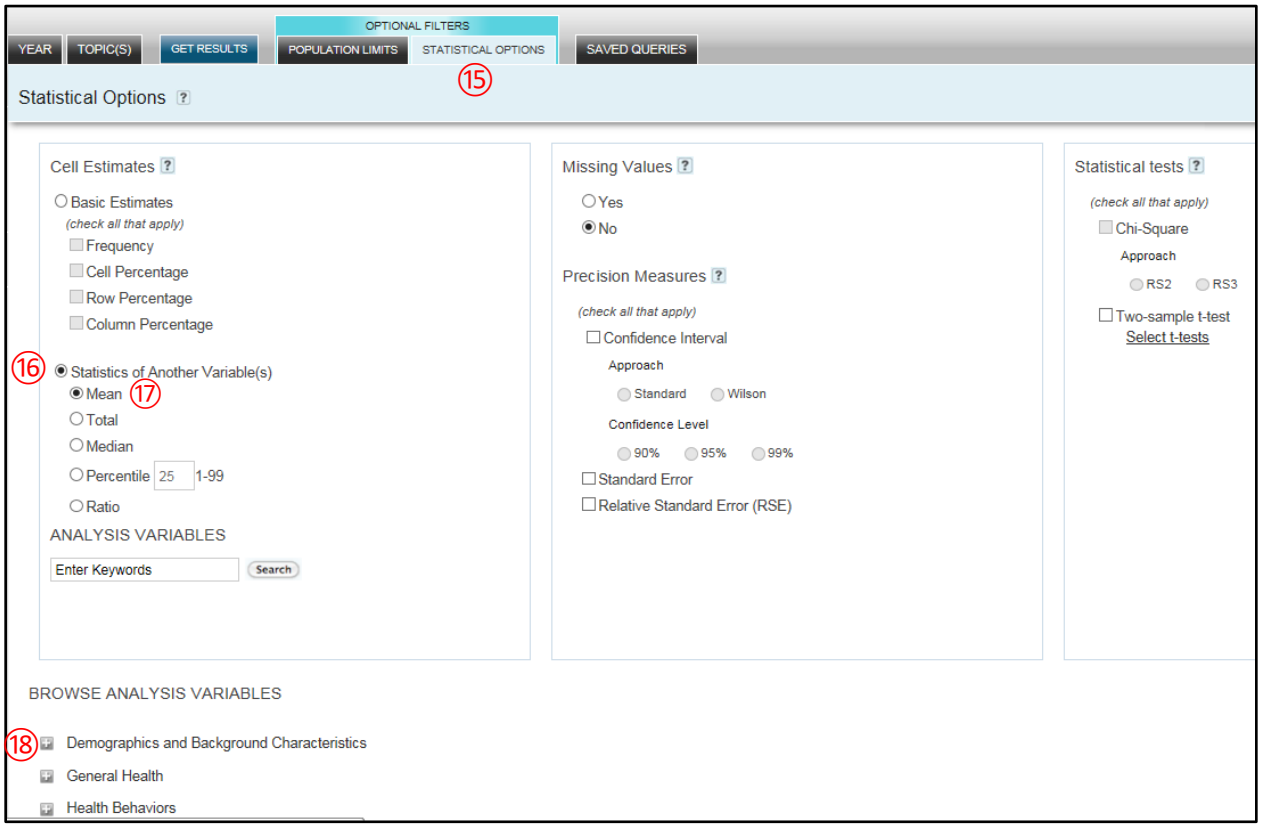
a. Select STATISTICAL OPTIONS ⑮ under OPTIONAL FILTERS (see Figure 813),

b. Click on "Statistics of Another Variable(s)," ⑯ and

c. Check the "Mean" ⑰ option.

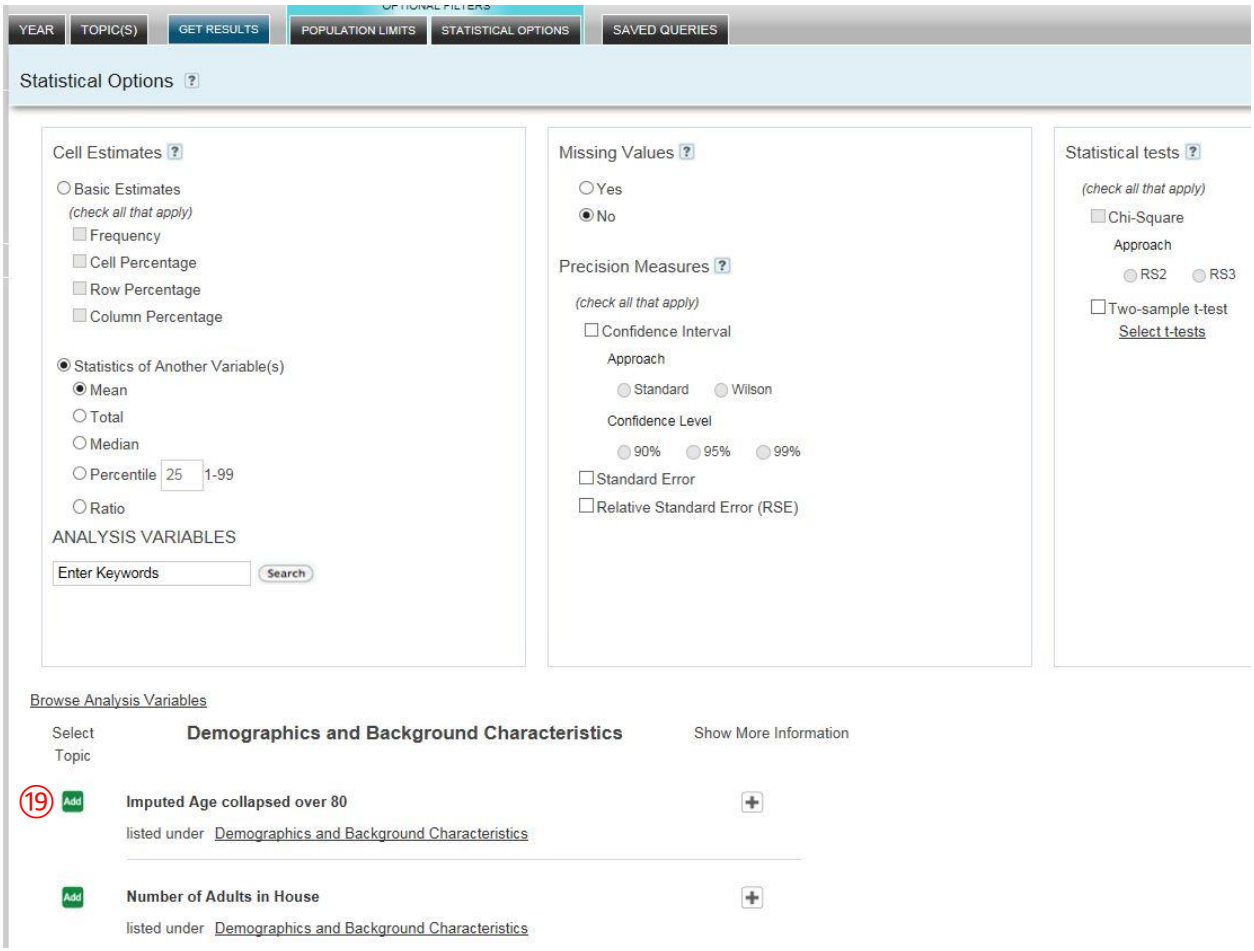
The "Statistical Options" screen will now resemble Figure 13.

Figure 13. STATISTICAL OPTIONS screen after checking "Statistics of Another Variable(s)"



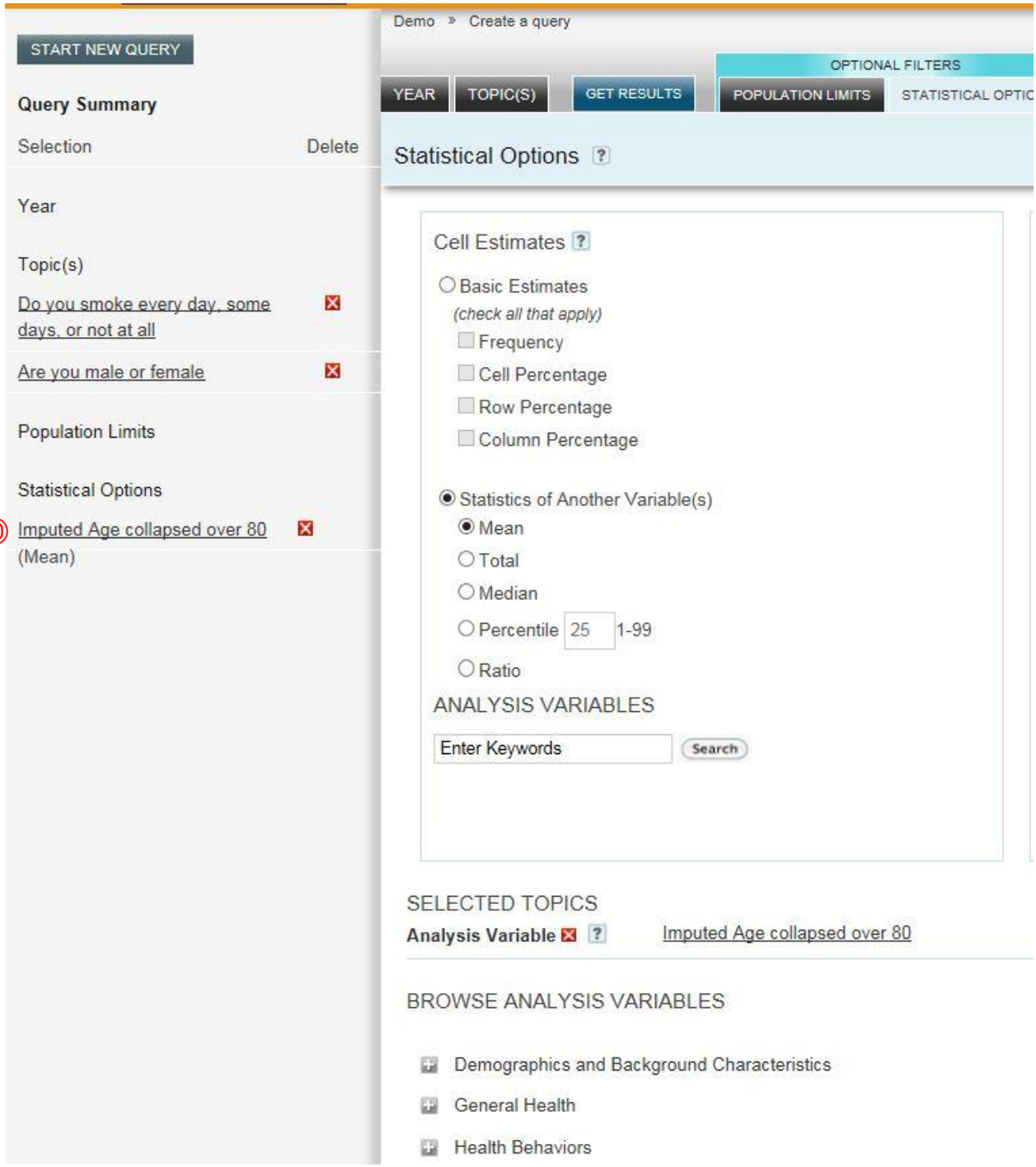
You now need to specify the analysis variable whose mean will be calculated. To do this, click on the "+" sign ⑱ next to "Demographics and Background Characteristics" at the bottom of the screen to see a list of numeric variables (only numeric variables can be used to produce means). Next, select the item "Imputed Age collapsed over 80" by clicking the green Add button ⑲ (see Figure 14).

Figure 14. STATISTICAL OPTIONS screen showing possible variables for mean



The WesDax window should now look like Figure 15. Note that the "Imputed Age collapsed over 80 (Mean)" ⑳ now appears in the left-hand column.

Figure 15. STATISTICAL OPTIONS window after selecting an analysis variable



Click on GET RESULTS to see the table in Figure 16. This table is similar to Figure 12 but has the mean ages of the respondents in each cell instead of counts.

Figure 16. Mean ages for smoking responses by gender

QUERY SUMMARY

Topic(s): Do you smoke every day, some days, or not at all; Are you male or female

Population Limits: None

Statistical Options - Analysis Variables: Imputed Age collapsed over 80 (Mean)

		Are you male or female		
		Male	Female	TOTAL
Do you smoke every day, some days, or not at all	Every day	43.4	44.7	44.0
	Some days	39.7	44.1	41.6
	Not at all	54.8	55.5	55.1
	TOTAL	49.6	50.8	50.1

LEGEND

The table displays:

- Mean

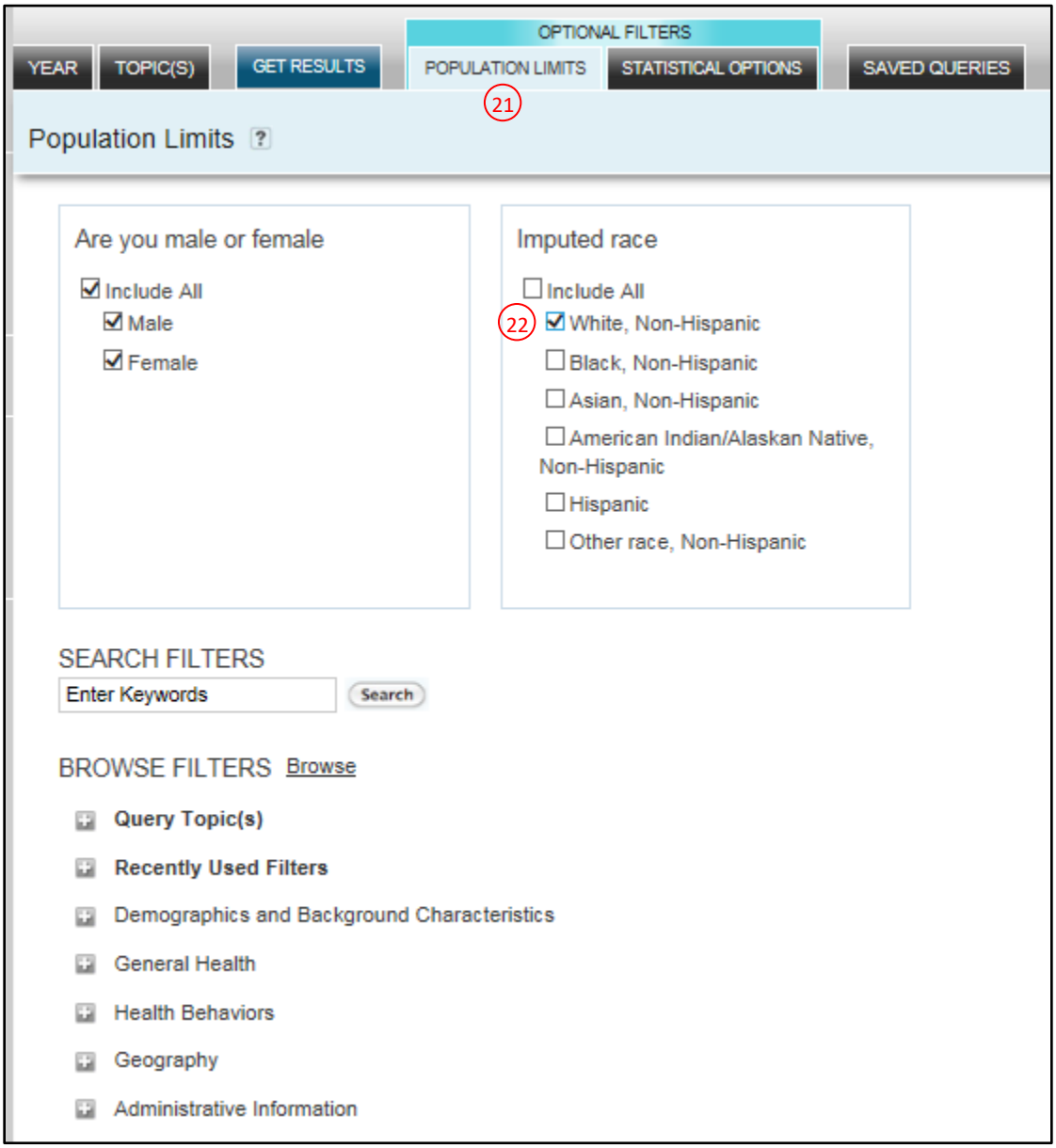
NOTES

Source: 2013-2014 Behavioral Risk Factor Surveillance System, Centers for Disease Control.

Step 7.2: Population Limits

The POPULATION LIMITS tab, (21) under OPTIONAL FILTERS, provides you with options to restrict the results to specific subpopulations (Figure 17). For instance, to produce the same table as that in Figure 16 while subsetting the data to non-Hispanic Whites, uncheck the "Include All" box (22) under "Imputed race" and check the "White, Non-Hispanic" option. When you click on "Get Results," WesDax will generate Figure 17.

Figure 17. Population Limits tab with White, Non-Hispanic race option selected



Click on GET RESULTS to generate the table shown in Figure 18.

Figure 18. Mean ages for smoking responses by gender – White, Non-Hispanic

Query Results

Table | Charts | Trends | Maps | Adjust Layout | Save | Excel | Print

QUERY SUMMARY

Topic(s): Do you smoke every day, some days, or not at all; Are you male or female

Population Limits: Imputed race: White, Non-Hispanic

Statistical Options - Analysis Variables: Imputed Age collapsed over 80 (Mean)

		Are you male or female		
		Male	Female	TOTAL
Do you smoke every day, some days, or not at all	Every day	44.1	45.2	44.6
	Some days	40.4	45.0	42.6
	Not at all	56.4	56.5	56.4
	TOTAL	51.2	52.0	51.6

LEGEND

The table displays:

- Mean

NOTES

Source: 2013-2014 Behavioral Risk Factor Surveillance System, Centers for Disease Control.

This concludes the WesDaX Quick Start Guide. There are many other exciting features you can explore. Since WesDaX is a table and graph generating software that does not allow altering the underlying data, you can try different WesDaX options and features without worrying about damaging the data.

Hint: Try clicking on the Adjust Layout and Charts tabs above a results table.

Hint: Click on START NEW QUERY to discard all your existing settings and start with a clean slate.

Hint: After generating a table, click on the "Excel" option to export the data to Excel.

Hint: After generating a table, click on the Charts tab to generate a bar chart with the same information as the table. Explore the effect of selecting different chart types.

Hint: After generating a table, click on "Save" to save a copy of your query for future use. You can see the list of saved queries by clicking on the SAVED QUERIES tab. After retrieving a saved query, you can modify it in the same way as when it was initially created. For instance, you can choose to add confidence intervals and standard errors to a table that did not have them in the saved query or to remove them if they were in the saved query. The modified query will not overwrite the original saved query.