

Using Online Tools to Access BC Cancer Registry Data

1. Overview:

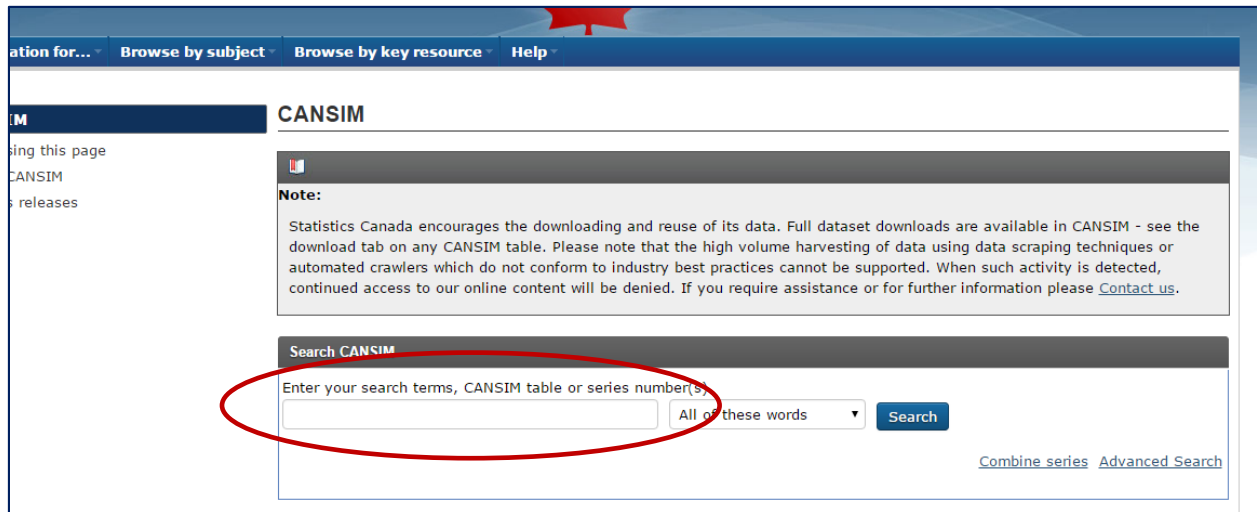
This guide provides some basic step-by-step instructions on how to access BC Cancer Registry data through online tools. At present the instructions are limited to data compiled within the Canadian Cancer Registry and made available through Statistics Canada's CANSIM tables. Although this guide is meant to facilitate access to BC Cancer Registry data, data from other Canadian jurisdictions can be accessed through these tools by making appropriate region selections.

2. Accessing CANSIM tables:

CANSIM is Statistics Canada's main online sociodemographic database and is available via the web at:

<http://www5.statcan.gc.ca/cansim/a01?lang=eng>

From this main page, one can enter the number of a specific CANSIM table directly into the search bar:



The screenshot shows the CANSIM website interface. At the top, there are navigation tabs: "Browse by subject", "Browse by key resource", and "Help". Below this, the main content area is titled "CANSIM". A "Note" section states: "Statistics Canada encourages the downloading and reuse of its data. Full dataset downloads are available in CANSIM - see the download tab on any CANSIM table. Please note that the high volume harvesting of data using data scraping techniques or automated crawlers which do not conform to industry best practices cannot be supported. When such activity is detected, continued access to our online content will be denied. If you require assistance or for further information please [Contact us](#)." Below the note is a "Search CANSIM" section with a text input field containing the placeholder text "Enter your search terms, CANSIM table or series number(s)". A dropdown menu next to the input field is set to "All of these words". A "Search" button is located to the right of the input field. A red circle highlights the search input field. At the bottom right of the search section, there are links for "Combine series" and "Advanced Search".

Some select CANSIM tables that contain summaries useful to those generating cancer information can be found in the table below; these include tables related to new case counts, cancer rates, cancer deaths and survival.

Table Number	Description
103-0550	Crude Cancer Incidence Data: can provide both counts of new cases and crude rates (by region, age group, sex and cancer type)
103-0553	Age-Standardized Cancer Incidence: can provide new case counts and age-standardized rates (by region, sex and cancer type)– 1991 Population Standard
103-0554	Age-Standardized Cancer Incidence: can provide new case counts and age-standardized rates (by region, sex and cancer type) – 2011 Population Standard
102-0522	Number of Deaths – Neoplasms: can provide annual number of cancer deaths for Canada by age, sex and cancer site
102-0551	Deaths and Mortality Rates: can provide annual deaths and crude mortality rates for Canada by age, sex, cause of death
103-1571 103-1572	Age-standardized 5-year Relative Survival: provides survival estimates (observed and relative) by cancer, sex, year, province [different tables take different windows of years to include]
103-1569	5-year Relative Survival by Age: provides data by cancer site, age, sex for Canada
051-0001	Population Estimates: Population by province, age, year and sex – useful for generating ASMR's, expected cases by age, etc.

3. Obtaining Information on New Cancer Cases:

As an example, suppose we wanted to generate annual counts of new cancers cases for colorectal, prostate, and lung cancers for British Columbian men between 2008 and 2012. The following steps would produce a table of these statistics:

Step 1: enter table number 103-0550 into the search bar and hit search:

Search CANSIM

Enter your search terms, CANSIM table or series number(s)

All of these words
▼

Search

This will yield the following default table summary:

Table 103-0550 [1](#), [2](#), [3](#), [21](#)

New cases of primary cancer (based on the May 2015 CCR tabulation file), by cancer type, age group and sex, Canada, provinces and territories
annual

Data table
Add/Remove data
Manipulate
Download
Related information
Help

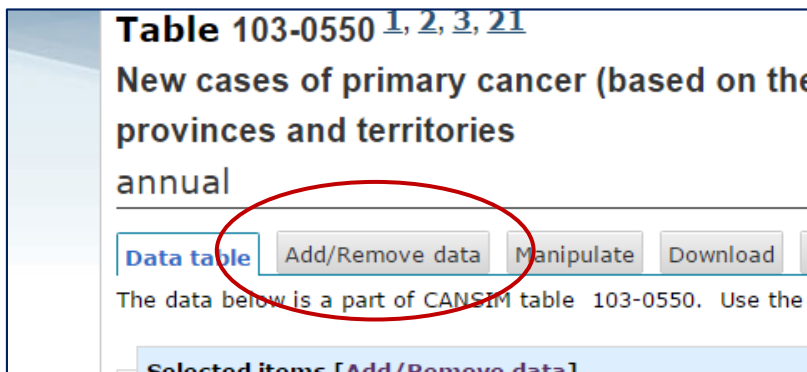
The data below is a part of CANSIM table 103-0550. Use the [Add/Remove data](#) tab to customize your table.

Selected items [\[Add/Remove data\]](#)

Age group = Total, all ages
Sex = Both sexes
Primary types of cancer (ICD-O-3) [2](#), [3](#), [9](#) = Total, all primary sites of cancer

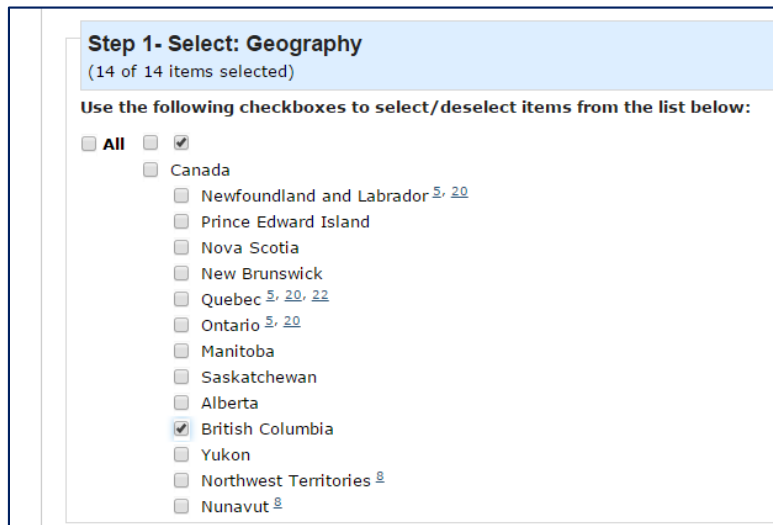
Geography	Characteristics ^{17, 18, 19}	2008	2009	2010	2011	2012
Canada	Number of new cancer cases	166,155	170,535	171,940	176,660	175,310
	New cancer cases (rate per 100,000 population)	499.8	507.1	505.6	515.6	506.7
Newfoundland and Labrador ^{5, 20}	Number of new cancer cases	3,065	3,125	3,155	3,275	3,225
	New cancer cases (rate per 100,000 population)	599.2	604.8	604.4	623.8	612.1
Prince Edward Island	Number of new cancer cases	820	830	810	865	880
	New cancer cases (rate per 100,000 population)	590.9	593.2	571.7	600.5	605.8
Nova Scotia	Number of new cancer cases	5,565	5,525	5,845	5,715	5,975
	New cancer cases (rate per 100,000 population)	594.6	588.9	620.4	605.1	632.4

This is a good start, however we need to change some of the parameters in order to obtain the specific cancers, sex and region of interest. To make changes to the default table, click the "Add/Remove data" tab under the title:



This will bring up several selection menus that one can make changes to in order to enter the specific criteria for a desired custom summary table.

Step 2: The first of these is “geography” which can be changed from the default to only “BC”. You will have to uncheck “Canada” if you do not want this in the final summary:



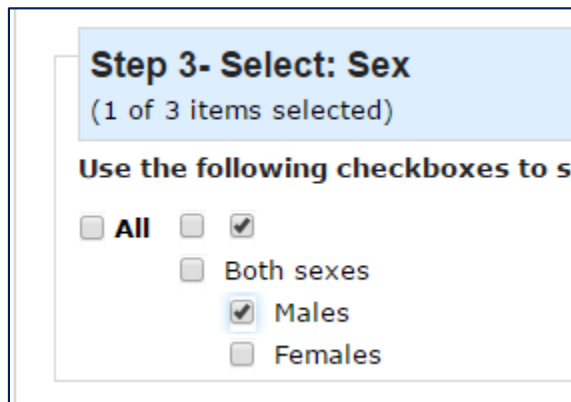
Step 1- Select: Geography
(14 of 14 items selected)

Use the following checkboxes to select/deselect items from the list below:

- All
- Canada
 - Newfoundland and Labrador [S, 20](#)
 - Prince Edward Island
 - Nova Scotia
 - New Brunswick
 - Quebec [S, 20, 22](#)
 - Ontario [S, 20](#)
 - Manitoba
 - Saskatchewan
 - Alberta
 - British Columbia
 - Yukon
 - Northwest Territories [S](#)
 - Nunavut [S](#)

Leave the age group selector alone as we do not wish to subset to specific age groups or see summaries by age group.

Step 3: From the “Select Sex” menu select only “Males”:



Step 3- Select: Sex
(1 of 3 items selected)

Use the following checkboxes to s

- All
- Both sexes
- Males
- Females

Step 4: From the cancer menu, select the three cancers of interest. You will have to scroll through the list to identify them. The list is ordered by ICDO-3 site code and can be expanded using the “expand” feature. Select “Colon and rectum”, “prostate” and “lung and bronchus” from the list:

Step 4- Select: Primary types of cancer (ICD-O-3) [2](#), [3](#), [9](#)

(1 of 58 items selected)

Use the following checkboxes to select/deselect items from the list below:

- All
- Total, all primary sites of cancer
 - Lip [C00.0-C00.9] [10](#)
 - Tongue [C01.9-C02.9] [10](#)
 - Salivary gland [C07.9-C08.9] [10](#)
 - Floor of mouth [C04.0-C04.9] [10](#)
 - Gum and other mouth [C03.0-C03.9, C05.0-C05.9, C06.0-C06.9] [10](#)
 - Nasopharynx [C11.0-C11.9] [10](#)
 - Oropharynx [C10.0-C10.9] [10](#)
 - Hypopharynx [C12.9, C13.0-C13.9] [10](#)
 - Other oral cavity and pharynx [C09.0-C09.9, C14.0-C14.8] [10](#)
 - Esophagus [C15.0-C15.9] [10](#)
 - Stomach [C16.0-C16.9] [10](#)
 - Small intestine [C17.0-C17.9] [10](#)
 - Colon and rectum [C18.0-C18.9, C19.9, C20.9, C26.0] [10](#)
 - Colon excluding rectum [C18.0-C18.9, C26.0] [10](#)
 - Rectum and rectosigmoid [C19.9, C20.9] [10](#)
 - Anus, anal canal and anorectum [C21.0-C21.8] [10](#)
 - Liver [C22.0] [10](#)
 - Gallbladder [C23.9] [10](#)
 - Pancreas [C25.0-C25.9] [10](#)
 - Other digestive system [C22.1, C24.0-C24.9, C26.8-C26.9, C48.0-C48.8] [10](#)
 - Larynx [C32.0-C32.9] [10](#)
 - Lung and bronchus [C34.0-C34.9] [10](#)
 - Other respiratory system [C30.0-C30.1, C31.0-C31.9, C33.9, C38.1-C38.8, C39.0-C39.9] [10](#)
 - Bones and joints [C40.0-C41.9] [10](#)

Step 5: Since we do not want crude cancer rates we can uncheck the “New cancer cases (rate per 100,000)” option from “Characteristics”.

The time frame is currently equal to our desired year range and can be left unchanged:

Step 6 - Select the time frame

By default, only data for the most recent periods available w

From : To : (Annual data)

Step 6: All selections have been made and we can now hit “apply” at the bottom of the page:

Step 8

The following table will appear now on the *Data Table* tab with the custom data table requested.

Table 103-0550 [1](#), [2](#), [3](#), [21](#)

New cases of primary cancer (based on the May 2015 CCR tabulation file), by cancer type, age group and sex, Canada, provinces and territories
annual

[Data table](#) [Add/Remove data](#) [Manipulate](#) [Download](#) [Related information](#) [Help](#)

The data below is a part of CANSIM table 103-0550. Use the [Add/Remove data](#) tab to customize your table.

Selected items [\[Add/Remove data\]](#)

Geography = British Columbia
Age group = Total, all ages
Sex = Males
Characteristics [17](#), [18](#), [19](#) = Number of new cancer cases (number)

Primary types of cancer (ICD-O-3) 2 , 3 , 9	2008	2009	2010	2011	2012
Colon and rectum [C18.0-C18.9, C19.9, C20.9, C26.0] 10	1,450	1,495	1,465	1,525	1,600
Lung and bronchus [C34.0-C34.9] 10	1,470	1,470	1,440	1,455	1,475
Prostate [C61.9] 10	3,215	3,230	3,105	3,475	3,165

Footnotes: [Back to original table](#)

The custom summary can be downloaded as a CSV file (which can be opened in Excel, R, SAS, etc) using the “*Download*” tab. It is worth noting that within the tab there are two options: 1) download data and 2) download entire table. The former will download the summary you have in the “*Data Table*” tab and the latter will download a massive table of all possible data. Generally we want to download with the former option.

When exported into a CSV file this final product should look like this:

Clipboard	Font	Alignment	Number	Styles
A	B	C	D	E
1	Table 103-0550 New cases of primary cancer (based on the May 2015 CCR tabulation file), by cancer type, age group and sex, Canada, provinces and territories, annual(1,2,3,21)			
2	Survey or program details:			
3	Canadian Cancer Registry - 3207			
4	Geography	Age group	Sex	Primary types of cancer (ICD-O-3) (2,3,9)
5	British Columbia	Total, all ages	Males	Colon and rectum [C18.0-C18.9 C19.9 C20.9 C26.0] (10)
6	British Columbia	Total, all ages	Males	Lung and bronchus [C34.0-C34.9] (10)
7	British Columbia	Total, all ages	Males	Prostate [C61.9] (10)
8	Footnotes:			
9	1 Data sources include Statistics Canada's Canadian Cancer Registry (CCR) Database (source: http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS			
0	2 World Health Organization, International Classification of Diseases for Oncology, Third Edition (ICD-O-3) and the International Agency for Research on Cancer (IA			
1	3 Cancer incidence refers to new primary sites of malignant neoplasms. The Canadian Cancer Registry (CCR) is a dynamic database that can be updated with new r			
2	4 The table was prepared using the Surveillance, Epidemiology and End Results (SEER) Group for Primary Site based on International Classification of Diseases for			

4. Generating Age-Specific Rates for a Specific Cancer

Suppose we wanted to generate the age-specific rates (per 100,000 of population) for female thyroid cancer in BC. We can start with the same Step 1 above by using CANSIM table 103-0550 however we need to amend the selection criteria.

Step 2: Since we have selected BC as the region above, leave the geography set to only “BC”. Next amend the age group selection by selecting all age groups – this can be facilitated by clicking the third box along the top of the age groups:

Step 2- Select: Age group
 (1 of 20 items selected)

Use the following checkboxes to select/de

All

- Total, all ages
- 0 to 4 years
- 5 to 9 years
- 10 to 14 years
- 15 to 19 years

Step 3: Edit the “Sex” selection to say “Females”.

Step 4: Edit the cancer type to “Thyroid C73.9”.

Step 5: Edit the “Characteristics” to “New cancer cases (rate per 100,000)”.

Step 6: Hit “Apply” at the bottom of the page.

This should yield the following summary data in the “Data Table” tab:

Age group	2008	2009	2010	2011	2012
0 to 4 years	0.0	0.0	0.0	0.0	0.0
5 to 9 years	0.0	0.0	0.0	0.0	0.0
10 to 14 years	4.1	0.0	0.0	0.0	0.0
15 to 19 years	0.0	0.0	3.7	0.0	3.7
20 to 24 years	3.4	6.8	6.6	6.7	3.3
25 to 29 years	6.8	13.0	12.6	6.3	12.6
30 to 34 years	14.2	10.4	6.8	16.8	19.5
35 to 39 years	16.2	16.4	13.2	20.1	20.2
40 to 44 years	12.0	15.3	12.3	12.2	24.5
45 to 49 years	22.0	16.3	19.2	16.9	23.0
50 to 54 years	20.5	28.8	17.1	16.8	19.5
55 to 59 years	10.0	9.8	19.2	12.5	18.3
60 to 64 years	19.9	15.2	14.5	24.5	20.8
65 to 69 years	15.9	15.2	14.6	18.7	13.0
70 to 74 years	13.2	12.9	12.6	12.1	23.3
75 to 79 years	15.3	15.3	15.3	15.1	14.8
80 to 84 years	9.5	9.5	18.9	0.0	18.4
85 years and over	0.0	9.0	8.7	0.0	8.1
Age group, not stated

This table can be exported as above using the “Download” tab and imported into other statistical packages for further use as required.

5. Generating Data to Examine Trends in Age-Standardized Rates

Suppose one wanted to again look at rates of a specific cancer (melanoma) but age-standardized to the 1991 Canadian Population and produce a trend series from 1992 to 2011. Suppose again that we are looking only at BC data and would like to plot the series for both males and females separately. As of data year 2013, Statistics Canada have made the official population standard for their health statistics the 2011 Canadian population; to use this standard in place of the 1991 one shown in this example, replace the CANSIM table number by 103-0554.

Step 1: Enter table 103-0553 into the CANSIM search tab from Section 3 above. This will result in the following default summary table being generated:

Table 103-0553 [1](#), [2](#), [3](#), [2b](#)

New cases and age-standardized rate for primary cancer (based on the May 2015 CCR tabulation file), by cancer type and sex, Canada, provinces and territories
annual

[Data table](#) [Add/Remove data](#) [Manipulate](#) [Download](#) [Related information](#) [Help](#)

The data below is a part of CANSIM table 103-0553. Use the [Add/Remove data](#) tab to customize your table.

Selected items [\[Add/Remove data\]](#)

Sex = Both sexes
 Primary types of cancer (ICD-O-3) ^{2, 3, 10} = Total, all primary sites of cancer
 Census population structure = 1991 Census population structure ¹⁸

Geography	Characteristics ^{20, 22, 23}	2008	2009	2010	2011	2012
Canada	Number of new cancer cases	166,155	170,535	171,940	176,660	175,310
	New cancer cases (age-standardized rate per 100,000 population) ²⁴	402.3	402.6	396.3	397.6	384.4
Newfoundland and Labrador ^{3, 25}	Number of new cancer cases	3,065	3,125	3,155	3,275	3,225
	New cancer cases (age-standardized rate per 100,000 population) ²⁴	449.7	441.7	436.7	439.4	424.7
Prince Edward Island	Number of new cancer cases	820	830	810	865	880
	New cancer cases (age-standardized rate per 100,000 population) ²⁴	438.0	423.8	412.8	419.7	424.9
Nova Scotia	Number of new cancer cases	5,565	5,525	5,845	5,715	5,975
	New cancer cases (age-standardized rate per 100,000 population) ²⁴	434.3	422.0	438.4	423.4	430.2
	Number of new cancer cases	4,545	4,520	4,480	4,515	4,505

Step 2: From the “Add/Remove data” tab, de-select “both sexes” from the “Sex” selector and instead select “Males” and “Females”:

Step 2- Select: Sex
(1 of 3 items selected)

Use the following checkboxes to select/deselect items from

All Both sexes
 Males
 Females

Step 3: From the type of cancer selector choose “Melanomas of the skin”.

Step 4: From the “Characteristics” selector choose “New cancer cases (age-standardized rate per 100,000)” from the choices. De-select any other choices that are selected by default.

Step 5: From the time frame change both years to “1992” and “2011” respectively and then hit “Apply” at the bottom of the screen.

The following data summary will appear in the “Data table” tab:

Table 103-0553 ^{1, 2, 3, 20}
New cases and age-standardized rate for primary cancer (based on the May 2015 CCR tabulation file), by cancer type and sex, Canada, provinces and territories
 annual

[Data table](#) [Add/Remove data](#) [Manipulate](#) [Download](#) [Related information](#) [Help](#)

The data below is a part of CANSIM table 103-0553. Use the [Add/Remove data](#) tab to customize your table.

Selected items [\[Add/Remove data\]](#)

Geography = British Columbia
Primary types of cancer (ICD-O-3) ^{2, 3, 19} = Melanomas of the skin [C44.0-C44.9, M-8720-M-8790]
Census population structure = 1991 Census population structure ^{4,8}
Characteristics ^{20, 22, 23} = New cancer cases (age-standardized rate per 100,000 population) ²⁴

Sex	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Males	13.6	13.6	13.5	13.5	14.3	15.2	13.3	13.2	13.2	16.8	15.0	15.8	15.5	14.3	15.2	17.2	16.8	18.0	15.9	17.3
Females	12.4	12.6	11.9	11.4	11.4	12.0	10.4	9.6	10.9	12.7	12.5	12.5	12.2	12.7	12.1	13.4	14.8	13.0	14.5	15.9

Footnotes: [Back to original table](#)

When downloading trend data, there are options as to how the data by year are exported. The default is “time as columns” which will produce a CSV file that has rows for males/females and the rates for each year are provided in columns with a column title for each year selected:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	F
1	Table 103-0553 New cases and age-standardized rate for primary cancer (based on the May 2015 CCR tabulation file), by cancer type and sex, Canada, provinces and territories, annual(1,2,3,26)																	
2	Survey or program details:																	
3	Canadian Cancer Registry - 3207																	
4	Geography	Sex	Primary types of cancer	Census population st	Characteristics (20,22,	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
5	British Columbia	Males	Melanomas of the skin	1991 Census populat	New cancer cases (age	13.6	13.6	13.5	13.5	14.3	15.2	13.3	13.2	13.2	16.8	15	15.8	
6	British Columbia	Females	Melanomas of the skin	1991 Census populat	New cancer cases (age	12.4	12.6	11.9	11.4	11.4	12	10.4	9.6	10.9	12.7	12.5	12.5	
7	Footnotes:																	
8	1 Data sources include Statistics Canada's Canadian Cancer Registry (CCR) Database (source: http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3207&Item_Id=1633&lang=en), and Demography C																	

For certain applications, it might be preferable to have the rates for each year appear in the rows of the table with columns for males and females. To produce such a table, one can toggle the dropdown on the download tab that defaults to “time as columns” to “time as rows”:

[Data table](#) [Add/Remove data](#) [Manipulate](#) [Download](#) [Related information](#) [Help](#)

Select an option to download data in the desired format.

Option 1 - Download data as displayed in the Data table tab

Select the language:
 English ▼

Select the data output format type:
 time as rows ▼

Select the file format:
 CSV (comma-separated values) English spreadsheet ▼

which will yield the following final summary in the CSV file:

Clipboard		Font	
A	B	C	D
1	Table 103-0553 New cases and age-standardized rate for primary cancer		
2	Survey or program details:		
3	Canadian Cancer Registry - 3207		
4	Geography	British Columbia	British Columbia
5	Sex	Males	Females
6	Primary types of cancer: Melanomas of the skin; Melanomas of the skin [C44.0		
7	Census population	1991 Census population	1991 Census population structure
8	Characteristics	New cancer cases (age-standardized)	New cancer cases (age-standardized)
9	1992	13.6	12.4
10	1993	13.6	12.6
11	1994	13.5	11.9
12	1995	13.5	11.4
13	1996	14.3	11.4
14	1997	15.2	12
15	1998	13.3	10.4
16	1999	13.2	9.6
17	2000	13.2	10.9
18	2001	16.8	12.7
19	2002	15	12.5
20	2003	15.8	12.5
21	2004	15.5	12.2
22	2005	14.3	12.7
23	2006	15.2	12.1
24	2007	17.2	13.4
25	2008	16.8	14.8
26	2009	18	13
27	2010	15.9	14.5
28	2011	17.3	15.9
29	Footnotes:		