

# How to use CCHS3.1 and Beyond 20/20™

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**Diabetes example - in English**

## Opening CCHS3.1

- 1) Open CCHS3.1. Choose **English** then **Accept**. At the next window, in the left hand column, choose **Data**. Scroll down to the bottom and choose the first **Beyond 20/20™ Browser for common and optional content**. Choose **Open**.

## Extracting Data

- 2) On the menu row, choose **Data**, then choose **Find Source Field**.
- 3) Select **All** then **Search** (See Figure 1)
- 4) Type “Diabetes” and select **OK**.
- 5) Double-click on field number CCCE\_101 “Has Diabetes”.

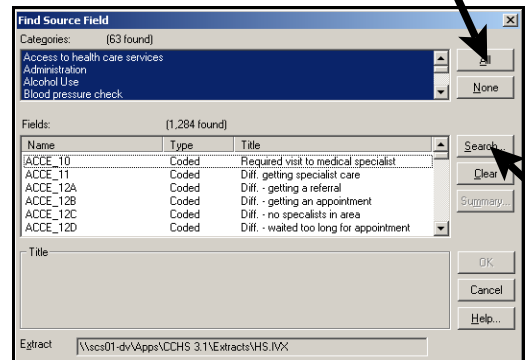


Figure 1

The right hand column is a list of source fields (variables). You will find that CCCE\_101 has jumped to the top of the list.

- 6) Click on this source field and drag it to the second row. (See Figure 2 and 3) This is an active row that creates the columns in your spreadsheet. What you have in front of you is called an extract. It can be saved, but I usually don't show students how to do this because it is so easy to just create new tables when necessary.

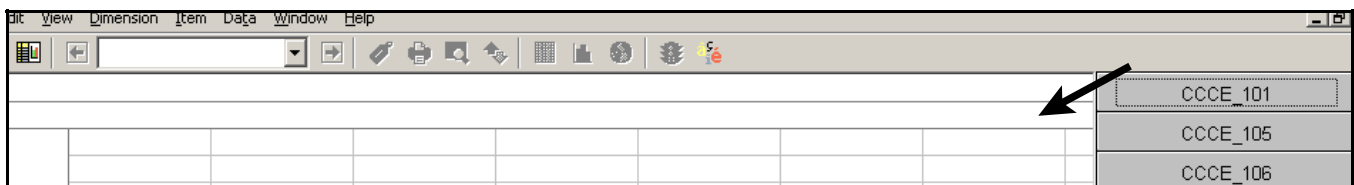


Figure 2

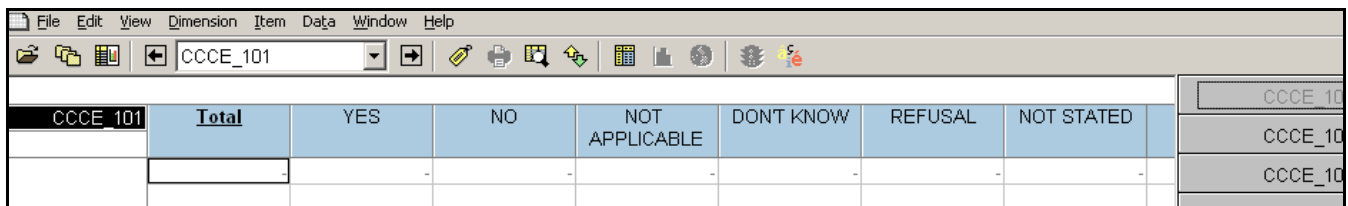


Figure 3

- 7) Now, repeat steps 2- 6 for the source field called “Health Region” (field number GEOEDPMF), except this time, drag the source field to the left hand column. The end result should look like Figure 4. This is an active column that creates your rows in your spreadsheet.

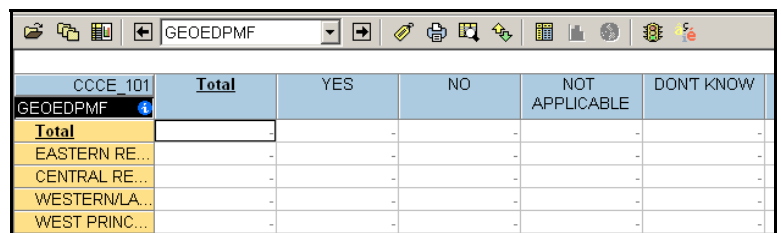



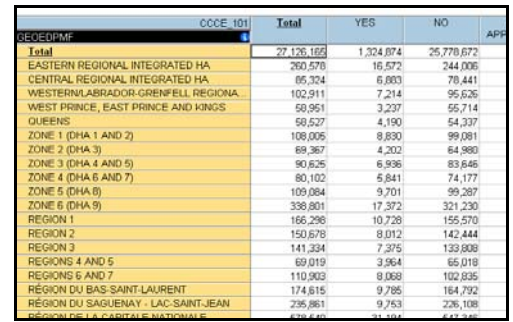
Figure 4

- 8) When you have all of your variables in the work area, click on the green traffic light icon  at the top. There is no turning back.

Once the green light is selected you cannot add more variables. You will have to start again.

A partial picture of your screen is shown in Figure 5.

You may want to close the program and try all of this again a few times to get the hang of it.



	CCCE_101	Total	YES	NO	APP
SEOEDPMF		27,126,122	1,324,874	25,778,672	
Total		27,126,122	1,324,874	25,778,672	
EASTERN REGIONAL INTEGRATED HA		260,570	16,572	244,006	
CENTRAL REGIONAL INTEGRATED HA		85,334	6,683	78,441	
WESTERN/LABRADOR-GRENFELL REGIONAL HA		102,911	7,214	95,626	
WEST PRINCE, EAST PRINCE AND KINGS		58,951	3,237	55,714	
QUEENS		58,527	4,190	54,337	
ZONE 1 (DHA 1 AND 2)		108,006	8,830	99,081	
ZONE 2 (DHA 3)		69,367	4,202	64,880	
ZONE 3 (DHA 4 AND 5)		90,625	6,936	83,646	
ZONE 4 (DHA 6 AND 7)		80,102	5,841	74,177	
ZONE 5 (DHA 8)		109,084	9,701	99,267	
ZONE 6 (DHA 9)		338,801	17,372	321,230	
REGION 1		166,298	10,728	155,570	
REGION 2		150,678	8,012	142,444	
REGION 3		141,334	7,375	133,809	
REGIONS 4 AND 5		69,019	3,964	65,018	
REGIONS 6 AND 7		110,963	8,089	102,855	
REGION DU BAS-SAINT-LAURENT		174,815	9,785	164,792	
REGION DU SAGUENAY - LAC-SAINT-JEAN		235,981	9,763	226,108	
REGION DE LA CAPITALE NATIONALE		638,440	31,194	607,246	

Figure 5

### Converting Data to Percents

- 9) On the menu row, choose **View**, select **Worksheet** then **OK**. This creates a carbon copy of your extract so that you can manipulate the data and still have an original. If you skip this step, you will not be able to go back to your original data without starting all over again.
- 10) On the menu row, choose **View**, select **Distributions**, select only **Row Distributions** (see Figure 7), then **OK**. This calculates the relative distribution of the values in each row. So, we will be finding the percent of the people in each health region that have diabetes
- 11) On the menu row, choose **View**, select **Decimals**, then **1** (or 2, whichever is your preference)

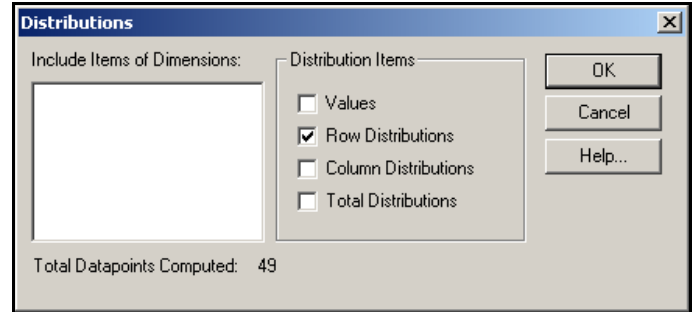
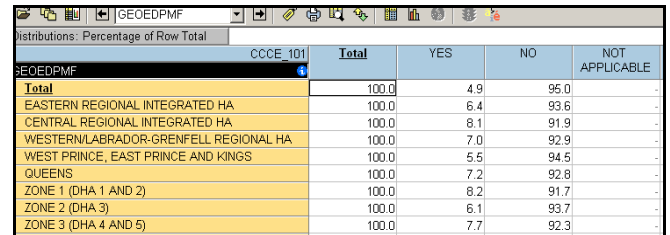


Figure 7

The end result is partially captured in Figure 8



	CCCE_101	Total	YES	NO	NOT APPLICABLE
SEOEDPMF		100.0	4.9	95.0	
Total		100.0	4.9	95.0	
EASTERN REGIONAL INTEGRATED HA		100.0	6.4	93.6	
CENTRAL REGIONAL INTEGRATED HA		100.0	8.1	91.9	
WESTERN/LABRADOR-GRENFELL REGIONAL HA		100.0	7.0	92.9	
WEST PRINCE, EAST PRINCE AND KINGS		100.0	5.5	94.5	
QUEENS		100.0	7.2	92.8	
ZONE 1 (DHA 1 AND 2)		100.0	8.2	91.7	
ZONE 2 (DHA 3)		100.0	6.1	93.7	
ZONE 3 (DHA 4 AND 5)		100.0	7.7	92.3	

Figure 8

### Hiding

Hiding can be saved until the very last step, before you copy the data into Fathom or Excel/QuattroPro. We must hide some columns and rows.

- 12) To hide columns or rows, just right click on the row or column title and choose **Hide**. (See Figure 9)

Depending on the data that you have, you will want to hide certain columns and/or rows. For this exercise, we will be hiding the **Total** Column, **Total** row and the last 4 rows of the Health Regions. (Figure 10)

NOTE: If you ever hide more than you want, just right click on the source field code and choose "Show All".

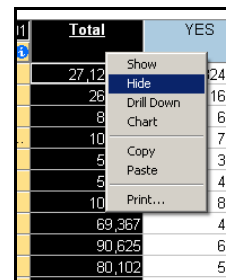


Figure 9

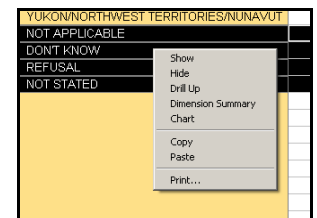


Figure 10

### Copying Data into Fathom™/Excel/QuattroPro

Your data is now ready to be copied into Fathom™/Excel/QuattroPro and manipulated. (Any further instructions deal with Fathom only.)

We are only concerned with the percentage of people who have diabetes so we must only copy the **YES** column into your collection box.

- 13) Right click on the **YES** column and choose **COPY**. (Figure 11)
- 14) Open Fathom™ and drag down a collection box. Right click on the collection box and choose **Paste Cases**. When you open the table for your collection, you will have to “clean up” the data. ie. Rename the attributes, delete any attributes you may have forgotten to delete before, delete any dashes, delete the first case, etc.

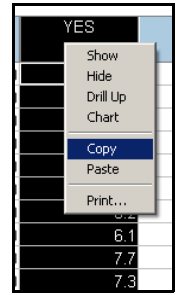


Figure 11

### Introducing More Variables

Now for something completely different! Well, not really, it’s actually pretty much the same but with an extra variable.

Close Beyond 20/20™, open it again and try doing steps 1 through 7 again. Do **NOT** go as far as clicking on the green light because we want to add more variables. If you click on the green light too soon, you’ll have to start over again!

Your screen should look like Figure 4 again.

You may want to compare the incidence of diabetes across the health regions for males and females (or some other variable)

- 15) Choose **Data** on the menu row, **Find Source Field**, and this time when you do a search, search for **SEX**. (Apparently Statistics Canada prefers the term sex over gender.)
- 16) **DHHE\_SEX** should be in the very top of the right hand column where you find the alphabetical list of your source fields. Drag this to the very top row of your work area, above the diabetes source field. See Figure 12.

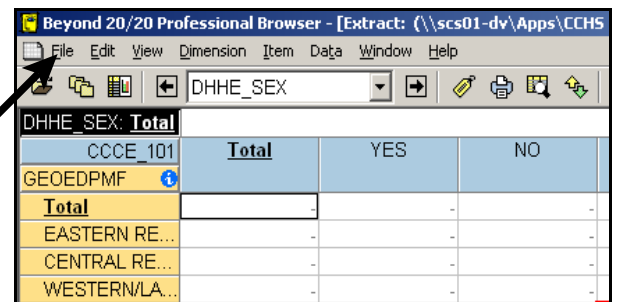



Figure 12

This is essentially a holding area. You can have up to 8 different source fields waiting up here to be used. (To be honest, I’ve never been able to get more than 5 fields in the holding area. The system at school crashes because we don’t have enough memory.) Once you get used to the program, you can start experimenting.

- 17) Click on the green traffic light icon. 

- 18) We want to open a worksheet and a distribution table again (See steps 9 - 11) except this time, you must also select **DHHE\_SEX** before you click **OK** when you reach the windows in Figures 14 and 15.

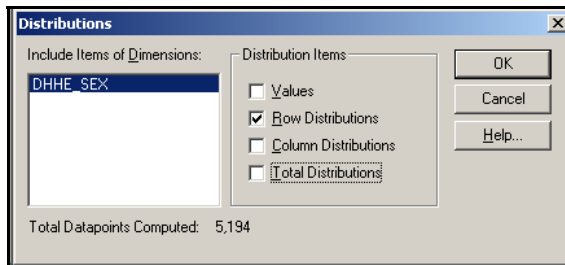


Figure 14

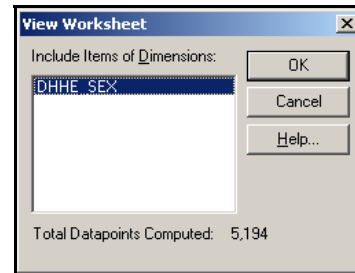


Figure 15

Your screen should look like Figure 16.

	Total	YES	NO	APP
<b>Total</b>	100.0	4.9	95.0	
EASTERN REGIONAL INTEGRATED HA	100.0	6.4	93.6	
CENTRAL REGIONAL INTEGRATED HA	100.0	8.1	91.9	
WESTERN/LABRADOR-GRENFELL REGIONAL HA	100.0	7.0	92.9	
WEST PRINCE, EAST PRINCE AND KINGS	100.0	5.5	94.5	
QUEENS	100.0	7.2	92.8	

Figure 16

This next feature is one of the things that separates Beyond 20/20™ from other spreadsheet programs.

- 19) Drag and drop the source field **DHHE\_SEX** to the thin black line that separates the column titles from the body of the spreadsheet. You will find that line gets thick and black just before you drop it. (See Figure 17)

	Total	YES	NO	NOT APPLICABLE	DONT
<b>Total</b>	100.0	4.9	95.0	-	-
ED HA	100.0	6.4	93.6	-	-

Figure 17

A partial view of the end result is shown in Figure 18. You know you have done it right when you see all those 100s! Don't panic, if you scroll to the right, you'll see your **YES** column with the appropriate percentages for males and females.

	Total	MALE	FEMALE	NOT APPLICABLE	DONT
<b>Total</b>	100.0	100.0	100.0	-	-
ED HA	100.0	100.0	100.0	-	-
HA	100.0	100.0	100.0	-	-
REGIONAL HA	100.0	100.0	100.0	-	-
KINGS	100.0	100.0	100.0	-	-

Figure 18

- 20) At this point we can hide some columns. Remember, there are two sets of column titles now. Under the **CCCE\_101** column titles (these are the ones at the very top), hide **TOTAL, NO, NOT APPLICABLE, DON'T KNOW, REFUSAL, and NOT STATED**. You should only have the **YES** column showing. See Figure 19.

CCCE_101	Total	MALE	FEMALE	NOT APPLICABLE	DONT KNOW
DHHE_SEX	4.9	5.3	4.4	-	-
RATED HA	6.4	7.1	5.7	-	-
RATED HA	8.1	6.7	9.4	-	-
NFELL REGIONAL HA	7.0	7.4	6.7	-	-
E AND KINGS	5.5	5.8	5.2	-	-

Figure 19

- 21) You can now select the second two columns (MALE and FEMALE) by clicking on MALE and dragging over to FEMALE, then right click, and choose **copy**. (Figure 20)
- 22) Paste cases into a collection box in Fathom™ and clean up the table.

CCCE_101	Total	MALE	FEMALE	NOT APPLICABLE	DONT KNOW
DHHE_SEX	4.9	5.3	4.4	-	-
RATED HA	6.4	7.1	5.7	-	-
RATED HA	8.1	6.7	9.4	-	-
NFELL REGIONAL HA	7.0	7.4	6.7	-	-
E AND KINGS	5.5	5.8	5.2	-	-
	7.2		5.7		
	8.2		7.7		
	6.1	5.5	6.6		
	7.7	6.4	8.8		

Figure 20

### Gathering Data to Create Scatter Plots

If a scatter plot is the desired type of graph, you must make sure that **one** of your variables has a Numeric code.

We will use BMI in this case.

- 23) Close up Beyond 20/20™, open it again and repeat steps 1 through 6 to get Diabetes on the second row and then do a search for BMI. Three different source fields pop up. We want the numeric one. Drag this to the left hand column. A partial view of your screen is shown in Figure 21.

CCCE_101	Total	YES	NO	NOT APPLICABLE
HWTEGBMI	-	-	-	-
Total	11	-	-	-
	12	-	-	-
	13	-	-	-

Figure 21

- 24) Click on the green light.
- 25) Repeat steps 9 through 11 to calculate the percent of the population in each BMI category that has diabetes. When hiding rows, you must hide the rows with BMI of 96 and 99. These numbers are used to represent DON'T KNOW, NOT APPLICABLE, etc. See Figure 22 for a screen shot of the end result.
- 26) The **YES** column can now be copied and pasted into Fathom™ or Excel and scatter plots can be created.

CCCE_101	YES	NO
HWTEG...	-	100.0
11	-	100.0
12	-	100.0
13	-	100.0
14	5.2	94.8
15	2.8	97.2
16	0.8	99.1
17	0.9	99.0
18	1.1	98.9
19	1.2	98.7
20	1.6	98.3
21	2.0	97.9
22	2.6	97.4
23	3.3	96.7
24	3.8	96.2
25	4.5	95.3
26	4.9	95.1
27	5.6	94.2

Figure 22

## Gathering Data to Create Bar/Circle Graphs

Beyond 20/20 has the capability of creating bar and circle graphs as well, though data may be copied into Excel/QuattroPro to do more professional graphs.

We will use the variable Physical Activity for this demonstration.

27) Close Beyond 20/20, open it again and bring the source fields **CCCE\_101 (has diabetes)** and **PACEDPAI (Physical Activity Index)** into your extract as shown in Figure 23. (Refer to steps 1 through 7 again but use physical activity instead of health region)

CCCE_101	Total	YES	NO
PACEDPAI			
Total			
ACTIVE			
MODERATE			
INACTIVE			
NOT APPLICA...			
DONT KNOW			
REFUSAL			
NOT STATED			

Figure 23

28) Click on the green light

It is now time to convert to distributions. Here is where some thinking is required. You must decide whether you want your sample space to be activity level or your sample space to be diabetics. (ie. Do you want to know what percent of diabetics are active, are inactive and are moderately active, or do you want to know what percent of active people are diabetic, what percent of inactive people are diabetic and what percent of moderately active people are diabetic.) We'll do both but show them one at a time.

CCCE_101	Total	YES	NO
PACEDPAI			
Total	100.0	4.9	95.0
ACTIVE	100.0	2.9	97.0
MODERATE	100.0	4.1	95.9
INACTIVE	100.0	6.1	93.8
NOT APPLICABLE			
DONT KNOW			


Figure 24

29) Keeping the screen the way it currently is (ie. activity level is the sample space, create a worksheet and convert to distributions (Refer to steps 9 through 11). Your result should be the same as Figure 24.

CCCE_101	Total	YES	NO
PACEDPAI			
ACTIVE	100.0	2.9	
MODERATE	100.0	4.1	
INACTIVE	100.0	6.1	

Figure 25

30) Hide all rows that do not say **ACTIVE**, **MODERATE** or **INACTIVE**. (Figure 25)

31) Click on the **YES** column then click on the chart icon  and voila!

A beautiful chart that can be copied into a word/wordperfect document. Of course, the data itself can be copied into a spreadsheet program (Excel/QuattroPro) and used to make more professional bar graphs.

Now let's try looking at this from the point of view of diabetics being the sample space.

32) Under the **Window** menu, choose the **Worksheet**. (Figure 26)

33) Convert to distributions, but this time, choose **Column Distributions**, instead of **Row Distributions**. Then convert to 1 decimal place.

34) Again, hide any rows that do not say **ACTIVE**, **MODERATE**, or **INACTIVE**.

35) This time, choose the **YES** and **NO** columns before clicking on the chart icon. We choose both this time to see if the ratios of active, inactive and moderately active are any different between people with diabetes and people without. (Figure 28)

That's about it. Feel free to explore. It took 3 years of using this program and a lot of collaboration for us to get where we are right now. Hopefully you have enough information to get you started.

For other documentation see <http://teacherweb.com/on/satistics/math> in the health statistics support folder.

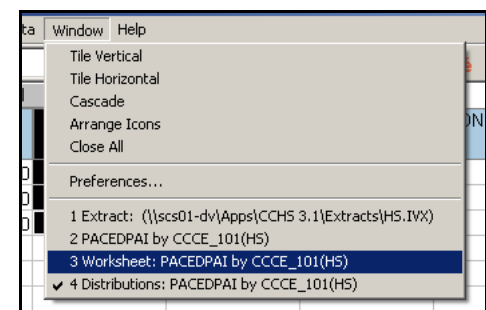


Figure 26

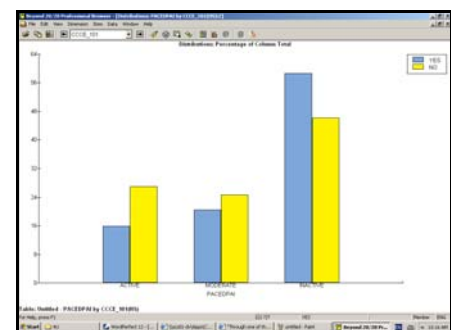


Figure 28