

Canadian Community Health Survey (CCHS) Annual component

Complement to the user guide Public Use Microdata Files 2010 and 2009-2010

November 2011



The following document is a complement to the 2010 and 2009-2010 Canadian Community Health Survey (CCHS) Microdata User Guide. It presents the approach used to transform the 2010 and 2009-2010 Master files into Public Use Microdata Files (PUMF), how the content differs between the two PUMFs, and lists which health regions have been grouped.

1. One year and two year files

In addition to the two year PUMF, which has been produced since the survey's first cycle (Cycle 1.1 - 2000-2001), a one year PUMF has also been introduced for 2010. The new annual PUMF covers a 12 month collection period and was produced with the same approach used for the two year file. While the one year file has a sample size half the size of the two year file, it has additional modules not available in the two year file (see section 4).

2. Questionnaire

The 2010 questionnaire serves as reference for both data files, 2010 and 2009-2010.

3. Conversion of CCHS 2010 and 2009-2010 Master Files to Public Use Microdata Files (PUMF)

The approach for creating a PUMF is intended to balance the requirements for maintaining respondent confidentiality by minimising disclosure risks, while providing the most useful data to users at the health region level. The following paragraphs outline some of the procedures applied to convert the CCHS master file into a PUMF.

Health regions: Health regions fall under provincial jurisdiction. As mentioned in Section 5.2 of the User Guide, there are 117 health regions across Canada. Thus, the master data file provides representative information for 117 HRs.

Some health regions have population sizes that were considered to be too small to appear individually in the PUMFs. These health regions were grouped with other(s) for the purpose of publication. The approach for keeping or collapsing health region geography in the PUMF entails applying a minimum population size for the given geography – 70, 000 inhabitants. This resulted in:

- i) collapsing 30 HRs in 14 health region groupings in all provinces except Quebec, Nova Scotia, Alberta, and British Columbia;
- ii) grouping the three territories into a single entity, which resulted in the suppression of many optional content modules for the territories;
- iii) one Quebec HR (Nord-du-Québec) being excluded from the PUMF due to its small population size and its demographic characteristics that did not lend itself well to being collapsed with other HRs;
- iv) all sample design variables being excluded.

After the grouping of some HR's, the CCHS PUMFs are comprised of 98 HRs/HR groupings across the country. The list of HR's before and after collapsing is shown in section 5 of this document.

Optional content suppression: Due to the grouping of some HRs, optional content that was not common to each health region within the grouping would have been suppressed. Since 2005, the regions and provinces have opted to coordinate the optional content selected in order to ensure a uniform selection of optional modules provincially; therefore this suppression was not necessary for any

provinces. However, because the three territories were grouped, optional content was suppressed in the territories in cases where only one or two of the territories selected the content.

The 2009-2010 master and PUMF files only contain optional content data for modules that were asked in both years, which applies to the vast majority of optional content data. Since the 2010 Master and PUMF file only cover one year, it explains why certain modules are part of the one year files but not the two year files.

Disclosure control: As mentioned earlier, the 2010 and 2009-2010 PUMFs are designed to preserve the analytical value of data as much as possible while ensuring the potential for identifying individual respondents is minimal.

Several controls were implemented in creating the two PUMF files. Restriction methods such as removing direct identifiers (e.g., sample ID, name, telephone number), reducing, recoding, and/or suppressing detail based on small frequencies given specific socio-demographic characteristics were used. Examples of variables from the master files that were not included in the PUMFs due to a high risk of disclosure (either because the variable is a risk on its own or is so in combination with other variables) include: attempted suicide in the past 12 months, has skin cancer, and whether the respondent is presently pregnant.

In addition, some response categories were deemed to be at possible risk of disclosure and were regrouped so as to be included on the PUMF. Examples include: body part affected by most serious injury, number of times consulting health professionals, number of years since stopping smoking, and main source of household income. With these regroupings in place, the 2010 and 2009-2010 PUMFs contain both fewer variables and are less detailed compared with the corresponding master files, while still preserving the analytical value of the data.

Age of respondent: Respondents' age is provided as age grouping in the CCHS PUMFs. Most of these groupings are found in 5-year age bands, from age 20-24 to age 75-79, with all respondents aged 80 and over comprising a single group. Prior to the CCHS 2005 PUMF, youth age groups included those aged 12-14 and 15-19. Beginning with the CCHS 2005 PUMF, the older youth age group has been split between those aged 15-17 and those aged 18-19. As a result, these groupings have three important benefits:

- i) BMI data can be presented for those aged 12-17;
- ii) data for those aged 18-19 is no longer automatically suppressed for variables that were only asked to those aged 18 and over;
- iii) users can still compare youth data from previous PUMFs by grouping the 15-17 year olds with the 18-19 year olds to create the age group 15-19.

Although information on some variables were collected for people of a specific age bracket, some data for certain ages still had to be suppressed to ensure confidentiality. For example, labour force data were collected for respondents aged 15 to 75. Because there is an age group 75-79 on the PUMF, publishing labour force data for 75-year olds would reveal their exact age by default. Therefore, labour force data (LBS) and physical activities – facilities at work (PAF) are only available on the PUMFs for respondents aged 15-74. Similar suppression was done for education (EDU) data of 12-14 year olds and maternal experience (MEX, MXS, and MXA) data for 50-year old women.

Special suppression was done for the three modules on maternal experiences (MEX, MXS, and MXA), data for women aged 15-19 because there was concern for a high risk of disclosure for women in this

age group. As such, though MEX, MXS, and MXA data on the master file are shown for all women aged 15 to 55, the PUMFs only present data for women aged 20 to 49.

4. Content

The CCHS content can be divided into two categories, optional content and common content modules.

Optional content

As mentioned in section 3, the main difference between the 2010 and 2009-2010 PUMFs' optional content is that the two year file requires a module to have been asked in for both years by a PUMF health region in order to be loaded to the file.

Common content

As mentioned in section 4.1 of the User Guide, common content modules include questions asked of all respondents. This common content is divided into three components: the annual, one year, and two-year common content. What differs between the 2010 and 2009-2010 PUMFs is the one year common content.

The 2010 one year common content is comprised of seven modules. All modules, with the exception of the Neurological conditions module (characterised by high risk of disclosure), are included in the 2010 PUMF.

<i>One year common content</i> <i>2010 only : Health Care Utilization and Economic Burden</i>	
<ul style="list-style-type: none"> • Contacts with health professionals (CHP) • Unmet health care needs (UCN) • Neurological conditions (NEU) • H1N1 Immunization (H1N) 	<ul style="list-style-type: none"> • Loss of Productivity (LOP) • Fibromyalgia (CC3) • Chronic fatigue syndrome and multiple chemical sensitivities (CC4)

Out of the remaining six modules (CHP, UCN, H1N, LOP, CC3, CC4) none are in the 2009-2010 PUMF except for the Contact with health professionals (CHP). This module is in both PUMFs since it was part of the one year 2010 common content and was also common content in 2009 due to the fact it was previously part of the Health Care Utilization (HCU) annual common content module.

5. Health Region Groupings

The 2010 and 2009-2010 Master files 117 health regions have been grouped into 98 health regions for the PUMFs. These groupings are detailed below. The PUMF health regions (variable GEODPMF) are similar to what was produced for previous CCHS years. Users can refer to the Derived Variables documentation to learn which groupings have changed since the 2007-2008 PUMF was published.

Health regions for dissemination, before PUMF

Newfoundland

- 1011 Eastern Regional Integrated Health Authority
- 1012 Central Regional Integrated Health Authority
- 1013 Western Regional Integrated Health Authority
- 1014 Labrador-Grenfell Regional Integrated Health Authority

Prince Edward Island

- 1101 Kings County
- 1102 Queens County
- 1103 Prince County

Nova Scotia

- 1201 Zone 1 (DHA 1 and 2)
- 1202 Zone 2 (DHA 3)
- 1203 Zone 3 (DHA 4 and 5)
- 1204 Zone 4 (DHA 6 and 7)
- 1205 Zone 5 (DHA 8)
- 1206 Zone 6 (DHA 9)

New Brunswick

- 1301 Zone 1
- 1302 Zone 2
- 1303 Zone 3
- 1304 Zone 4
- 1305 Zone 5
- 1306 Zone 6
- 1307 Zone 7

Quebec

- 2401 Région du Bas-Saint-Laurent
- 2402 Région du Saguenay - Lac-Saint-Jean
- 2403 Région de Québec
- 2404 Région de la Mauricie et du Centre-du-Québec
- 2405 Région de l'Estrie
- 2406 Région de Montréal
- 2407 Région de l'Outaouais
- 2408 Région de l'Abitibi-Témiscamingue
- 2409 Région de la Côte-Nord
- 2410 Région du Nord-du-Québec
- 2411 Région de la Gaspésie - Îles-de-la-Madeleine
- 2412 Région de la Chaudière-Appalaches
- 2413 Région de Laval
- 2414 Région de Lanaudière
- 2415 Région des Laurentides
- 2416 Région de la Montérégie

Health regions for PUMF

Newfoundland

- 10911 Eastern Regional Integrated Health Authority
- 10912 Central Regional Integrated Health Authority
- 10913 Western Region/Labrador-Grenfell Regional Integrated HA

Prince Edward Island

- 11901 Prince Edward Island

Nova Scotia

- 12901 Zone 1 (DHA 1 and 2)
- 12902 Zone 2 (DHA 3)
- 12903 Zone 3 (DHA 4 and 5)
- 12904 Zone 4 (DHA 6 and 7)
- 12905 Zone 5 (DHA 8)
- 12906 Zone 6 (DHA 9)

New Brunswick

- 13901 Zone 1
- 13902 Zone 2
- 13903 Zone 3
- 13904 Zones 4 and 5

- 13906 Zones 6 and 7

Quebec

- 24901 Région du Bas-Saint-Laurent
- 24902 Région du Saguenay - Lac-Saint-Jean
- 24903 Région de Québec
- 24904 Région de la Mauricie et du Centre-du-Québec
- 24905 Région de l'Estrie
- 24906 Région de Montréal
- 24907 Région de l'Outaouais
- 24908 Région de l'Abitibi-Témiscamingue
- 24909 Région de la Côte-Nord

- 24911 Région de la Gaspésie - Îles-de-la-Madeleine
- 24912 Région de la Chaudière-Appalaches
- 24913 Région de Laval
- 24914 Région de Lanaudière
- 24915 Région des Laurentides
- 24916 Région de la Montérégie

Health regions for dissemination, before PUMF

Ontario

3526 Algoma
3527 Brant
3530 Durham
3531 Elgin-St. Thomas
3533 Grey Bruce
3534 Haldimand-Norfolk
3535 Haliburton, Kawartha, Pine Ridge
3536 Halton
3537 Hamilton
3538 Hastings and Prince Edward Counties
3539 Huron
3554 Perth
3540 Chatham-Kent
3541 Kingston, Frontenac and Lennox and Addington
3542 Lambton
3543 Leeds, Grenville and Lanark
3544 Middlesex-London
3546 Niagara
3547 North Bay Parry Sound
3563 Timiskaming
3549 Northwestern
3551 Ottawa
3552 Oxford
3553 Peel
3555 Peterborough
3556 Porcupine
3557 Renfrew
3558 Eastern Ontario
3560 Simcoe Muskoka
3561 Sudbury
3562 Thunder Bay
3565 Waterloo
3566 Wellington-Dufferin-Guelph
3568 Windsor-Essex
3570 York
3595 City of Toronto

Manitoba

4610 Winnipeg RHA
4615 Brandon RHA
4645 Assiniboine RHA
4620 North Eastman RHA
4625 South Eastman RHA
4630 Interlake RHA
4660 Parkland RHA
4640 Central RHA
4670 NOR-MAN RHA
4685 Burntwood RHA/Churchill RHA

Health regions for PUMF

Ontario

35926 Algoma
35927 Brant
35930 Durham
35931 Elgin-St. Thomas
35933 Grey Bruce
35934 Haldimand-Norfolk
35935 Haliburton, Kawartha, Pine Ridge
35936 Halton
35937 Hamilton
35938 Hastings and Prince Edward
35939 Huron/Perth

35940 Chatham-Kent
35941 Kingston, Frontenac and Lennox and Addington
35942 Lambton
35943 Leeds, Grenville and Lanark
35944 Middlesex-London
35946 Niagara
35947 North Bay Parry Sound/Timiskaming

35949 Northwestern
35951 Ottawa
35952 Oxford
35953 Peel
35955 Peterborough
35956 Porcupine
35957 Renfrew
35958 Eastern Ontario
35960 Simcoe Muskoka
35961 Sudbury
35962 Thunder Bay
35965 Waterloo
35966 Wellington-Dufferin-Guelph
35968 Windsor-Essex
35970 York
35995 City of Toronto

Manitoba

46910 Winnipeg RHA
46915 Brandon/Assiniboine RHA

46920 North and South Eastman RHA

46931 Interlake/Parkland RHA

46940 Central RHA
46970 NOR-MAN/Burntwood-Churchill

Health regions for dissemination, before PUMF

Saskatchewan

4701 Sun Country RHA
4702 Five Hills RHA
4703 Cypress RHA
4704 Regina Qu'Appelle RHA
4705 Sunrise RHA
4708 Kelsey trail RHA
4706 Saskatoon RHA
4707 Heartland RHA
4710 Prairie North RHA
4709 Prince Albert Parkland RHA

4714 Mamawetan Churchill River RHA/Keewatin Yatthé
RHA/Athabaska HA

Alberta

4831 South Zone
4832 Calgary Zone
4833 Central Zone
4834 Edmonton Zone
4835 North Zone

British Columbia

5911 East Kootenay
5912 Kootenay-Boundary
5913 Okanagan
5914 Thompson/Cariboo
5921 Fraser East
5922 Fraser North
5923 Fraser South
5931 Richmond
5932 Vancouver
5933 North Shore/Coast Garibaldi
5941 South Vancouver Island
5942 Central Vancouver Island
5943 North Vancouver Island
5951 Northwest
5952 Northern Interior
5953 Northeast

Territories

6001 Yukon Territory
6101 Northwest Territories
6201 Nunavut

Health regions for PUMF

Saskatchewan

47901 Sun Country/Five Hills/Cypress

47904 Regina Qu'Appelle RHA
47905 Sunrise/Kelsey Trail

47906 Saskatoon RHA
47907 Heartland/Prairie North

47909 Prince Albert Parkland/Mamawetan-Keewatin Yatthé-
Athabaska

Alberta

48931 South Zone
48932 Calgary Zone
48933 Central Zone
48934 Edmonton Zone
48935 North Zone

British Columbia

59911 East Kootenay
59912 Kootenay-Boundary
59913 Okanagan
59914 Thompson/Cariboo
59921 Fraser East
59922 Fraser North
59923 Fraser South
59931 Richmond
59932 Vancouver
59933 North Shore/Coast Garibaldi
59941 South Vancouver Island
59942 Central Vancouver Island
59943 North Vancouver Island
59951 Northwest
59952 Northern Interior
59953 Northeast

Territories

60901 Yukon Territory/Northwest Territories/Nunavut