# Canadian Community Health Survey (CCHS)
# Annual component

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

**November 2011**



Statistics Canada    Statistique Canada

Canada

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, 0000 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.

| *One year common content* |
| :---: |
| *2010 only : Health Care Utilization and Economic Burden* |

| | |
| :--- | :--- |
| • Contacts with health professionals (CHP) <br> • Unmet health care needs (UCN) <br> • Neurological conditions (NEU) <br> • H1N1 Immunization (H1N) | • Loss of Productivity (LOP) <br> • Fibromyalgia (CC3) <br> • 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. Theses 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 | | Health regions for PUMF | |
|---|---|---|---|

**Ontario**

| | | | |
|---|---|---|---|
| 3526 | Algoma | 35926 | Algoma |
| 3527 | Brant | 35927 | Brant |
| 3530 | Durham | 35930 | Durham |
| 3531 | Elgin-St. Thomas | 35931 | Elgin-St. Thomas |
| 3533 | Grey Bruce | 35933 | Grey Bruce |
| 3534 | Haldimand-Norfolk | 35934 | Haldimand-Norfolk |
| 3535 | Haliburton, Kawartha, Pine Ridge | 35935 | Haliburton, Kawartha, Pine Ridge |
| 3536 | Halton | 35936 | Halton |
| 3537 | Hamilton | 35937 | Hamilton |
| 3538 | Hastings and Prince Edward Counties | 35938 | Hastings and Prince Edward |
| 3539 | Huron | 35939 | Huron/Perth |
| 3554 | Perth | | |
| 3540 | Chatham-Kent | 35940 | Chatham-Kent |
| 3541 | Kingston, Frontenac and Lennox and Addington | 35941 | Kingston, Frontenac and Lennox and Addington |
| 3542 | Lambton | 35942 | Lambton |
| 3543 | Leeds, Grenville and Lanark | 35943 | Leeds, Grenville and Lanark |
| 3544 | Middlesex-London | 35944 | Middlesex-London |
| 3546 | Niagara | 35946 | Niagara |
| 3547 | North Bay Parry Sound | 35947 | North Bay Parry Sound/Timiskaming |
| 3563 | Timiskaming | | |
| 3549 | Northwestern | 35949 | Northwestern |
| 3551 | Ottawa | 35951 | Ottawa |
| 3552 | Oxford | 35952 | Oxford |
| 3553 | Peel | 35953 | Peel |
| 3555 | Peterborough | 35955 | Peterborough |
| 3556 | Porcupine | 35956 | Porcupine |
| 3557 | Renfrew | 35957 | Renfrew |
| 3558 | Eastern Ontario | 35958 | Eastern Ontario |
| 3560 | Simcoe Muskoka | 35960 | Simcoe Muskoka |
| 3561 | Sudbury | 35961 | Sudbury |
| 3562 | Thunder Bay | 35962 | Thunder Bay |
| 3565 | Waterloo | 35965 | Waterloo |
| 3566 | Wellington-Dufferin-Guelph | 35966 | Wellington-Dufferin-Guelph |
| 3568 | Windsor-Essex | 35968 | Windsor-Essex |
| 3570 | York | 35970 | York |
| 3595 | City of Toronto | 35995 | City of Toronto |

**Manitoba**

| | | | |
|---|---|---|---|
| 4610 | Winnipeg RHA | 46910 | Winnipeg RHA |
| 4615 | Brandon RHA | 46915 | Brandon/Assiniboine RHA |
| 4645 | Assiniboine RHA | | |
| 4620 | North Eastman RHA | 46920 | North and South Eastman RHA |
| 4625 | South Eastman RHA | | |
| 4630 | Interlake RHA | 46931 | Interlake/Parkland RHA |
| 4660 | Parkland RHA | | |
| 4640 | Central RHA | 46940 | Central RHA |
| 4670 | NOR-MAN RHA | 46970 | NOR-MAN/Burntwood-Churchill |
| 4685 | Burntwood RHA/Churchill RHA | | |

| Health regions for dissemination, before PUMF | | Health regions for PUMF | |
|---|---|---|---|

**Saskatchewan**

| | | | |
|---|---|---|---|
| 4701 | Sun Country RHA | 47901 | Sun Country/Five Hills/Cypress |
| 4702 | Five Hills RHA | | |
| 4703 | Cypress RHA | | |
| 4704 | Regina Qu'Appelle RHA | 47904 | Regina Qu'Appelle RHA |
| 4705 | Sunrise RHA | 47905 | Sunrise/Kelsey Trail |
| 4708 | Kelsey trail RHA | | |
| 4706 | Saskatoon RHA | 47906 | Saskatoon RHA |
| 4707 | Heartland RHA | 47907 | Heartland/Prairie North |
| 4710 | Prairie North RHA | | |
| 4709 | Prince Albert Parkland RHA | 47909 | Prince Albert Parkland/Mamawetan-Keewatin Yatthé-Athabaska |
| 4714 | Mamawetan Churchill River RHA/Keewatin Yatthé RHA/Athabaska HA | | |

**Alberta**

| | | | |
|---|---|---|---|
| 4831 | South Zone | 48931 | South Zone |
| 4832 | Calgary Zone | 48932 | Calgary Zone |
| 4833 | Central Zone | 48933 | Central Zone |
| 4834 | Edmonton Zone | 48934 | Edmonton Zone |
| 4835 | North Zone | 48935 | North Zone |

**British Columbia**

| | | | |
|---|---|---|---|
| 5911 | East Kootenay | 59911 | East Kootenay |
| 5912 | Kootenay-Boundary | 59912 | Kootenay-Boundary |
| 5913 | Okanagan | 59913 | Okanagan |
| 5914 | Thompson/Cariboo | 59914 | Thompson/Cariboo |
| 5921 | Fraser East | 59921 | Fraser East |
| 5922 | Fraser North | 59922 | Fraser North |
| 5923 | Fraser South | 59923 | Fraser South |
| 5931 | Richmond | 59931 | Richmond |
| 5932 | Vancouver | 59932 | Vancouver |
| 5933 | North Shore/Coast Garibaldi | 59933 | North Shore/Coast Garibaldi |
| 5941 | South Vancouver Island | 59941 | South Vancouver Island |
| 5942 | Central Vancouver Island | 59942 | Central Vancouver Island |
| 5943 | North Vancouver Island | 59943 | North Vancouver Island |
| 5951 | Northwest | 59951 | Northwest |
| 5952 | Northern Interior | 59952 | Northern Interior |
| 5953 | Northeast | 59953 | Northeast |

**Territories**

| | | | |
|---|---|---|---|
| 6001 | Yukon Territory | 60901 | Yukon Territory/Northwest Territories/Nunavut |
| 6101 | Northwest Territories | | |
| 6201 | Nunavut | | |