PCCF + Version 5J
User's Guide

**Automated Geographic Coding Based on the
Statistics Canada Postal Code Conversion Files**

Including Postal Codes through May 2011

by

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ABSTRACT

PCCF+ Version 5 consists of a SAS control program and a series of reference files derived from the most recent Statistics Canada Postal Code Conversion File (PCCF) and a 2006 postal code population weight file (WCF). It automatically assigns a full range of geographic identifiers (down to dissemination area, dissemination block, and latitude, longitude) based on postal codes. It is consistent and logical in the way it does this. Any incorrect coding due to errors in the underlying reference files can easily be corrected once identified. To do such coding by manual methods would require highly skilled coders with much time and access to the full mailing address or property description. Even so, the results of manual coding would tend to be less accurate (particularly in urban areas), and they could inadvertently introduce systematic bias (especially in rural areas).

As long as the postal codes on the incoming file are valid for the corresponding addresses, *PCCF+* will usually generate highly accurate geographic coding. Manual geographic coding is no longer required except in very rare circumstances. Records for most postal codes which serve more than one dissemination area--including most rural postal codes and several classes of urban postal codes—are assigned geographic codes based on a population-weighted random allocation among the possible dissemination areas and blocks. This produces an unbiased allocation of events in relation to the resident population. However, because of the nature of the postal code conversion files, a few classes of valid postal codes (for which only the post office location is known) cannot be assigned full geographic identifiers corresponding to a place of residence or business. In such cases, as well as for postal codes that do not match exactly to the PCCF or WCF, the first one to five characters of the postal code are used to try to assign partial geographic identifiers to the extent possible. This takes care of many situations where one or more characters of the postal code are invalid, but the first one to five characters are valid. Problem records include full diagnostic and reference information. Business and institutional addresses are clearly identified, which facilitates determining if the postal code corresponds to the client's usual place of residence (or business), or was the result of a keying or reporting error. An alternate version of the control program is also provided for better coding of the location of health facilities and professional offices, as opposed to places of residence, where that is desired.

Note: For authorized university research and teaching purposes, *PCCF+* is available under the Data Liberation Initiative (DLI). For general information on the DLI, including contact persons at each participating university, see the Statistics Canada website: www.statcan.ca (Learning resources / Postsecondary/Data Liberation Initiative). On the DLI FTP site, the *PCCF+* filenames are shown in the directory -/health/pccf5x-fccp5x.

For public health professionals in all levels of government across Canada, and those in NGOs and universities (excepting those in the private sector), the Public Health Agency of Canada offers free access to GIS resources licensed for redistribution, including PCCF and PCCF+. For more information, visit their website at www.phac-aspc.gc.ca/php-psp/gis_e.html, or contact them by email at gishelp@phac-aspc.gc.ca, or by telephone toll free at 1-877-430-9995.

The Ontario Ministry of Health and Long Term Care has also licensed PCCF (and PCCF+) for redistribution to their affiliated health agencies across Ontario. For more information, contact Carol Paul, Health Planning Branch, Ontario Ministry of Health, 5700 Yonge St, 2nd Floor, Toronto ON M2M 4K5, telephone 1-416-327-7733, fax 1-416- 327-7617.

For Statistics Canada internal use, see \\geodepot2\ftp\Geographie_2006_Geography\Geo_Data_Products-Produits_de_données_Géo\PCCFplus_version5J_May11

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GETTING STARTED

Introduction

To do automated geographic coding based on postal codes using *PCCF+*, all you need to do is follow Steps 1, 2 and 3 below. The rest of the documentation provides supplementary detail and background information which should be read eventually, but it is not essential to getting started. A list of **Abbreviations** begins on page 17, the **References** begin on page 19, and a **List of Appendices** available can be found on page 23.

If you want to find out what the program does and how it works before getting started, skip Steps 1-3, and begin reading at the section entitled **Origins and objectives of *PCCF+***. Then come back to Step 1 when you are ready to begin coding.

Step 1: Getting set up

The *PCCF+* package consists of five SAS control files (the programs) plus several reference files derived mainly from the Statistics Canada Postal Code Conversion File (PCCF) and Weighted Conversion Files (WCF). To use the programs, you must first have installed SAS on to your computer and copied all of the files shown in Table 1 (on page 7) into your own directory. For residence coding, edit the program GEORES5x.SAS. For coding of health facilities or office locations, edit the program GEOINS5x.SAS.

Step 2: Identifying your input file (with postal codes to be assigned geography)

Your incoming data to be coded will be known to the programs as HLTHDAT. You must indicate to the program where to find your income file, by changing the shaded filename shown below to your own incoming *path/filename.ext* at the following line:

```
filename HLTHDAT 'c:\pccf5c\sampldat.can'; /* your input file       */
```

Your incoming file must be a flat ASCII text file with fields in fixed columns (such as would be produced by a SAS PUT statement). It can be sorted in any order or unsorted. Each logical record of the incoming file must contain a unique identifier (ID), plus a postal code (PCODE) if available. The postal code can have a space or hyphen between the first 3 characters (FSA) and the last 3 characters (LDU), or no space. Those fields can be anywhere in the file, but you must tell SAS where to find them, as in the following example:

```
DATA HLTHDAT0; INFILE HLTHDAT MISSOVER;
INPUT
 @  5  ID       $CHAR8.   /* UNIQUE IDENTIFIER OR REGISTRAT NUMBER   */
                          /* IT CAN BE UP TO 12 CHARACTERS IN LENGTH */
 @ 88  FSA      $CHAR3.   /* FSA (ANA)--FIRST 3 CHARACTERS OF PCODE  */
 @ 92  LDU      $CHAR3.;  /* LDU (NAN)--LAST 3 CHARACTERS OF PCODE   */
PCODE=FSA||LDU;           /* POSTAL CODE (ANANAN)                    */
```

The ID can be numerical, alphabetic or mixed. It can be up to 12 characters in length, and can be found anywhere in your file, as specified in the INPUT statement. If ID is more than 12 characters in length, the output file formatting would have to be modified. Records with the same ID but different postal codes will each be assigned geographic codes. *However, if the same ID and postal code appear in combination more than once, only one example of each combination will be retained.* The postal code can also be found anywhere in the file, with the FSA optionally separated from the LDU, or together. The supplemental program flattext.sas can be used to convert

Step 3: Naming the two output files produced

PCCF+ will produce two output files, one for all of the coded data, and a subset of that which contains the problem records (errors, warnings and notes). You must specify the name of these output files by changing the shaded filenames (and corresponding paths) to the names you want your output files to be called. We suggest using the extensions GEO and PRB for these files, but you can use any extensions you wish.

```
filename HLTHOUT 'c:\pccf5c\sampldat.geo'; /* the main output file            */
filename GEOPROB 'c:\pccf5c\sampldat.prb'; /* the problem file (subset of above)   */
```

The first of these two output files, known to SAS as HLTHOUT, will contain the ID and postal code from your incoming HLTHDAT file, plus all of the geographic codes which the programs could successfully determine, and diagnostic fields to help you understand how the coding proceeded in each case.

The second output file, known to SAS as GEOPROB, will contain a subset of the HLTHOUT records, for any cases identified as errors, warnings or notes. To facilitate checking and correction, it will be sorted by type of problem (errors first, followed by warnings, followed by notes), then by delivery mode type (DMT), then by postal code. In the unlikely event that none of the HLTHOUT records were identified as potential problems (errors, warnings, or notes), then the GEOPROB dataset and corresponding file would be empty.

When Steps 1, 2 and 3 are completed, you will be ready to start assigning geographic identifiers to your file based on postal codes. If you are eager to get started, go right ahead. Just submit the SAS program. The rest of the documentation can be read later. To make the SAS printout easier to read, the page setup (under the file menu) should specify landscape orientation, and the print setup (also under the file menu) should specify font SAS monospace 8 point.

Step 4 (optional): Getting appropriate geographic coding for FSAs which were moved (V1H & V9G)

After completing Step 3 (running the program), check the printed output. Immediately following the Summary of Automated Coding Results (at the beginning of the .LST output), if your data contained any postal codes beginning with V1H or V9G which were moved south in 1997, you will see a table showing how many postal codes with each of those two FSA were involved. *If* that table is present (and non-blank), then to get the appropriate geographic coding for those postal codes, you may need to run a supplemental program (R5xOLD for residential coding, or I5xOLD for institutional coding). Whether or not you need to run the supplemental program depends on the vintage of your postal codes (see Appendix C for how the vintage of a postal code is defined). *If the vintage of your postal codes is 1 April 1999 or later, then use of the supplemental programs is unnecessary and will have no effect on the data.* In all other cases, if the results of Step 3 show problem postal codes beginning in V1H or V9G, you should run the supplemental program to ensure that the appropriate geographic codes are assigned.

First identify your input file, as you did in Step 2, except that this time the input filename will be the same as the HLTHOUT filename which you identified in Step 3.

Assuming that each record in your data has approximately the same vintage of postal code, then check the first input data step in R5xOLD or I5xOLD, and modify the value of PCVDATC if required, as shown in the shaded area below. If your data contain no postal codes of vintage later than 1 June 1996, then do not change the value of PCVDATC.

```
/* ONLY CHANGE DATE BELOW IF VINTAGE IS LATER THAN 19970601: */
PCVDATC='19970601';  /* YYYYMMDD VINTAGE OF PCODES    */
                     /* MM=01-12; DD=01-31 ONLY—NOT OO OR 99 */
```

When you have completed the above, submit the supplemental program. Depending on the vintage of your postal codes, some, none or all of the geographic coding for postal codes beginning with V1H and/or V9G may be changed to correspond to their former location.

The rest of this step is needed only if each record of your data may have a different vintage of postal code, so that the global change of the PCVDATC as shown above is not appropriate. But if (as will most often be the case) the global change was appropriate, then stop here.

If each record of your data may have a different vintage of postal code, then append that date to the end of each HLTHOUT record output by GEORES5x or GEOINS5x, and then revise the first input data step in R5xOLD or I5xOLD to include the following line:

```
 @ nnn PCVDATC $CHAR8.;  /* YYYYMMDD VINTAGE OF PCODE */
```

And in that case, don't forget to delete the semicolon at the end of the old input statement, and to comment out the line (just below the end of the input statement) that defines PCVDATC as a constant. Do the latter by adding the SAS comment characters as shown in the shaded text below:

```
/* PCVDATC='19970601'; */ /* YYYYMMDD VINTAGE OF PCODES     */
```

Table 1 Files included in PCCF+ Version 5J

```
-------------------------------------------------------------------------------------------------------------------------------
Filename                         Description
-------------------------------------------------------------------------------------------------------------------------------
GEORES5x.SAS                     SAS PROG (RESIDENCE CODES)
GEOINS5x.SAS*                    ALT SAS PROG (OFFICE CODES)
R5xOLD.SAS#                      SAS PROG OLD FSAs (RESIDENCE CODES)
I5xOLD.SAS#*                     ALT SAS PROG OLD FSAs (OFFICE CODES)
DIST5x.SAS                       CALCULATES MINIMUM DISTANCE TO CLOSEST OF MANY LAT LONG
EXPLODE2.SAS + GROUPED.TXT       TRANSFORMS COUNT DATA TO EQUIVALENT INDIVIDUAL RECORDS
FIXPCBAD.SAS + PCBAD.TXT         FIX COMMON ERRORS IN CANADIAN POSTAL CODES.
HOUTDLM.SAS                      EXPORT PCCF+ RESULTS TO A TAB-DELIMITED FILE
BLDG9606.EGMRES.CAN              POSSIBLE RES FOR DMT E G M
BLDG0803.TXTF1EZ3.CAN            BLDG NAMES & ADDRESSES
CPADR.NADR0803.CAN               NUMBER ADDRESS RANGES FOR PCODE
CPADR.AIRSTAGE.CAN               CANADA POST AIR STAGE OFFICES
GEOREF06.ARDEF.CAN               AGRICULTURAL REGION (CROP DISTRICT) DEFINITIONS
GEOREF06.ARNAMES.CAN             AGRICULTURAL REGION (CROP DISTRICT) NAMES
GEOREF06.DB06EADA.CAN            2006 DISSEMINATION BLOCK TO 1981-2001 EA/DA
GEOREF06.CCSSAC.CAN              CENSUS CONSOLIDATED SUBDIVISION DEFS, SACTYPE, SAC
GEOREF06.CCSNAMES.CAN            CENSUS CONSOLIDATED SUBDIVISION NAMES
GEOREF06.CDNAMES.CAN             CENSUS DIVISION NAMES
GEOREF06.CSDNAMES.CAN            CENSUS SUBDIVISION NAMES
GEOREF06.CMANAMES.CAN            CENSUS METROPOLITAN AREA AND CENSUS AGGLOMERATION NAMES
GEOREF06.CSIZE06.CAN             COMMUNITY SIZE BASED ON 2006 CMACA POP (INCL CMA NAMES)
GEOREF06.DABLK06.CAN             BLOCKS WITHIN DISSEMINATION AREAS
GEOREF06.DABLKPNT06.CAN          POINTER TO BLOCKS WITHIN DISSEMINATION AREAS
GEOREF06.DPLNAMES.CAN            DESIGNATED PLACE NAMES
GEOREF06.ERDEF.CAN               ECONOMIC REGION DEFINITIONS
GEOREF06.ERNAMES.CAN             ECONOMIC REGION NAMES
GEOREF06.FEDNAMES.CAN            FEDERAL ELECTORAL DISTRICT
GEOREF06.GTF06.CAN               GEOGRAPHIC ATTRIBUTES AT BLOCK LEVEL
GEOREF06.HRDEF07N.CAN            HEALTH REGIONS DEFINITIONS
GEOREF06.HRNAM07N.CAN            HEALTH REGION NAMES AND POPULATIONS
GEOREF06.SUBDEF07N.CAN           HEALTH DISTRICT DEFINITIONS
GEOREF06.SUBNAM7N.CAN            HEALTH DISTRICT NAMES
GEOREF06.INSTFLG.CAN             INSTITUTIONAL FLAG
GEOREF06.NSREL96.CAN             NORTH SOUTH RELATIONSHIP (BASED ON 1996 PRCDCSD)
GEOREF06.AHRDEF7M.CAN            ALTERNATE HEALTH REGIONS DEFINITIONS
GEOREF06.AHRNAM7M.CAN            ALTERNATE HEALTH REGIONS NAMES
GEOREF06.ASUBDEF10.CAN           ALTERNATE HEALTH DISTRICTS DEFINITIONS
GEOREF06.ASUBNAM10.CAN           ALTERNATE HEALTH DISTRICTS NAMES
GEOREF06.DB01DA06.CAN            2001 CENSUS DISSEMINATION BLOCK TO 2006 DISSEMINATION AREA
MSWORD.FCCP5x.PDF                PCCF+ USER GUIDE-FRENCH
MSWORD.FMT5xPRB.DOC              MS Word SHELL FOR PRINTING THE PROBLEM FILE (.PRB)
MSWORD.PCCF5x.PDF                PCCF+ USER GUIDE-ENGLISH
PCCFyymm.BCVUNIQ.CAN#            PCODES PRIOR TO MOVE--OLD FSAs
PCCFyymm.CPCOMM.CAN              CANADA POST COMMUNITY NAMES
PCCFyymm.DUPS.CAN                ALL OCCURRENCES DUPLICATE PCODES
PCCFyymm.FSAGEOG.CAN             GEOGRAPHY AT EACH FSA
PCCFyymm.FSAGEO1.CAN#            GEOGRAPHY AT EACH FSA—OLD FSAs
PCCFyymm.FSA12GEO.CAN            GEOGRAPHY AT EACH FSA12
PCCFyymm.FSA12GE1.CAN#           GEOGRAPHY AT EACH FSA12—OLD FSAs
PCCFyymm.POINTDUP.CAN            POINTER TO 1ST DUPLICATE PCODE
PCCFyymm.RPO.CAN*                RURAL POST OFFICE LOCATIONS
PCCFyymm.UNIQ.CAN                PCODES UNIQUE ON PCCF
PCCFyymm.WCFPOINT.CAN            POINTER TO 1ST DUPLICATE PCODE ON WCF 6-DIGIT
PCCFyymm.WCFUDUPS.CAN            ALL OCCURRENCES DUPL+UNIQUE PCODES ON WCF 6 DIGIT
PCCFyymm.WC5POINT.CAN            POINTER TO 1ST DUPLICATE PCODE ON WCF 5-DIGIT
PCCFyymm.WC5UDUPS.CAN            ALL OCCURRENCES DUPL+UNIQUE PCODES ON WCF 5-DIGIT
PCCFyymm.WC4POINT.CAN            POINTER TO 1ST DUPLICATE PCODE ON WCF 4-DIGIT
PCCFyymm.WC4UDUPS.CAN            ALL OCCURRENCES DUPL+UNIQUE PCODES ON WCF 4-DIGIT
PCCFC06.WCFBLK.CAN               BLOCKS SERVED BY WCF POSTAL CODES
PCCFC06.WCFBLKPT.CAN             POINTER TO BLOCKS SERVED BY WCF POSTAL CODES
PCCFC06.FSAPOINT.CAN             POINTER TO 1ST DUPLICATE FSADABLK
PCCFC06.FSAUDUPS.CAN             ALL OCCURRENCES DUPL+UNIQUE FSADABLK
SAMPLEDAT.CAN                    SAMPLE DATA FOR TESTING PROGRAMS
SERVICES.IGE                     TEST DATA FOR PROGRAM DIST4x.SAS
PCBAD.TXT                        TEST DATA FOR PROGRAM FIXPCBAD.SAS
SESREF.IPEIMM06.CAN              IPPE QUINTILES WITHIN CMACA AND NATIONAL IMMIGRANT TERCILES
WCFDA06.CAN                      2006 CENSUS POSTAL CODE POPULATION WEIGHT FILE—DATA
-------------------------------------------------------------------------------------------------------------------------------
```

```
WCFDA06.DOC                          2006 CENSUS POSTAL CODE POPULATION WEIGHT FILE—RECORD LAYOUT
```

Note: Provincial or regional subsets of the reference files will end with one of the following extensions in place of CAN: NF NS PE NB QC ON
            MB SK AB BC YT NT NU ATL PRA WES. (For the meanings of the filename extensions, see page 17.) For best results, all of the files
            used should have the same extensions.
*   An asterisk following a filename indicates that it is only needed for office coding.
#   A number sign following a filename indicates that it is only needed for coding FSAs which have been moved.
            PCCFyymm replaced by PCCF0803 (March 2008), etc.
            GEORES5x GEOINS5x replaced by GEORES5C GEOINS5C (Version 5C), etc.

HOW THE PACKAGE WORKS

Origins and objectives of *PCCF+*

PCCF+ consists of two SAS control programs (GEORES5x for residential coding, GEOINS5x for office coding) and a series of reference files derived from the Statistics Canada *Postal Code Conversion File* (PCCF), the *Postal Code Population Weight File* (WCF) and other sources. It automatically assigns a full range of geographic identifiers (PR CD CSD CMA CT DA BLK LAT LONG etc.) based on postal codes. It is consistent and logical in the way it does this. *PCCF+* uses techniques developed over a period of years for research studies at Statistics Canada. Any incorrect coding due to errors in the underlying reference files can easily be corrected once identified. To do such coding by manual methods would require highly skilled coders with much time and access to full mailing addresses. Even so, the results of manual coding would tend to be less accurate (particularly in urban areas), and they could inadvertently introduce systematic bias (especially in rural areas).

Version 1: 1986 Census geography; equal weight to each duplicate record
Version 2: 1991 Census geography; 2B (20% sample) household weights for most duplicate records
Version 3: 1996 Census geography; 2A (100% count) population weights for most duplicate records
Version 4: 2001 Census geography, 2A (100% count) population weights for most duplicate records
Version 5: 2006 Census geography, 2A (100% count) population weights for most duplicate records

Objectives

At their place of residence, 24% of the Canadian population use postal codes which are vague and ambiguous with respect to location (see **Table 2**, page 22), or which are only linked to post office location. This is the biggest problem facing geographic coding from Canadian postal codes. For example, about 20% of the population uses rural postal codes (which each serve an average of about 1100 persons), 3% use rural route services from urban post offices, and 1% use small post office boxes. For the other 76% of Canadians, the vast majority use postal codes presenting little or no problem with respect to geographic coding, which can usually be done with great precision. For example, for the most common category of service—letter carrier delivery to a private dwelling—only about 30 people share the same postal code. However, a few classes of urban postal codes are primarily used by businesses and institutions, and may or may not be valid as a place of residence. It is important to identify and deal with the various sorts of problems represented by each of the above categories, and that is what *PCCF+* does, or helps you to do, as summarized below.

- Deal with community mail boxes and other sources of duplicate records on the PCCF (DMT A, B).
- Identify postal codes which may be used by businesses or institutions (DMT E, G, M).
- Provide geographically unbiased coding despite the great ambiguity of rural postal codes and rural routes from urban post offices (DMT W, H, T).
- Provide geographically unbiased coding for persons or organizations using small PO boxes at urban post offices (DMT K), and for those using General Delivery at urban post offices (DMT J).
- Provide client site coding (vs PO location) for institutions using large PO boxes (DMT M).
- Deal with retired postal codes, taking into account problems related to previous DMT.
- Provide for translation across different vintages of census geography.

Bells and whistles

- Use the first three (FSA), four or five characters of the postal code to impute or partially impute geographic coding where the postal code is not found or is only linked to post office geography.
- Use the first 1 or 2 characters of the postal code for partial imputation if the FSA not found.
- Provide information which may help in correcting erroneous or problematic postal codes, or for finding geographic codes by other means (if possible); try to furnish enough information so that the user can decide whether to accept or reject the coding suggested, if correction of the underlying problem is not possible or feasible.
- For postal codes which may or may not refer to a place of business (DMT E, G, or M), flag records for postal codes known to serve non-residential addresses, and flag those known to serve residential addresses.
- For areas consisting primarily of collective dwellings, indicate the predominate type of dwelling (hospital, nursing home, prison, etc.).
- For use with files from the mid-1990s and before, allow for coding to old location for various postal codes in two British Columbia FSAs moved by Canada Post in the mid-1990s.

Operational requirements

- Provide detailed diagnostics indicating how the coding was done, what problems were encountered, and how ambiguous the postal code was.
- Document everything in a detailed *User's Guide*.

- Make it simple to use by persons with little or no previous knowledge of geography or computers, and small enough to run regional subsets on unsophisticated personal computers.
- Update semi-annually following release of new vintages of the PCCF.

What's new in Version 5J? Updated to include postal codes through to the end of May 2011. Codes for the newly defined Alberta health zones (aggregates of their old health regions) are now shown in the Health Region field. The former Alberta health region and health sub-region codes have been moved to the Alternate Health Region and Alternate Health District fields, respectively. A new utility program converts a tab-delimited data file or SAS dataset to the fixed-column text file needed as input to PCCF+.

What was new in Version 5H? Updated to include postal codes through to the end of October 2010. A new field for immigrant (foreign-born) tercile (IMMTER) has been added.

What was new in Version 5G? Routine update to include postal codes through to the end of December 2009.

What was new in Version 5F? Updated to include postal codes through to the end of July 2009. A new utility program HOUTDLM.SAS can be used to export the output dataset to a tab-delimited file (for use in Microsoft Excel and other programs). Ontario health regions (LHIN) have been subdivided into primary and secondary health districts (sub-LHINs), which are now shown in the SUB field. Ontario Public Health Units (PHU) are now shown in a new Alternate Health Region (AHR) field. Within the Toronto PHU, city-defined neighbourhoods are now shown in a new Alternate Health District (ASUB) field. Both new fields are appended to the end of the HLTHOUT file. See revised Appendix H.

What was new in Version 5E? Updated to include postal codes through to the end of March 2009. Where the postal code input does not match on all 6 characters, the first 4 or 5 characters are now used to try to assign complete geographic coding probabilistically, based on census population weights. Population weights for rural areas now include estimates for under enumerated Indian reserves.

What was new in Version 5D? Routine update to include postal codes through to the end of September 2008.

What was new in Version 5C? (Versions 5A and 5B were not released to the public.) Full geographic coding is now done to 2006 vintage census geography, using 2006 census population weights where required. 2006 geography replaces the 2001 census geography. Although the new PCCF separates retired from active postal codes, they are all included in PCCF+, though still flagged as retired if appropriate. QAIPPE is now based on 2006 income data. Three fields newly added to the regular PCCF—related to the quality of the postal conversion process at Statistics Canada—were ported to PCCF+. POINSTAL, QILEVEL, GMETHOD. Canada Post Air Stage offices are now flagged: AIRLIFT. EA or DA from all census geography vintages since 1981 are now included (EA81uid, EA86uid, EA91uid, EA96uid, DA01uid, DA06uid). All but one (AIRLIFT) of the new variables are appended to the end of the file (beginning with position 117) , so the record layout up to that point is almost unchanged. (except CT is now length 7 versus 6 previously). Health regions and health districts: updated definitions with a reference date of December 2007.

What was new in Version 4J? Updated to include postal codes through to the end of September 2006. A combined variable (CSIZEMIZ) has been added, showing both urban size group (CSIZE) plus rural metropolitan influence zone (MIZ). A new field for the 2006 dissemination area has been appended (DA06uid), based on the 2001 census block information. Alberta health district (sub-RHA) coding has been added, based on a DA approximation of the definitions which came into effect in 2005, and Alberta health regions are now numbered according to the provincial standard.

What was new in Version 4H? Routine update to include postal codes through to the end of March 2006.

What was new in Version 4G? Routine update to include postal codes through to the end of October 2005. For the Federal Electoral Districts, 2003 Representation Order (FED2003), riding names and definitions have been updated to include changes in 2004 and 2005. Ontario health region (HR) definitions have been updated to include changes through August 2005 (LHIN Version 11).

What was new in Version 4F? Health region and health district definitions have been updated to 1 June 2005 reference date (Statistics Canada, *Health Indicators, June 2005*, catalogue 82-221-XIE; Statistics Canada, *Health Regions 2005: Boundaries and Correspondence with Census Geography*, catalogue 82-402-XIE). Most notable changes were in Newfoundland and Labrador (amalgamation of four regions into two; other regions unchanged), Nova Scotia (definition of 9 district health authorities as subsets of health zones), Ontario (district health councils abolished in favour of 14 local health integration networks (LHINs); one public health unit dissolved and split between two other units), and Alberta (boundary change between two regions). There were also name changes for 2 health regions in Québec. Population weights for rural areas now include estimates for under enumerated Indian reserves.

What was new in Version 4D? In Version 4D, a new field was added at the end of the main output file for the federal electoral district--2003 representation order (FED2003). Those were the ridings used for the June 2004 federal election. The

health district (SUB) field once again identifies CLSCs in Québec, based on the best fit of each census dissemination area. Numerous corrections to programming and files resulted in better coding for urban and rural areas.

What was new in Version 4A? In Version 4, coding is to 2001 census standard geography, using 2001 census population weights when required. By contrast, Version 3 coding was to 1996 census geography, using 1996 census population weights when required. For 2001 census, the dissemination area has replaced the enumeration area as the lowest standard level of geography for most data dissemination purposes. However, dissemination areas are built up from census blocks, which are the basic geographic units required for the definition of health regions, health districts, federal electoral districts, designated places, and the census urban and rural area typology, as well as for best fit correspondence to previous census geographies. So for geographic coding purposes, the dissemination area plus census block replaces the enumeration area, and that change is reflected in *PCCF+* Version 4. Block-level coding is much more precise than enumeration area-level coding, but the file sizes are much larger now than previously (478,707 blocks versus 49,361 EAs in 1996), so execution time of the programs has noticeably increased.

In previous census geographies, the federal electoral district code was an integral part of the enumeration area code (PRFEDEA), which was lowest standard level of geography for both geographic coding and data dissemination purposes. For the 2001 census geography, the enumeration area is used only for data collection purposes, so it has been dropped from *PCCF+* Version 4. The federal electoral district code has been retained, but it has been moved to near the end of the file. Note that for the 1996 census, the federal electoral district representation order was that of 1987, while for the 2001 census, it changed to the 1996 representation order.

The 2001 census population weight file allows for population-weighted random allocation among multiple dissemination areas served by a single postal code. As with previous versions of *PCCF+*, this is done for several classes of postal codes (those with delivery mode types of H through Z) which mainly provide service to rural residents. Then within the randomly selected dissemination area, an additional population-weighted random allocation is performed to select a single block from among the multiple census blocks in that dissemination area. The latter routine is new for Version 4, as it is required for defining several of the geographic levels of major interest to users.

When imputations of geographic coding are required based on the first three characters of the postal code (the forward sortation area or FSA), a complete set of geographic codes down to dissemination area and block are imputed from rural as well as urban FSAs. Previously, a complete set of codes was only imputed for urban FSAs.

The definitions of health regions (HR) and health districts (SUB) have been updated to reflect recent changes in some provinces, as well as the new census geographic concepts. An updated neighbourhood income quintile field (QAIPPE) is based on 2001 census data by dissemination area. The community size field (CSIZE) has been updated, based on 2001 census populations. This field classifies census metropolitan areas and census agglomerations by population size, and the residual area not in any census metropolitan area or census agglomeration--also known as "rural and small town Canada" (Plessis et al, 2001). A new field for the statistical area classification type (SACTYPE) has been added. This field distinguishes among census metropolitan areas (all of which are tracted), tracted versus untracted census agglomerations, and the residual area not in any census metropolitan area or census agglomeration ("rural and small town Canada"), with the latter further classified by the relative importance of commuting flows to work in any census metropolitan area or census agglomeration--also known as "metropolitan influence zones" or MIZ. A new field defining the North-South relationship (NSREL) in Canada has been added. This field distinguishes South from South transition, North transition and North. It is based on methods described by Puderer and McNiven (2000).

A new field for the rural-urban block (BLKURB) has been added. This is an alternate way of defining urban and rural, based on the population density of each census block, which permits both urban and rural areas to be defined within as well as outside of census metropolitan areas and census agglomerations. Note however that in the vast majority of rural areas, the census block and dissemination area are imputed based on population-weighted random allocations among the many such units known to fall within the postal code service area, so this field should only be used with due caution for the definitional difficulties. Classification based on urban postal codes is much more certain, as the specific block is almost always known with much greater certainty. This field is defined as follows: `IF UARA GE 9910 THEN BLKURB=0; ELSE IF UARA NE . THEN BLKURB=1.`

A new field for economic region (ER) has been added. Economic regions (formerly known as "subprovincial regions") are defined as aggregates of adjacent complete census divisions except in Ontario, where in one case an ER is defined as an aggregate of adjacent census subdivisions, but splitting census division boundaries. A new field for census agricultural region (AR) has been added. ARs are defined as aggregates of complete adjacent census divisions, except in Saskatchewan, where they are defined as aggregates of adjacent census consolidated subdivisions, without respect to census division boundaries. A new field for census consolidated subdivision (CCS) has been added. CCSs are defined as aggregations of adjacent census subdivisions within a given census division.

The various categories of the representative point flag field (RPF) have been redefined to correspond with the new 2001 census geography concepts. The enumeration area collective dwelling field (EACOLL) and the enumeration area comment flag field (EACMTFLG) have been deleted, since enumeration areas are now used only for data collection purposes, and no longer appear on the PCCF+ output files. In its place, a new field (INSTFLG) has been added to help identify records likely to be for institutional residents.

A supplemental program (DIST4x.SAS) has been added to calculate distances from each postal code on one output file (usually the result of GEORES4x.SAS), to the closest of many postal codes on another file (which would usually be the output of GEOINS4x.SAS). Typically this would be used for calculating distances from residences to some kind of health facility or health professional. Basic familiarity with SAS programming is required for use of this supplementary program.

What was new in version 3E?

Health regions (HR) and health district (SUB) codes were assigned based on the enumeration area code, if present. If an enumeration area code was not present, then the program attempted to assign health region and health district codes based on the census subdivision code, if known, as long as 90% or more of the census subdivision population resided in a single health region or health district.

Canada Post recently moved two FSAs in British Columbia: 100km south in the case of V9G, and 400 km south in the case of V1H. This means that the vintage of the postal code must now be taken into account in order to correctly assign geography in such cases. Thus, the main programs (GEORES3E & GEOINS3E) were revised to assign only the most current geographic codes for those cases, and supplementary programs (R3EOLD & I3EOLD) were written to assign the old geographic coding where required, depending on the vintage of the postal codes (which can be specified). The supplementary programs also print out a summary of the corrections and problems encountered in the recoding, if any, and merge the corrections back into a revised main file. To explain how to use the supplementary programs, and to determine whether or not their use is required, a new Step 4 (optional) was added to the Getting Started section of the documentation.

To further increase the functionality of the output files, community size (CSIZE) codes are now assigned based on the census metropolitan area and census agglomeration code (the CMA field, which includes CA codes). Also, to demonstrate the ease of attaching geographically-coded variables from other data sets (such as summary data from the quinquennial census), neighbourhood income quintile (QAIPPE) codes are now assigned, based on the enumeration area code.

The CPCCODE field (a sequential numeric code corresponding to the Canada Post Community Name) was fully implemented. In previous versions, records which were coded by the weighted conversion file (WCF) were not assigned a CPCCODE, but beginning with Version 3E, all records with a valid postal code have had it assigned.

The main output files (dataset HLTHOUT) are identical in format to those produced by Version 3D, except for the addition of the 4 new fields (HR SUB CSIZE QAIPPE) appended to the end of the record, as noted in the revised documentation. The output of the supplementary programs (R3EOLD and I3EOLD) also include 3 additional fields (BTHDATEC RETDATEC PCVDATC) appended to the end of the record. The problem file output was modified slightly by reducing the latitude and longitude fields each to 2 digits in order to leave enough room to show the HR and SUB fields. The documentation was revised to reflect the above changes.

What was new in Version 3 (all other updates)?

- Version 3 produced output coded to 1996 Census standard geography, whereas Version 2 coded to 1991 census standards, and Version 1 coded to 1986 census standards.

- Whenever possible, 1996 2A (100%) population weights were used for postal codes served by rural post offices, or by rural routes, PO boxes, and suburban route service from urban post offices. However, 1991 2B (20% sample) household weights were used for such postal codes if they were not part of the 1996 census population weight file.

- EAs were imputed for rural as well as most urban postal codes. However, imputation of EA from urban FSAs (new in Version 2) was no longer performed for postal codes linked to post office geography, for which the service area or users might be outside the nominal FSA boundaries.

- New fields were added, but all of the former fields were retained, as was the "look and feel" of the programs. The only change to the definitions of former fields is for problem (PROB) type 2 (unused since Version 1), which was redefined as a Warning (rather than Error as formerly) when the postal code was improbable as a place of residence. The PROB field has been renamed LINK, so that the meaning of the field values will be intuitive: LINK=0 means no link, and LINK=9 means best link. Latitude and longitude were shown with much greater precision (degrees + 6 places after the decimal rather than degrees + 4 places previously). The field CCSUM was no longer written to the files, but it was still calculated for the printouts.

DPL   A field for Designated Place (DPL) code was added. This was a new sub-municipal level of geography with the 1996 census.

RESFLG   Postal codes for addresses which were improbable as a place of residence were now flagged (RESFLG), as are postal codes for business and institutional type addresses which appeared to be possible places of residence.

EACOL   A field for Enumeration Area Collective Dwelling (EACOL) type was added. This field identified EAs which were specific to hospitals, nursing homes, prisons, etc.

EACMT   An Enumeration Area Comment (EACMT) could occur in the problem file output if other address information was not available. The comment field usually named the collective dwelling, business or institution specific to that EA. A flag field (EACMTFLG) identified EAs for which such comments were available in the G96EACMT file.

Five new diagnostic fields were added. The first three were derived from the PCCF, while the last two were derived from other sources:

DMTDIFF   A new field based on the previous DMT (DMTDIFF) allowed retired postal codes to be used without fear of overlooking problems related to the previous DMT.

RPF   The Representative Point Flag (RPF) indicated the precision of the underlying geographic linkage (to BLKFACE or EA, and single or multiple links in each case).

SERV   The Canada Post Service Type code (SERV) distinguished route service with street address from route service without street address.

PREC   The precision (PREC) of latitude and longitude coordinates was indicated with respect to the service area of the postal code, as well as with respect to the blockface or EA nature of the coordinates, and with respect to the nature of the imputation required (if any). 0=least precise; 9=most precise.

NADR   The number of address ranges (NADR) served by a postal code was usually one, but might be many. For example, community mail boxes and rural route services usually refer to several address ranges, while most other urban postal codes refer to only one address or address range.

Because of these changes, the record layout for the last section of both output files was changed.

The source program code was still written in SAS, and was easily modifiable—for example, to reduce the printed output by deleting frequency tabulations of each field. As before, the source program was self-documenting to facilitate understanding of what the program actually did and didn't do.

Preliminary versions of supplemental files and model programs were made available for translating back and forth between 1991 and 1996 census geographies.

What was new in Version 2?

Version 2 of *PCCF+* (*Geocodes/PCCF)* incorporated several significant improvements over the original version.

- Manual geographic coding was no longer required for records with valid postal codes, except in very rare circumstances (< 1%). Previously, about 10-15% of records with valid postal codes could not be coded to census tract and enumeration area without manual intervention. Now most postal codes for rural routes from urban post offices, for post office boxes (group of boxes), as well as for suburban service and general delivery, could automatically be assigned the full complement of geographic codes available for other types of postal codes.

- Records with postal codes which serve more than one enumeration area--including most rural postal codes and several classes of urban postal codes—were assigned geographic codes based on a household-weighted random allocation among the possible locations. This produced an unbiased allocation of events in relation to the resident population. An alternative program could be chosen which would assign all rural postal codes to village centres.

- Problem records now included better diagnostic and reference information. Fields indicating the source of the matching and the number of different levels of geographic codes assigned were added, in addition to the previously available fields which indicated the type of problem, the number of census divisions and census subdivisions served by the postal code, and the DMT.

- Business and institutional addresses were more clearly identified. The problem records for most such cases showed the building, company, or institutional establishment name and brief address--which helped determine if the postal code corresponds to the client's usual place of residence (or business), or was the result of a keying or reporting error.

- "Most likely" partial geographic coding based on the first two characters of the postal code was suggested (where possible) for records with invalid postal codes. Previously, such coding was attempted only if the first three characters were valid.

- For geographic coding of the location of health facilities and health professionals, an alternate SAS control program (GEOINS4x) and one additional file (RPO) were provided. With the alternate program and file, records with rural postal codes were assigned to the same enumeration area as the rural post office.

How the reference files were produced

To develop the reference files used, the PCCF was pre-processed as follows. First the file was analyzed to determine which postal codes were unique, and which occurred more than once on the file (linked to more than one dissemination area, block or blockface). The unique postal codes were then separated from the duplicate codes. Only the essential fields of the PCCF were retained, to reduce disk storage and memory requirements. Canada Post community names were assigned numeric codes so the names could be moved off to a much smaller, non-redundant auxiliary file. Census subdivision names (but not the corresponding numeric SGC codes) were also removed to a much smaller, non-redundant auxiliary file. Additional reference files were created to show the relationship of the first three characters of the postal code to corresponding census divisions, census subdivisions, census metropolitan areas/census agglomerations, census tracts, enumeration areas, and latitude/longitude. A similar file was created showing the relationship of the first 2 characters of the postal code to the most frequently corresponding census geography and latitude/longitude. Other files were created for matching postal codes to a subset of the 1991, 1996, 2001 and 2006 Postal Code Population Weight Files or Weighted Conversion Files (WCF), which are based on census population or household counts by postal codes and census geography. For Version 5, missing block codes are assigned by population-weighted imputation from dissemination area, if available. A building name and address file was constructed to help check the validity of postal codes for problem records related to business, commercial and institutional establishments. Using census data plus visual inspection of building names, postal codes for addresses which are improbable as a place of residence were flagged, as were postal codes for business and institution-type addresses which appear to be possible places of residence. Health region and health district codes were obtained from provincial health departments. When necessary, dissemination area and block approximations to the definitions were created. A file showing neighbourhood income quintiles within each census metropolitan area or census agglomeration (CMACA) or provincial rural and small town areas was created, based on dissemination area summary data from the 2006 census. Community size groups were determined, based on the 2006 census population in each CMACA. Areas outside of any CMACA were taken as the smallest community size group ("rural and small town Canada").

What the package does

The result is a set of related files, which together with the SAS control programs provided, can be used for automated coding of most records with a valid postal code. As long as the postal codes on your incoming file are valid for the addresses, *PCCF+* will generate highly accurate geographic coding for your data. However, because of the nature of the PCCF and WCF, a few classes of valid postal codes still cannot be assigned full geographic identifiers corresponding to a place of residence or place of business. In such cases, as well as for postal codes that do not match exactly to the PCCF or WCF, the first three, four or five characters of the postal code are used to try to assign partial geographic identifiers to the extent possible. If that fails, then the first two characters of the postal code are tried, or finally, the first character alone.

In each case where *PCCF+* encounters a possible problem with its automated coding, diagnostic codes are output to the problem file, together with any partial geographic identifiers which may have been determined. The program listing prints out the problem records grouped by type of problem; the records themselves follow a brief printed message describing the problem and suggesting how to correct it. Usually the first thing to do is to check the postal code to make sure that it was correctly entered, and to see that the postal code shown is the correct one for the address.

Why it is important to have accurate postal codes

The coding produced by *PCCF+* is only as good as the postal codes on your incoming data file. The *Postal Code Directory* issued by Canada Post, or computerized versions of the directory (available from various sources), can be used to find missing postal codes as well as to validate or correct existing postal codes on your file. With computerized versions, the reverse lookup of address ranges from postal codes is an effective and efficient way of validating postal codes for incomplete or incorrectly spelled addresses. Note that in addition to its troublesome consequences for geographic coding, the absence of a valid postal code on your file could adversely affect any later follow up which might be required. Moreover, the delivery of mail by Canada Post may be delayed or impossible without a valid postal code.

How the matching process works

The routines in GEORES5x are for assigning geographic codes for places of usual residence. Similar routines in GEOINS5x can be used to assign geographic codes for locations of health facilities or offices of health professionals.

The SAS control program for residential coding is explained below; procedures which apply only to office coding are shown in italics:

(1)   First, rural postal codes and postal codes served by rural route delivery or suburban services from urban post offices, or which indicate a group of post office boxes or a single post office box, are matched to a subset of the Weighted Conversion File (WCF)--consisting of about 75,000 records for 12,000 different postal codes. As most such codes serve more than one dissemination area, the geographic codes are assigned randomly in proportion to the distribution of population with that postal code, as seen in the WCF. *For coding of office locations, etc., the GEOINS5x program omits the rural postal codes from this step, so that they can all be assigned to the same dissemination area as the rural post office.*

(2)   Second, remaining postal codes which are unique on the PCCF (only linked to a single dissemination area, block or blockface) are matched to corresponding codes on the incoming HLTHDAT file. There are about 560,000 of these unique codes for all Canada, including most urban postal codes. *For coding of office locations, rural postal codes together with their corresponding post office geography (File RPO) are added at this point, since those records are also unique.*

(3)   Then postal codes which are not unique on the PCCF (over 260,000 different postal codes for which about 1.4 million PCCF records exist, including each of the multiple occurrences of the same postal code) are matched to the remaining records from the HLTHDAT file. Most urban postal codes and some rural postal codes which are not unique on the PCCF (in the sense that they link to more than one dissemination area, block or blockface) are nonetheless not ambiguous in terms of higher levels of geography such as CD, CSD or CMA, CT. To avoid "many-to-many" matching, the matching in this part of the program is done in two steps: (a) Each remaining HLTHDAT record (not already matched to the WCF or to the PCCF unique file) is matched by postal code to a pointer file (POINTDUP) which contains a single record for each postal code which occurs more than once on the PCCF. The pointer file shows how many times the postal code occurs, and the physical location (observation number) of the first occurrence of that postal code on the DUPS file. (b) The information on the POINTDUP file is used to match each successive HLTHDAT record with the next occurrence of that postal code on the DUPS file. This has the effect of distributing events for such postal codes across all possible dissemination areas, blocks or blockfaces which are served by that postal code--with equal weight assigned to each PCCF record.

(4)   Because block codes are required for coding of HR SUB FED UARA, missing block codes are now assigned based on population-weighted imputation from the dissemination area code, if that is available.

(5)   Error records are then identified and processed as follows: (a) Any record with a postal code which did not match on all 6 characters to the PCCF is identified as an error record (LINK=0). (b) Records with postal codes which matched to the PCCF or WCF, but whose DMT is M or X are also identified as error records (LINK=1), since the PCCF only indicates their post office location. (c) The geographic codes for error records are set to missing values. (d) Using auxiliary files, an attempt is then made to assign highly probable CMA, CD and CSD codes, plus CT and DA for urban postal codes. Coding will be suggested based on the first 5, 4 or 3 characters of the postal code, or failing that, based on the first 2 characters of the postal code. PR (only) may be assigned based on the first character of the postal code.

(6)   Health region and health district codes are then assigned by matching to DA, or to DA and BLK, if required.

(7)   Neighbourhood income quintiles within each CMA or CA (QAIPPE) are then assigned, based on the DA. Note that neighbourhood income data are not available for DAs made up of institutional collective dwellings.

(8)   Community size codes (CSIZE) are then assigned, based on CMA or CA populations from the 2001 census. Statistical area classification type (SACTYPE) codes are assigned, based on the CMA or CA code (for SACTYPEs 1-4) plus the PRCDCSD (for SACTYPEs 5-8). Economic region (ER) codes are assigned, based on the PRCD (or PRCDCSD in Ontario only). Agricultural region (AR) codes are assigned based on PRCD (or PRCDCCS in Saskatchewan only). A residence flag is assigned by matching to PCODE to identify non-residential versus residential postal codes among postal codes whose DMT is E, G or M.

(8b)   1981, 1986, 1991 and 1996 enumeration area codes are assigned using 2006 block to EA/DA correspondence files.

(9)   All records with their corresponding geography (to the extent found) are output to the HLTHOUT (.GEO) file. If some or all geographic codes could not be determined, those fields are set to missing values before writing to the

HLTHOUT (.GEO) file. See **Appendix A** for the record layout, and **Appendix C** for an explanation of the fields and codes.

(10) A smaller file (GEOPROB) is then created containing: records with postal codes which could not be matched on all 6 characters (LINK type 0: error); records with postal codes for a Delivery Mode Type (DMT) which is only linked to post office location on the PCCF (LINK type 1: error), and for which census location data were not available on the WCF; records where the DMT frequently indicates a non-residential address (LINK types 3 and 4: warning); records for postal codes known to indicate a non-residential address (LINK type 2: warning); records which could have been assigned more than one CSD based on the unweighted PCCF (LINK type 5: note); records which could have been assigned to more than one CSD based on the WCF (LINK type 6: note). See **Appendix B** for the record layout, and **Appendix C** for an explanation of the fields and codes.

(11) A one page summary of what happened, including the number of records in each link type above is printed in the program listing, together with suggestions as to what to do in each case. The summary also shows the distribution of records by the number of geographic codes which were assigned. See **Appendix D** for sample output.

(12) Frequency counts of the occurrence of each value of the main fields are printed out. This is done first for the entire HLTHOUT dataset, and then for the GEOPROB subset.

(13) The entire problem dataset (GEOPROB) is printed out. In this case, the spacing of the printout mirrors that of the corresponding file. See **Appendix D** for sample output.

(14) The first 500 records from the output dataset (HLTHOUT, including fully coded, partially coded, and uncoded records) are printed out. The printout includes one field which is not present in the output dataset: DISTANCE, which was calculated for illustrative purposes only. See **Appendix D** for sample output.

How the programs deal with multiple matches

Version 5 of *PCCF+* has two different ways of dealing with multiple matches--where a single postal code can be linked to more than one dissemination area, block or blockface. (1) For rural postal codes (with a 0 in the second position) and for urban postal codes with a delivery mode type (DMT) of H, K, M,T and Z, a subset of the WCF is used whenever possible to make a population-weighted random distribution of records among the applicable geographic areas served. In this way, if 75% of the population served by a postal code was known to be in DA 1001, then on average, 75% of the records will be assigned to that DA. Next, within the randomly selected DA, a specific block is selected, using weights based on total block population in the blocks served in whole or in part by the postal code. (2) For other types of postal codes with multiple matches possible, equal weight is given to each dissemination area, block or blockface. Successive events at such a postal code are coded in turn to each applicable dissemination area, block or blockface. *For office coding only, rural postal codes are always assigned to the dissemination area and block to which the PCCF single link indicator (SLI) is assigned.*

In most cases, a full mailing address would not allow any greater accuracy in the determination of CSD, and using only the city or community name line of the address for coding purposes would tend to bias the results towards whichever CSD had a name most similar to that of the postal community. The result would be the often-noted "hot spots" surrounded by "cold spots".

In summary, then, whenever a postal code can be linked to more than one CSD, an explanatory message is printed, the record is output to the problem file (as a Note only), and a systematically selected CSD code is written out to both the main file (HLTHOUT) and the problem file (GEOPROB). *For office coding, links to more than one CSD are rare, since rural postal codes are assigned to the dissemination area and block to which the PCCF SLI is assigned.*

How the programs deal with reuse of postal codes (beginning with Version 3E)

After a period of retirement, postal codes are sometimes rebirthed by Canada Post for reuse at a new location. Such reuse may also entail a change of DMT. Reuse of postal codes occurs most frequently, but not exclusively, in areas undergoing rapid expansion which was not foreseen by Canada Post planners when the FSA structure was initially created. However, in almost all cases, reuse of postal codes occurs within the same FSA, and most frequently within a very short distance of the former use. Thus, reuse of postal codes is not normally a problem, and the birth date and retirement date of postal codes is not part of the usual processing of postal codes in the GEORES5x and GEOINS5x programs. In the late 1990s however, two entire FSAs in British Columbia were first retired, and then moved by Canada Post (approximately 100 km south in the case of V9G, and 400 km south in the case of V1H). So the main programs (GEORES5x and GEOINS5x) were revised to assign only the most current geography to records with those two FSAs. Supplemental programs (R5xOLD and I5xOLD) were written to read the output of the main program, and reassign the old geographic coding where required, based on the vintage of the postal codes (which may be specified by the user). Users with less than current data from British Columbia will thus need to run the main program (eg, GEORES5x) followed by the supplemental program (eg, R5xOLD). The results from the supplemental program are automatically merged back into the data output from the main program. However, if your data do not include postal codes

with those FSAs, or if you data only contain postal codes of vintage 19990401 or later, then use of the alternate programs is unnecessary and will have no effect on the coding produced by the regular programs GEORES5x and GEOINS5x.

How to indicate unknown or partially unknown postal codes

If the postal code for a given record does not match exactly to any postal code on the PCCF, *PCCF+* will attempt to assign partial geography based on the first 1, 2 or 3 characters the unmatched postal code. Thus, you should give some thought to how unknown or partially complete postal codes should be indicated on your incoming file. If you were to assign the non-existent postal code H0H0H0 (ho-ho-ho!) to records with missing (and unfindable) postal codes, then those records would all be assigned PR 24 and CMA 462, since nearly all postal codes beginning with H are from metropolitan Montréal, Québec. Even worse, the non-existent postal code H9H9H9 would be assigned to PR 24, CMA 462 and CD 65 (Île de Montréal), since that is the only place legitimate codes beginning with H9H are found. If only the province of residence is known, be sure to indicate the corresponding first letter (for example, B for Nova Scotia) in the initial position of the postal code field, so that the province and region code (PR) will be generated and written to the output files and listings.

How to run *PCCF+*

To do automated geographic coding based on postal codes using *PCCF+* all you need to do is follow steps 1, 2 and 3 at the beginning of this *User's Guide*. The rest of the documentation provides supplementary detail and background information which should be read eventually, but which is not essential to getting started.

Future versions of *PCCF+*

For each new version of the PCCF, which is to be released semi-annually, a corresponding update of *PCCF+* will be produced. For comments on the current version and suggestions for future improvements, please contact Russell Wilkins.

Verification of geographic coding produced by *PCCF+*

Table 3 (page 21) shows the population-based error percentages for each level of geography, for coding produced by *PCCF+* Version 3 (R3A) compared to coding from the PCCF Single Link Indicator (SLI), and compared to population-weighted coding from FSA only. In each case, the "gold standard" is a 1% sample of the census population and corresponding postal codes collected in the 1996 Census of Canada. The error percentages are consistently smaller for the *PCCF+* method, compared to the SLI method, at all levels of geography. At the CSD level, for example, the SLI error percentage is three times higher than that produced by *PCCF+*. At the CT level (mostly in urban postal codes areas), the SLI did much better than at the CSD level, but the error percentage was still over 40% higher compared to *PCCF+*.

However, if the only objective is to assign codes as close as possible to the real census DA centroids (whether or not the population is distributed among all applicable areas), then the SLI method may be somewhat more accurate, at least beyond the 75th percentile of distance.

WHERE TO GET HELP

Technical assistance

Any technical problems noted with the functioning of these programs or suggestions for improvements to the programs or documentation should be addressed to Russell Wilkins or Saeeda Khan, Health Analysis Division, Statistics Canada, RHC-24A, 100 Tunney's Pasture Driveway, Ottawa, Ontario K1A 0T6, telephone 1-613-951-5305 (Russell), 1-613-951-4765 (Saeeda), fax 1-613-951-3959 (both), email russell.wilkins@statcan.gc.ca saeeda.khan@statcan.gc.ca *If corresponding by email, be sure to include your telephone number and mailing address.*

Canadian Vital Statistics and Cancer Registry users *only*: For copies of the control programs and/or provincial or regional subsets of the Canada files, or operational problems getting started using the programs, please contact Colette Brassard, Operations and Integration Division--Health, Statistics Canada, JT2-B20, Ottawa, Ontario K1A0T6; telephone 1-613-951-1850, fax 1-613-951-0709, email colette.brassard@statcan.gc.ca. Colette can also handle technical questions related to PC-SAS running under UNIX, DOS or Windows.

Suspected problems with the PCCF or PCCF+

If you have identified possible errors in coding, please look at the SOURCE diagnostic code. If the SOURCE code is F, D or V you may have identified possible errors on the Postal Code Conversion File, so please report these to the Geography Division of Statistics Canada, which is responsible for the creation, maintenance and updates to the PCCF. Include a list of the postal codes which you find suspicious, the geography assigned by the PCCF, and an indication of the nature of the problem (which fields appear to be wrong?). Contact the GeoHelp desk, Geography Division, Statistics Canada, JT3-B6, Ottawa, Ontario K1A0T6, telephone 1-613-951-3889, fax 1-613-951-0569, email geohelp@statcan.gc.ca.

If on the other hand the SOURCE code is C, I , 5, 4, 3, or 2, the problem is not with the PCCF itself, but rather with the supplementary files created by the Health Analysis Division. The same applies to problems with the RESFLG or diagnostic codes (LINK, SOURCE, NCSD, NCD, RPF, PREC, NADR, CODER, CPCCODE). For all such cases, contact Russell Wilkins or Saeeda Khan at the address noted above.

ADDITIONAL REFERENCE INFORMATION

Acceptable characters and numbers in Canadian postal codes

The first character must be in A B C E G H J K L M N P R S T V X Y. The third and fifth characters may be any character valid for the first position, plus W and Z. The second, fourth and sixth positions may be any single numeric digit (0-9). Acceptable syntax does not guarantee that the postal code will be valid; many combinations have never been used. See Appendices F1, F2 and F3 for acceptable characters or combinations of characters in the first 1, 2 or 3 positions, respectively.

Filename extensions

The filename extensions have the following meaning:

CAN	Canada
NF or NL	Newfoundland and Labrador
PE	Prince Edward Island
NS	Nova Scotia
NB	New Brunswick
QC	Québec
ON	Ontario
MB	Manitoba
SK	Saskatchewan
AB	Alberta
BC	British Columbia (including data for YT and NT)
YK or YT	Yukon
NT	Northwest Territories
NU	Nunavut
ATL	Atlantic region (NF NS PE NB)
PRA	Prairie region (MB SK AB)
WES	Western region (MB SK AB BC YT NT NU)
DOC	Documentation (in MS Word format)

Abbreviations

Some of the abbreviations used in this documentation and programs are as follows:

AHR	Alternate health region (AHRuid=PR+AHR).
AIRLIFT	Canada Post Air Stage community, requiring airlift delivery at least 6 months per year.
ANANAN	Alpha numeric alpha numeric alpha numeric (format of Canadian postal codes)
AR	Census agricultural region (ARuid=PR+AR)
ASUB	Alternate health district (ASUBuid=PR+AHR+ASUB)
BLKF	Blockface (not identified except by latitude longitude and RPF)
BLKURB	Urban block within CMACA area or non-CMACA area
CA	Census agglomeration (included in CMA field)
CCHS	Canadian Community Health Survey
CCS	Census consolidated subdivision (CCSuid= PR+CD+CCS)
CD	Census division (a county-level code; CDuid=PR+CD)
CMA	Census metropolitan area (this field also includes CAs)
CODER	*PCCF+* program, version and release (eg, R5A=GEORES5A)
CPCCODE	Canada Post community code (corresponding to a postal community name)
CSD	Census subdivision (a municipal-level code; CSDuid=PR+CD+CSD)
CSDNAME	Name of CSD (unique within province and CSDTYPE).
CSDTYPE	Type of CSD.
CSIZE	Community size code (based on 2006 CMACA population)
CT	Census tract (CTuid=CMA+CT)

DA	Census dissemination area (DAuid=PR+CD+DA) (replaces enumeration area for 2001)
DB or BLK	Dissemination block (DBuid =PR+CD+DA+BLK)
DIAG	Diagnostic fields (in HLTHOUT and GEOPROB files)
DISTANCE	Distance in km between two centroids (shortest or "great circle" distance)
DMTDIFF	Previous DMT if different than current DMT.
DMT	Delivery mode type (specified by Canada Post)
DPL	Designated place (a sub-municipal level code used for unincorporated places; DPLuid=PR+DPL)
DPLTYPE	Designated place type.
EA	Enumeration area (EAuid=PR+FED+EA)
ER	Economic region (formerly "subprovincial region") , unique within PR.
FED	Federal electoral district (FEDuid=PR+FED)
FSA	Forward sortation area (first three characters of postal code)
GEOPROB	SAS dataset name used for the output file containing all problem records
GMETHOD	Geocoding method used to build regular PCCF.
HLTHDAT	SAS dataset name used for the incoming records to be coded
HLTHOUT	SAS dataset name used for the output records after processing
HR	Health region, as defined by provincial health departments (HRuid=PR+HR)
ID	Identifier (unique identifier or registration number, as defined by user)
INSTFLG	Institutional flag
IMMTER	Immigrant (foreign-born) tercile (national, based on 2006 DA profile summary data)
IPPE	Neighbourhood income per person equivalent (based on 2006 DA profile summary data)
LAT	Latitude (North)
LDU	Local delivery unit (last three characters of the postal code)
LL	Latitude and longitude
LONG	Longitude (West)
NSREL	North-South relationship
OBS	Observations (records in SAS dataset)
PCCF	Postal Code Conversion File
PCODE	Postal code
POINSTAL	Postal installation geography flag.
PR	Province and region (PRuid=PR)
QAIPPE	Quintile of neighbourhood income per person equivalent (within CMACA or residual)
QILEVEL	Quality indicator of PCCF links to community (QICOMM), street (QISTREET) and address (QIADDR)
PREC	Precision of geographic coding
PRCDDA	Province, census division and dissemination area = DAuid
PRFEDEA	Province, federal electoral district, and enumeration area--latter not shown for 2001
RESFLG	Residence flag
RPF	Representative point flag (indicates if latitude longitude refer to DA, BLK or BLKF)
SACTYPE	Statistical area classification type
SAS	Statistical Analysis System
SERV	Canada Post service type
SGC	Standard Geographic Classification code (PR+CD+CSD)
SOURCE	Source of geographic codes assigned (C D F 5 4 I 3 2 1 0 or .)
SLI	Single link indicator (used mainly to avoid multiple matches when weights not used)
SUB	Health district (as defined by provincial health departments)
TRACTED	If centroid is in a census tracted area, then TRACTED=1.
UARA	Urban area, rural area code
WCF	Weighted Conversion File (PCCF-style records with PRCDDA and population-based weights derived from the 2006, 2001 and 1996 censuses, and household-based weights derived from the 1991 census)

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Warning and disclaimer

PCCF+ is intended only for authorized users of the PCCF. Installation, use and/or modification of the control programs and related files are solely the responsibility of the user. The accuracy and consistency of the geographic coding generated by the package should be tested thoroughly and evaluated by the user--prior to employing the package for production runs.

Acknowledgements

Table 2
Distribution of postal codes and census population by delivery mode type (DMT),
September 2002 PCCF and May 2001 Census.

Delivery mode type (DMT)	PCCF					Census				
	Pcodes		Records		Rec/Pc	Pcodes		Population		Pop/Pc
	n	%	n	%	av	n	%	n	%	av
Total	823,556	100.0	1,987,055	100.0	2.4	671,797	100.0	29,779,095	100.0	44
Urban post office (PO)										
Urban services										
A (ordinary urban)	717,537	87.1	1,264,191	63.6	1.8	638,936	95.1	20,115,945	67.6	31
B (apartments)	17,291	2.1	27,361	1.4	4.6	16,329	2.4	2,561,093	8.6	157
E (business, etc)	9,193	1.1	25,003	1.3	2.7	2,364	0.4	28,803	0.1	12
G (gov, inst, etc)	8,284	1.0	24,299	1.2	2.9	2,303	0.3	83,971	0.3	36
M (single PO box)	5,052	0.6	19,690	1.0	3.9	900	0.1	16,438	0.1	18
Rural services from urban PO										
H (rural route)	996	0.1	58,459	2.9	58.7	1,014	0.2	859,807	2.9	848
J (general delivery)	645	0.1	2,425	0.1	3.8	282	0.0	3,311	0.0	12
K (group of PO boxes)	7,239	0.9	31,681	1.6	4.4	4,402	0.7	231,686	0.8	53
T (suburban service)	77	0.0	1,357	0.1	17.6	60	0.0	15,044	0.1	251
X (mobile route)	1	0.0	62	0.0	62.0	1	0.0	179	0.0	179
Z (retired)	52,064	6.3	203,759	10.3	3.9	15	0.0	282	0.0	19
Rural post office										
W (rural PO, *all service types*)	5,177	0.6	328,768	16.5	63.5	5,191	0.8	5,862,536	19.7	1,129

Note: PCCF Sept 2002. May 2001 census postal codes (with DMT from May 2001).

Table 3
Comparison of population-based coding errors using *PCCF+* Version 3 (GEORES3A) versus coding errors using the
PCCF single link indicator (SLI), versus coding errors using FSA-based imputation (FSA)

Level		FSA	SLI	R3A	Diff	Ratio
		%	%	%	SLI-R3A	SLI/R3A
PR	Province	0.0	0.1	0.1	0.0	1.00
CD	Census Division	0.5	0.6	0.3	0.3	2.00
CSD	Census Sub-division	4.7	9.4	3.2	6.2	2.94
CMA	Census Metropolitan Area /Census Agglom.eration	0.3	0.4	0.2	0.2	2.00
CT	Census Tract	11.6	2.7	1.9	0.8	1.42
EA	Enumeration Area	41.8	33.6	15.8	17.8	2.13
DPL	Designated Place – applicable areas only	30.3	50.9	20.0	30.9	2.55

Note: Population-based coding errors were defined as the sum over all areas at this level of the absolute value of the population coded less the population known from the census sample, expressed as a percentage of the total population in all areas at this level. Based on simple 1% sample of individuals in the 1996 total population. Error percentages calculated after improbable census postal codes excluded from sample.

LIST OF APPENDICES

APPENDIX A:
RECORD LAYOUT OF THE HLTHOUT FILE (.GEO)

```
DATA HLTHOUT; INFILE HLTHOUT;
INPUT     /* 2006 VINTAGE CENSUS GEOGRAPHY, UNLESS OTHERWISE NOTED */
  @ 1 ID       $CHAR12./* RECORD IDENTIFICATION (AS INPUT)        */
  @13 PCODE    $CHAR6. /* POSTAL CODE (AS INPUT)                  */
  @19 RESFLG   $CHAR1. /* RESIDENCE FLAG ON PCODES IF DMT=E,G,M   */
  @20 PR       $CHAR2. /* PROVINCE CODE (99=UNKNOWN)              */
  @22 CD       $CHAR2. /* CENSUS DIVISION CODE (00=UNKNOWN)       */
  @24 CSD      $CHAR3. /* CENSUS SUBDIVISION CODE (999=UNKNOWN)   */
  @28 CMA      $CHAR3. /* CMA OR CA CODE (999=UNKN;000=NOT APPL ) */
  @31 CT       $CHAR7. /* CENSUS TRACT (9999.99=UNKN; 0000.00=NA) */
  @39 DA       $CHAR4. /* DISSEMINATION AREA (9999=MISSING)       */
  @43 BLK      $CHAR2. /* DISSEMINATION BLOCK (.9=MISSING)        */
  @45 INSTFLG  $CHAR1. /* INSTITUTIONAL FLAG                      */
  @46 LAT         Z8.  /* LATITUDE DEGREES(2)+DECIMALS(6)         */
  @54 LONG        Z9.  /* LONGITUDE DEGREES(3)+DECIMALS(6)        */
  @64 DPL      $CHAR3. /* DESIGNATED PLACE (000=NOT APPL;999=UNKN)*/
  @67 DMTDIFF  $CHAR1. /* PREVIOUS OR ALTERNATE DMT IF DIFFERENT  */
  @68 DMT      $CHAR1. /* DELIVERY MODE TYPE:                     */
  @69 LINK     $CHAR1. /* LINK TYPE (INCREASING CONFIDENCE)       */
  @70 SOURCE   $CHAR1. /* SOURCE OF GEOGRAPHIC CODES              */
  @71 NCSD        1.   /* NUMBER CSD POSSIBLE AT THIS PCODE 1-9+  */
  @72 NCD         1.   /* NUMBER CD POSSIBLE AT THIS PCODE 1-9+   */
  @73 RPF      $CHAR1. /* REPRESENTATIVE POINT (CENTROID) FLAG    */
  @74 SERV     $CHAR1. /* SERVICE TYPE                            */
  @75 PREC     $CHAR1. /* PRECISION OF LAT LONG (0=LEAST;9=MOST)  */
  @76 NADR        1.   /* NUMBER OF ADDRESS RANGES FOR THIS PCODE */
  @78 CODER    $CHAR3. /* CODER: 'R4A'=GEORES4A SEPT 2002 PCCF    */
  @81 UPDATE   $CHAR1. /* MONTHLY UPDATE CODE (FOR STC INTERNAL USE ONLY)  */
  @82 CPCCODE  $CHAR4. /* CANADA POST COMMUNITY CODE (SEQUENTIAL) */
  @87 HR       $CHAR2. /* HEALTH REGION CODE (UNIQUE WITHIN PR)   */
  @89 SUB      $CHAR3. /* HEALTH DISTRICT CODE (UNIQUE WITHIN PR+HR)  */
  @93 CSIZE    $CHAR1. /* COMMUNITY SIZE CODE (BASED ON CMACA 2001 POP)  */
  @95 QAIPPE   $CHAR1. /* NEIGHBOURHOOD INCOME QUINTILE (WITHIN CMACA)    */
  @96 IMMTER   $CHAR1. /* IMMIGRANT (FOREIGN-BORN) TERCILE (NATIONAL)     */
  @97 SACTYPE  $CHAR1. /* STATISTICAL AREA CLASSIF TYPE (INCL TRACTED, MIZ)  */
  @98 CSIZEMIZ $CHAR1. /* URBAN CMACA SIZE + RURAL MIZ            */
  @99 NSREL    $CHAR1. /* NORTH-SOUTH RELATIONSHIP                */
  @100 AIRLIFT $CHAR1. /* CANADA POST AIR STAGE COMMUNITY (6+ MONTHS/YEAR)  */
  @101 BLKURB  $CHAR1. /* URBAN BLOCK INDICATOR (1=URBAN; 0=RURAL; 9=MISSING)*/
  @103 FED     $CHAR3. /* FEDERAL ELECTORAL DIST (UNIQUE IN PR)   */
  @107 ER      $CHAR2. /* ECONOMIC REGION (UNIQUE WITHIN PR)      */
  @110 AR      $CHAR2. /* CENSUS AGRICULTURAL REGION (CROP DIST)-UNIQUE IN PR*/
  @113 CCS     $CHAR3. /* CENSUS CONSOLIDATED SUBDIVISION (UNIQUE WITHIN PR) */
  @117 POINSTAL $CHAR1. /* POSTAL INSTALLATION GEOGRAPHY FLAG (0=NO, 1=YES)  */
  @118 QILEVEL $CHAR3. /* QUALITY OF LINKS TO COMMUNITY, STREET AND ADDRESS  */
  @121 GMETHOD $CHAR1. /* GEOCODING METHOD USED TO BUILD REGULAR PCCF RECORD */
  @123 EA81UID $CHAR8. /* 1981 ENUMERATION AREA (PRFEDEA)         */
  @132 EA86UID $CHAR8. /* 1986 ENUMERATION AREA (PRFEDEA)         */
  @141 EA91UID $CHAR8. /* 1991 ENUMERATION AREA (PRFEDEA)         */
  @150 EA96UID $CHAR8. /* 1996 ENUMERATION AREA (PRFEDEA)         */
  @159 DA01UID $CHAR8. /* 2001 DISSEMINATION AREA (PRCDDA)        */
  @168 DA06UID $CHAR8. /* 2006 DISSEMINATION AREA (PRCDDA)        */
  @177 AHR     $CHAR2. /* ALTERNATE HEALTH REGION CODE (UNIQUE WITHIN PR)  */
  @179 ASUB    $CHAR3. /* ALTERNATE HEALTH DISTRICT CODE (UNIQUE IN PR+AHR)  */
/* THE FOLLOWING FIELDS APPLY TO ALTERNATE PROGRAMS R5XOLD I4XOLD ONLY:    */
  @183 BTHDATC  $CHAR6. /* YYYYMM OF PCCF PCODE BIRTH DATE        */
  @190 RETDATEC $CHAR6. /* YYYYMM OF PCCF PCODE RETIREMENT DATE   */
  @197 PCVDATC  $CHAR6.; /* YYYYMM OF USERS' PCODE VINTAGE        */
```

The dataset HLTHOUT is sorted first by ID, then by PCODE. If the incoming file HLTHDAT contains any records with identical ID+PCODE, only a single example of each combination will be processed. Then when the HLTHOUT records are merged back to the main file, every record with the same ID+PCODE will be assigned the same geographic codes, even if more than one set of geographic codes were possible for that postal code.

APPENDIX B:
RECORD LAYOUT OF THE GEOPROB FILE (.PRB)

```
DATA GEOPROB;SET GEOPROB;BY LINK;FILE GEOPROB;
PUT
 @  1 ID       $CHAR12./* RECORD IDENTIFICATION (AS INPUT)        */
 @ 13 PCODE    $CHAR6. /* POSTAL CODE (AS INPUT)                  */
 @ 19 RESFLG   $CHAR1. /* RESIDENCE FLAG ON PCODES IF DMT=E,G,M   */
 @ 20 PR       $CHAR2. /* PROVINCE CODE (99=UNKNOWN)              */
 @ 22 CD       $CHAR2. /* CENSUS DIVISION CODE (00=UNKNOWN)       */
 @ 24 CSD      $CHAR3. /* CENSUS SUBDIVISION CODE (999=UNKNOWN)   */
 @ 28 CMA      $CHAR3. /* CMA OR CA CODE (999=UNKN;000=NOT APPL)  */
 @ 31 CT       $CHAR7. /* CENSUS TRACT (9999.99=UNKN;0000.00=NA)  */
 @ 39 DA       $CHAR4. /* DISSEMINATION AREA (9999=UNKNOWN)       */
 @ 43 BLK      $CHAR2. /* DISSEMINATION BLOCK (00=UNKNOWN)        */
 @ 45 INSTFLG  $CHAR1. /* INSTITUTIONAL FLAG                      */
 /* NOTE: GEOPROB HAS DIFF LAYOUT FROM HLTHOUT BEGINNING WITH LAT */
 @ 46 LAT      $CHAR2. /* LATITUDE DEGREES(2)                     */
 @ 48 LONG     $CHAR2. /* LONGITUDE DEGREES(3)/10=(2)             */
 @ 51 HR       $CHAR2. /* HEALTH REGION CODE (UNIQUE WITHIN PR)   */
 @ 53 SUB      $CHAR3. /* HLTH DIST CODE (UNIQUE IN PR /PR+HR(QC))*/
 @ 57 DPL      $CHAR3. /* DESIGNATED PLACE (999=UNKN;000=NOT APPL)*/
                       /* DIAGNOSTIC FLAGS:                       */
 @ 61 DMTDIFF  $CHAR1. /* PREVIOUS DMT IF DIFFERENT               */
 @ 62 DMT      $CHAR1. /* DELIVERY MODE TYPE                      */
 @ 63 LINK     $CHAR1. /* LINK TYPE                               */
 @ 64 SOURCE   $CHAR1. /* SOURCE OF GEOGRAPHIC CODES              */
 @ 65 NCSD     1.      /* NUM CSD POSSIBLE AT THIS PCODE/FSA/FSA12*/
 @ 66 NCD      1.      /* NUM CD POSSIBLE AT THIS PCODE/FSA/FSA12 */
 @ 67 RPF      $CHAR1. /* REPRESENTATIVE POINT (CENTROID) FLAG    */
 @ 68 SERV     $CHAR1. /* SERVICE TYPE                            */
 @ 69 PREC     $CHAR1. /* PRECISION (0=LEAST;9=MOST)              */
 @ 70 NADR     1.      /* NUMBER OF ADDRESS RANGES FOR THIS PCODE */
 /* NO OTHER FIELDS OF HEALTHOUT PRESENT IN THE GEOPROB FILE      */
 /* FOLLOWING 3 FIELDS ONLY PRESENT IN GEOPROB FILE:              */
 @ 72 ADR      $CHAR50. /* BLDG NAME, STREET ADR, CITY            */
 @123 CSDNAME  $CHAR8. /* FIRST 8 CHARACTERS OF CSD NAME          */
 @131 CSDTYPE  $CHAR2.;/* CSDTYPE WITH '*' REPLACING TRAILING ' ' */
```

The dataset GEOPROB is sorted first by LINK, then by RESFLG, DMT (or DMTDIFF if DMT='Z'), PCODE, PR, CD, CSD, DA, BLK and ID. That ensures that records with similar types of problems will be grouped together, which will facilitate corrections.

APPENDIX C:
EXPLANATION OF FIELDS AND CODES
APPEARING IN THE OUTPUT FILES AND PRINTOUTS

Except as noted, the following fields appear on both of the output files (`HLTHOUT` and `GEOPROB`) produced by *PCCF+*. When the same field appears on both files, it does *not* necessarily appear in the same position.

Identification (ID)

```
@ 1 ID      $CHAR12.  /* ID OR REGIST NUMBER (AS INPUT) */
```

Record identification. This field will appear exactly as read in from the `HLTHDAT` file, including leading or trailing blanks, if any, plus all numbers, letters and special characters. The `ID` can be any combination of alphabetic, numeric or other characters.

Postal Code (PCODE)

```
@ 13 PCODE   $CHAR6.  /* POSTAL CODE (ANANAN) */
```

Postal code. The first three characters of the postal code represent the Forward Sortation Area (`FSA`). The last three characters represent the Local Delivery Unit (`LDU`). A zero (0) in the second position of the postal code indicates service from a *rural* post office. Rural route services and suburban route services are also provided from *urban* post offices (where the second position of the postal code is <u>not</u> 0), in which cases the PCCF will show a Delivery Mode Type (`DMT`) of H (rural route service) or T (suburban route service).

Lower case alphabetic characters in the postal code field will be converted to upper case prior to matching.

If the province of residence is known (but nothing else), then the first letter of the postal code on your incoming file should correspond to the first letter for that province as assigned by Canada Post (for example, use B for a Nova Scotia resident of unknown address).

Residence Flag on Postal Code if DMT is E, G or M (RESFLG)

```
@ 19 RESFLG  $1.    /* RESIDENCE FLAG ON PCODES IF DMT=E,G,M:  */
                    /* '@' POSSIBLE RESIDENCE                  */
                    /* '-' IMPROBABLE RESIDENCE                */
                    /* '?' DMT=E,G,M BUT RES UNDETERMINED      */
                    /* ' ' DMT NOT IN (E,G,M)                  */
```

If the delivery mode type (`DMT`)is E, G or M, then `RESFLG` indicates postal codes for possible or improbable residence addresses, or postal codes for which the residential or non-residential nature is undetermined. If the `DMT` is not in E, G or M, then `RESFLG` will be blank. See `GEOPROB` output (`@72 ADR $CHAR50.`) for Canada Post building name and address information, if available.

Province, Census Division and Census Subdivision (PRCDCSD)

This field is composed of three subfields:

```
@ 20 PR       $CHAR2.  /* PROVINCE CODE           */
@ 22 CD       $CHAR2.  /* CENSUS DIVISION CODE     */
@ 24 CSD      $CHAR3.  /* CENSUS SUBDIVISION CODE */
```

The form of this field tells you how much is known, and how much is unknown about each of the three subfields. The output will have one of the following forms (where each "n" represents a number from 0 through 9):

nnnnnnn	PR CD and CSD known
nnnn999	PR and CD known, CSD unknown
nn00999	PR known, CD and CSD unknown
9900999	PR CD and CSD unknown

See the 2006 *Standard Geographical Classification* (SGC) for lists of valid codes for PR PRCD and PRCDCSD. A missing CD is indicated by 00 (since 99 is a legitimate CD code in northern Quebec); other missing fields for SGC are filled with '9's. Files CDNAMES and CSDNAMES show the names of each CD and CSD. PRuid=PR, CDuid=PR+CD, CSDuid=PR+CD+CSD.

Census Metropolitan Area/Census Agglomeration and Census Tract (CMACT)

This field is composed of two subfields:

```
@ 28 CMA      $CHAR3.   /* CMA OR CA CODE (000=NONE; 999=UNKNOWN)  */
@ 32 CT       $CHAR6.2  /* CENSUS TRACT (000=NOT APPL;999.99=MISSING) */
```

The form of this field tells you how much is known, and how much is unknown about each of the subfields. The output will have one of the following forms (where each "n" represents a number from 0 through 9):

000 000.00	Not in any CMA or CA
nnn nnn.nn	CMA/CA with urban Census Tract
nnn 999.99	CMA/CA with urban Census Tract, but CT unknown
999 999.99	CMA/CA unknown, and CT unknown (if any)

CMAuid=CMA, CTuid=CMA+CT. Note that CMA codes 996-999 as shown in *2006 GeoSuite* are not true CMA codes as defined by the 2006 Standard Geographic Classification, but rather Statistical Area Classification (SAC) codes, including Metropolitan Influence Zones (MIZ). Only true CMA codes are shown here, plus 999 for unknown CMA, and 000 for not in any CMA (or CA).

Dissemination Area (DA)

```
@ 39 DA       $CHAR4.   /* DISSEMINATION AREA (UNIQUE WITHIN PRCD); 9999=MISSING */
```

The dissemination area is the smallest geographic unit for which population characteristics are diffused from the 2006 census. In censuses prior to 2001, that role was filled by the enumeration area, but for the 2001 and 2006 censuses, the enumeration area was used for collection purposes only. DAuid=PR+CD+DA.

Dissemination Block (BLK)

```
@ 43 BLK      $CHAR2.   /* DISSEMINATION BLOCK (UNIQUE WITHIN PRCDDA); 00=MISSING */
```

A dissemination block (BLK or DB) is an area bounded on all sides by roads and/or boundaries of standard geographic areas. Blocks cover all the territory of Canada. The block is the smallest geographic area for which population and dwelling counts are disseminated. There may be as many as 99 blocks within a DA, so the missing value for block is a period. BLKuid=DBuid=PR+CD+DA+BLK.

Institutional Flag (INSTFLG)

```
@ 45 INSTFLG  $1. /* INSTITUTIONAL FLAG                        */
                  /* E=SCHOOL OR UNIVERSITY RESIDENCES         */
                  /* H=HOSPITALS                               */
                  /* I=HOSPITALS (ONLY FROM BUILDING NAME)     */
                  /* N=NURSING HOMES                           */
                  /* S=SENIORS RESIDENCES                      */
                  /* P=PRISONS, JAILS                          */
                  /* U=OTHER                                   */
                  /* BLANK=NOT APPLICABLE (AREA NOT PREDOM INST)*/
```

This field is used to help identify records likely to be for institutional residents. It is usually blank. The categories should not be expected to correspond to the classification of facilities used by the Health Statistics Division, provincial or territorial authorities. See the problem file (.PRB) for the building name and address of these large volume receivers.

Beginning with the following fields, the record layout of the GEOPROB file differs from that of the HLTHOUT file. Where fields are common to both files, only the layout for the HLTHOUT file is shown as program lines, although differences in the GEOPROB file may be mentioned in the field description and shown within square brackets.

Latitude and longitude (LAT LONG)

```
@ 46 LAT    Z8.  /* LATITUDE  DEGREES(2)+DECIMALS(6) */ [@ 46 LAT  Z2. on GEOPROB file]
@ 53 LONG   Z9.  /* LONGITUDE DEGREES(3)+DECIMALS(6) */ [@ 48 LONG Z2. on GEOPROB file]
```

Latitude and longitude (decimal points and negative signs are implicit). If SOURCE=F, D, C or I, then the latitude and longitude shown refer to dissemination area, block or blockface coordinates (the RPF field tells you which, and the PREC field indicates the spatial precision of the coding). If SOURCE=I, 3 or 2, then the latitude and longitude shown will be the average latitude and longitude of all postal codes in that FSA or aggregate of FSAs. The latter are clearly only approximate locations, so the corresponding distance calculations will also be only approximate. If the first two characters of the postal code were invalid, then latitude and longitude will be unknown, and each field will contain a single period ("."), which indicates a missing numerical value. Exceptionally for these two fields, 99999999 and 999999999 are not used to indicate missing values, since those would have been taken as legitimate values for the distance calculations, thus resulting in extreme distances, rather than missing distances. Note that in the GEOPROB file, in order to conserve space only two places after the implied decimal are shown.

Designated Place (DPL)

```
@ 64  DPL    $CHAR3. /* DESIGNATED PLACE (999=UNKN;000=NONE) */
[@ 57  DPL    $CHAR3. on GEOPROB file]
```

The Designated Place (DPL) field is for a generally submunicipal level geography which was new with the 1996 census, and only applicable in some provinces. For 2006, a DPL is defined as a group of census blocks which refer to an unincorporated place usually within a single census subdivision (CSD), but some cross CSD boundaries, of which a few also cross census division (CD) boundaries. Note that because DPLs mostly occur in areas served by rural postal codes (where a single postal code serves a group of DAs and many census blocks), such areas are difficult or impossible to define with reasonable accuracy in terms of postal codes alone. File DPLNAMES shows the names of the DPLs assigned by provincial authorities. DPLuid=PR+DPL.

Diagnostic flags (DMTDIFF, DMT, LINK, SOURCE, NSCD, NCD, RPF, SERVE, PREC, NADR)

Note: There are now 10 characters (with no spaces between them) for diagnostic flags on both the HLTHOUT and GEOPROB files. These diagnostic flags are for DMTDIFF, DMT, LINK, SOURCE, NCSD, NCD, RPF, SERV, PREC and NADR. In addition, the GEOPROB file and printout will show truncated address information (if applicable), or Designated Place Name (if applicable), or Canada Post Community Name or Census Division Name, and Census Subdivision Name and Census Subdivision Type (if known or estimated from partial matching).

Different Delivery Mode Type (DMTDIFF)

```
@ 67 DMTDIFF  $1. /* PREVIOUS OR ALTERNATE DMT IF DIFFERENT */
[@ 61 DMTDIFF  $1. on GEOPROB file]
```

This field is for the previous Delivery mode type (DMT) if different from the current DMT. This usually occurs when the current DMT=Z (retired).

Delivery Mode Type (DMT)

```
@ 68 DMT      $1.  /* DELIVERY MODE TYPE */ [@ 62 DMT $1. on GEOPROB file]
```

The Delivery Mode Type is a single character which will be W if delivery is from a rural post office, or will be another alphabetic character if delivery is from an urban post office, or 9 if DMT is missing or not applicable. The Delivery Mode Type is determined by Canada Post, except that, beginning with Version 3 of *PCCF+*, W is always used in place of blank for any delivery mode from a rural post office.

W   Rural postal codes (regardless of type of service) now always have a DMT of W. Where more than 1 CSD is served by the rural post office, this will result in a Note to that effect on the GEOPROB file. No action is recommended in such cases, since manual coding would defeat the population-weighted allocation.

A   Ordinary household (including community mail boxes) served by letter carrier. The most common DMT; usually no problem.

B   Apartment building (large) served by letter carrier. No problem with this DMT.

E   Business buildings served by letter carrier. This DMT results in a Warning message, with the suggestion to check postal code/address, to see if they refer to a legitimate residence or office location. In most cases, the RESFLG field will indicate whether the postal code is probable or improbable as a place of residence. The building name and brief address are shown on the GEOPROB file. The legitimacy of a postal code with this DMT may also depend on the nature of the records being coded: appropriate codes for offices are not necessarily appropriate for residences.

G   Large Volume Receiver served by letter carrier (includes many institutions). This DMT results in a Warning message, with the suggestion to check postal code/address, to see if they refer to a legitimate residence or office location. In most cases, the RESFLG field will indicate whether the postal code is probable or improbable as a place of residence. The building, company or institution name and brief address will be shown on the GEOPROB file. The legitimacy of postal codes with this DMT may also depend on the nature of the records being coded: appropriate codes for offices are not necessarily appropriate for residences. For example, a postal code for a nursing home may be reasonable for coding the place of usual residence on a death record, but it would be highly suspicious on a birth record. Even if it is a legitimate place of residence, consider whether an event at such a place is pertinent to your study. For example, if your study uses neighbourhood income as a proxy for individual or family-level socioeconomic position, would it make sense to include college or university residences?

Special note concerning Delivery Mode Types H, J, K, M, R and T: Except on rare occasions, it is no longer necessary to manually recode records with a DMT of H (for rural route delivery from an urban post office), J (General Delivery--pick up from an urban post office counter), K (pick-up from group of urban post office boxes), or T (suburban service delivery from an urban post office). Most postal codes with those DMTs can now be assigned a full set of geographic codes by reference to the WCF (SOURCE=C). That also applies to many postal codes with DMT of M (pick up from a single large urban post office box) and R (miscellaneous services; no longer used by Canada Post).

H   Rural route delivery from urban post office. For most rural routes, the WCF shows the 2006 Census 2A population weights associated with each PCODE/PRCDDA combination. As rural routes serve large areas, more than one CSD or CD may be linked to a postal code with this DMT, in which case the record will be output to the GEOPROB file with a Note to that effect. If the SOURCE is not equal to 'C', then only PR and CMA will be imputed from FSA, since the service area of these postal codes extends out into adjacent rural FSAs.

J   General delivery (poste restante). Residence location may be available from census data (WCF, SOURCE=C). Otherwise, this DMT will result in an Error, and the only geographic codes assigned would be based on population-weighted imputation within the FSA (SOURCE=I) or on "most likely" values for the FSA (SOURCE=3).

K   Group of post office boxes. Residence location may be available from census data (WCF). Otherwise, this DMT will result in an Error, and the only geographic codes assigned would be based on population-weighted imputation within the FSA (SOURCE=I) or on "most likely" values for the FSA (SOURCE=3).

M   Single post office box. If present on the WCF (SOURCE=C), will be fully coded. In most cases, the RESFLG field will indicate whether the postal code is probable or improbable as a place of residence. The building, company or institution name and brief address will be shown on the GEOPROB file. If not present on the WCF, postal codes with this DMT will result in an Error, since the PCCF only links postal codes with this DMT to post office location. In that case the only geographic codes which could be assigned would be imputed from population-weighted imputation within the FSA (SOURCE=I), or on based on "most likely" values for the FSA (SOURCE=3).

R   Miscellaneous delivery services. Residence location may be available from census data (WCF). Otherwise, this DMT will result in an Error, as the regular PCCF only links these to post office location, and the only geographic codes which could be assigned would be based on "most likely" values for the FSA. *DMT R is no longer used by Canada Post, but it may appear in the field for previous DMT.*

T   Suburban service delivery (rare). Residence location may be available from census data (WCF). Otherwise, this DMT will result in an Error, as the regular PCCF only links these to post office location, and the only geographic codes which could be assigned would be based on "most likely" values for the FSA.

DMT=X is only linked to post office location, and thus results in an Error message as well as output to the GEOPROB file. However, since in such cases the first three characters of the postal code are known to be valid, then a "most likely" PR and CMA may often be imputed and an average LAT and LONG for the FSA would be assigned by the programs.

X   Mobile route (urban industrial areas; rare). This DMT will result in an Error, as the regular PCCF only links these to post office location, and the only geographic codes which could be assigned would be based on "most likely" values for the FSA.

W   Rural postal codes. Usually geography for records with rural postal codes will be derived from the Weighted Conversion File (SOURCE=C).

Z   Retired postal codes. Usually the DMTDIFF field will show the previous DMT for retired postal codes. If so, the LINK and other diagnostic codes make use of the DMTDIFF. However, if DMTDIFF is blank, then there is a slight chance that a currently retired postal code may have formerly had a DMT of E, G, M or X, so this condition will result in output of the record to the problem file with a Warning message to that effect.

9   Not applicable. No exact match to the PCCF or WCF, hence DMT is unknown. These will result in an Error message as well as output to the GEOPROB file. A partial set of geographic codes may still be assigned based on the first 1, 2 or 3 characters of the postal code (SOURCE=1, 2, 3 or I).

Link type code (LINK) - (formerly PROB prior to Version 4)

` @ 69 LINK  $1.  /* LINK TYPE (INCREASING CONFIDENCE) */ [@ 63 LINK $1. on GEOPROB file]`

The meanings of the numbers in this field are as follows:

0   Error: No match to PCCF (`UNIQ, DUPS,` or `WCF`).
1   Error: Linked to PO geography.

2   Warning: Non-residential. `DMT=E, G or M` and `EGMRES=-` (probable non-residential).
3   Warning: Business building (may possibly not be a legitimate residence). `DMT=E and EGMRES=blank.`
4   Warning: Commercial or institutional (check if legitimate residence, and if pertinent to your study). `DMT=G or M and EGMRES=blank.`
5   Warning: Retired postal code (slight chance of DMT problem prior to retirement, if `DMT=Z, and DMTDIFF=blank).`
6   Note: Multiple match to CSD. CSD assigned by random allocation among possible CSDs shown in PCCF, with equal weight to each DA or BLK served. No further action required.
7   Note: Multiple match to CSD. CSD assigned by random allocation among possible CSDs shown in WCF, based on distribution of population by postal code and DA at the time of the 2001 census (no further action required).
9   Not applicable (no error, warning or note). *Such records do not appear on the GEOPROB file or printout.*

The link type code identifies the type of problems encountered in coding. The link type codes (LINK) and corresponding messages (MESSAGE) are arranged in hierarchical order, starting with 0 for the most serious problems, and going to 9 for no problem at all (not even a Warning or Note). If more than one type of problem was present, only the worst type is shown.

Source of Geographic Codes (SOURCE)

` @ 70 SOURCE  $1. /* SOURCE OF GEOGRAPHIC CODES AND LAT/LONG */ [@ 64 SOURCE $1. on GEOPROB file]`

The possible values of this field are as follows:

F   A full set of geographic codes and latitude/longitude were derived from an exact match to a PCCF unique record.
D   A full set of geographic codes and latitude/longitude were derived from an exact match to a PCCF duplicate record.
C   A full set of geographic codes and latitude/longitude were derived from an exact match to a WCF record (for DMT of H, J, K, some M, R, T, W, or Z).
5   Full geography was imputed from the first 5 characters of a postal code (when DMT=9) , using census population weights.
4   Full geography was imputed from the first 4 characters of a postal code (when DMT=9) , using census population weights.
I   Full geography was imputed from the first 3 characters of a postal code (when DMT=9 or most M) , using census population weights.
3   A partial set of geographic codes was assigned based on only the first 3 characters of this postal code (if 90% certain). Average latitude and longitude of the FSA were assigned.
2   A partial set of geographic codes were assigned based on only the first 2 characters of this postal code. Average latitude and longitude of the FSA12 were assigned (if 90% certain). CT and DA+BLK always set to missing values. All of the records with this SOURCE are due to unknown (non-existent) postal codes.
1   A province code was assigned based on only the first character of this postal code. No other geographic codes or latitude and longitude were assigned. All of the records with this SOURCE are due to unknown (non-existent) postal codes.
0   The first character of this postal code is not in the set used for Canadian postal codes. No geographic codes assigned.

V   A full set of geographic codes and latitude/longitude were derived from an exact match to a PCCFUNIQ record for a postal code with an FSA of V1H or V9G, including geography from the period prior to the rebirth of those FSAs in their new locations. This SOURCE only occurs where the program R5xOLD or I5xOLD is used to recode British Columbia FSAs which were moved by Canada Post.

Coding Completing Summary Code (CCSUM)

In Versions 3, 4 and 5, this field is not present in either output file, but is calculated for frequency tables in the printouts. This field shows how many geographic codes were assigned. It is the sum over all of the coding completion variables, which each have a value of 1 if a given geographic code was assigned.

0   No geographic codes were assigned, or latitude and longitude.
1   One geographic code was assigned: a province code, with no latitude or longitude.
2   Two geographic codes were assigned: a province and Census Division or Census Metropolitan Area / Census Agglomeration code, plus an average latitude and longitude for the FSA or aggregate of FSAs.
3   Three geographic codes were assigned: province, Census Division and Census Subdivision; or province, Census Division and Census Metropolitan Area or Census Agglomeration, plus an average latitude and longitude for the FSA or aggregate of FSAs.
4   Four geographic codes were assigned: province, Census Division, Census Subdivision, and Census Metropolitan Area or Census Agglomeration, plus an average latitude and longitude for the FSA or aggregate of FSAs.
6   Six geographic codes were assigned: province, Census Division, Census Subdivision, Census Metropolitan Area or Census Agglomeration, Census Tract (if applicable) and Dissemination Area, plus the latitude and longitude of the Dissemination Area.
7   All 7 geographic codes were assigned: province, census division, census subdivision, census metropolitan area or census agglomeration, dissemination area, and census block, plus the latitude and longitude of the block or blockface.

Number of Census Subdivisions (NCSD)

```
 @ 71 NCSD   1. /* NUMBER CSD POSSIBLE AT THIS PCODE (1-9+) */ [@ 65 NCSD  1. on GEOPROB file]
```

This field indicates the number of Census Subdivisions served in whole or in part by this postal code. A value of 9 indicates 9 or more. Most urban postal codes serve only one Census Subdivision.

Number of Census Divisions (NCD)

```
 @ 72 NCD    1. /* NUMBER CD POSSIBLE AT THIS PCODE (1-9+) */ [@66 NCD  1. on GEOPROB file]
```

This field indicates the number of Census Divisions served in whole or in part by this postal code. A value of 9 indicates 9 or more. Most urban postal codes serve only one Census Division.

Representative Point Flag (RPF)

```
 @ 73 RPF  $1. /* REPRESENTATIVE POINT FLAG                      */ [@67 RPF $1. on GEOPROB file]
              /* FOR LAT & LONG CENTROID (REP POINT):       */
              /* 1=BLOCKFACE REP POINT                      */
              /* 2=BLK REP POINT DETERMINED BY PCCF         */
              /* 3=BLK REP POINT IMPUTED W/IN DA (SOURCE=F D)   */
              /* 4=BLK REP POINT IMPUTED W/IN PCODE (SOURCE=C)  */
              /* 5=DA  REP POINT IMPUTED W/IN PCODE (SOURCE=C)  */
              /* 6=DA  REP POINT IMPUTED W/IN PARTIAL PCODE (SOURCE=I, 4, 5) */
              /* 8=AV LAT LONG FOR FSA/PART (SOURCE= 3 2 1)     */
              /* 9=REP POINT MISSING                        */
```

Service Type (SERV)

```
 @ 74 SERV  $1. /* SERVICE TYPE (1,2=WITH STREET ADR)          */ [@68 SERV $1. on GEOPROB file]
               /* 1=STREET ADR W/ LETTER CARRIER SERVICE    */
               /* 2=STREET ADR W/ ROUTE SERVICE             */
               /* 3=PO BOX                                  */
               /* 4=ROUTE SERVICE W/O STREET ADR            */
               /* 5=GENERAL DELIVERY                        */
```

```
                      /* 9=UNKNOWN (WHEN SOURCE=I 3 2 1)          */
                      /* 0=UNKNOWN (WHEN SOURCE=F D C)            */
```

Precision (PREC)

```
@ 75 PREC  $1. /* PRECISION OF LAT LONG (0=LEAST;9=MOST)     */ [@69 PREC $1. on GEOPROB file]
               /* 9=1  BLKFACE  IN 1 DA; DMT IN (A B E G)     */
               /* 8=1  BLK      IN 1 DA; DMT IN (A B E G)     */
               /* 7=1  DA;               DMT IN (A B E G)     */
               /* 6=2+ DA'S;             DMT IN (A B E G)     */
               /* ABOVE SERVICE POINTS < 200 M DIST           */
               /*   SO DA'S ADJACENT AND FEW                  */
               /* 5=1+ DA'S; DMT IN (H-Z), FROM WCF POP WEIGHTS */
               /* 4=DA, ETC IMPUTED FROM 3, 4 OR 5 CHAR POP WTS */
               /* 3=CODES IMPUTED FROM FSA   W/OUT WT          */
               /* 2=CODES IMPUTED FROM FSA12 W/OUT WT          */
               /* 1=PR    IMPUTED FROM FSA1                    */
               /* 0=NO GEOGRAPHIC CODING POSSIBLE (NOT EVEN PR) */
```

Number of Address Ranges (NADR)

```
@ 76 NADR  1.;/* NUMBER ADRRESS RANGES FOR THIS PCODE (1-9+) */ [@70 NADR  1. on GEOPROB file]
```

This field indicates the number of address ranges served by this postal code. A value of 9 indicates 9 or more. The address ranges may be on different streets. Only the first or last address range (if applicable) is shown in the problem file output and printout

The following two fields (CODER and CPCCODE) are not present on the GEOPROB file:

Coder (CODER)

```
@ 78 CODER  $3. /* CODER: R5A=GEORES5A APR 2007 PCCF */ [ not on GEOPROB file]
```

The *PCCF+* program and version is indicated by the CODER field. For example, CODER I5A indicates that the GEOINS program was run using the April 2007 vintage of the PCCF. Information about the coder is necessary for interpretation of the Canada Post Community Code (CPCCODE), and for understanding why certain categories of postal codes were coded the way they were. Using the wrong program to do the coding (GEORES for office coding, or GEOINS for residential coding—the opposite of what was intended) could easily go undetected without this field.

Monthly Update Code (UPDATE)

```
@ 81 UPDATE  $1. /* MONTHLY UPDATE CODE (STC INTERNAL USE ONLY) */
```

The monthly update code indicates the sequence number of the Statistics Canada internal monthly update subsequent to release of the last previous public use version. This field will be blank on all public release versions of *PCCF+*.

Canada Post Community Code (CPCCODE)

```
@ 82 CPCCODE $CHAR4./* CANADA POST COMMUNITY CODE (SEQUENTIAL)    */ [not on GEOPROB file]
               /* WARNING: THIS CODE CHANGES WITH EACH VINTAGE  */
               /* OF PCCF, SO MUST ONLY BE USED WITH CPCNAMES    */
               /* FILE ASSOCIATED WITH ABOVE CODER               */
               /* WILL BE MISSING IF SOURCE=C                    */
               /* NOTE:  TO REGENERATE PROBLEM FILE FROM GEOG1: */
               /*   IF LINK LT 5; MERGE TO LOOKUP CPCOMM         */
               /*   CSDNAMES CDNAMES                             */
```

Canada Post Communities were numbered sequentially after arranging in alphabetical order within provinces and territories. The numbering of communities will clearly change anytime there is an addition or deletion of a community, or a change in spelling of a community name. That is why the CPCCODE can only be interpreted if correctly paired with the corresponding list of communities (see file PCCFYYMM.CPCOMM). For example, CODERs R5C and I5C use the community list of March 2008; the use of a list from any other month or year would be meaningless. Statistics Canada internal users should take account of CODER+UPDATE when interpreting CPCCODE.

Health Region (HR)

```
 @ 87 HR    $CHAR2. /* HEALTH REGION CODE (UNIQUE WITHIN PR) (99=MISSING) */
[@ 51 HR    $CHAR2.  on GEOPROB file]
```

Health regions are subprovincial areas defined by provincial departments of health. In some cases, those definitions may split dissemination areas or blocks between two or more health regions, but to simplify the coding here, each DA+BLK has been uniquely assigned to a single health region. Since each health region covers many DAs, most of which are not split, this simplification should have little effect on the number of events coded to each health region. The two-character HR code is only unique within a given province (HRuid=PR+HR). Where a province only uses a single digit to represent a health region, a zero has been added preceding that digit. Note that the definitions used were generally those in effect on 31 December 2007, but the definitions may be changed by provinces at any time, particularly in provinces without a long history of producing data by health region. See Appendix H1 for lists of health regions by province and type. File HRNAM07 shows the name of each HR, including unofficial descriptive names for unnamed HRs. The 16 Health Service Delivery Areas in BC roll up to 5 Regional Health Authorities, which are designated by the first digit of the Health Region code. IF PR='59' THEN RHAuid=PR||SUBSTR(HR,1,1); /* uid FOR BC RHA */

Health District (SUB)

```
 @ 89 SUB $CHAR3. /* HEALTH DISTRICT CODE – UNIQUE WITHIN PR+HR                    */
[@ 53 SUB $CHAR3. on GEOPROB file] /* BLANK=NOT APPLICABLE; 999=APPLICABLE BUT MISSING */
```

Health districts are geographically-defined areas which are smaller than health regions. They are defined by several but not all provincial departments of health. In most but not all cases, health districts are subdivisions of health regions. In all cases, a health district code is only unique within a given province. In Quebec, Ontario and Alberta, the health district code is only unique within the province and health region (SUBuid=PR+HR+SUB). Where a province uses only one or two characters to represent a health district, the second and/or third characters will be blank. See Appendix H2 for a list of health districts by province and type. File SUBNAM07X shows the name of each health district. Source: Same as for health regions, plus Bains (2010). Ontario Primary sub-LHINs are designated by the first two characters of the SUB code; if non blank, the third character indicates Secondary sub-LHINS within the Primary sub-LHIN. IF PR='35' THEN DO; SLPuid=PR||HR||SUBSTR(SUB,1,2); SLSuid=SLPuid||'.'||SUBSTR(SUB,3,1); END;

The following 5 fields are not present on the GEOPROB file:

Community Size (CSIZE)

```
@ 93 CSIZE   $1.   /* COMMUNITY SIZE CODE (BASED ON CMACA POP2006) */ [not present on GEOPROB file]
                   /* 1=1,500,000+                        */
                   /* 2= 500,000-1,499,999                */
                   /* 3= 100,000-  499,999                */
                   /* 4=  10,000-  99,999 (ANY CMACA < 100,000)  */
                   /* 5= < 10,000 (ANY NON-CMACA)         */
                   /* 9=  MISSING                         */
```

Community Size is defined in terms of the 2006 census population in each census metropolitan area or census agglomeration (CMA or CA), as shown above. Community Size 1 consists of Toronto, Montreal and Vancouver CMAs. Community Size 2 consists of Ottawa-Gatineau, Edmonton, Calgary, Québec, Winnipeg and Hamilton CMAs. Community Size 3 includes all 18 other CMAs plus 7 of the larger CAs. Community Size 4 includes all 106 other CAs. Community Size 5—"rural and small town Canada"--includes all places not included in any CMA or CA. (i.e., places with an urban area population less than about 10,000, plus rural areas). *Note that the lower threshold of CSIZE=1 has been increased, since Ottawa-Hull is much closer in size to Edmonton and Calgary than to Montreal, Vancouver or Toronto.*

Note that almost all records with a valid FSA (whether or not the rest of the postal code is valid) can be assigned to a CMA or CA, and thus to a CSIZE category. According to Statistics Canada's recommended definition, rural and small town Canada (Plessis et al, 2001) is defined as CSIZE='5'.

Neighbourhood Income Quintile (QAIPPE)

```
@ 95 QAIPPE  $1. /* 2006 NEIGHBOURHOOD INCOME QUINTILE (WITHIN CMACA): */
                                                [not present on GEOPROB file]
             /*  1=LOWEST INCOME QUINTILE      */
             /*  5=HIGHEST INCOME QUINTILE     */
             /*  9=MISSING                     */
```

Neighbourhood income per person equivalent (IPPE) is a household size-adjusted measure of household income, based on 2006 census summary data at the DA level, and using person-equivalents implied by the 2006 low income cut-offs (LICOs). Note that the 2001 single person equivalents were 1.00 for 1 person, 1.25 for 2 persons, 1.55 for 3 persons, 1.95 for 4 or 5 persons, and 2.44 for 6 or more persons sharing the same household (regardless of age). For a description of how IPPE was calculated previously based on 1991 census summary data and single-person equivalents from the 1991 LICOs, see Ng et al. (1993).

Within each CMA, CA or provincial residual area not in any CMA or CA, the DA average IPPE was used to rank all DAs, and then the population was divided into approximate fifths, thus creating community-specific income quintiles based on IPPE. The quintiles were defined within each area in order to better reflect the relative nature of this measure, to minimize the effect on household welfare of large differences in housing costs, and to ensure that each CMA or CA would have about an equal percentage of the population in each income quintile. Where DA income data were suppressed because of small sample size, imputations based on reported income from adjacent DAs were substituted.

The following field is new beginning with Version 5H:

Immigrant Tercile (IMMTER)

```
 @96 IMMTER    $1. /* IMMIGRANT (FOREIGN-BORN) TERCILE (NATIONAL)            */
                   /* 1=LOWEST TERCILE OF IMMIGRANT POPULATION               */
                   /* 2=MIDDLE TERCILE OF IMMIGRANT POPULATION               */
                   /* 3=HIGHEST TERCILE OF IMMIGRANT POPULATION              */
                   /* 9=MISSING                                              */
```

The Immigrant (foreign-born) Tercile (IMMTER) variable divides the immigrant (and non-permanent resident) population into three approximately equal parts, with roughly 2 million immigrants in each tercile. For Canada as a whole, the percentage immigrant in the highest immigrant tercile (IMMTER=3) is about 63 %; in the middle tercile it is about 37 %, and in the lowest tercile it is about 10%. Note that the immigrant terciles are defined for Canada as a whole (nationally), so provincial and regional subsets of data are unlikely to have one third of the immigrant population in each tercile.

The following five fields are new beginning with Version 4:

Statistical Area Classification Type (SACTYPE)

```
 @97 SACTYPE   $1. /* STATISTICAL AREA CLASSIFICATION TYPE                   */
                   /* 1=CENSUS METROPOLITAN AREA                             */
                   /* 2=TRACTED CENSUS AGGLOMERATION                         */
                   /* 3=NON-TRACTED CENSUS AGGLOMERATION                     */
                   /* 4=NON-CMACA, STRONG CMACA INFLUENCE                    */
                   /* 5=NON-CMACA, MODERATE CMACA INFLUENCE                  */
                   /* 6=NON-CMACA, WEAK CMACA INFLUENCE                      */
                   /* 7=NON-CMACA, NO CMACA INFLUENCE                        */
                   /* 8=NON-CMACA, TERRITORIES                               */
                   /* 9=NON-CMACA, CMACA INFLUENCE UNKNOWN
                   /* .=MISSING SACTYPE                                      */
```

In census metropolitan areas and census agglomerations, the Statistical Area Type is defined by characteristics of the CMACA. In areas outside of any census metropolitan area or census agglomeration, the Statistical Area Type is defined by characteristics of the census subdivision, based on commuting flows to work in census metropolitan areas or census agglomerations (metropolitan influence zone or MIZ). For more details, see the following source: McNiven C, Puderer H, Janes D. *Census Metropolitan Area and Census Agglomeration Influence Zones (MIZ): A Description of the Methodology*. Geography Working Paper Series No. 2000-2. Catalogue No. 92F0138MPE. Ottawa: Geography Division, Statistics Canada, 2000.

Community Size and Metropolitan Influence Zone (CSIZEMIZ)

```
@ 98 CSIZEMIZ    $CHAR1.  /* COMMUNITY SIZE AND METROPOLITAN INFLUENCE ZONE */
                 /* 1=1.5 MILLION AND OVER                      */
                 /* 2=500,000-1,499,999                         */
                 /* 3=100,000-  499,999                         */
                 /* 4= 10,000-   99,999                         */
                 /* 5=NON-CMACA: STRONG MIZ                     */
                 /* 6=NON-CMACA: MODERATE MIZ                   */
                 /* 7=NON-CMACA: WEAK/NO MIZ, TERRITORIES       */
                 /* 8=NON-CMACA: UNKNOWN MIZ                    */
                 /* 9=UNKNOWN IF CMACA OR NOT                   */
```

This variable is a combination of the CSIZE variable for urban areas, and of the SACTYPE variable for rural areas. See the definitions of each for more information.

North-South Relationship (NSREL)

```
@ 99 NSREL    $1.  /* NORTH-SOUTH RELATIONSHIP:                 */
                   /* N=NORTH                                   */
                   /* P=NORTH TRANSITION                        */
                   /* R=SOUTH TRANSITION                        */
                   /* S=SOUTH                                   */
                   /* 9=MISSING                                 */
```

The North-South relationship classification (NSREL) is described in the following source: McNiven C, Puderer H. *Delineation of Canada's North: An examination of the North-South relationship in Canada.* Geography Working Paper Series No. 2000-3. Catalogue No. 92F0138MPE. Ottawa: Geography Division, Statistics Canada, 2000. For *PCCF+*, NSREL is determined by the 1996 census subdivision code.

Canada Post Air Stage Community (AIRLIFT)

```
@100 AIRLIFT  $CHAR1. /* *=CANADA POST AGE STAGE COMMUNITY (6+ MONTHS/YEAR)  */
```

"An Air Stage Office is a Post Office to or from which all mail must be airlifted for more than six (6) months of every year as a viable surface transportation alternative is not available. These offices are generally confined to remote or isolated communities. An office designated an Air Stage Office is deemed to be Air Stage for the whole year." http://www.canadapost.ca/tools/pg/manual/PGairstage-e.asp (Last updated: 2007-09-17)

Urban Block Flag (BLKURB)

```
@101 BLKURB   $1.  /* URBAN BLOCK FLAG                          */
                   /* 1=URBAN BLOCK                             */
                   /* 0=RURAL BLOCK                             */
                   /* 9=URBAN-RURAL STATUS OF BLOCK UNKNOWN     */
```

Use of this field is not recommended, because coding to dissemination block in areas served by rural postal services is always imputed from a randomly selected dissemination area, based on population weights for each block served, so classification of such blocks as urban or rural is only probabilistic. Classification based on urban postal codes is much more certain, as the specific block is almost always known with much greater certainty. This field is defined as follows: `IF UARA GE 9910 THEN BLKURB=0; ELSE IF UARA NE . THEN BLKURB=1;` For geography based on postal codes, a far more robust definition is Statistics Canada's recommended definition of "rural and small town Canada" (Plessis et al, 2001) -- where CSIZE='5' (all non-CMACA).

Federal Electoral District -- 2003 Representation Order (FED)

```
@  103 FED   $CHAR3. /* FEDERAL ELECTORAL DISTRICT, 2003 LIST */
```

A Federal Electoral District is the area represented by member of the House of Commons. The Federal Electoral Districts used for the 2006 Census were based on the 2003 Representation Order (list). If missing, FED will be set to 999. If an exact match to the PCCF was not possible, but the postal code indicated an urban FSA, then the FED may have been imputed

proportionally to the population using that FSA (SOURCE=I). Otherwise (when SOURCE=3, 2 or 1), the FED will be 999. File FEDNAMES shows the official name of each FED. The FED code is only unique within a province. FEDuid=PR+FED.

Economic Region (ER)

```
@107 ER       $2.  /* ECONOMIC REGION (UNIQUE WITHIN PR)                 */
```

An economic region (formerly "subprovincial region") is a collection of complete census divisions (except for one CD in Ontario which is split between 2 ERs) which is used for analysis of regional economic activity. The Ontario CD of Halton (3524) is split between the ER of Hamilton-Niagara Peninsula and the ER of Toronto. The ER code is only unique within a given province or territory. ERuid=PR+ER. File ERNAMES shows the name of each ER.

Census Agricultural Region (AR) or Crop District

```
@ 110 AR     $CHAR2. /* CENSUS AGRICULTURAL REGION (CROP DISTRICT)-UNIQUE IN PR */
                     /* 00=TERRITORIES; 99=MISSING BUT APPLICABLE            */
```

Census agricultural regions are used by the Census of Agriculture for disseminating agricultural statistics. ARs are composed of groups of adjacent census divisions, except in Saskatchewan, where they are composed of groups of adjacent census consolidated subdivisions (CCS) not respecting census division boundaries. ARs are not defined for the territories. The AR code is unique only when preceded by the province code. ARuid=PR+AR. File ARNAMES shows the name of each AR, including unofficial descriptive names for otherwise unnamed ARs.

Census Consolidated Subdivision (CCS)

```
@ 113 CCS    $CHAR3. /* CENSUS CONSOLIDATED SUBDIVISION--UNIQUE IN PR (999=MISSING)*/
```

CCSs are composed of groups of adjacent census subdivisions within the same census division. The CCS code is unique only when preceded by the province and census division codes. CCSuid=PR+CD+CCS. File CCSNAMES shows the name of each CCS, which is the same as that of its largest CSD.

Postal Installation Geography Flag (POINSTAL)

```
@117 POINSTAL $CHAR1. /* POSTAL INSTALLATION GEOGRAPHY FLAG (0=NO, 1=YES, 2=UNKN) */
```
Quality indicators for PCCF links at each of three levels (QICOMM, QISTREET, QIADDR):

Quality Indicator for PCCF Link to Community (QICOMM)

```
@118 QICOMM   $1.  /* QUALITY INDICATOR FOR PCCF LINK TO COMMUNITY       */
                   /* A=VERY GOOD, B=GOOD, C=FAIR, N=NO MATCH, U=UNKNOWN */
```

Quality Indicator for PCCF Link to Street (QISTREET)

```
@119 QISTREET $1.  /* QUALITY INDICATOR FOR PCCF LINK TO STREET          */
                   /* A=VERY GOOD, B=GOOD, C=FAIR, N=NO MATCH, U=UNKNOWN */
```

Quality Indicator for PCCF Link to Address Range (QIADDR)

```
@120 QIADDR   $1.  /* QUALITY INDICATOR FOR PCCF LINK TO ADDRESS RANGE   */
                   /* A=VERY GOOD, B=GOOD, C=FAIR, N=NO MATCH, U=UNKNOWN */
```

Geocoding Method Used to Build Regular PCCF Record (GMETHOD)

```
@121 GMETHOD  $CHAR1. /* GEOCODING METHOD USED TO BUILD REGULAR PCCF RECORD */
                      /* 1=AUTO, 2=CENSUS, 3=2001 CONVERSION, 4=MANUAL     */
```

1981 Enumeration Area (EA81UID)

```
@ 123 EA96UID  $CHAR8. /* 1981 ENUMERATION AREA = PR(2)+FED(3)+EA(3)  */
```

This field shows the 1981 enumeration area (PR+FED+EA), based on the 2006 dissemination block to 1981 enumeration area correspondence file.

1986 Enumeration Area (EA86UID)

```
@  132 EA86UID    $CHAR8. /* 1986 ENUMERATION AREA = PR(2)+FED(3)+EA(3)  */
```

This field shows the 1986 enumeration area (PR+FED+EA), based on the 2006 dissemination block to 1986 enumeration area correspondence file.

1991 Enumeration Area (EA91UID)

```
@  141 EA91UID    $CHAR8. /* 1991 ENUMERATION AREA = PR(2)+FED(3)+EA(3)  */
```

This field shows the 1991 enumeration area (PR+FED+EA), based on the 2006 dissemination block to 1991 enumeration area correspondence file.

1996 Enumeration Area (EA96UID)

```
@  150 EA96UID    $CHAR8. /* 1996 ENUMERATION AREA = PR(2)+FED(3)+EA(3)  */
```

This field shows the 1996 enumeration area (PR+FED+EA), based on the 2006 dissemination block to 1996 enumeration area correspondence file.

2001 Dissemination Area (DA01UID)

```
@ 159 DA01UID   $char8. /* 2001 DISSEMINATION AREA (PR+CD+DA)  */
```

2006 Dissemination Area (DA61UID)

```
@ 168 DA01UID   $char8. /* 2006 DISSEMINATION AREA (PR+CD+DA)  */
```

Alternate Health Region Code (AHR)

```
@ 177 AHR        $char2. /*  ALTERNATE HEALTH REGION CODE (UNIQUE WITHIN PR) */
```

This field shows numeric codes corresponding to Ontario Public Health Units (formerly shown in the health district (SUB) field). AHRuid=PR+AHR.

Alternate Health District Code (ASUB)

```
@ 179 ASUB       $char3. /* ALTERNATE HEALTH DISTRICT CODE (UNIQUE WITHIN PR+AHR) */
```

Currently used only in Ontario for city-defined neighbourhoods within the Toronto PHU. ASUBuid=PR+AHR+ASUB.

The following three fields (ADR, CSDNAME, CSDTYPE) are not present on the HLTHOUT file, they only appear on the GEOPROB file:

Building Name and Address (ADR)

```
 @ 72 ADR $50.  /* BLDG NAME (IF APPL), STREET ADR, CITY */ [only on GEOPROB file]
```

This field shows either (1) a somewhat abbreviated building name (if applicable), plus a street address and Canada Post community name (if available), or (2) a designated place name (if applicable) followed by the designated place type within parentheses, followed by a space plus the Canada Post community name (if available), followed by a colon (:) plus an abbreviated census division name and type code (if available), or (3) the Canada Post community name (if available), followed by a colon, plus an abbreviated census division name and type code. The contents of this field are intended to provide the most useful written description of the exact location which can be shown more or less readably in 50 spaces. *This field only applies to problem records; it is not shown on the HLTHOUT file or printout.*

With respect to Canada Post community names, note that the service areas of postal communities are defined by Canada Post with little regard for municipal boundaries established by local authorities, and that is frequently a source of confusion for geographic coding. Also, many smaller rural municipalities have no post office of their own, so those municipal names will appear only rarely in mailing addresses.

The census division name (if present) shows the first 16 characters of the alphabetic name corresponding to the PRCD code of the *Standard Geographical Classification,* plus a space, followed by the 3-character CSDTYPE. If the CD field is missing (00), the 20 characters immediately following the colon will be blank. If a building name and address plus Canada Post community name are shown, then no census division name and type will be shown.

Census Subdivision Name (CSDNAME)

```
@123 CSDNAME  $CHAR8.        /* FIRST 8 CHAR OF CSD NAME */ [only on GEOPROB file]
```

This field contains the first 8 characters of the Census Subdivision Name. If the Census Subdivision (the last three positions of the PRCDCSD field) is missing (999), then the CSDNAME field will be blank. *A truncated version of the CSDNAME field is shown only on the GEOPROB file and printout; it does not appear on the HLTHOUT file or printout*. See file CSDNAMES for the complete name and corresponding CSDTYPE. Census subdivision names are only unique within a province and census division.

Census Subdivision Type (CSDTYPE)

```
@131 CSDTYPE  $2.  /* CSD TYPE WITH * REPLACING TRAILING BLANK */ [only on GEOPROB file]
```

This field contains a one or two character abbreviation of the Census Subdivision Type. To facilitate uploading and downloading, if the second (and last) character of this field is blank, the blank will be replaced by an asterisk in order to ensure that every record will be of the same fixed length. (Uploading and downloading utility programs frequently delete trailing blanks, which would otherwise produce variable record lengths for successive records. The asterisk at the end of each record ensures that this won't happen. *This field is shown only on the GEOPROB file and printout; it does not appear on the HLTHOUT file or printout.*

Distance (DISTANCE)

This field shows the distance (in km) from the latitude and longitude centroid of the Montreal Children's Hospital to the centroid of the HLTHOUT record. If latitude and longitude of the HLTHOUT record could not be determined (that is, if their values were "."), then DISTANCE will be missing (indicated by a single period ("."). *This field appears only on the printout of the HLTHOUT dataset. It is not written to the corresponding file*, since DISTANCE was calculated merely as an illustration of how the latitude and longitude information can be used. For more details on the use of latitude and longitude for the calculation of distances using the PCCF, see Ng E and Wilkins R, How far is it to the nearest hospital? *Health Reports* 1993;5(2):157-177. A SAS program for calculating distances from each record in one file to the record for the record with the closest latitude and longitude on another file is included (DIST5X.SAS): see Appendix K.

Message (MESSAGE)

A brief explanatory message corresponding to the link type code (LINK) appears in the summary table and on the GEOPROB printout only; it does not appear in the GEOPROB or HLTHOUT files.

```
-----------------------------------------------------------------------
                                    /* BRIEF MESSAGE DESCRIBING PROBLEM */
-----------------------------------------------------------------------
0  'ERROR:   NO MATCH TO PCCF----CHECK PCODE/ADDRESS &OR CODE MANUALLY';
1  'ERROR:   LINKED TO PO GEOG---CODE MANUALLY IF RESID ADD AVAILABLE';
2  'WARNING: NON-RESIDENTIAL-----CHECK PCODE/ADDRESS (LEGITIMATE RES?) ';
3  'WARNING: BUSINESS BLDG-------CHECK PCODE/ADDRESS (LEGITIMATE RES?)';
4  'WARNING: COMMERC/INSTITU-----CHECK PCODE/ADDRESS (PERTINENT-STUDY?)';
5  'WARNING: RETIRED PCODE-------CHECK PCODE/ADDRESS IF OLD DMT UNKNOWN';
6  'NOTE:    MULT MATCH TO CSD---DISTRIBUTED AMONG APPLIC DA/BLK/BLKFACE';
7  'NOTE:    MULT MATCH TO CSD---DISTRIBUTED BY POP WEIGHTS OBSERVED';
9  'NO PROB (ERR,WARN,NOTE)------NO ACTION REQUIRED';
-----------------------------------------------------------------------
```

The link type codes (LINKs) and corresponding messages (MESSAGEs) are arranged in hierarchical order, starting with 0 for the most serious problems, and going to 9 for no problem at all (not even a warning or note). If more than one type of problem was present, only the worst type is shown. The "no problem" message only appears on the summary table, since records with no problems (error, warning or note) are not part of the GEOPROB file or printout.

The following fields are present in the HLTHOUT dataset, but are not written to the .GEO output file: CSD06uid, CD06uid, HRuid, SUBuid, AHRuid, ASUBuid, CCS06uid, CT06uid.

The following three fields are only present on the output from R5xOLD and I5xOLD, which are used with older data for assigning geographic codes to British Columbia FSAs which have now been moved by Canada Post:

Birth date of postal code as used in this location (BTHDATC)

```
@183 BTHDATEC $CHAR6. /* YYYYMM OF BIRTH DATE OF PCCF PCODE */
```
[*only present on OLDCODES and HLTHOUT2 files produced by R5xOLD or I5xOLD*]

Retirement date of postal code as used in this location (RETDATC)

```
@190 TDATEC  $CHAR6.  /* YYYYMM OF RETIREMENT DATE OF PCCF PCODE */
```
[*only present on OLDCODES and HLTHOUT2 files produced by R5xOLD or I5xOLD*]

Postal code vintage (PCVDATC)—for alternate programs R5xOLD, I5xOLD only

```
@197 VDATC $CHAR6. /* YYYYMM OF USER'S POSTAL CODE VINTAGE (AT THIS LOCATION) */
```
[*from user input and written to OLDCODES and HLTHOUT2 files produced by R5xOLD or I5xOLD*]

In this context, vintage refers to the year and month when the user's postal code was reported or generated (looked up). In most cases, the date of the event will be a reasonable proxy for the vintage of the postal code on the user's file. However, if postal codes were missing when the data were collected, and subsequently looked up or generated (manually or by computer), then the vintage of the postal code may be months or even years later than the date of the event. Note that it is common for retired postal codes to remain in use for many months or even years after their retirement by Canada Post. However, it is safe to assume that newly created postal codes are not reported until after the postal code birth date indicated by Canada Post.

This field is created by user input and is only present in the OLCODES and HLTHOUT2 files produced by the supplemental programs R5x and I5OLD which are used to assign the old geographic coding to British Columbia FSAs V1H and V9G. Postal codes with those two FSAs were first retired and then subsequently moved and reused by Canada Post. V1H was moved about 400km south beginning 1 July 1997, while V9G was moved about 100km south beginning 1 April 1999. Beginning with Version 3E, the regular programs GEORES3x and GEOINS3x print a warning if your data contain either of the two FSAs which were moved. *If your data do not include postal codes with those FSAs, or if your data only contains postal codes of vintage April 1999 or later, then use of the alternate programs is unnecessary and will have no effect on the coding produced by the regular programs GEORES5x and GEOINS5x.*

APPENDIX D:
SAMPLE OUTPUTS
FROM THE *PCCF+* PACKAGE

Summary table of results of the automated geographic coding

```
SUMMARY OF AUTOMATED CODING RESULTS USING GEOCODES/PCCF VERSION 5

RECORDS  PERCENT  PROB    MESSAGE            ACTION
-------------------------------------------------------------------------------
  3996   100.00   TOTAL RECORDS INPUT FROM HLTHDAT (ID + PCODE)
   131     3.28   0 ERROR: NO MATCH TO PCCF---CHECK PCODE/ADDRESS &OR CODE MANUALLY
     5     0.13   1 ERROR: LINKED TO PO GEOG--CODE MANUALLY IF RESID ADD AVAILABLE
     3     0.08   2 WARNING: NON-RESIDENTIAL--CHECK PCODE/ADDRESS (LEGITIMATE RES?)
     3     0.08   3 WARNING: BUSINESS BLDG----CHECK PCODE/ADDRESS (LEGITIMATE RES?)
   241     6.03   4 WARNING: COMMERC/INSTITU--CHECK PCODE/ADDRESS (PERTINENT-STUDY?)
    65     1.63   5 NOTE: RETIRED PCODE----CHECK PCODE/ADDRESS IF OLD DMT UNKNOWN
     1     0.03   6 NOTE: MULT MATCH CSD-PCCF-DISTRIBUTED AMONG APPLIC DA/BLK/BLKF
   535    13.39   7 NOTE: MULT MATCH CSD-WCF--DISTRIBUTED BY POP WEIGHTS OBSERVED
  3012    75.38   9 NO PROB (ERR,WARN,NOTE)---NO ACTION REQUIRED
-------------------------------------------------------------------------------
     8     0.20   NOT CODED AT ALL
    39     0.98   PARTIALLY CODED TO PR ONLY
     2     0.05   PARTIALLY CODED TO PR + (CD OR CMA)--& APPROX LAT LONG
    12     0.30   PARTIALLY CODED TO PR+CD+CMA--AND APPROX LAT LONG
     8     0.20   PARTIALLY CODED TO PR+CD+CMA+CSD--AND APPROX LAT LONG
  3927    98.27   FULLY CODED TO PR+CD+CMA+CSD+CT+BLK--AND DA/BLK/BLKFACE LAT LONG
-------------------------------------------------------------------------------
```

Sample output from the HLTHOUT dataset

```
GEOCODES/PCCF VERSION 5 -- SAMPLE OUTPUT FROM THE HLTHOUT DATASET (.GEO FILE)
------------------------------------------------------------------------------------------------------------------------
ID          PCODE   PRCDCSD CMA CT      DABLK  LAT      LONG       DPL DIAG     VER COMM HRSUB  C Q S N U FED ER AR CCS EA96UID DA06UID
------------------------------------------------------------------------------------------------------------------------
1304183010  H1A5H8  2466025 462 580.03  000601 45689925073486893 000 A9D111172 R5C 3297 06302  1 3 11S 1 044 40 06 025 24045417 24660006
1304183033  H1A5G4  2466025 462 582.01  292702 45653189073503887 000 A9D111176 R5C 3297 06302  1 3 11S 1 044 40 06 025 24045358 24662927
1304183332  G1H2C1  2423030 421 273.01  082102 46856140071245151 000 A9D11116. R5C 2602 03500  2 2 12S 1 015 20 03 030 24016455 24230821
1304183333  G1H7B3  2423030 421 273.01  081902 46850294071240870 000 A9F111191 R5C 2602 03500  2 2 12S 1 015 20 03 030 24016452 24230819
1304183632  G8T8L9  2437055 442 200.00  015910 46367087072500828 000 B9D111171 R5C 2576 04407  3 1 13S 1 014 70 04 050 24014354 24370159
1304184533  J8V2P3  2481015 505 841.03  037906 45510303075735348 000 A9D111176 R5C 2769 07300  2 3 12S 0 023 60 08 015 24015556 24810379
1304185031  G1P1H6  2423025 421 039.02  065901 46822089071329615 000 A9D11117. R5C 3334 03204  2 1 12S 1 052 20 03 025 24054103 24230659
1304185033  G2E5Y7  2423055 421 140.03  048004 46805995071370318 000 A9D111163 R5C 2878 03101  2 2 12S 1 052 20 03 060 24054063 24230480
1601001210  L1G3Y1  3518013 532 015.00  008701 43936649078879882 000 A9D11116. R5C 5253 0930   3 1 13S 1 016 30 03 013 35016270 35180087
1601002733  L8V3V5  3525005 537 005.01  059702 43217763079851251 000 A9F111191 R5C 4833 0437   2 1 12S 1 030 50 01 005 35030108 35250597
1601005410  R2G0E6  4611040 602 141.02  071402 49938906097090500 000 A9D11117. R5C 6254 10     2 2 12S 1 013 50 09 040 46008417 46110714
1601005431  R2V3K2  4611040 602 552.02  000601 49952430097133317 000 A9F111191 R5C 6254 10     2 4 12S 1 013 50 09 040 46009208 46110006
1601007832  P7A5G4  3558004 595 015.00  014505 48438993089226888 000 A9F111191 R5C 5576 1462   3 1 13S 1 087 95 05 004 35084320 35580145
1601007833  P7B3H1  3558004 595 011.01  031611 48421824089235996 000 A9F111191 R5C 5576 1462   3 1 13S 1 087 95 05 004 35084410 35580316
1601009010  M6S4Y8  3520005 535 050.01  147401 43637293079471415 000 B9F111191 R5C 5589 0795B  1 4 11S 1 064 30 03 005 35063258 35204007
1601009033  M6P2H9  3520005 535 100.00  140201 43664058079462540 000 A9F111191 R5C 5589 0795E  1 3 11S 1 064 30 03 005 35098002 35201402
1601010231  K7M7B4  3510010 521 014.00  013602 44250712076533691 000 B9D111171 R5C 4975 1041   3 1 13S 1 036 15 04 010 35037506 35100136
1601011533  L5C3S8  3521005 535 527.08  069101 43577841079654532 000 A9D111172 R5C 5131 0653   1 3 11S 1 046 30 02 005 35049404 35210691
1601011910  S0E1E0  4714076 000 000.00  002403 53357244104031461 000 W7C934459 R5C 6768 08     5 1 67R 1 006 50 8A 072 47002573 47140158
1601013832  L7R4M7  3524002 537 207.01  053802 43334767079821521 000 B9F111191 R5C 4482 0436   2 3 12S 1 010 50 02 002 35008115 35240538
1601016133  L2S2M9  3526053 539 003.01  037804 43145861079253296 000 A9F111191 R5C 5500 0446   3 1 13S 1 051 50 01 053 35090216 35260378
1601017132  L4N2V4  3543042 568 005.00  038106 44367352079679190 000 A9F111191 R5C 4382 1260   3 5 23S 1 002 40 02 042 35079159 35431008
1601017421  N7S5L7  3538030 562 102.02  015804 42973744082365802 000 A9F111191 R5C 5418 0142   4 3 24S 1 071 70 01 030 35072209 35380158
1601017633  M4K1C1  3520005 535 069.00  383001 43669948079342406 000 A9F111191 R5C 5589 0795I  1 2 11S 1 008 30 03 005 35006061 35203830
1601017910  N4B2W4  3528052 547 000.00  008011 42780803080574625 000 H9C114259 R5C 4637 0234   4 4 34S 0 027 50 01 052 35018012 35280301
1601018131  N6G2E5  3539036 555 044.04  035003 43006922081306309 000 A9D11117. R5C 5038 0244   3 3 13S 1 044 60 01 036 35045463 35390350
1601019332  L5G1J8  3521005 535 540.01  037901 43553413079585884 000 B9F111191 R5C 5131 0653   1 1 11S 1 048 30 02 005 35048068 35210379
1601019721  R2K0V9  4611040 602 133.00  070502 49927590097100976 000 A9F111191 R5C 6254 10     2 2 12S 1 014 50 09 040 46014203 46110705
1601020010  M4E3M6  3520005 535 022.00  379901 43679294079286660 000 A9D11117. R5C 5589 0795K  1 5 11S 1 003 30 03 005 35002068 35203799
1601020131  T7P1A3  4813031 000 000.00  004620 54164822113845804 000 A9F112181 R5C 7746 7602   5 4 67R 1 001 70 06 028 48001057 48130230
1601020432  N4G4T7  3532004 546 000.00  007010 42876846080729595 000 B9F112181 R5C 5582 0252   4 4 34S 1 063 60 01 012 35062064 35320274
1601020610  M1C1K9  3520005 535 362.02  374701 43785351079167697 000 A9D11116. R5C 5427 0995M  1 4 11S 1 075 30 03 005 35077053 35203747
1601025533  T5H2X1  4811061 835 046.00  020303 53550678113501115 000 A9F111191 R5C 7265 6504   2 1 12R 1 015 60 05 061 48012253 48110203
1601026631  K1V9K4  3506008 505 002.05  087501 45347074075665245 000 B9F111191 R5C 5256 1151   2 3 12S 1 060 10 04 008 35059014 35060875
1601027832  S4V0G7  4706027 705 008.02  019701 50432251104564832 000 A9D11117. R5C 6848 04     3 5 13S 1 013 10 2B 027 47007161 47060197
1601028831  N7S4X8  3538030 562 102.02  015903 42970869082365165 000 A9F111191 R5C 5418 0142   4 2 24S 1 071 70 01 030 35072208 35380159
1601028832  N7T6J8  3538030 562 008.00  019504 42982172082396827 000 A9F111191 R5C 5418 0142   4 2 24S 1 071 70 01 030 35072164 35380196
1601029531  T1K4A4  4802012 810 019.00  016101 49678240112881944 000 A9D11117. R5C 7450 1003   4 2 24S 1 018 10 02 011 48017419 48020161
1601030710  L5C3L4  3521005 535 527.08  069502 43576525079661365 000 A9F111191 R5C 5131 0653   1 4 11S 1 046 30 02 005 35049405 35210695
1601030733  L5A3T1  3521005 535 521.06  085901 43597525079626646 000 B9F111191 R5C 5131 0653   1 2 11S 1 047 30 02 005 35047113 35211826
1601031231  L8N2Z3  3525005 537 033.00  044701 43246956079851089 000 A9F111191 R5C 4833 0437   2 1 12S 1 029 50 01 005 35032002 35250447
1601032031  K8A7W4  3547064 515 000.00  004912 45817759077093184 000 A9F112181 R5C 5283 1157   4 5 34S 1 070 15 04 075 35068254 35470224
1601033332  R2K0K5  4611040 602 134.00  071204 49930495097093590 000 A9F111191 R5C 6254 10     2 3 12S 1 014 50 09 040 46014208 46110712
1601035633  R2C5B2  4611040 602 120.02  085503 49900542096969280 000 A9F111191 R5C 6254 10     2 4 12S 1 014 50 09 040 46014003 46110855
------------------------------------------------------------------------------------------------------------------------
```

Sample printout from the GEOPROB dataset (.GEO)   GEOCODES/PCCF VERSION 5

```
                                   PARTIAL PRINT OF GEOPROB FILE (ERRORS & WARNINGS, BUT NO NOTES)
ID          PCODE   PRCDCSD CMA CT     DABLK  LL    HRSUB DPL DIAG      BLDG NAME,ADR(CPCOMM:CMA/DPL) :CDNAME          CDTYP CSDNAME TY
----------------------------------------------------------------------------------------------------------------------------------
0 ERROR: NO MATCH TO PCCF---CHECK PCODE/ADDRESS &OR CODE MANUALLY
----------------------------------------------------------------------
1202050810  A1X5J7 1001485 001 301.02 013501 4705 01    000 90I31994. St. John's CMA                   :Avalon Peninsul DIV CONCEPTIT*
1201026310  B2M5B3 1200999 999 999.99 999900 4506 99    999 902..892.                                  :                              *
1302025710  G0K2K0 2410005 000 000.00 007009 4806 01    000 90I949949 NOT CMACA                        :Rimouski-Neiget MRC ESPRIT-SM*
1301031010  H9G3X9 2466140 462 521.01 235801 4507 06    000 90I31994. Montréal CMA                     :Montréal        CU  DOLLARD-V*
1602451310  K7K2T0 3510010 521 008.00 018405 4407 0241  000 90I11994. Kingston CMA                     :Frontenac       CTY KINGSTONC*
1604153110  M3Y4A1 3520005 535 999.99 999900 4307 99999 999 902..892. Toronto CMA                      :Toronto         DIV TORONTO C*
1604305110  R3N3L2 4611040 602 008.00 038001 4909 10    000 90I11994. Winnipeg CMA                     :Winnipeg        DIV WINNIPEGC*
1802106710  V1S4X1 5933042 925 006.00 004302 5012 14    000 90I21994. Kamloops CA1                     :Thompson-Nicola RD  KAMLOOPSC*
1802068310  V4T4J5 5935027 915 102.02 015502 4911 13    175 90I41994. Kelowna CA1:Westbank (UNP)       :Central Okanaga RD  CENTRAL RD
1803049810  V9C5T3 5917044 935 154.02 048004 4812 41    000 90I51994. Victoria CMA                     :Capital         RD  LANGFORDDM
----------------------------------------------------------------------
1 ERROR: LINKED TO PO GEOG--CODE MANUALLY IF RESID ADD AVAILABLE
----------------------------------------------------------------------
1604055531  R4J1A1 4611999 602 999.99 999900 4909 99    000 JZ1I22824. HEADINGLEY:Winnipeg CMA        :Winnipeg        DIV         *
1201059710  A1X4G9 1001999 001 999.99 999900 4705 99    000 K1I318341 BOX 18001:18060 STN MAIN UPPER GULLIES                        *
----------------------------------------------------------------------
2 WARNING: NON-RESIDENTIAL PCODE--CHECK PCODE/ADDRESS (LEGIT RES?)
----------------------------------------------------------------------
1304154932  H3L1B9-2400999 462 999.99 999900 . . 99     999 E2F119191 CENTRE MEDICAL HENRI-BOURASSA 222 HENRI-BOURA MONT               *
1603422510  L4C9S7-3500999 535 999.99 999900 . . 99999  999 E2F119191 BUSINESS BUILDING 120 NEWKIRK RD RICHMOND HILL                  *
1602226510  T2S2T6-4800999 825 999.99 999900 . . 99     999 E2F119191 FOODVALE OFFICE COMPLEX 5005 ELBOW DR SW CALGARY                *
1601088310  T5N4A3-4800999 835 999.99 999900 . . 99     999 E2F119191 PEOPLES TRUST PLAZA 10216 124 ST NW EDMONTON                    *
1302161110  H3N2Y1-2400999 462 999.99 999900 . . 99     999 G2F119191 VIDEOTRON LTEE 405 OGILVY AV 200 MONTREAL                       *
1804030033  V2A5A9-5900999 913 000.00 999900 . . 99     999 G2D119171 CITY OF PENTICTON 171 MAIN ST PENTICTON                         *
----------------------------------------------------------------------
3 WARNING: BUSINESS BLDG----CHECK PCODE/ADDRESS (LEGITIMATE RES?)
----------------------------------------------------------------------
1604118533  L6Y2N4@3521010 535 572.05 020201 4307 0653  000 E3F111191 APARTMENT BLDG 430 MCMURCHY AVE S BRAMPTON        BRAMPTONC*
1604503732  T5H4B9@4811061 835 046.00 020808 5311 25    000 E3F111191 HYS MEDICAL CENTRE 11010 101 ST NW EDMONTON       EDMONTONC*
----------------------------------------------------------------------
4 WARNING: COMMERC/INSTITU--CHECK PCODE/ADDRESS (PERTINENT-STUDY?)
----------------------------------------------------------------------
1801082533  V5G4J3?5915025 933 230.01 139201 4912 22    000 BG4F111191 BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY 4200 BURN BURNABY C*
1202190833  A1B1S5@1001519 001 013.00 025301 4705 01    000 G4F111191 ST PATRICKS MERCY HOME 146 ELIZABETH AVE ST. JOHN' ST. JOHNC*
1202154133  A2A2E1@1006017 010 000.00 003010 4805 03    000 G4D112171 CENTRAL NEWFOUNDLAND REGIONAL HEALTH CENTRE 5 GRAN GRAND FAT*
1303089633  H2C3H6@2466025 462 277.00 265801 4507 06    000 G4F111191 LES RESIDENCES LAURENDEAU,LEGARE,LOUVAIN 1725 MONT MONTRÉALV*
1603169333  M1H3A1@3520005 535 356.00 361001 4307 0495N 000 G4F111191 CEDARBROOK LODGE 520 MARKHAM RD SCARBOROUGH        TORONTO C*
1602154410  M9W4L3@3520005 535 246.00 184101 4307 0495A 000 G4F111191 KIPLING ACRES HOME FOR THE AGED 2233 KIPLING ETOBI TORONTO C*
1604515931  N2L3G1@3530016 541 106.01 029605 4308 0765  000 G4F111191 UNIVERSITY OF WATERLOO 200 UNIVERSITY AVE W WATERL WATERLOOC*
1604443433  R1N3V4@4609029 607 000.00 001414H4909 40    000 G4F112181 LION'S PRAIRIE MANOR 24 9TH ST SE PORTAGE LA PRAIR PORTAGE C*
1603468632  R3N1V9@4611040 602 510.02 036601 4909 10    000 G4F111191 CANADIAN FORCES BASE WINNIPEG, KAPYONG BARRAC WINN WINNIPEGC*
1601086332  R7N1R7@4617050 000 000.00 001114 5110 60    000 G4F111191 DAUPHIN GENERAL HOSPITAL 625 3RD ST SW DAUPHIN     DAUPHIN C*
1603548732  S4S3B4@4706027 705 002.02 049002 5010 04    000 G4F111191 EXTENDICARE/PARKSIDE 4540 RAE ST REGINA           REGINA  C*
1602539533  T5K0L4@4811061 835 032.02 015604H5311 25    000 G4F111191 GENERAL HOSPITAL 11111 JASPER AVE NW EDMONTON     EDMONTONC*
1803100131  V6T1K2@5915020 933 069.00 094705 4912 32    000 G4D111171 WALTER GAGE RESIDENCE ( UBC ) 5959 STUDENT UN VANC GREATER RD
----------------------------------------------------------------------
```

APPENDIX E   Census Metropolitan Areas and Census Agglomerations in numerical order, 2006Census classification, indicating if area is census tracted

APPENDICE E   Régions métropolitaines de recensement et Agglomérations de recensement en ordre numérique, selon la classification du recensement de 2006, avec indication si les secteurs de recensement s'appliquent

---

| CMA/CA | CT | Type | Name | Tracted |
| RMR/AR | SR | Type | Nom | Secteurs |

CMA/CA RMR/AR	CT SR	Type Type	Name Nom	Tracted Secteurs
000	000.00		Not in CMA/CA -- Non dans une RMR/AR	
001	999.99	CMA/RMR	St John's	CT/SR
005	000.00	CA/AR	Bay Roberts	
010	000.00	CA/AR	Grand Falls-Windsor	
015	000.00	CA/AR	Corner Brook	
105	000.00	CA/AR	Charlottetown	
110	000.00	CA/AR	Summerside	
205	999.99	CMA/RMR	Halifax	CT/SR
210	000.00	CA/AR	Kentville	
215	000.00	CA/AR	Truro	
220	000.00	CA/AR	New Glasgow	
225	000.00	CA/AR	Cape Breton (Sydney)	
305	999.99	CA/AR	Moncton	CT/SR
310	999.99	CMA/RMR	Saint John	CT/SR
320	000.00	CA/AR	Fredericton	
328	000.00	CA/AR	Bathurst	
329	000.00	CA/AR	Miramichi	
330	000.00	CA/AR	Campbellton	
335	000.00	CA/AR	Edmundston	
403	000.00	CA/AR	Matane	
404	000.00	CA/AR	Rimouski	
405	000.00	CA/AR	Rivière-du-Loup	
406	000.00	CA/AR	Baie-Comeau	
408	999.99	CMA/RMR	Chicoutimi-Jonquière	CT/SR
410	000.00	CA/AR	Alma	
411	000.00	CA/AR	Dolbeau-Mistassini	
412	000.00	CA/AR	Sept-Îles	
421	999.99	CMA/RMR	Québec	CT/SR
428	000.00	CA/AR	Saint-Georges	
430	000.00	CA/AR	Thetford Mines	
433	999.99	CMA/RMR	Sherbrooke	CT/SR
437	000.00	CA/AR	Cowansville	
440	000.00	CA/AR	Victoriaville	
442	999.99	CMA/RMR	Trois-Rivières	CT/SR
444	000.00	CA/AR	Shawinigan	
446	000.00	CA/AR	La Tuque	
447	999.99	CA/AR	Drummondville	CT/SR
450	999.99	CA/AR	Granby	CT/SR
452	000.00	CA/AR	Saint-Hyacinthe	
454	000.00	CA/AR	Sorel-Tracy	
456	000.00	CA/AR	Joliette	
459	999.99	CA/AR	Saint-Jean-sur-Richelieu	CT/SR
462	999.99	CMA/RMR	Montréal	CT/SR
465	000.00	CA/AR	Salaberry-de-Valleyfield	
468	000.00	CA/AR	Lachute	
480	000.00	CA/AR	Val-d'Or	
481	000.00	CA/AR	Amos	
485	000.00	CA/AR	Rouyn-Noranda	

CMA/CA RMR/AR	CT SR	Type Type	Name Nom	Tracted Secteurs
501	000.00	CA/AR	Cornwall	
502	000.00	CA/AR	Hawkesbury	
505	999.99	CMA/RMR	Ottawa-Hull (Gatineau)	CT/SR
512	000.00	CA/AR	Brockville	
515	000.00	CA/AR	Pembroke	
516	000.00	CA/AR	Petawawa	
521	999.99	CMA/RMR	Kingston	CT/SR
522	999.99	CA/AR	Belleville	CT/SR
527	000.00	CA/AR	Cobourg	
528	000.00	CA/AR	Port Hope and Hope	
529	999.99	CA/AR	Peterborough	CT/SR
530	000.00	CA/AR	Kawartha Lakes (Lindsay)	
531	000.00	CA/AR	Centre Wellington	
533	000.00	CA/AR	Ingersoll	
532	999.99	CMA/RMR	Oshawa	CT/SR
535	999.99	CMA/RMR	Toronto	CT/SR
537	999.99	CMA/RMR	Hamilton	CT/SR
539	999.99	CMA/RMR	St Catharines-Niagara	CT/SR
541	999.99	CMA/RMR	Kitchener	CT/SR
543	999.99	CA/AR	Brantford	CT/SR
544	000.00	CA/AR	Woodstock	
546	000.00	CA/AR	Tillsonburg	
547	000.00	CA/AR	Norfolk (Simcoe)	
550	999.99	CA/AR	Guelph	CT/SR
553	000.00	CA/AR	Stratford	
555	999.99	CMA/RMR	London	CT/SR
556	000.00	CA/AR	Chatham-Kent	
557	000.00	CA/AR	Leamington	
559	999.99	CMA/RMR	Windsor	CT/SR
562	999.99	CA/AR	Sarnia (Sarnia-Clearwater)	CT/SR
566	000.00	CA/AR	Owen Sound	
567	000.00	CA/AR	Collingwood	
568	999.99	CA/AR	Barrie	CT/SR
569	000.00	CA/AR	Orillia	
571	000.00	CA/AR	Midland	
575	999.99	CA/AR	North Bay	CT/SR
580	999.99	CMA/RMR	Sudbury	CT/SR
582	000.00	CA/AR	Elliot Lake	
584	000.00	CA/AR	Haileybury	
586	000.00	CA/AR	Timmins	
590	999.99	CA/AR	Sault Ste. Marie	CT/SR
595	999.99	CMA/RMR	Thunder Bay	CT/SR
598	000.00	CA/AR	Kenora	
602	999.99	CMA/RMR	Winnipeg	CT/SR
607	000.00	CA/AR	Portage la Prairie	
610	000.00	CA/AR	Brandon	
640	000.00	CA/AR	Thompson	
705	999.99	CMA/RMR	Regina	CT/SR
710	000.00	CA/AR	Yorkton	
715	000.00	CA/AR	Moose Jaw	
720	000.00	CA/AR	Swift Current	
725	999.99	CMA/RMR	Saskatoon	CT/SR
735	000.00	CA/AR	North Battleford	
745	000.00	CA/AR	Prince Albert	
750	000.00	CA/AR	Estevan	

CMA/CA RMR/AR	CT SR	Type Type	Name Nom	Tracted Secteurs
805	999.99	CA/AR	Medicine Hat	CT/SR
806	000.00	CA/AR	Brooks	
810	999.99	CA/AR	Lethbridge	CT/SR
820	000.00	CA/AR	Okotoks	
825	999.99	CMA/RMR	Calgary	CT/SR
828	000.00	CA/AR	Cranmore	
830	999.99	CA/AR	Red Deer	CT/SR
833	000.00	CA/AR	Camrose	
835	999.99	CMA/RMR	Edmonton	CT/SR
840	000.00	CA/AR	Lloydminster	
845	000.00	CA/AR	Cold Lake (Grand Centre)	
850	000.00	CA/AR	Grande Prairie	
860	000.00	CA/AR	Wood Buffalo (Fort McMurray)	
865	000.00	CA/AR	Wetaskiwin	
905	000.00	CA/AR	Cranbrook	
913	000.00	CA/AR	Penticton	
915	999.99	CA/AR	Kelowna	CT/SR
918	000.00	CA/AR	Vernon	
920	000.00	CA/AR	Salmon Arm	
925	999.99	CA/AR	Kamloops	CT/SR
930	000.00	CA/AR	Chilliwack	
932	999.99	CMA/RMR	Abbotsford (Matsqui)	CT/SR
933	999.99	CMA/RMR	Vancouver	CT/SR
934	000,00	CA/AR	Squamish	
935	999.99	CMA/RMR	Victoria	CT/SR
937	000.00	CA/AR	Duncan	
938	999.99	CA/AR	Nanaimo	CT/SR
939	000.00	CA/AR	Parksville	
940	000.00	CA/AR	Port Alberni	
943	000.00	CA/AR	Courtenay	
944	000.00	CA/AR	Campbell River	
945	000.00	CA/AR	Powell River	
950	000.00	CA/AR	Williams Lake	
952	000.00	CA/AR	Quesnel	
955	000.00	CA/AR	Prince Rupert	
960	000.00	CA/AR	Kitimat	
965	000.00	CA/AR	Terrace	
970	999.99	CA/AR	Prince George	CT/SR
975	000.00	CA/AR	Dawson Creek	
977	000.00	CA/AR	Fort St. John	
990	000.00	CA/AR	Whitehorse	
995	000.00	CA/AR	Yellowknife	
999	999.99	CMA/CA unknown--RMR/AR inconnu		CT/SR?

Note: Former names (from 1991 or 1996 or 2001 census) shown in parentheses if different.
Nota: Les anciens noms (du recensement de 1991, 1996 ou de 2001) sont indiqués entre parenthèses s'ils ont changé.

APPENDIX F
GEOGRAPHIC CODING FROM PARTIAL POSTAL CODES BASED ON PCCF

APPENDIX F1   Geographic coding from the first character of the postal code
APPENDIX F2   Geographic coding from the first two characters of the postal code

APPENDIX F1
GEOGRAPHIC CODING FROM THE FIRST CHARACTER OF THE POSTAL CODE

Letter	Province/Territory Major Geographic Area (Canada Post)	Standard Abbreviation
A	Newfoundland and Labrador	NL, NF
B	Nova Scotia	NS
C	Prince Edward Island	PE
E	New Brunswick	NB
G H J	Québec	QC
G	Québec East	
H	Montréal Metro	
J	Québec West	
K L M N P	Ontario	ON
K	Eastern Ontario	
L	Central Ontario	
M	Toronto Metro	
N	Southwestern Ontario	
P	Northern Ontario	
R	Manitoba	MB
S	Saskatchewan	SK
T	Alberta	AB
V	British Columbia	BC
X	Northwest Territories	NT
X	Nunavut	NU
Y	Yukon	YT, YK

In the PCCF, some postal codes may be linked to a different province from their first character allocation.
Those records are not mistakes; they reflect the reality of Canada Post sortation and delivery patterns.

APPENDIX F2
GEOGRAPHIC CODING FROM THE FIRST TWO CHARACTERS OF THE POSTAL CODE

FS	FSA12 - FIRST TWO CHARACTERS OF POSTAL CODE
NPC	NUMBER OF POSTAL CODES
CMA	MOST COMMON CENSUS METROPOLITAN AREA OR CENSUS AGGLOMERATION (CMA/CA)
PCMA	PERCENTAGE OF POSTAL CODES WITHIN THAT CMA/CA
PRCD	MOST COMMON CENSUS SUBDIVISION (CD)
PCD	PERCENTAGE OF POSTAL CODES WITHIN THAT CD
PRCDCSD	MOST COMMON CENSUS SUBDIVISON (CSD)
PCSD	PERCENTAGE OF POSTAL CODES WITHIN THAT CSD
AVLAT	AVERAGE LATITUDE IN DEGREES(2)+DECIMALS(6)
AVLONG	AVERAGE LONGITUDE IN DEGREES(3)+DECIMALS(6)
T	1=CMA/CA IS CENSUS TRACTED; 0=CMA/CA NOT TRACTED

```
GEOGRAPHIC CODING FROM FIRST TWO CHARACTERS OF THE POSTAL CODE
----------------------------------------------------------------
FS   NPC CMA  PCMA PRCD   PCD PRCDCSD  PCSD  AVLAT   AVLONG    T
----------------------------------------------------------------
NEWFOUNDLAND AND LABRADOR - TERRE-NEUVE ET LABRADOR
A0  8720 000  91.6 1001  36.4 1010025   3.6 48692998 055088390 0
A1 14510 001  94.9 1001  96.5 1001519  44.2 47597789 052895286 1
A2  4619 015  42.8 1005  43.3 1005018  41.6 49270448 058618991 0
A8  1061 000 100.0 1005  98.3 1005004  75.2 49202405 057425012 0


NOVA SCOTIA - NOUVELLE ECOSSE
B0 12350 000  79.2 1212  11.3 1207001   6.2 45076455 063718581 0
B1 15659 225  97.8 1217  97.8 1217030  96.8 46147758 060158701 0
B2 14528 205  33.2 1209  33.2 1209034  33.2 45323562 062612204 1
B3 11459 205 100.0 1209 100.0 1209034 100.0 44650437 063639261 1
B4  9495 000  48.1 1209  36.6 1209034  36.6 44937568 064147955 0
B5  1982 000 100.0 1202  98.4 1202006  78.6 43848198 066115568 0
B9   782 000 100.0 1215  96.4 1215002  67.1 45637082 061361888 0


PRINCE EDWARD ISLAND - ILE DU PRINCE-EDOUARD
C0  3064 000  88.4 1103  38.4 1103051   3.5 46393913 063288804 0
C1  6715 105  69.0 1102  69.2 1102075  49.0 46294117 063324159 0


NEW BRUNSWICK - NOUVEAU BRUNSWICK
E0   779 000  84.0 1305  14.1 1305022   6.5 46389014 066076066 0
E1 15877 305  59.5 1307  50.5 1307022  38.1 46522230 065014890 1
E2 13036 310  70.5 1301  49.8 1301006  46.9 45830833 065994531 1
E3 12573 320  51.4 1310  46.5 1310032  32.7 46438924 067076430 0
E4 19010 000  88.7 1307  39.2 1307016   7.9 46138331 064948817 0
E5  8840 000  62.2 1305  43.6 1302026   6.6 45360280 066341074 0
E6  3104 000  72.9 1310  96.3 1310036  10.1 45987063 067023061 0
E7  9362 000  79.1 1311  47.2 1313027  17.6 46739566 067807609 0
E8  6361 000  93.2 1315  59.2 1314017  10.2 47782720 065756752 0
E9  2026 000 100.0 1309  98.4 1309036  22.7 46969757 065532936 0


QUEBEC
G0 33748 000  86.1 2419   5.3 2425005   1.5 47310886 069878275 0
G1 24214 421 100.0 2423 100.0 2423025  33.9 46819596 071258016 1
G2  6660 421 100.0 2423 100.0 2423025  41.3 46837120 071334689 1
G3  6385 421  62.3 2423  62.3 2423050  27.0 46896799 071422039 1
G4  7682 000  43.6 2497  36.0 2497010  32.2 49399082 066494830 0
G5 15513 000  37.2 2429  26.1 2429075  24.3 47570479 069452730 0
G6 18462 421  46.7 2424  24.2 2424020  21.5 46408126 071394919 1
G7 12025 408  85.5 2494  88.0 2494070  35.4 48207620 071152540 1
G8 19470 442  32.9 2437  32.9 2493040  22.3 47948976 072253309 1
G9 10906 444  58.6 2436  58.6 2436028  22.4 46593926 072669965 0

H0    26 462  80.8 2465  80.8 2465005  80.8 45596425 073754401 1
H1 18591 462 100.0 2466 100.0 2466025  66.2 45602237 073567214 1
H2 12312 462 100.0 2466 100.0 2466025  94.2 45531435 073593846 1
H3 19253 462 100.0 2466 100.0 2466025  79.5 45526882 073581040 1
H4 11889 462 100.0 2466 100.0 2466025  44.8 45497248 073647974 1
H5   184 462 100.0 2466 100.0 2466025 100.0 45505555 073563883 1
H7 17586 462 100.0 2465 100.0 2465005 100.0 45584462 073742239 1
H8  6619 462 100.0 2466 100.0 2466040  40.2 45452405 073720556 1
H9 11031 462 100.0 2466 100.0 2466095  17.3 45458899 073843107 1

J0 53471 000  80.5 2477   6.6 2477045   1.8 45911707 073909726 0
J1 13499 433  57.7 2443  57.3 2443025  31.4 45402097 071977030 1
J2 20960 450  28.0 2447  29.0 2454045  19.3 45543203 072799842 1
J3 19864 462  63.4 2457  35.7 2453052  16.1 45617648 073243552 1
J4 12772 462 100.0 2458  82.2 2458030  40.2 45520845 073471763 1
J5 10840 462  80.6 2460  49.7 2460028  20.8 45713608 073523125 1
J6 19207 462  64.9 2464  27.7 2464010  19.9 45584375 073732693 1
J7 21611 462  98.9 2473  27.5 2474005  10.4 45612533 073906771 1
J8 20248 505  62.1 2481  52.1 2481015  30.1 45663266 075170281 1
J9 14973 000  30.0 2481  22.8 2486033  16.1 47114840 077103037 0
```

ONTARIO
```
K0 23077 000  63.9 3506  13.6 3506008  13.6 44884429 076631417 0
K1 20952 505 100.0 3506  99.9 3506008  99.9 45405662 075653963 1
K2 14532 505 100.0 3506 100.0 3506008 100.0 45325412 075801349 1
K4  4995 505  99.9 3506  78.4 3506008  78.4 45404421 075467527 1
K6  7214 501  55.1 3501  56.8 3501012  54.1 44978275 075001277 0
K7 15349 000  56.1 3510  41.3 3510010  41.2 44613422 076449034 0
K8  9938 522  50.9 3512  51.7 3547064  32.9 44942336 077325422 1
K9  9410 529  55.9 3515  56.3 3515014  50.5 44250562 078392667 1
L0 19101 000  35.2 3543  34.2 3543064  11.0 43837075 079602011 0

L1 24599 532  60.9 3518  95.3 3518013  26.5 43889998 078896495 1
L2 18189 539 100.0 3526 100.0 3526053  49.4 43117811 079164068 1
L3 23930 535  60.6 3519  56.9 3519036  42.7 43759213 079355697 1
L4 37369 535  80.7 3519  63.9 3519028  29.9 43952919 079547401 1
L5 21016 535 100.0 3521  99.9 3521005  99.6 43578973 079683154 1
L6 24763 535 100.0 3521  48.5 3521010  48.1 43640506 079683774 1
L7 13570 537  56.4 3524  76.2 3524002  56.4 43527431 079817659 1
L8 15006 537 100.0 3525  99.8 3525005  99.8 43234567 079817558 1
L9 19055 537  37.0 3525  36.8 3525005  36.8 43854474 079835175 1

M1 21549 535 100.0 3520 100.0 3520005 100.0 43755928 079273864 1
M2  7057 535 100.0 3520 100.0 3520005 100.0 43775313 079374016 1
M3  6299 535 100.0 3520 100.0 3520005 100.0 43743713 079425542 1
M4 13567 535 100.0 3520 100.0 3520005 100.0 43698456 079361357 1
M5 15221 535 100.0 3520 100.0 3520005 100.0 43675710 079384617 1
M6 14998 535 100.0 3520 100.0 3520005 100.0 43678295 079444237 1
M7  7321 535 100.0 3520  99.9 3520005  99.9 43772760 079256491 1
M8  4765 535 100.0 3520 100.0 3520005 100.0 43627375 079507944 1
M9 11231 535 100.0 3520 100.0 3520005 100.0 43697411 079544313 1

N0 26984 000  70.5 3541  12.9 3536020   7.4 43330599 081236163 0
N1 12358 550  47.9 3523  55.0 3523008  46.9 43416650 080208927 1
N2 14488 541  91.6 3530  91.6 3530013  57.4 43512239 080595031 1
N3 14116 543  38.6 3529  49.1 3529006  38.6 43207343 080284965 1
N4 10680 000  27.8 3532  44.2 3532042  23.3 43568070 080797509 0
N5 13846 555  71.8 3539  45.9 3539036  45.7 42979796 081130889 1
N6 11679 555 100.0 3539 100.0 3539036  98.9 42965876 081264298 1
N7 10003 562  45.3 3538  45.3 3538030  42.0 42919191 082131032 1
N8 20606 559  81.6 3537  93.4 3537039  73.2 42305006 082903203 1
N9  9387 559  87.6 3537 100.0 3537039  58.9 42226099 083007092 1

P0 14943 000  77.8 3556  12.3 3553005   7.7 47309726 082863230 0
P1  6355 575  59.5 3548  59.5 3548044  58.4 45843666 079379444 1
P2  4586 000 100.0 3548  61.6 3548055  61.4 46532787 079974989 0
P3  7356 580  99.1 3553  99.1 3553005  99.1 46509799 080986910 1
P4  3171 586  99.6 3556  99.8 3556027  99.6 48485322 081334694 0
P5  2178 000  59.3 3557  41.0 3557041  40.7 47342945 082341557 0
P6  4558 590  98.4 3557 100.0 3557061  97.0 46526814 084328802 1
P7  8471 595  97.2 3558 100.0 3558004  92.1 48418849 089263932 1
P8  1224 000 100.0 3560 100.0 3560027  71.2 49855947 092622560 0
P9  2297 000  52.9 3559  52.2 3559012  50.3 49166390 093915089 0
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MANITOBA
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R0 27955 000  91.4 4615   9.5 4612047   2.7 50196632 098677222 0
R1  3978 000  56.4 4613  57.7 4609029  37.3 50065044 097508266 0
R2 14470 602 100.0 4611  95.7 4611040  95.7 49900951 097109966 1
R3 13724 602  99.8 4611  98.0 4611040  98.0 49869041 097178703 1
R4   685 602  89.1 4611  39.7 4613037  36.6 49933145 097326239 1
R5   681 000  78.0 4602 100.0 4602044  36.1 49611033 096727890 0
R6  1675 000 100.0 4603 100.0 4603053  49.0 49180672 098023385 0
R7  7819 610  79.8 4607  82.3 4607062  79.0 50073414 099970886 0
R8  1137 640  51.4 4622  52.0 4622026  51.4 55262655 099754019 0
R9  1371 000 100.0 4621 100.0 4621045  82.1 53816538 101255834 0
```

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SASKATCHEWAN
S0 45480 000   93.9 4706    8.7 4714077    0.7 51459590 105501095 0
S2    77 705  100.0 4706  100.0 4706055   93.5 50771863 104930221 1
S3  1739 710   95.9 4709   99.6 4709012   90.2 51210549 102459513 0
S4 15666 705   82.0 4706   82.2 4706027   80.6 50271632 104411088 1
S6  8186 745   50.2 4715   50.8 4707039   48.4 51820806 105645797 0
S7 13922 725   99.7 4711   99.3 4711066   95.9 52128091 106646292 1
S9  7472 720   45.6 4708   45.9 4708004   43.2 51839414 108347372 0


ALBERTA
T0 41400 000   87.7 4810   12.3 4813001    1.9 52625780 113307693 0
T1 19353 810   32.0 4802   48.3 4802012   32.0 50187681 112637785 1
T2 30159 825   99.8 4806   99.9 4806016   98.7 51009148 114051146 1
T3 15976 825   99.9 4806   99.9 4806016   91.8 51094669 114144681 1
T4 14087 000   35.3 4808   56.2 4808011   29.7 52255111 113746748 0
T5 30050 835  100.0 4811  100.0 4811061   99.8 53565419 113510532 1
T6 21179 835  100.0 4811  100.0 4811061   99.4 53503746 113488256 1
T7 10840 835   63.2 4811   68.7 4811034   34.8 53592056 114632026 1
T8 16099 835   59.2 4811   59.2 4819012   35.4 54283468 115512293 1
T9 15386 835   25.3 4811   37.4 4811016   18.6 54010457 112055117 1


BRITISH COLUMBIA - COLOMBIE-BRITANIQUE
V0 26977 000   83.5 5929    8.9 5929011    3.2 50581494 121419253 0
V1 37163 000   26.7 5935   23.3 5935010   19.3 50891711 119031397 0
V2 42064 970   19.1 5909   32.7 5953023   16.6 50679854 121922514 1
V3 36463 933   97.1 5915   97.1 5915004   49.1 49181802 122793984 1
V4 20037 933   83.2 5915   83.2 5915004   39.7 49184436 122453350 1
V5 20689 933  100.0 5915  100.0 5915022   57.8 49248451 123035856 1
V6 21510 933  100.0 5915  100.0 5915022   83.4 49249617 123129197 1
V7 13323 933  100.0 5915  100.0 5915015   31.8 49272881 123116292 1
V8 23709 935   66.0 5917   70.0 5917021   25.4 49851907 124722195 1
V9 35760 938   21.7 5925   35.5 5921007   18.4 49288128 124390847 1


NORTHWEST TERRITORIES OR NUNAVUT - TERRITORIES DU NORD-OUEST OU NUNAVUT
X0  1167 000   99.7 6106   57.5 6106016   24.1 63645330 113346345 0
X1  1003 995   99.7 6106  100.0 6106023   99.7 62451236 114385180 0


YUKON
Y0   317 000   98.1 6001  100.0 6001029   26.2 62232499 135620588 0
Y1  3461 990   99.9 6001  100.0 6001009   99.2 60724190 135072254 0
```

APPENDIX H Health Regions, Health Districts, and Alternate Health Regions and Districts

APPENDIX H1 Summary: Health Regions (HR), by Province and Type, Canada, December 2007/July 2011

PR	Health Region Type	HRTYP	Number
Total			49
NF	Regional Integrated Health Authority	RIH	4
PE	County	CTY	3
NS	Health Zone	ZON	6
NB	Health Zone	ZON	7
QC	Région socio-sanitaire	RSS	18
ON	Local Health Integration Network	LHN	14
MB	Regional Health Authority	RHA	11
SK	Regional Health Authority	RHA	12
	Health Authority	HAU	1
AB	Health Zone	ZON	5
BC	Health Service Delivery Area	HSD	16
	Regional Health Authority (roll-up, designated by first digit)	RHA	5
YK	Territory	TER	1
NT	Territory	TER	1
NU	Territory	TER	1

APPENDIX H2 Summary: Health Districts (SUB) by Type and Province, Canada, December 2007 (Ontario 2010)

PR	Health District Type	SUBTYP	Number
Total			149
NS	District Health Authority	DHA	9
QC	Centre local de services communautaires	CLS	174
ON	Primary sub-LHIN	SLP	97
	Secondary sub-LHIN (if third digit not blank)	SLS	43
BC	Local Health Area	LHA	89

APPENDIX H3 Summary: Alternate Health Regions (AHR) (Ontario, 2010; Alberta 2007)

PR	Alternate Health Region Type	AHRTYP	Number
ON	Public Health Unit (incl Toronto)	PHU	36
	Health Planning Area (Toronto only)	HPA	16
AB	Regional Health Authority	RHA	2
	Health Region	HRE	4
	Health	HLT	3

APPENDIX H4 Summary: Alternate Health Districts (ASUB)

PR	Alternate Health District Type	ASUBTYP	Number
35	Neighbourhood (by January 2010 definitions)	NBH	140
AB	Sub-regional health authority (by 2007 definitions)	SUB	70

APPENDIX H1:
HEALTH REGIONS (HR), CANADA, DECEMBER 2007
REGIONS SOCIO-SANITAIRES (HR), CANADA, DÉCEMBRE 2007

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-----------------------------------------------------------
PRHR   HEALTH REGION / REGION SOCIO-SANITAIRE        HRTYP
-----------------------------------------------------------

NEWFOUNDLAND / TERRE-NEUVE
1011   EASTERN                                       RIH
1012   CENTRAL                                       RIH
1013   WESTERN                                       RIH
1014   LABRADOR-GRENFELL                             RIH


PRINCE EDWARD ISLAND / ILE DU PRINCE-EDOUARD
1101   KINGS                                         CTY
1102   QUEENS                                        CTY
1103   PRINCE                                        CTY


NOVA SCOTIA / NOUVELLE ECOSSE
1201   BRIDGEWATER-YARMOUTH                          ZON
1202   KENTVILLE                                     ZON
1203   TRURO-AMHERST                                 ZON
1204   NEW GLASGOW-ANTIGONISH                        ZON
1205   CAPE BRETON                                   ZON
1206   HALIFAX                                       ZON


NEW BRUNSWICK / NOUVEAU-BRUNSWICK
1301   MONCTON                                       ZON
1302   SAINT JOHN                                    ZON
1303   FREDERICTON                                   ZON
1304   EDMUNDSTON                                    ZON
1305   CAMPBELLTON                                   ZON
1306   BATHURST                                      ZON
1307   MIRAMICHI                                     ZON


QUEBEC
2401   BAS-SAINT-LAURENT                             RSS
2402   SAGUENAY--LAC-SAINT-JEAN                      RSS
2403   CAPITALE-NATIONALE                            RSS
2404   MAURICIE ET CENTRE DU QUEBEC                  RSS
2405   ESTRIE                                        RSS
2406   MONTRÉAL                                      RSS
2407   OUTAOUAIS                                     RSS
2408   ABITIBI-TÉMISCAMINGUE                         RSS
2409   CÔTE-NORD                                     RSS
2410   NORD-DU-QUÉBEC                                RSS
2411   GASPÉSIE--ÎLES-DE-LA-MADELEINE                RSS
2412   CHAUDIÈRE-APPALACHES                          RSS
2413   LAVAL                                         RSS
2414   LANAUDIÈRE                                    RSS
2415   LAURENTIDES                                   RSS
2416   MONTÉRÉGIE                                     RSS
2417   NUNAVIK                                       RSS
2418   TERRES-CRIES-DE-LA-BAIE-JAME                  RSS
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PRHR  HEALTH REGION / REGION SOCIO-SANITAIRE       HRTYP
------------------------------------------------------------
ONTARIO
3501  ERIE ST. CLAIR                               LHN
3502  SOUTH WEST                                   LHN
3503  WATERLOO WELLINGTON                          LHN
3504  HAMILTON NIAGARA HALDIMAND BRANT             LHN
3505  CENTRAL WEST                                 LHN
3506  MISSISSAUGA HALTON                           LHN
3507  TORONTO                                      LHN
3508  CENTRAL                                      LHN
3509  CENTRAL EAST                                 LHN
3510  SOUTH EAST                                   LHN
3511  CHAMPLAIN                                    LHN
3512  NORTH SIMCOE MUSKOKA                         LHN
3513  NORTH EAST                                   LHN
3514  NORTH WEST                                   LHN


MANITOBA
4610  WINNIPEG                                     RHA
4615  BRANDON                                      RHA
4620  NORTH EASTMAN                                RHA
4625  SOUTH EASTMAN                                RHA
4630  INTERLAKE                                    RHA
4640  CENTRAL                                      RHA
4645  ASSINIBOINE                                  RHA
4660  PARKLAND                                     RHA
4670  NORMAN                                       RHA
4680  BURNTWOOD                                    RHA
4690  CHURCHILL                                    RHA


SASKATCHEWAN
4701  SUN COUNTRY                                  RHA
4702  FIVE HILLS                                   RHA
4703  CYPRESS                                      RHA
4704  REGINA QU'APPELLE                            RHA
4705  SUNRISE                                      RHA
4706  SASKATOON                                    RHA
4707  HEARTLAND                                    RHA
4708  KELSEY TRAIL                                 RHA
4709  PRINCE ALBERT PARKLAND                       RHA
4710  PRAIRIE NORTH                                RHA
4711  MAMAWETAN CHURCHILL RIVER                    RHA
4712  KEEWATIN YATTHÉ                              RHA
4713  ATHABASCA                                    HAU


ALBERTA  (former Health Region names in parentheses)
4831  CHINOOK/PALLISER                             ZON
4832  CALGARY                                      ZON
4833  CENTRAL (DAVID THOMPSON/EAST CENTRAL)        ZON
4834  EDMONTON (CAPITAL)                           ZON
4835  NORTH (ASPEN/PEACE COUNTRY/NORTHERN LIGHTS)  ZON
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PRHR  HEALTH REGION / REGION SOCIO-SANITAIRE        HRTYP
-------------------------------------------------------------------
BRITISH COLUMBIA / COLOMBIE-BRITANNIQUE
591   INTERIOR                                      RHA
5911  EAST KOOTENAY                                 HSD
5912  KOOTENAY-BOUNDARY                             HSD
5913  OKANAGAN                                      HSD
5914  THOMPSON/CARIBOO                              HSD
592   FRASER                                        RHA
5921  FRASER EAST                                   HSD
5922  FRASER NORTH                                  HSD
5923  FRASER SOUTH                                  HSD
593   VANCOUVER CENTRAL                             RHA
5931  RICHMOND                                      HSD
5932  VANCOUVER                                     HSD
5933  NORTH SHORE/COAST GARIBALDI                   HSD
594   VANCOUVER ISLAND                              RHA
5941  SOUTH VANCOUVER ISLAND                        HSD
5942  CENTRAL VANCOUVER ISLAND                      HSD
5943  NORTH VANCOUVER ISLAND                        HSD
595   NORTHERN                                      RHA
5951  NORTHWEST                                     HSD
5952  NORTHERN INTERIOR                             HSD
5953  NORTHEAST                                     HSD
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TERRITORIES / TERRITOIRES
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6001  YUKON                                         TER
6101  NORTHWEST                                     TER
6102  NUNAVUT                                       TER
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APPENDIX H2:
HEALTH DISTRICTS (SUB), CANADA, DECEMBER 2007 (ONTARIO 2010)
DISTRICTS SOCIO-SANITAIRES (SUB), CANADA, DÉCEMBRE 2007 (ONTARIO 2010)

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-----------------------------------------------------------------
PRHR SUB NAME / NOM                              SUBTYP
-----------------------------------------------------------------
NOVA SCOTIA / NOUVELLE-ÉCOSSE
12011   BRIDGEWATER                             DHA
12012   YARMOUTH                                DHA
12023   KENTVILLE                               DHA
12034   TRURO                                   DHA
12035   AMHERST                                 DHA
12046   NEW GLASGOW                             DHA
12047   ANTIGONISH                              DHA
12058   CAPE BRETON                             DHA
12059   HALIFAX                                 DHA


QUEBEC
2401101 RIMOUSKI-NEIGETTE                       CLS
2401102 LA MITIS                                CLS
2401103 MATANE                                  CLS
2401105 LA MATAPEDIA                            CLS
2401301 LES BASQUES                             CLS
2401302 SAINT-ELEUTHERE                         CLS
2401303 RIVIERE-DU-LOUP                         CLS
2401304 KAMOURASKA                              CLS
2401305 CABANO                                  CLS
2402101 FJORD                                   CLS
2402102 SAGUENAY                                CLS
2402103 JONQUIERE                               CLS
2402106 CHICOUTIMI                              CLS
2402202 DOMAINE-DU-ROY                          CLS
2402203 MARIA-CHAPDELAINE                       CLS
2402204 LAC-SAINT-JEAN-EST                      CLS
2403000 PORTNEUF                                CLS
2403101 LAURENTIEN                              CLS
2403102 SAINTE-FOY - SILLERY                    CLS
2403201 QUEBEC-HAUTE-VILLE                      CLS
2403202 QUEBEC-BASSE-VILLE                      CLS
2403203 LIMOILOU-VANIER                         CLS
2403204 DUBERGER-LES SAULES-LEBOURGNEUF         CLS
2403300 LORETTEVILLE - VAL-BELAIR               CLS
2403401 BEAUPORT                                CLS
2403402 ORLEANS                                 CLS
2403500 CHARLESBOURG                            CLS
2403701 CHARLEVOIX-EST                          CLS
2403702 CHARLEVOIX-OUEST                        CLS
2404401 HAUT-SAINT-MAURICE                      CLS
2404402 MEKINAC                                 CLS
2404403 CENTRE-DE-LA-MAURICIE                   CLS
2404404 MASKINONGE                              CLS
2404405 TROIS-RIVIERES                          CLS
2404406 DES CHENAUX                             CLS
2404407 CAP-DE-LA-MADELEINE                     CLS
2404501 NICOLET-YAMASKA                         CLS
2404502 BECANCOUR                               CLS
2404503 DRUMMOND                                CLS
2404504 ARTHABASKA                              CLS
2404505 DE L'ERABLE                             CLS
2405101 GRANIT                                  CLS
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2405102 ASBESTOS                                 CLS
2405103 HAUT-SAINT-FRANCOIS                       CLS
2405104 VAL SAINT-FRANCOIS                        CLS
2405105 COATICOOK                                 CLS
2405106 MEMPHREMAGOG                              CLS
2405107 FLEURIMONT-LENNOXVILLE                    CLS
2405108 SHERBROOKE                                CLS
2406101 LAC SAINT-LOUIS                           CLS
2406103 PIERREFONDS                               CLS
2406104 DOLLARD-DES-ORMEAUX                       CLS
2406105 LACHINE                                   CLS
2406201 POINTE-SAINT-CHARLES                      CLS
2406202 VERDUN                                    CLS
2406204 SAINT-PAUL                                CLS
2406206 LASALLE                                   CLS
2406301 RIVIERE-DES-PRAIRIES                      CLS
2406302 POINTE-AUX-TREMBLES                       CLS
2406303 MERCIER-EST                               CLS
2406304 MERCIER-OUEST                             CLS
2406305 HOCHELAGA-MAISONNEUVE                     CLS
2406306 ROSEMONT                                  CLS
2406308 ANJOU                                     CLS
2406309 SAINT-LEONARD                             CLS
2406401 COTE-DES-NEIGES                           CLS
2406402 SNOWDON                                   CLS
2406403 COTE-SAINT-LUC                            CLS
2406404 MONT-ROYAL                                CLS
2406501 NOTRE-DAME DE GRACE - MONTREAL-OUEST      CLS
2406503 METRO                                     CLS
2406504 SAINT-LOUIS DU PARC                       CLS
2406505 SAINT-HENRI                               CLS
2406601 MONTREAL-NORD                             CLS
2406603 SAINT-MICHEL                              CLS
2406605 AHUNTSIC                                  CLS
2406606 BORDEAUX-CARTIERVILLE                     CLS
2406608 SAINT-LAURENT                             CLS
2406701 MONTREAL-CENTRE-SUD                       CLS
2406702 PLATEAU MONT-ROYAL                        CLS
2406704 PARC-EXTENSION                            CLS
2406705 MONTREAL-CENTRE-VILLE                     CLS
2406706 VILLERAY                                  CLS
2406707 PETITE PATRIE                             CLS
2407201 HULL                                      CLS
2407202 AYLMER                                    CLS
2407300 GATINEAU                                  CLS
2407400 PONTIAC                                   CLS
2407500 LES COLLINES-DE-L'OUTAOUAIS               CLS
2407600 DES FORESTIERS                            CLS
2407701 VALLEE-DE-LA-LIEVRE                       CLS
2407702 PETITE-NATION                             CLS
2408101 TEMISCAMING                               CLS
2408102 VILLE-MARIE                               CLS
2408103 ROUYN-NORANDA                             CLS
2408104 ABITIBI-OUEST                             CLS
2408105 ABITIBI                                   CLS
2408106 VALLEE-DE-L'OR                            CLS
2409101 LES ESCOUMINS                             CLS
2409102 FORESTVILLE                               CLS
2409103 MANICOUAGAN                               CLS
2409105 PORT-CARTIER                              CLS
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2409106 SEPT-ILES                                    CLS
2409107 CANIAPISCAU                                  CLS
2409109 MINGANIE                                     CLS
2409110 BASSE COTE-NORD                              CLS
2409112 TERRITOIRE NASKAPI                           CLS
2410101 CHIBOUGAMAU/CHAPAIS                          CLS
2410102 LEBEL-SUR-QUEVILLON                          CLS
2410103 MATAGAMI                                     CLS
2410104 BAIE-JAMES                                   CLS
2411201 BONAVENTURE                                  CLS
2411203 PABOK                                        CLS
2411204 GASPE                                        CLS
2411205 GRANDE-VALLEE                                CLS
2411206 ILES-DE-LA-MADELEINE                         CLS
2411207 MURDOCHVILLE                                 CLS
2411208 DENIS-RIVERIN                                CLS
2411209 AVIGNON                                      CLS
2412101 LAC ETCHEMIN                                 CLS
2412102 LA NOUVELLE-BEAUCE                           CLS
2412103 BEAUCE-SARTIGAN                              CLS
2412104 ROBERT-CLICHE                                CLS
2412105 L'AMIANTE                                    CLS
2412401 DESJARDINS                                   CLS
2412402 CHAUDIERE                                    CLS
2412403 BELLECHASSE                                  CLS
2412404 LOTBINIERE                                   CLS
2412702 L'ISLET                                      CLS
2412704 MONTMAGNY                                    CLS
2413801 DUVERNAY                                     CLS
2413803 CHOMEDEY                                     CLS
2413805 PONT-VIAU                                    CLS
2413807 SAINTE-ROSE-DE-LAVAL                         CLS
2414201 D'AUTRAY                                     CLS
2414202 MATAWINIE                                    CLS
2414203 JOLIETTE                                     CLS
2414204 MONTCALM                                     CLS
2414205 LES MOULINS                                  CLS
2414206 L'ASSOMPTION                                 CLS
2415101 DEUX-MONTAGNES - MIRABEL                     CLS
2415102 THERESE-DE-BLAINVILLE                        CLS
2415103 ANTOINE-LABELLE                              CLS
2415104 RIVIERE-DU-NORD - MIRABEL                    CLS
2415105 LES PAYS-D'EN-HAUT                           CLS
2415106 LES LAURENTIDES                              CLS
2415107 ARGENTEUIL                                   CLS
2416001 VAUDREUIL-SOULANGES                          CLS
2416002 HAUT-SAINT-LAURENT                           CLS
2416003 VALLEYFIELD-BEAUHARNOIS                      CLS
2416004 CHATEAUGUAY-MERCIER                          CLS
2416005 LES JARDINS DE NAPIERVILLE                   CLS
2416006 SAINT CONSTANT - LA PRAIRIE                  CLS
2416007 BROSSARD - SAINT-LAMBERT                     CLS
2416008 LONGUEUIL-OUEST                              CLS
2416009 LONGUEUIL-EST                                CLS
2416010 ST-HUBERT                                    CLS
2416011 LAJEMMERAIS                                  CLS
2416012 SAINT-JEAN-SUR-RICHELIEU - SAINT-LUC         CLS
2416013 SAINT-BRUNO - BELOEIL - SAINT-HILAIRE        CLS
2416014 CHAMBLY-CARIGNAN-MARIEVILLE                  CLS
2416015 BAS RICHELIEU                                CLS
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2416016 LES MASKOUTAINS                          CLS
2416017 COWANSVILLE-FARNHAM-BEDFORD               CLS
2416018 GRANBY-SHEFFORD-BROMONT                   CLS
2416019 ACTON                                     CLS
2417101 BAIE D'HUDSON                             CLS
2417102 UNGAVA                                    CLS
2418101 TERRITOIRE CRI                            CLS
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ONTARIO

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PRHRSUB NAME / NOM                                                SUBTYP
-------------------------------------------------------------------------------
350101   Essex                                                    SLP
350102   Chatham-Kent                                             SLP
350103   Lambton                                                  SLP
350201   Bruce                                                    SLP
350202   Grey                                                     SLP
350203   Huron                                                    SLP
350204   Perth                                                    SLP
350205   Middlesex                                                SLP
350206   Oxford-Norfolk                                           SLP
350207   Elgin                                                    SLP
350301   Urban Waterloo and Rural Waterloo South                  SLP
350302   Urban Guelph                                             SLP
350303   Rural Waterloo                                           SLP
350304   Rural - South Grey and North Wellington                  SLP
350305   Rural Wellington                                         SLP
350401   Brant and Brantford                                      SLP
3504011   Brant                                                   SLS
3504012   Brantford                                               SLS
350402   New Credit and Six Nations                               SLP
350403   Haldimand and Norfolk                                    SLP
3504031   Norfolk                                                 SLS
3504032   Haldimand                                               SLS
350404   Burlington                                               SLP
350405   East Niagara                                             SLP
3504051   Niagara Falls                                           SLS
3504052   Fort Erie                                               SLS
350406   North Niagara                                            SLP
3504061   Niagara on the Lake                                     SLS
3504062   St. Catharines                                          SLS
3504063   Thorold                                                 SLS
350407   South Niagara                                            SLP
3504071   Pelham                                                  SLS
3504072   Wainfleet                                               SLS
3504073   Welland                                                 SLS
3504074   Port Colborne                                           SLS
350408   West Niagara                                             SLP
3504081   Grimsby                                                 SLS
3504082   West Lincoln                                            SLS
3504083   Lincoln                                                 SLS
350409   Stoney Creek                                             SLP
350410   Glanbrook                                                SLP
350411   Ancaster                                                 SLP
350412   Flamborough                                              SLP
350413   Dundas                                                   SLP
350414   Hamilton Urban Core                                      SLP
350415   Hamilton Outer Core                                      SLP
350501   Dufferin County                                          SLP
350502   Malton (Mississauga)                                     SLP
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350503   Caledon                                              SLP
350504   Brampton                                             SLP
350505   Rexdale (Toronto)                                    SLP
350506   Woodbridge (Vaughan)                                 SLP
350601   Milton                                               SLP
350602   Halton Hills                                         SLP
350603   Oakville                                             SLP
350604   Northwest Mississauga                                SLP
350605   Southeast Mississauga                                SLP
350606   South Etobicoke - Toronto                            SLP
350701   West                                                 SLP
350702   North West                                           SLP
350703   South West                                           SLP
350704   North Toronto                                        SLP
350705   South East                                           SLP
350706   East                                                 SLP
350707   North East                                           SLP
350801   South Simcoe and Northern York Region                SLP
350802   Central York Region                                  SLP
350803   Richmond Hill                                        SLP
350804   South West York Region                               SLP
350805   North York West                                      SLP
350806   North York Central                                   SLP
350807   North York East                                      SLP
350808   Markham                                              SLP
350901   North East Cluster                                   SLP
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3509011   Haliburton Highlands   SLS
3509012   Kawartha Lakes   SLS
3509013   Peterborough City and County   SLS
3509014   Northumberland-Havelock   SLS
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350902   Durham Cluster                                       SLP
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3509021   Durham North/Central   SLS
3509022   Durham West   SLS
3509023   Durham East   SLS
```
350903   Scarborough Cluster                                  SLP
```
3509031   Scarborough Agincourt-Rouge   SLS
3509032   Scarborough Cliffs - Scarborough Centre   SLS
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351001   Addington, North and Central Frontenac               SLP
351002   Belleville                                           SLP
351003   Brockville                                           SLP
351004   Central Hastings                                     SLP
351005   Gananoque, Leeds                                     SLP
351006   Kingston and Islands                                 SLP
351007   North Hastings                                       SLP
351008   Prince Edward County                                 SLP
351009   Quinte West, Brighton                                SLP
351010   Rideau Lakes                                         SLP
351011   Southeast Leeds and Grenville                        SLP
351012   Smiths Falls, Perth, Lanark                          SLP
351013   South Frontenac                                      SLP
351014   Stone Mills, Loyalist                                SLP
351015   Tyendinaga, Napanee                                  SLP
351101   Ottawa Centre                                        SLP
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3511011   Central Area   SLS
3511012   Glebe, Old Ottawa South, Ottawa East   SLS
3511013   South Central   SLS
3511014   Playfair Park, Lynda Park, Guildwood Estates   SLS
3511015   Hunt Club, Leitrim, Riverside South   SLS
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3511016   Rural Southeast                                     SLS
351102   Ottawa East                                          SLP
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3511021   Rural Northeast                                               SLS
3511022   Orleans and area                                             SLS
3511023   Industrial East, Riverview, Pineview, Elmvale                SLS
3511024   Beacon Hill, Rothwell Hts, Cardinal Hts, Carson, CFB Rockcl  SLS
3511025   Overbrook, Vanier, Beechwood                                 SLS
351103    Ottawa West                                                  SLP
3511031   West Central                                                 SLS
3511032   Merivale                                                     SLS
3511033   South Nepean                                                 SLS
3511034   Rural Southwest                                              SLS
3511035   Cedarview                                                    SLS
3511036   Kanata-Stittsville                                           SLS
3511037   Bayshore                                                     SLS
3511038   Rural Northwest                                              SLS
351104    Renfrew County                                               SLP
3511041   Arnprior, McNab, Braeside                                    SLS
3511042   South Renfrew Cty                                            SLS
3511043   North Renfrew Cty                                            SLS
351105    North Lanark / North Grenville                               SLP
3511051   North Grenville                                              SLS
3511052   Carleton Place and Beckwith                                  SLS
3511053   Mississippi Mills and Lanark Highlands                       SLS
351106    Eastern Counties                                             SLP
3511061   Akwesasne                                                    SLS
3511062   Glengarry                                                    SLS
3511063   Hawkesbury, Eastern Hawksbury, Champlain Township            SLS
3511064   Nation, Alfred-Plantagenet, Casselman                       SLS
3511065   Stormont                                                     SLS
3511066   Cornwall                                                     SLS
3511067   Dundas                                                       SLS
3511068   Russell Twp                                                  SLS
3511069   Clarence-Rockland                                            SLS
351201    Collingwood and Area                                         SLP
351202    Barrie and Area                                              SLP
351203    Orillia and Area                                             SLP
351204    Midland and Penetanguishene Area                            SLP
351205    Muskoka                                                      SLP
351301    Algoma                                                       SLP
351302    James and Hudson Bay Coasts                                  SLP
351303    Nipissing                                                    SLP
351304    Parry Sound                                                  SLP
351305    Manitoulin-Sudbury                                           SLP
351306    Timiskaming                                                  SLP
351307    Cochrane                                                     SLP
351401    Kenora                                                       SLP
351402    Rainy River                                                  SLP
351403    Thunder Bay District                                         SLP
351404    Thunder Bay City                                            SLP
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BRITISH COLUMBIA / COLOMBIE-BRITANNIQUE

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PRHRSUB NAME / NOM                              SUBTYP
------------------------------------------------------------------
5911001 Fernie                                  LHA
5911002 Cranbrook                               LHA
5911003 Kimberley                               LHA
5911004 Windermere                              LHA
5911005 Creston                                 LHA
5912006 Kootenay Lake                           LHA
5912007 Nelson                                  LHA
5912009 Castlegar                               LHA
5912010 Arrow Lakes                             LHA
5912011 Trail                                   LHA
5912012 Grand Forks                             LHA
5912013 Kettle Valley                           LHA
5913014 Southern Okanagan                       LHA
5913015 Penticton                               LHA
5913016 Keremeos                                LHA
5913017 Princeton                               LHA
5911018 Golden                                  LHA
5914019 Revelstoke                              LHA
5914020 Salmon Arm                              LHA
5913021 Armstrong - Spallumcheen                LHA
5913022 Vernon                                  LHA
5913023 Central Okanagan                        LHA
5914024 Kamloops                                LHA
5914025 100 Mile House                          LHA
5914026 North Thompson                          LHA
5914027 Cariboo - Chilcotin                     LHA
5952028 Quesnel                                 LHA
5914029 Lillooet                                LHA
5914030 South Cariboo                           LHA
5914031 Merritt                                 LHA
5921032 Hope                                    LHA
5921033 Chilliwack                              LHA
5921034 Abbotsford                              LHA
5923035 Langley                                 LHA
5923037 Delta                                   LHA
5931038 Richmond                                LHA
5922040 New Westminster                         LHA
5922041 Burnaby                                 LHA
5922042 Maple Ridge                             LHA
5922043 Coquitlam                               LHA
5933044 North Vancouver                         LHA
5933045 West Vancouver-Bowen Island             LHA
5933046 Sunshine Coast                          LHA
5933047 Powell River                            LHA
5933048 Howe Sound                              LHA
5933049 Bella Coola Valley                      LHA
5951050 Queen Charlotte                         LHA
5951051 Snow Country                            LHA
5951052 Prince Rupert                           LHA
5951053 Upper Skeena                            LHA
5951054 Smithers                                LHA
5952055 Burns Lake                              LHA
5952056 Nechako                                 LHA
5952057 Prince George                           LHA
5953059 Peace River South                       LHA
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5953060 Peace River North                    LHA
5941061 Greater Victoria                     LHA
5941062 Sooke                                LHA
5941063 Saanich                              LHA
5941064 Gulf Islands                         LHA
5942065 Cowichan                             LHA
5942066 Lake Cowichan                        LHA
5942067 Ladysmith                            LHA
5942068 Nanaimo                              LHA
5942069 Qualicum                             LHA
5942070 Alberni                              LHA
5943071 Courtenay                            LHA
5943072 Campbell River                       LHA
5921075 Mission                              LHA
5921076 Agassiz - Harrison                   LHA
5913077 Summerland                           LHA
5913078 Enderby                              LHA
5951080 Kitimat                              LHA
5953081 Fort Nelson                          LHA
5933083 Central Coast                        LHA
5943084 Vancouver Island West                LHA
5943085 Vancouver Island North               LHA
5951087 Stikine                              LHA
5951088 Terrace                              LHA
5951092 Nisga'a                              LHA
5951094 Telegraph Creek                      LHA
5932161 City Centre                          LHA
5932162 Downtown Eastside                    LHA
5932163 North East                           LHA
5932164 West Side                            LHA
5932165 Midtown                              LHA
5932166 South Vancouver                      LHA
5923201 Surrey                               LHA
5923202 South Surrey/White Rock              LHA
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FILE=SUBNAM07N.CAN
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APPENDIX H3
Alternate Health Regions (AHR)

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PRAHR           Alternate Health Region (Public Health Unit)        AHRTYP
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ONTARIO (January 2010)
```
3526 ALGOMA                                                         PHU
3527 BRANT                                                          PHU
3530 DURHAM                                                         PHU
3531 ELGIN-ST THOMAS                                                PHU
3533 GREY BRUCE                                                     PHU
3534 HALDIMAND-NORFOLK                                              PHU
3535 HALIBURTON-KAWARTHA-PINE RIDGE                                 PHU
3536 HALTON                                                         PHU
3537 HAMILTON                                                       PHU
3538 HASTINGS-PRINCE EDWARD                                         PHU
3539 HURON                                                          PHU
3540 CHATHAM-KENT                                                   PHU
3541 KINGSTON-FRONTENAC-LENNOX-ADDINGTON                            PHU
3542 LAMBTON                                                        PHU
3543 LEEDS-GRENVILLE-LANARK                                         PHU
3544 MIDDLESEX-LONDON                                               PHU
3546 NIAGARA                                                        PHU
3547 NORTH BAY - PARRY SOUND                                        PHU
3549 NORTHWESTERN                                                   PHU
3551 OTTAWA                                                         PHU
3552 OXFORD                                                         PHU
3553 PEEL                                                           PHU
3554 PERTH                                                          PHU
3555 PETERBOROUGH                                                   PHU
3556 PORCUPINE                                                      PHU
3557 RENFREW                                                        PHU
3558 EASTERN ONTARIO                                                PHU
3560 SIMCOE - MUSKOKA                                               PHU
3561 SUDBURY                                                        PHU
3562 THUNDER BAY                                                    PHU
3563 TIMISKAMING                                                    PHU
3565 WATERLOO                                                       PHU
3566 WELLINGTON-DUFFERIN-GUELPH                                     PHU
3568 WINDSOR-ESSEX                                                  PHU
3570 YORK                                                           PHU
3595 TORONTO                                                        PHU
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ALBERTA (former Health Regions/Regional Health Authorities)
```
4801 CHINOOK                                                        HRE
4802 PALLISER                                                       HRE
4803 CALGARY                                                        HRE
4804 DAVID THOMPSON                                                 RHA
4805 EAST CENTRAL                                                   HLT
4806 CAPITAL                                                        HLT
4807 ASPEN                                                          RHA
4808 PEACE COUNTRY                                                  HLT
4809 NORTHERN LIGHTS                                                HRE
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APPENDIX H4
Alternate health districts (ASUB)

PRAHRASUB Alternate health district name

Ontario (2010)   **ASUBTYP=NBH**
```
3595001  West Humber-Clairville
3595002  Mount Olive-Silverstone-Jamestown
3595003  Thistletown-Beaumond Heights
3595004  Rexdale-Kipling
3595005  Elms-Old Rexdale
3595006  Kingsview Village-The Westway
3595007  Willowridge-Martingrove-Richview
3595008  Humber Heights-Westmount
3595009  Edenbridge-Humber Valley
3595010  Princess-Rosethorn
3595011  Eringate-Centennial-West Deane
3595012  Markland Woods
3595013  Etobicoke West Mall
3595014  Islington-City Centre West
3595015  Kingsway South
3595016  Stonegate-Queensway
3595017  Mimico
3595018  New Toronto
3595019  Long Branch
3595020  Alderwood
3595021  Humber Summit
3595022  Humbermede
3595023  Pelmo Park-Humberlea
3595024  Black Creek
3595025  Glenfield-Jane Heights
3595026  Dowsnview-Roding-CFB
3595027  York University Heights
3595028  Rustic
3595029  Maple Leaf
3595030  Brookhaven-Amesbury
3595031  Yorkdale-Glen Park
3595032  Englemount-Lawrence
3595033  Clanton Park
3595034  Bathurst Manor
3595035  Westminster-Branson
3595036  Newtonbrook West
3595037  Willowdale West
3595038  Lansing-Westgate
3595039  Bedford Park-Nortown
3595040  St.Andrew-Windfields
3595041  Bridle Path-Sunnybrook-York Mills
3595042  Banbury-Don Mills
3595043  Victoria Village
3595044  Flemingdon Park
3595045  Parkwoods-Donalda
3595046  Pleasant View
3595047  Don Valley Village
3595048  Hillcrest Village
3595049  Bayview Woods-Steeles
3595050  Newtonbrook East
3595051  Willowdale East
3595052  Bayview Village
3595053  Henry Farm
3595054  O'Conner-Parkview
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3595055   Thorncliffe Park
3595056   Leaside-Bennington
3595057   Broadview North
3595058   Old East York
3595059   Danforth Village - East York
3595060   Woodbine-Lumsden
3595061   Crescent Town
3595062   East End-Danforth
3595063   The Beaches
3595064   Woodbine Corridor
3595065   Greenwood-Coxwell
3595066   Danforth Village - Toronto
3595067   Playter Estates Danforth
3595068   North Riverdale
3595069   Blake-Jones
3595070   South Riverdale
3595071   Cabbagetown-South St. Jamestown
3595072   Regent Park
3595073   Moss Park
3595074   North St.Jamestown
3595075   Church-Yonge Corridor
3595076   Bay Street Corridor
3595077   Waterfront Communities-The Island
3595078   Kensington-Chinatown
3595079   University
3595080   Palmerston-Little Italy
3595081   Trinity-Bellwoods
3595082   Niagara
3595083   Dufferin Grove
3595084   Little Portugal
3595085   South Parkdale
3595086   Roncesvalles
3595087   High Park-Swansea
3595088   High Park North
3595089   Runnymede-Bloor West Village
3595090   Junction Area
3595091   Weston-Pellam Park
3595092   Corsa Italia-Davenport
3595093   Dovercourt-Wallace Emerson-Junction
3595094   Wychwood
3595095   Annex
3595096   Casa Loma
3595097   Yonge-St.Clair
3595098   Rosedale-Moore Park
3595099   Mount Pleasant East
3595100   Yonge-Eglinton
3595101   Forest Hill South
3595102   Forest Hill North
3595103   Lawrence Park South
3595104   Mount Pleasant West
3595105   Lawrence Park North
3595106   Humewood-Cedarvale
3595107   Oakwood-Vaughan
3595108   Briar Hill-Belgravia
3595109   Caledonia-Fairbanks
3595110   Keelesdale-Eglinton West
3595111   Rockcliffe-Smythe
3595112   Beechborough/Greenbrook
3595113   Weston
3595114   Lambton Baby Point
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3595115   Mount Dennis
3595116   Steeles
3595117   L'Amoureaux
3595118   Tam O'Shanter-Sullivan
3595119   Wexford/Maryvale
3595120   Clairlea-Birchmount
3595121   Oakridge
3595122   Birchcliff-Cliffside
3595123   Cliffcrest
3595124   Kennedy Park
3595125   Ionview
3595126   Dorset Park
3595127   Bendale
3595128   Agincourt South-Malvern West
3595129   Agincourt North
3595130   Milliken
3595131   Rouge
3595132   Malvern
3595133   Centennial Scarborough
3595134   Highland Creek
3595135   Morningside
3595136   West Hill
3595137   Woburn
3595138   Eglinton East
3595139   Scarborough Village
3595140   Guildwood
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ALBERTA

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PRAHRASUB NAME / NOM                               ASUBTYP
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480101   Crowsnest Pincher Creek                   SUB
480102   Fort McLeod Cardston                      SUB
480103   Lethbridge                                SUB
480104   Picture Butte Raymond Milk River          SUB
480105   Vauxhall Taber                            SUB
480201   Palliser North and Central                SUB
480202   Palliser West                             SUB
480301   Calgary Northwest                         SUB
480302   Calgary Beddington Heights                SUB
480303   Calgary Northeast                         SUB
480304   Calgary University                        SUB
480305   Calgary Charleswood                       SUB
480306   Calgary Marlborough                       SUB
480307   Calgary Shaganappi                        SUB
480308   Calgary Bowness                           SUB
480309   Calgary Scarboro                          SUB
480310   Calgary Forest Lawn                       SUB
480311   Calgary Lakeview                          SUB
480312   Calgary Mount Royal                       SUB
480313   Calgary Haysboro                          SUB
480314   Calgary Bonavista                         SUB
480315   Calgary South                             SUB
480320   Banff-Canmore                             SUB
480321   Didsbury-Strathmore                       SUB
480322   Vulcan-Claresholm                         SUB
480323   High River-Black Diamond                  SUB
480401   Clearwater                                SUB
480402   Brazeau                                   SUB
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480403  Wetaskiwin-Hobbema                    SUB
480404  Ponoka                                SUB
480405  Lacombe                               SUB
480406  Red Deer                              SUB
480407  Olds                                  SUB
480408  Drumheller-Hanna                      SUB
480409  Stettler-Consort                      SUB
480501  Region 5 Northwest                    SUB
480502  Regions 5 Northeast                   SUB
480503  Region 5 Southeast                    SUB
480504  Region 5 South Central                SUB
480505  Region5 Southwest                     SUB
480601  St. Albert                            SUB
480602  Edmonton Castle Downs                 SUB
480603  Edmonton Woodcroft                    SUB
480604  Edmonton Eastwood                     SUB
480605  Edmonton North Central                SUB
480606  Edmonton North East                   SUB
480607  Edmonton Bonnie Doon                  SUB
480608  Edmonton West Jasper Place            SUB
480609  Edmonton Twin Brooks                  SUB
480612  Edmonton Mill Woods                   SUB
480613  Sherwood Park                         SUB
480614  Strathcona County                     SUB
480615  Thorsby                               SUB
480616  Leduc Office                          SUB
480617  Beaumont                              SUB
480618  Westview                              SUB
480619  Sturgeon County                       SUB
480620  Fort Saskatchewan                     SUB
480701  Aspen West                            SUB
480702  Aspen Central                         SUB
480703  Aspen North                           SUB
480704  Aspen East                            SUB
480801  Peace Northwest                       SUB
480802  Peace Northeast                       SUB
480803  Peace Southeast                       SUB
480804  Peace Southwest                       SUB
480901  High Level                            SUB
480902  La Crete                              SUB
480903  Northern Lights Northwest             SUB
480904  Fort McMurray                         SUB
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APPENDIX J   Census divisions (CD), 2006

The numeric code and corresponding census division name, including descriptive names for otherwise unnamed CDs.

PRCD	TYP	CDname
1001	CDR	Avalon Peninsula
1002	CDR	Burin Peninsula
1003	CDR	South Coast
1004	CDR	Stephenville
1005	CDR	Corner Brook
1006	CDR	Central Newfoundland
1007	CDR	Bonavista Bay
1008	CDR	Notre Dame Bay
1009	CDR	Northern Peninsula
1010	CDR	Central-Southern Labrador
1011	CDR	Nunastiavut
1101	CTY	Kings
1102	CTY	Queens
1103	CTY	Prince
1201	CTY	Shelburne
1202	CTY	Yarmouth
1203	CTY	Digby
1204	CTY	Queens
1205	CTY	Annapolis
1206	CTY	Lunenburg
1207	CTY	Kings
1208	CTY	Hants
1209	CTY	Halifax
1210	CTY	Colchester
1211	CTY	Cumberland
1212	CTY	Pictou
1213	CTY	Guysborough
1214	CTY	Antigonish
1215	CTY	Inverness
1216	CTY	Richmond
1217	CTY	Cape Breton
1218	CTY	Victoria
1301	CT	Saint John
1302	CT	Charlotte
1303	CT	Sunbury
1304	CT	Queens
1305	CT	Kings
1306	CT	Albert
1307	CT	Westmorland
1308	CT	Kent
1309	CT	Northumberland
1310	CT	York
1311	CT	Carleton
1312	CT	Victoria
1313	CT	Madawaska
1314	CT	Restigouche
1315	CT	Gloucester
2401	TÉ	Les Îles-de-la-Madeleine
2402	MRC	Le Rocher-Percé
2403	MRC	La Côte-de-Gaspé
2404	MRC	La Haute-Gaspésie
2405	MRC	Bonaventure
2406	MRC	Avignon
2407	MRC	La Matapédia
2408	MRC	Matane
2409	MRC	La Mitis
2410	MRC	Rimouski-Neigette
2411	MRC	Les Basques
2412	MRC	Rivière-du-Loup
2413	MRC	Témiscouata
2414	MRC	Kamouraska
2415	MRC	Charlevoix-Est

2416	MRC	Charlevoix
2417	MRC	L'Islet
2418	MRC	Montmagny
2419	MRC	Bellechasse
2420	MRC	L'Île-d'Orléans
2421	MRC	La Côte-de-Beaupré
2422	MRC	La Jacques-Cartier
2423	TÉ	Québec
2425	TÉ	Lévis
2426	MRC	La Nouvelle-Beauce
2427	MRC	Robert-Cliche
2428	MRC	Les Etchemins
2429	MRC	Beauce-Sartigan
2430	MRC	Le Granit
2431	MRC	L'Amiante
2432	MRC	L'Érable
2433	MRC	Lotbinière
2434	MRC	Portneuf
2435	MRC	Mékinac
2436	TÉ	Shawingigan
2437	CDR	Francheville
2438	MRC	Bécancour
2439	MRC	Arthabaska
2440	MRC	Asbestos
2441	MRC	Le Haut-Saint-François
2442	MRC	Le Val-Saint-François
2443	TÉ	Sherbrooke
2444	MRC	Coaticook
2445	MRC	Memphrémagog
2446	MRC	Brome-Missisquoi
2447	MRC	La Haute-Yamaska
2448	MRC	Acton
2449	MRC	Drummond
2450	MRC	Nicolet-Yamaska
2451	MRC	Maskinongé
2452	MRC	D'Autray
2453	MRC	Le Bas-Richelieu
2454	MRC	Les Maskoutains
2455	MRC	Rouville
2456	MRC	Le Haut-Richelieu
2457	MRC	La Vallée-du-Richelieu
2458	TÉ	Longueuil
2459	MRC	Lajemmerais
2460	MRC	L'Assomption
2461	MRC	Joliette
2462	MRC	Matawinie
2463	MRC	Montcalm
2464	MRC	Les Moulins
2465	TÉ	Laval
2466	TÉ	Montréal
2467	MRC	Roussillon
2468	MRC	Les Jardins-de-Napierville
2469	MRC	Le Haut-Saint-Laurent
2470	MRC	Beauharnois-Salaberry
2471	MRC	Vaudreuil-Soulanges
2472	MRC	Deux-Montagnes
2473	MRC	Thérèse-De Blainville
2474	TÉ	Mirabel
2475	MRC	La Rivière-du-Nord
2476	MRC	Argenteuil
2477	MRC	Les Pays-d'en-Haut
2478	MRC	Les Laurentides
2479	MRC	Antoine-Labelle
2480	MRC	Papineau
2481	TÉ	Gatineau
2482	MRC	Les Collines-de-l'Outaouais
2483	MRC	La Vallée-de-la-Gatineau

2484 MRC Pontiac
2485 MRC Témiscamingue
2486 TÉ Rouyn-Noranda
2487 MRC Abitibi-Ouest
2488 MRC Abitibi
2489 MRC Vallée-de-l'Or
2490 TÉ La Tuque
2491 MRC Le Domaine-du-Roy
2492 MRC Maria-Chapdelaine
2493 MRC Lac-Saint-Jean-Est
2494 CDR Le Saguenay-et-son-Fjord
2495 MRC La Haute-Côte-Nord
2496 MRC Manicouagan
2497 CDR Sept-Rivières--Caniapiscau
2498 CDR Minganie--Basse-Côte-Nord
2499 CDR Nord-du-Québec

3501 UC Stormont, Dundas and Glengarry
3502 UC Prescott and Russell
3506 CDR Ottawa
3507 UC Leeds and Grenville
3509 CTY Lanark
3510 MB Frontenac
3511 CTY Lennox and Addington
3512 CTY Hastings
3513 CDR Prince Edward
3514 CTY Northumberland
3515 CTY Peterborough
3516 CDR Kawartha Lakes
3518 RM Durham
3519 RM York
3520 CDR Toronto
3521 RM Peel
3522 CTY Dufferin
3523 CTY Wellington
3524 RM Halton
3525 CDR Hamilton
3526 RM Niagara
3528 CDR Haldimand-Norfolk
3529 CDR Brant
3530 RM Waterloo
3531 CTY Perth
3532 CTY Oxford
3534 CTY Elgin
3536 CDR Chatham-Kent
3537 CTY Essex
3538 CTY Lambton
3539 CTY Middlesex
3540 CTY Huron
3541 CTY Bruce
3542 CTY Grey
3543 CTY Simcoe
3544 DM Muskoka
3546 CTY Haliburton
3547 CTY Renfrew
3548 DIS Nipissing
3549 DIS Parry Sound
3551 DIS Manitoulin
3552 DIS Sudbury
3553 CDR Greater Sudbury / Grand Sudbury
3554 DIS Timiskaming
3556 DIS Cochrane
3557 DIS Algoma
3558 DIS Thunder Bay
3559 DIS Rainy River
3560 DIS Kenora

4601 CDR Lac du Bonnet-Alexander
4602 CDR Hanover
4603 CDR Stanley
4604 CDR Lorne-Pembina

4605 CDR Turtle Mountain
4606 CDR Wallace
4607 CDR Brandon
4608 CDR Swift Current
4609 CDR Portage la Prairie
4610 CDR Macdonald-Cartier
4611 CDR Winnipeg
4612 CDR Springfield-Broken Head
4613 CDR St Andrews
4614 CDR Rookwood-Woodlands
4615 CDR Langford-Minto
4616 CDR Lake of the Prairies
4617 CDR Dauphin
4618 CDR Interlake South-Gimli
4619 CDR Lake Winnipeg-Winnipegosis
4620 CDR Swan River
4621 CDR Moose Lake
4622 CDR Thompson
4623 CDR Hudson Bay

4701 CDR Estevan
4702 CDR Weyburn
4703 CDR Lake of the Rivers
4704 CDR Maple Creek
4705 CDR Melville
4706 CDR Regina
4707 CDR Moose Jaw
4708 CDR Swift Current
4709 CDR Yorkton
4710 CDR Big Quill-Foam Lake-Kutawa
4711 CDR Saskatoon
4712 CDR Battleford-Biggar-Vanscoy
4713 CDR Kindersley-Unity
4714 CDR Star City-Nipawin-Hudson Bay
4715 CDR Prince Albert
4716 CDR North Battleford
4717 CDR Lloydminster-Meadow Lake
4718 CDR Northern Saskatchewan

4801 CDR Medicine Hat
4802 CDR Lethbridge
4803 CDR Southwest (Cardston-Willow/Pincher)
4804 CDR Hanna-Oyen-Consort
4805 CDR Drumheller
4806 CDR Calgary
4807 CDR Stettler-Wainwright
4808 CDR Red Deer
4809 CDR Rocky Mountain House
4810 CDR Camrose-Vermillion River-Lloydminster
4811 CDR Edmonton
4812 CDR Cold Lake
4813 CDR Woodlands
4814 CDR Yellowhead
4815 CDR Jasper-Banff
4816 CDR Wood Buffalo
4817 CDR Peace River
4818 CDR Greenview
4819 CDR Grande Prairie

5901 RD East Kootenay
5903 RD Central Kootenay
5905 RD Kootenay Boundary
5907 RD Okanagan-Similkameen
5909 RD Fraser Valley
5915 RD Greater Vancouver
5917 RD Capital
5919 RD Cowichan Valley
5921 RD Nanaimo
5923 RD Alberni-Clayoquot
5925 RD Comox-Strathcona
5927 RD Powell River

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5929 RD  Sunshine Coast                    5957 REG Stikine
5931 RD  Squamish-Lillooet                 5959 RD  Northern Rockies
5933 RD  Thompson-Nicola
5935 RD  Central Okanagan                  6001 TER Yukon
5937 RD  North Okanagan
5939 RD  Columbia-Shuswap                  6106 REG Fort Smith
5941 RD  Cariboo                           6107 REG Inuvik
5943 RD  Mount Waddington
5945 RD  Central Coast                     6204 REG Baffin
5947 RD  Skeena-Queen Charlotte            6205 REG Keewatin
5949 RD  Kitimat-Stikine                   6208 REG Kitikmeot
5951 RD  Bulkley-Nechako
5953 RD  Fraser-Fort George
5955 RD  Peace River
```

Census Division Type (CDtype)
Genre de la division de recensement (CDgenre)

Type/Genre
CDR	Census Division / Division de recensement
CT	County / Comté
CTY	County
DIS	District
DM	District Municipality
MB	Management Board
MRC	Municipalité régionale de comté
RD	Regional District
REG	Region
RM	Regional Municipality
TÉ	Territoire équivalent
TER	Territory
UC	United Counties

APPENDIX K   Economic regions (ER)

PRER ERNAME
1010 Avalon Peninsula
1020 South Coast - Burin Peninsula
1030 West Coast - Northern Peninsula - Labrador
1040 Notre Dame - Central Bonavista Bay

1110 Prince Edward Island

1210 Cape Breton
1220 North Shore
1230 Annapolis Valley
1240 Southern
1250 Halifax

1310 Campbellton - Miramichi
1320 Moncton - Richibucto
1330 Saint John - St. Stephen
1340 Fredericton - Oromocto
1350 Edmundston - Woodstock

2410 Gaspésie - Îles-de-la-Madeleine
2415 Bas-Saint-Laurent
2420 Capitale-Nationale
2425 Chaudière - Appalaches
2430 Estrie
2433 Centre-du-Québec
2435 Montérégie
2440 Montréal
2445 Laval
2450 Lanaudière
2455 Laurentides
2460 Outaouais
2465 Abitibi - Témiscamingue
2470 Mauricie
2475 Saguenay - Lac-Saint-Jean
2480 Côte-Nord
2490 Nord-du-Québec

3510 Ottawa
3515 Kingston - Pembroke
3520 Muskoka - Kawarthas
3530 Toronto
3540 Kitchener - Waterloo - Barrie
3550 Hamilton - Niagara Peninsula
3560 London

PRER ERNAME
3570 Windsor - Sarnia
3580 Stratford - Bruce Peninsula
3590 Northeast
3595 Northwest

4610 Southeast
4620 South Central
4630 Southwest
4640 North Central
4650 Winnipeg
4660 Interlake
4670 Parklands
4680 North

4710 Regina - Moose Mountain
4720 Swift Current - Moose Jaw
4730 Saskatoon - Biggar
4740 Yorkton - Melville
4750 Prince Albert
4760 Northern

4810 Lethbridge - Medicine Hat
4820 Camrose - Drumheller
4830 Calgary
4840 Banff - Jasper - Rocky Mountain House
4850 Red Deer
4860 Edmonton
4870 Athabasca - Grande Prairie - Peace River
4880 Wood Buffalo - Cold Lake

5910 Vancouver Island and Coast
5920 Lower Mainland - Southwest
5930 Thompson - Okanagan
5940 Kootenay
5950 Cariboo
5960 North Coast
5970 Nechako
5980 Northeast

6010 Yukon

6110 Northwest Territories

6210 Nunavut

APPENDIX L   Census agricultural regions (AR), 2006
including unofficial descriptive names for otherwise unnamed regions

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PR AR ARNAME                                      PR AR ARNAME
10 01 Southeastern                                47 1A Estevan
10 02 Central                                     47 1B Elcapo-Moosomin
10 03 Western and Labrador                        47 2A Weyburn
                                                  47 2B Regina-Moose Jaw
11 01 Eastern                                     47 3P Gravelbourg-Enfield (3AN)
11 02 Central                                     47 3Q Lake of the Rivers-Laurier-Hart Butte (3AS)
11 03 Western                                     47 3R Swift Current (3BN)
                                                  47 3S Grassy Creek (3BS)
12 01 Southwestern                                47 4A Maple Creek-White Valley
12 02 Annapolis Valley                            47 4B Gull Lake-Happyland
12 03 Central                                     47 5A Yorkton
12 04 Eastern                                     47 5B Cote-Good Lake-Preeceville
12 05 Cape Breton                                 47 6A Lumsden
                                                  47 6B Saskatoon
13 01 Northwestern - Nord-Ouest                   47 7A Kindersley-St Andrews
13 02 Southwestern - Sud-Ouest                    47 7B Biggar-Round Valley
13 03 Southeastern - Sud-Est                      47 8A Star City-Nipawin-Hudson Bay
13 04 Northeastern - Nord-Est                     47 8B Humbolt
                                                  47 9A Prince Albert-North Battleford
24 01 Bas-Saint-Laurent                           47 9B Britannia-Meadow Lake-Battle River
24 02 Saguenay--Lac-Saint-Jean--Côte-Nord        47 00 Northern Saskatchewan
24 03 Québec
24 04 Mauricie                                    48 01 Medicine Hat-Hanna
24 05 Estrie                                      48 02 Lethbridge-Drumheller
24 06 Montréal--Laval                             48 03 Calgary-Foothills
24 07 Lanaudière                                  48 4A Stettler-Wainwrihti
24 08 Outaouais                                   48 4B Camrose-Vermillion River-Lloydminster
24 09 Laurentides                                 48 05 Edmonton-Red Deer-Rocky Mountain House
24 10 Abitibi-Témiscamingue--Nord-du-Québec      48 06 Yellowhead-Woodlands-Cold Lake-Wood Buffalo
24 11 Gaspésie--Îles-de-la-Madeleine              48 07 Peace River-Grande Prairie
24 12 Chaudière-Appalaches
24 13 Montérégie                                  59 01 Vancouver Island-Coast
24 14 Centre-du-Québec                            59 02 Lower Mainland-Southwest
                                                  59 03 Thompson-Okanagan
35 01 Southern Ontario - Sud de l'Ontario         59 04 Kootenay
35 02 Western Ontario - Ouest de l'Ontario        59 05 Cariboo
35 03 Central Ontario - Centre de l'Ontario       59 06 North Coast
35 04 Eastern Ontario - Est de l'Ontario          59 07 Nechako
35 05 Northern Ontario - Nord de l'Ontario        59 08 Peace River

46 01 Southwestern                                60 00 Yukon
46 02 Brandon-Wallace
46 03 Neepawa-Minnedosa-Shoal Lake                61 00 Northwest Territories
46 04 Lake of the Prairies
46 05 Swan River                                  62 00 Nunavut
46 06 Dauphin
46 07 Centre-West
46 08 Centre-South
46 09 Centre-East
46 10 Southeastern
46 11 Centre-North
46 12 Northern
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APPENDIX M Canada Post Air Stage Offices (AIRLIFT)

What Is An Air Stage Office?
According to Canada Post, "An Air Stage Office is a Post Office to or from which all mail must be airlifted for more than six (6) months of every year as a viable surface transportation alternative is not available. These offices are generally confined to remote or isolated communities. An office designated an Air Stage Office is deemed to be Air Stage for the whole year." http://www.canadapost.ca/tools/pg/manual/PGairstage-e.asp (Last updated: 2007-09-17)

APPENDICE M Les Bureaux du Service aérien omnibus des Postes Canada

De quoi s'agissent les Bureaux du Service aérien omnibus?
D'après Postes Canada, « Il s'agit d'un bureau de poste à partir ou à destination duquel tout le courrier doit être transporté par avion parce qu'il n'y a pas de moyen de transport par voie de terre viable durant au moins six mois par année. Ce type de bureau est généralement situé dans les régions éloignées ou isolées. Tout bureau de poste désigné bureau du Service aérien omnibus le demeure pendant toute l'année. »
http://www.postescanada.ca/tools/pg/manual/PGairstage-f.asp (Mise à jour : 2007-09-17)

Table 1: List of Air Stage Offices
Tableau 1 : Liste des bureaux du Service aérien omnibus
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CPCOMM                      PR   FSA LDU
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AHOUSAT                     BC   V0R 1A0        GOD'S RIVER            MB   R0B 0N0
AKLAVIK                     NT   X0E 0A0        GRANVILLE LAKE        MB   R0B 0P0
AKULIVIK                    QC   J0M 1V0        GRISE FIORD           NU   X0A 0J0
ANGLING LAKE                ON   P0V 1B0        HALL BEACH            NU   X0A 0K0
ARCTIC BAY                  NU   X0A 0A0        HARRINGTON HARBOUR    QC   G0G 1N0
ATTAWAPISKAT                ON   P0L 1A0        HARTLEY BAY           BC   V0V 1A0
ARVIAT                      NU   X0C 0E0        HOLMAN                NU   X0E 0S0
AUPALUK                     QC   J0M 1X0        HOPEDALE              NL   A0P 1G0
BAKER LAKE                  NU   X0C 0A0        IGLOOLIK              NU   X0A 0L0
BAY CHIMO                   NU   X0B 2A0        INUKJUAK              QC   J0M 1M0
BEARSKIN LAKE               ON   P0V 1E0        IQALUIT               NU   X0A 0H0
BERENS RIVER                MB   R0B 0A0        IQALUIT               nu   X0A 1H0
BIG TROUT LAKE              ON   P0V 1G0        ISLAND LAKE           MB   R0B 0T0
BLACK LAKE                  SK   S0J 0H0        IVUJIVIK              QC   J0M 1H0
BLACK TICKLE                NL   A0K 1N0        KANGIQSUALUJJUAQ      QC   J0M 1N0
BLIND CHANNEL               BC   V0P 1B0        KANGIQSUJUAQ          QC   J0M 1K0
BLOODVEIN                   MB   R0C 0J0        KANGIRSUK             QC   J0M 1A0
BRADORE BAY                 QC   G0G 1E0        KASABONIKA            ON   P0V 1Y0
BROCHET                     MB   R0B 0B0        KASHECHEWAN           ON   P0L 1S0
CAMBRIDGE BAY               NU   X0B 0C0        KEEWAYWIN             ON   P0V 3G0
CAPE DORSET                 NU   X0A 0C0        KÉGASKA               QC   G0G 1S0
CAT LAKE                    ON   P0V 1J0        KIMMIRUT              NU   X0A 0N0
CHESTERFIELD INLET          NU   X0C 0B0        KINGCOME INLET        BC   V0N 2B0
CHEVERY                     QC   G0G 1G0        KINGFISHER LAKE       ON   P0V 1Z0
CLYDE RIVER                 NU   X0A 0E0        KITKATLA              BC   V0V 1C0
COLVILLE LAKE               NT   X0E 1L0        KLEMTU                BC   V0T 1L0
CORAL HARBOUR               NU   X0C 0C0        KUGAARUK              NU   X0B 1K0
DAWSON'S LANDING            BC   V0N 1M0        KUGLUKTUK             NU   X0B 0E0
DEER LAKE                   ON   P0V 1N0        KUUJJUAQ              QC   J0M 1C0
DÉLINE                      NT   X0E 0G0        KUUJJUARAPIK          QC   J0M 1G0
EABAMET LAKE                ON   P0T 1L0        KYUQUOT               BC   V0P 1J0
EUREKA                      NU   X0A 0G0        LA TABATIÈRE          QC   G0G 1T0
FOND-DU-LAC                 SK   S0J 0W0        LAC BROCHET           MB   R0B 2E0
FORT ALBANY                 ON   P0L 1H0        LAC SEUL              ON   P0V 2A0
FORT CHIPEWYAN              AB   T0P 1B0        LANSDOWNE HOUSE       ON   P0T 1Z0
FORT GOOD HOPE              NT   X0E 0H0        LAX KW'ALAAMS         BC   V0V 1H0
FORT SEVERN                 ON   P0V 1W0        LITTLE GRAND RAPIDS   MB   R0B 0V0
FOX LAKE                    AB   T0H 1R0        LUTSELK'E             NT   X0E 1A0
GARDEN HILL                 MB   R0B 0T0        MAKKOVIK              NL   A0P 1J0
GARDEN RIVER                AB   T0H 4G0        MINSTREL ISLAND       BC   V0P 1L0
GETHSÉMANI                  QC   G0G 1M0        MUSKRAT DAM           ON   P0V 3B0
GJOA HAVEN                  NU   X0B 1J0        MUTTON BAY            QC   G0G 2C0
GOD'S LAKE NARROWS          MB   R0B 0M0        NAIN                  NL   A0P 1L0
```

NANISIVIK	NU	X0A 0X0		SANDY LAKE	ON	P0V 1V0
NATUASHIS	NL	A0P 1A0		SANIKILUAQ	NU	X0A 0W0
NEGGINAN	MB	R0B 0Z0		SHAMATTAWA	MB	R0B 1K0
NORMAN WELLS	NT	X0E 0V0		SIMOOM SOUND	BC	V0P 1S0
NORTH SPIRIT LAKE	ON	P0V 2G0		SOUTH INDIAN LAKE	MB	R0B 1N0
OCEAN FALLS	BC	V0T 1P0		ST-AUGUSTIN-SAGUENAY	QC	G0G 2R0
OGOKI	ON	P0T 2L0		ST THERESA POINT	MB	R0B 1J0
OLD CROW	YT	Y0B 1N0		STEVENSON ISLAND	MB	R0B 2H0
OONA RIVER	BC	V0V 1E0		STONY RAPIDS	SK	S0J 2R0
OWEEKENO	BC	V0N 3S0		STUART ISLAND	BC	V0P 1V0
OXFORD HOUSE	MB	R0B 1C0		SULLIVAN BAY	BC	V0N 3H0
PANGNIRTUNG	NU	X0A 0R0		SUMMER BEAVER	ON	P0T 3B0
PAUINGASSI	MB	R0B 2G0		SURGE NARROWS	BC	V0P 1W0
PAULATUK	NT	X0E 1N0		TADOULE LAKE	MB	R0B 2C0
PEAWANUCK	ON	P0L 2H0		TALOYOAK	NU	X0B 1B0
PIKANGIKUM	ON	P0V 2L0		TASIUJAQ	QC	J0M 1T0
POND INLET	NU	X0A 0S0		TÊTE-À-LA-BALEINE	QC	G0G 2W0
POPLAR HILL	ON	P0V 3E0		TROUT LAKE	NT	X0E 1Z0
POPLAR RIVER	MB	R0B 0Z0		TUKTOYAKTUK	NT	X0E 1C0
PORT-MENIER	QC	G0G 2Y0		TULITA	NT	X0E 0K0
POSTVILLE	NL	A0P 1N0		UMIUJAQ	QC	J0M 1Y0
PORT NEVILLE	BC	V0P 1M0		URANIUM CITY	SK	S0J 2W0
PUKATAWAGAN	MB	R0B 1G0		WAASAGOMACH	MB	R0B 1Z0
PUVIRNITUQ	QC	J0M 1P0		WARE	BC	V0J 3B0
QIKIQTARJUAQ	NU	X0A 0B0		WEAGAMOW LAKE	ON	P0V 2Y0
QUAQTAQ	QC	J0M 1J0		WEBEQUIE	ON	P0T 3A0
RAE LAKES	NT	X0E 1R0		WEKWETI	NT	X0E 1W0
RANKIN INLET	NU	X0C 0G0		WHA TI	NT	X0E 1P0
RED SUCKER LAKE	MB	R0B 1H0		WHALE COVE	NU	X0C 0J0
REFUGE COVE	BC	V0P 1P0		WILLIAMS HARBOUR	NL	A0K 5V0
REPULSE BAY	NU	X0C 0H0		WOLLASTON LAKE	SK	S0J 3C0
RESOLUTE	NU	X0A 0V0		WUNNUMMIN LAKE	ON	P0V 2Z0
RIGOLET	NL	A0P 1P0		YORK LANDING	MB	R0B 2B0
SACHIGO LAKE	ON	P0V 2P0				
SACHS HARBOUR	NU	X0E 0Z0				
SALLUIT	QC	J0M 1S0				

APPENDIX N   DESCRIPTION OF SUPPLEMENTARY PROGRAMS INCLUDED IN PCCF+

Note: Basic familiarity with SAS programming is required for use of these supplementary programs.

DIST5x.SAS is a supplementary program for calculating distances from each record on one file to the closest of many records on a second file. Use of this program requires that you have already generated two output files through previous use of *PCCF+* Version 5x. It first reads in both files. Then, for each record in the first file, it calculates the distance to each record in the second file. It retains only the minimum distance, plus the ID of the record in the second file for which the minimum distance was found. By default, the program assumes that you have previously defined two categories of records in the second file (for example, specialist and non-specialist physicians, or general hospitals and children's hospitals). You can modify the program to work with additional or fewer categories, defined and coded however you want.

EXPLODE2.SAS is a supplementary program to read in a data file containing counts for postal codes, and transform it into a file containing individual records, including a unique ID, for each occurrence of those postal codes. This is necessary for the data to be coded using *PCCF+*. A sample data file for testing this program is provided (GROUPED.TXT).

FIXPCBAD.SAS is a supplementary program for fixing common errors in Canadian postal codes. It is intended for preprocessing of files prior to coding using PCCF+. A sample data file for testing this program is provided (PCBAD.TXT).

HOUTDLM.SAS is a supplementary program for exporting PCCF+ output datasets to tab-delimited files (for use by Microsoft Excel or other programs).

HIST8106V5x.SAS is a supplementary program to look up and append QAIPPE for each census year from 1981 onwards. Additional data files are required to make use of this program.

FMT5xGEO.DOC can be used to format the .GEO file for printing, with column headers. Instructions are included within the .doc file.

FMT5xPRB.DOC can be used to format the .PRB file for printing, with column headers. Instructions are included within the .doc file.

FLATTXT.SAS can be used to convert a tab-delimited text file or SAS dataset to the fixed-column flat ASCII text file required as input to PCCF+.