

**CANADIAN COMMUNITY HEALTH SURVEY (CCHS)
CYCLE 2.1 (2003)**

MASTER FILE

GUIDELINES FOR THE USE OF SUB-SAMPLE VARIABLES

Statistics Canada

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CCHS Cycle 2.1 sub-samples

The CCHS Cycle 2.1 questionnaire consists of three types of questionnaire modules:

1. **Common content** - Questionnaire modules asked of all respondents in all health regions.
2. **Optional content** - Questionnaire modules included in the questionnaire at the discretion of health regions. When a module was included as optional content in a given health region, it was asked of all respondents in the region. The aim of optional content was to permit calculation of health region estimates.
3. **Sub-sample Content** - Questionnaire modules which were asked only of a subset of respondents. The aim was to permit calculation of provincial and national estimates while minimising response burden. Three sets of sub-sample modules were asked to three (separate but overlapping) sub-samples:

Sub - Sample 1: Dental Visits, Oral Health 2, HUI and Medication Use.

Sub - Sample 2: Driving and Safety

Sub - Sample 3: Patient Satisfaction and Access to Health Services

Variable naming convention for sub-sample modules

Variables from common and optional content modules are designated with a "C" in position 4 of the variable name; eg. SMKC₂₀₁.

Variables from sub-sample content modules are designated with a "Z" in position 4 of the variable name; eg. ACCZ₀₁.

With the exception of Access to Health Care Services, each of the sub-sample modules was also made available to health regions as optional content. For each of these modules, there are two sets of variables; eg. DENC₁₃₀ and DENZ₁₃₀. These variables are applicable or not applicable for a given respondent according to whether or not the respondent is a member of the relevant sub-sample **and** whether or not the respondent lives in a health region where the module was chosen as optional content. Table 1 illustrates the possibilities:

Table 1. Possible not-applicable values for typical sub-sample variable

Member of sub-sample 1	Respondent lives in HR where Dental Visits was chosen as optional content	
	YES	NO
YES	DENC ₁₃₀ and DENZ ₁₃₀ are applicable	DENC ₁₃₀ is not applicable and DENZ ₁₃₀ is applicable
NO	DENC ₁₃₀ is applicable and DENZ ₁₃₀ is not applicable	DENC ₁₃₀ and DENZ ₁₃₀ are not applicable

Sub-sample content appears on physically separate files

To encourage the appropriate use of CCHS data, sub-sample content is provided on physically separate files. Each file has a corresponding sample weight and set of bootstrap weights which must be used to produce valid estimates for all variables on the file.

N.B. CCHS 2.1 was originally released as a single data file, with common, optional and sub-sample content and sampling weights included on the same file. This file is subject to misuse and must be replaced with the set of four files described in Table 2.

Table 2. File names and content of CCHS 2.1 data files

File	File name	Sampling weight	Bootstrap weights file	Variables included
Main Master file	HS.txt	WTSC_M	b5.txt	All common and all optional modules. For modules which are part of both optional and sub-sample content, the "C" set of variables is included.
Sub-sample 1 master file	HS_S1.txt	WTSC_S1M	b5_s1.txt	All common modules plus the "Z" set of variables for the Dental Visits, Oral Health 2, HUI and Medication Use modules.
Sub-sample 2 master file	HS_S2.txt	WTSC_S2M	b5_s2.txt	All common modules plus the "Z" set of variables for the Driving and Safety module.
Sub-sample 3 master file	HS_S3.txt	WTSC_S3M	b5_s3.txt	All common modules, Access to Health Care Services module plus the "Z" set of variables for Patient Satisfaction module.

Analysis combining sub-sample and optional content

The aim of the CCHS sub-sample modules is to permit the calculation of estimates at the provincial and national levels. The sub-samples, and their associated weights, are not intended to support health region level estimates.

With the exception of Access to Health Services, however, all sub-sample modules were also selected by at least one health region as optional content, as shown in Table 3.

Table 3 Sub-sample modules which were also selected as optional content

Sub-Sample	Provinces where sub-sample modules were chosen by all health regions in a province
1	<ul style="list-style-type: none">• Dental Visits (PEI, Québec, Alberta, BC)• Oral Health 2 (BC)• HUI (Newfoundland, PEI, Nova Scotia, New Brunswick, Québec)• Medication Use (BC)
2	<ul style="list-style-type: none">• Driving and Safety (Nova Scotia, Ontario, Manitoba, Alberta and Yukon)
3	<ul style="list-style-type: none">• Patient Satisfaction (PEI, Nova Scotia, New Brunswick)

When a module from **sub-sample 1 or sub-sample 3** is chosen as optional content by all health regions in a province it is possible to calculate health region and provincial estimates of the variables in that module using the main **master file and the master sampling weight**. This offers the advantage of a larger sample size therefore smaller sampling error. (Sample sizes for the main master file and each of the sub-sample files are summarised in Tables 4-7). The provincial estimate can then be compared to the estimate for other provinces calculated using the appropriate sub-sample file and sub-sample sampling weight.

Notes:

1) This does not apply to sub-sample 2, which already includes all records from provinces where Driving and Safety was selected as optional content.

2) It is not possible to produce a cross-tabulation or multivariate model using a combination of variables from different sub-samples.

Table 4. Sample sizes by province/territory for main master file

Province / Territory	Sample size of main master file
CANADA	135,573
Newfoundland and Labrador	4,054
Prince Edward Island	2,062
Nova Scotia	4,956
New Brunswick	4,929
Québec	29,100
Ontario	42,777
Manitoba	7,632
Saskatchewan	7,587
Alberta	13,871
British Columbia	16,058
Yukon	778
Northwest Territories	1,054
Nunavut	715

Table 5. Sample sizes by province/territory for sub-sample 1

Province / Territory	Sample size of sub-sample 1
CANADA	38,072
Newfoundland and Labrador	1,876
Prince Edward Island	1,359
Nova Scotia	2,614
New Brunswick	1,740
Québec	6,463
Ontario	7,841
Manitoba	2,873
Saskatchewan	1,778
Alberta	4,379
British Columbia	4,602
Yukon	778
Northwest Territories	1,054
Nunavut	715

1. Four respondents with item non-response (don't know, refusal, not stated) to the first question in each module (DENZ_130, OH2Z_10, HUIZ_01 and MEDZ_1A) were excluded from sub-sample 1.

Table 6. Sample sizes by province/territory for sub-sample 2

Province / Territory	Sample size of sub-Sample 2
CANADA	86,467
Newfoundland and Labrador	1,829
Prince Edward Island	1,286
Nova Scotia	4,822
New Brunswick	1,703
Québec	6,156
Ontario	41,143
Manitoba	7,438
Saskatchewan	1,758
Alberta	13,426
British Columbia	4,423
Yukon	764
Northwest Territories	1,018
Nunavut	701

1. **2,572** respondents where either the interview was conducted by proxy or where there was item non-response (don't know, refusal or not stated) to the first question of the module (DRVZ_01A) were excluded from sub-sample 2. Sampling weights were adjusted to reflect this exclusion.

2. In **4** provinces/territories (Nova Scotia, Ontario, Manitoba, Alberta) in which all health regions selected Driving and Safety as optional content, all respondents except those excluded for reasons of proxy interview or non-response to DRVZ_01A were included in sub-sample 2.

Table 7. Sample sizes by province/territory for sub-sample 3

Province / Territory	Sample size of sub-sample 3
CANADA	36,788
Newfoundland and Labrador	1,630
Prince Edward Island	1,055
Nova Scotia	2,324
New Brunswick	1,716
Québec	5,845
Ontario	7,019
Manitoba	3,002
Saskatchewan	2,375
Alberta	5,003
British Columbia	5,164
Yukon	571
Northwest Territories	722
Nunavut	362

1. **Three** respondents with item non-response to the first question of each module (PASZ_11 and ACCZ_10) were excluded from sub-sample 3.

2. In the three territories (Yukon, Northwest Territories and Nunavut), data collection was conducted largely from January-March 2003 and from September-November 2003. Data collection for sub-sample 3 began in April 2003. This resulted in slightly reduced sample sizes for these three territories.

3. Sub-sample 3 includes only those aged 15 and older.

Other considerations

Data dictionary

Separate data dictionary reports, including universe statements and frequencies, are provided for the main master file and each of the three sub-sample files.

In the master file data dictionary reports, optional content modules are treated in the same way as for CCHS 1.1. For each module, a flag indicates whether a given respondent lives in a health region where the module was selected as optional content. When the flag is equal to 2 (No), all variables in the module have not applicable values. For example, the variable PASCFOPT indicates whether the module Patient Satisfaction is applicable for a given respondent.

Population totals

For the first time, the health region "Terres-Cries-de-la-Baie-James", an isolated health region in the north of Québec, is included in CCHS. Main master file sampling weights are calibrated so that they add to the total Canadian population aged 12 and older, **including** this health region (26,578,128).

Because data collection for this health region was conducted on a cost recovery basis, respondents were not identified to be part of any sub-sample. Consequently, there are no records for this health regions on any of the sub-sample files.

In addition, the sampling weights for sub-samples 1 and 2 are calibrated so that they add to total Canadian population aged 12 and older, **excluding** this health region (26,567,928). The sampling weights for sub-sample 3 (in which all modules apply to respondents aged 15 and older) are calibrated so that they add to the total Canadian population aged 15 and older, **excluding** this health region (25,317,743).

Differences in calculation of common content variables using different files

Variables from common content modules can be estimated using any of the four master files provided. Depending on which file is used, very small differences will be observed.

All official Statistics Canada estimates of variables from common modules are based on the master file sampling weight.

Sub-sample 3 and the Health Services Access Survey (HSAS)

In addition to the main CCHS master file and sub-sample files, data from the Health Services Access Survey are supplied on separate files, with their own bootstrap weights and data dictionary reports.

HSAS 2003 was conducted as a supplement to the Canadian Community Health Survey (CCHS) Cycle 2.1. The total sample size is 32,005. All 10 provinces are fully included and all territories are excluded. A breakdown of sample size by province is shown in Table 8.

Table 8. Sample size by province for HSAS 2003 – Master file

Province	Sample size of HSAS – Master file
CANADA	32,005
Newfoundland and Labrador	2,520
Prince Edward Island	1,250
Nova Scotia	2,930
New Brunswick	2,895
Québec	3,876
Ontario	4,506
Manitoba	3,325
Saskatchewan	3,236
Alberta	3,352
British Columbia	4,115

Data collection for HSAS was integrated with CCHS in the following ways:

Part A: A total of 18,091 respondents were interviewed for HSAS at the same time as their CCHS interview. All of these respondents are also members of CCHS sub-sample 3. These interviews were conducted between September and December 2003 (plus 45 interviews in January 2004).

Part B: A total of 12,031 respondents were re-contacted after having been interviewed previously for CCHS. All of these respondents **were not** part of sub-sample 3 during their first interview. These respondents were asked the Access to Health Services and Waiting Times modules during their second interview. Respondents to Part B of HSAS **are not** included in Sub-sample 3. The original interviews for this part of the HSAS sample were conducted between January and October 2003 and the re-contact interviews were conducted between October and December 2003 (with 8 interviews in January 2004).

The HSAS file consists of two questionnaire modules - Access to Health Care Services and Waiting Times – plus selected variables from selected optional content modules. With the exception of the Waiting Times module, all variables which appear on the HSAS file also appear on the CCHS sub-sample 3 file. It is therefore possible to calculate estimates for these variables using either the HSAS sample weight or the CCHS sub-sample 3 weight, as follows:

HSAS variable	Estimates possible using HSAS sample weight	Estimates possible using CCHS sub-sample weight
GEOC_PRV → ACCC_67M	WTSC_HSM	WTSC_S3M (HS_S3.txt)
WTMCFDO → WTMCDTA	WTSC_HSM	Not applicable

It is recommended that the HSAS master weight be used to calculate estimates of these variables.

An exception to this guideline exists in the larger provinces (Québec, Ontario, Alberta and British Columbia) where the sample size of sub-sample 3 is greater than that of HSAS. For these provinces, estimates of the Access variables can be calculated with smaller sampling error using the file HS_S3.txt and the sampling weight WTSC_S3M.

All official Statistics Canada estimates of variables from the Access to Health Services and Waiting Times modules are calculated using the HSAS master weight. Consequently, estimates produced using either the HSAS share weight or the sub-sample 3 share weight will differ slightly from official estimates.

Questions

For any questions related to the appropriate use of CCHS sub-sample data, please contact the Data Access Unit at:

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