Statistics Canada

National Population Health Survey

Health Institutions Component

Cycles 1 to 5 (1994/1995 to 2002/2003)

Derived Variable Documentation
(Specifications)
(Including description of longitudinal variables**)**

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DERIVED VARIABLE SPECIFICATIONS

These specifications describe the derived variables as they appear on the NPHS Health Institutions Files. This section describes how these variables were calculated. It also describes some of the coding structures. Derived variable names are indicated by a “D" appearing in the fifth position of the variable name. Some derived variables have been grouped to facilitate their use. The fifth position of the variable name called grouped is a “G”. In general, a derived variable was not calculated if any part of the equation was not answered (e.g. don't know, refusal, and not stated). In these cases, the code assigned to the derived variable was "not stated". All Cycle 5 derived variables are set to “not stated” (9 filled) for Cycle 1, Cycle 2, Cycle 3 and Cycle 4 respondents who died before the Cycle 5 interview. These differences mean that some care must be taken when comparing Cycle 1, Cycle 2, Cycle 3, Cycle 4 and Cycle 5 variables.

1. CONSTANT LONGITUDINAL VARIABLES

There are some variables that are considered “constant”. The following table presents the variables that appear only once on the data file. The names of these variables do not follow the standard naming convention.

Longitudinal Name	Concept
DOB	Day of birth
MOB	Month of birth
YOB	Year of birth
SEX	Sex
COB	Country of birth
COBC	Code of country of birth
COBGC	Code of country of birth - grouped
IMM	Immigration status
YOI	Year of immigration to Canada
AOI	Age at time of immigration
DOD	Day of death
MOD	Month of death
YOD	Year of death
AOD	Age at time of death
COD9	Cause of death code (ICD-9)
CODG9	Cause of death code – grouped (ICD-9)
COD10	Cause of death code (ICD-10)
CODG10	Cause of death code – grouped (ICD-10)

1.1. Code for Country of Birth
Longitudinal Name: COBC

Based on COB* (Source: SDI*n*_1). This variable is conceptually the same as SDI*n*CCB in Cycle 2 (1996).

*Note: Data users should note that the data in the variable COB have changed since Cycle 3 (1998). A processing error was discovered following Cycle 3 (1998) in which the counts did not correctly match the labels. In Cycle 4 (2000), this error was corrected and the data now match the labels correctly. Cycle 1 (1994) and Cycle 2 (1996) are not affected by this. COBC and COBGC were also not affected.

This derived variable COBC is coded automatically from COB and "Other specify" write-in answers using the 1996 Reference file for Place of Birth by alphabetic and numeric order from the Census.

On the longitudinal file, country of birth code appears only once on the file under the variable name COBC, instead of once for each cycle. *See Appendix C* for the code list.

1.2. Code for Country of Birth - Grouped
Longitudinal Name: COBGC

Based on COBC (Source: SDI*n*_1). This variable is conceptually the same as SDI*n*GCB7 in Cycle 1 (1994) and in Cycle 2 (1996).

This variable classifies the respondent based on his/her country of birth in specific groups.

On the longitudinal file, the grouped country of birth code appears only once on the file under the variable name COBGC, instead of once for each cycle. *See Appendix C* for the code list.

Code	Description	Condition
1	Canada	COBC>0 and <14
2	Other North America	(COBC >=100 and <200) or (COBC=206)
3	South, Central America and Caribbean	(COBC>200 and <206) or (COBC>206 and <500)
4	Europe	COBC >=500 and <600
5	Africa	COBC >=600 and <700
6	Asia	COBC >=700 and <800
7	Oceania	COBC >=800 and <900
96	Not applicable	COBC=9996
99	Not stated	Otherwise

1.3. Immigration Status

Longitudinal Name: IMM

Based on COB (Source: SDI*n*_1).

This derived variable indicates whether or not the respondent is an immigrant.

On the longitudinal file, the immigration flag appears only once on the file under the variable name IMM, instead of once for each cycle.

Code	Description	Condition
1	Yes	COB >=2 and COB <=17
2	No	COB=1
9	Not stated	Otherwise

1.4. Age at Time of Immigration

Longitudinal Name: AOI

Source*: General Social Survey - Health, Cycle 6 (1991)*

Statistics Canada's Web Site*: www.statcan.ca/english/sdds/3894.htm*

Based on YOI (year of immigration to Canada) and YOB (year of birth). This variable is conceptually the same as SDI*n*DAIM in Cycle 1 (1994) and in Cycle 2 (1996).

This derived variable indicates the age of the respondent at their time of immigration to Canada.

On the longitudinal file, age at immigration appears only once on the file under the variable name AOI, instead of once for each cycle.

Code	Description	Condition
0-135	Age at immigration	If YOI<9995 then AOI=YOI-YOB
996	Not applicable	YOI=9995 or YOI=9996
999	Not stated	YOI=9997, 9998 or 9999

1.5. Day of Death

Longitudinal Name: DOD

Based on DHI*n*_DOD

This variable is based on collected data, updated (if needed) when matched to the Canadian Vital Statistics Death Database. On the longitudinal file, day of death appears only once on the file under the variable name DOD, instead of once for each cycle. In every cycle, day of death may reflect updated information (e.g. a different day of death following a match with the Canadian Vital Statistics Death Database).

1.6. Month of Death
Longitudinal Name: MOD

Based on DHI*n*_MOD

This variable is based on collected data, updated (if needed) when matched to the Canadian Vital Statistics Death Database. On the longitudinal file, month of death appears only once on the file under the variable name MOD, instead of once for each cycle. In every cycle, month of death may reflect updated information (e.g. a different month of death following a match with the Canadian Vital Statistics Death Database).

1.7. Year of Death
Longitudinal Name: YOD

Based on DHI*n*_YOD

This variable is based on collected data, updated (if needed) when matched to the Canadian Vital Statistics Death Database. On the longitudinal file, year of death appears only once on the file under the variable name YOD, instead of once for each cycle. In every cycle, year of death may reflect updated information (e.g. a different year of death following a match with the Canadian Vital Statistics Death Database).

1.8. Age at Time of Death
Longitudinal Name: AOD

Based on birth date (DOB, MOB, YOB), and date of death (DOD, MOD, YOD) of the respondent. This variable is conceptually the same as DHI*n*DAGD in Cycle 2 (1996). There are two different dates of death available.

DHI*n*_DOD, DHI*n*_MOD, DHI*n*_YOD are coded dates from the mortality data files for 1995 through 2002. These dates are assumed to be the most accurate when the two dates are available.

AOD = (DOD, MOD, YOD) - (DOB, MOB, YOB)

On the longitudinal file, the derived age at time of death appears only once on the file under the variable name AOD, instead of once for each cycle. In every cycle, age at time of death may reflect updated information (e.g. a different date of death following a match with the Canadian Vital Statistics Death Database). For some deaths only the captured dates are available.

1.9. Cause of Death Code (ICD-9)
Longitudinal Name: COD9

Statistics Canada's Web Site: *www.statcan.ca/english/sdds/3233.htm*

Based on the International Classification of Diseases, 9th revision (ICD-9). This variable is conceptually the same as DHI*n*CCOD in Cycle 2 (1996), and COD in Cycle 4 (2000).

Records with final status = “dead” are matched to the Canadian Vital Statistics Death Database. This code, called the “Underlying Cause of Death” is based on the International Classification of Diseases, 9th revision. The code represents the disease or injury that initiated the sequence of events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.

On the longitudinal file, cause of death code (ICD-9) appears only once on the file under the variable name COD9, instead of once for each cycle.

For more information, consult the Statistics Canada website.

1.10. Cause of Death Code (ICD-9) - Grouped
Longitudinal Name: CODG9

Source: *Causes of Death, 1995* (Catalogue No. 84-208) *and Leading Causes of Death at Different Ages, 1995* (Catalogue No. 84-503-XPB).

Based on the International Classification of Diseases, 9th revision and COD9. This variable is conceptually the same as CODG in Cycle 4 (2000).

This variable puts the cause of death code (COD9) into groups consistent with other Statistics Canada publications on cause of death.

Code	Description	Condition
1	Infectious and parasitic diseases	COD >=0010 and <=1399
2	Neoplasms	COD >=1400 and <=2399
3	Endocrine, nutritional, metabolic, and immunity disorders	COD >=2400 and <=2799
4	Blood and blood-forming organs	COD >=2800 and <=2899
5	Mental disorders	COD >=2900 and <=3199
6	Nervous system and sense organs	COD >=3200 and <=3899
7	Circulatory system	COD >=3900 and <=4599
8	Respiratory system	COD >=4600 and <=5199
9	Digestive system	COD >=5200 and <=5799
10	Genito-urinary system	COD >=5800 and <=6299
11	Pregnancy, childbirth	COD >=6300 and <=6769
12	Skin and subcutaneous tissue	COD >=6800 and <=7099
13	Musculo-skeletal, connective tissue	COD >=7100 and <=7399
14	Congenital anomalies	COD >=7400 and <=7599
15	Causes of perinatal mortality	COD >=7600 and <=7799
16	Symptoms, signs and ill-defined conditions	COD >=7800 and <=7999
17	External causes of injury and poisoning	COD >=E8000 and <=E9999
96	Not applicable	COD=99996
99	Not stated	COD=99999

1.11. Cause of Death Code (ICD-10)

Longitudinal Name: COD10

Statistics Canada's Web Site: *www.statcan.ca/english/sdds/3233.htm*

Based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).

Records with final status = "dead" are matched to the Canadian Vital Statistics Death Database (CVSDD). For Cycles 1 to 5 the match was done using the 1994 to 2002 Death Databases. This code, called the "Underlying Cause of Death" is based on the International Statistical Classification of Diseases, 10th revision. The code represents the disease or injury that initiated the sequence of events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury. For more information, consult the Statistics Canada website (see link below).

On the longitudinal file, cause of death code (ICD-10) appears only once on the file under the variable name COD10, instead of once for each cycle.

1.12. Cause of Death Code (ICD-10) - Grouped

Longitudinal Name: CODG10

Based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), and COD10.

***Statistics Canada's Web Site**: www.statcan.ca/english/sdds/3233.htm*

This variable puts the cause of death code (COD10) into groups consistent with other Statistics Canada publications on cause of death.

Code	Description	Condition
1	Certain Infectious and parasitic diseases	COD >=A000 and <=B99
2	Neoplasms	COD >=C000 and <=D489
3	Diseases of the blood and blood-forming organs and certain disorders involving theimmune mechanism	COD >=D500 and <=D899
4	Endocrine, nutritional and metabolic diseases	COD >=E000 and <=E90
5	Mental and behavioral disorders	COD >=F000 and <=F99
6	Diseases of the nervous system	COD >=G000 and <=G998
7	Diseases of the eye and adnexa	COD >=H000 and <=H599
8	Diseases of the ear and mastoid process	COD >=H600 and <=H959
9	Diseases of the circulatory system	COD >=I00 and <=I99
10	Diseases of the respiratory system	COD >=J00 and <=J998
11	Diseases of the digestive system	COD >=K000 and <=K938
12	Diseases of the skin/subcutaneous tissue	COD >=L00 and <=L998
13	Diseases of the musculoskeletal system and connective tissue	COD >=M000 and <=M999
14	Diseases of the genitourinary system	COD >=N000 and <=N999

Code	Description	Condition
15	Pregnancy, childbirth and the puerperium	COD >=O000 and <=O998
16	Certain conditions originating in the perinatal period	COD >=P000 and <=P969
17	Congenital malformations, deformations and chromosomal abnormalities	COD >=Q000 and <=Q999
18	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, nec	COD >=R000 and <=R99
19	Injury, poisoning and certain other consequence of external causes	COD >=S000 and <=T983
20	External causes of mortality	COD >=V01 and <=Y98
21	Factors influencing health status and contact with health services	COD >=Z000 and <=Z999
22	Provisional codes for research and temporary assignment codes for special purposes	COD >=U00 and <=U99
96	Not applicable	COD=9996
99	Not stated	COD=9999

CONSTANT LONGITUDINAL VARIABLES DROPPED:

1. Cause of death
Cycle 4 Name: COD (replaced by COD9)
Reason: *to distinguish from COD10*

2. Cause of death grouped
Cycle 4 Name: CODG (replaced by CODG9)
Reason: *to distinguish from CODG10*

2. ALCOHOL (AL)

2.1. Type of Drinker

Cycle 5 Name: ALI2DTYP
Cycle 4 Name: ALI0DTYP
Cycle 3 Name: ALI8DTYP
Cycle 2 Name: ALI6DTYP
Cycle 1 Name: ALI4DTYP

Source*: General Social Survey - Health, Cycle 6 (1991)*

Statistics Canada's Web Site*: www.statcan.ca/english/sdds/3894.htm*

Based on ALI*n*_2 and ALI*n*_3.

This derived variable indicates the type of drinker the respondent is, based on his/her drinking habits.

Note: Responses to ALI4_2 in Cycle 1 (1994) and ALI6_2 in Cycle 2 (1996) are in the reverse order. In Cycle 1 the response categories went from “every day” to “less than once a month” and in Cycle 2 and beyond, the categories went from “less than once a month” to “every day”. The following specifications reflect the ordering from Cycle 2 and beyond.

Code	Description	Condition
1	Regular drinker	ALI*n*_2>1 and ALI*n*_2<96
2	Occasional drinker	ALI*n*_2=1
3	Non-drinker now	ALI*n*_3=1
4	Never drank	ALI*n*_3=2
6	Not applicable	ALI*n*_2=96 and ALI*n*_3=6
9	Not stated	Otherwise

3. ADMINISTRATION (AM)

3.1. Longitudinal Response Pattern

Longitudinal Name: LONGPAT

Based on AMI2_FS, LONGPAT, and AMI2_LOC. This variable is conceptually the same as SPI6LPAT in Cycle 2 (1996).

This variable concatenates all response patterns over the years (the 1st digit being Cycle 1 (1994), the 2nd, Cycle 2 (1996), etc.). In each cycle, the latest response code is concatenated to the longitudinal response pattern from the previous cycle. The codes for each cycle are:

Code	Description
1	Household - full and partial responses
2	Deceased
3	Institutionalized - full and partial responses
5	Non-response

For example, for a record with LONGPAT = 35332, this respondent completed the survey in Cycle 1, was a non-response in Cycle 2, completed the survey in Cycle 3 and Cycle 4 and was deceased by Cycle 5. Partial responses were given the same longitudinal response pattern as a full response.

This derived variable appears only once on the file under the variable name LONGPAT, instead of once for each cycle.

3.2. Agreement to Share

Longitudinal Name: SHARE

Based on AMI2_SHR, SHARE (Cycle 4) and LONGPAT. This variable is conceptually the same as AMI6LSHR in Cycle 2 (1996) and AMI8_SHA in Cycle 3 (1998).

The respondent agrees to share collected information for all Cycles. This derived variable appears only once on the file under the variable name SHARE, instead of once for each cycle.

Code	Description	Condition
1	Yes	AMI2_SHR = 1
2	No	Else AMI2_SHR = 2
1	Yes	Else AMI2_SHR = 6 or 9 and SHARE (Cycle 4*) = 1 and LONGPAT (fifth digit) = 2 or 5
2	No	Otherwise

*The variable SHARE (Cycle 4) is based on AMI4_SHR, AMI6_SHR, AMI8_SHA, AMI0_SHR and LONGPAT. For more details, see Derived Variable Documentation, Cycle 4.

3.3. Type of Respondent

Cycle 5 Name: N/A
Cycle 4 Name: N/A
Cycle 3 Name: N/A
Cycle 2 Name: AMI6DCOD
Cycle 1 Name: N/A

This variable identifies sample type of respondents

Code	Description	Condition
1	L94 - Longitudinal resident	Assigned after Cycle 2 collection
2	M94 - Mover since Cycle 1 - long.	Assigned after Cycle 2 collection
3	ML94 - Mover during Cycle 2	Assigned after Cycle 2 collection
4	L96 - Cycle 2 cross-sectional sample (only for top-up)	Assigned after Cycle 2 collection
9	Not stated	Created during processing

3.4. Institution Mover Status

Longitudinal Name: MOVER

Based on LONGPAT, AMI*n*_ST, and AMI*n*_IN. This variable is conceptually the same as AMI8LMOV in Cycle 3 (1998).

This derived variable appears only once on the file under the variable name MOVER, instead of once for each cycle.

This variable concatenates all response patterns over the years (the 1st digit being Cycle 1 (1994), the 2nd being Cycle 2 (1996), etc.). For cycle 5, the variable is 5 bytes (alphanumeric) long. Each position stands for where the respondent was in each cycle. By definition, every respondent was in the original institution in cycle 1. Institutional moves are identified, as well as moves to a household and moves back to an institution. Moves from one household to another household are not. "Not stated" includes respondents who have died, as well as non-respondents to the survey.

Each position of the variable can take the following value:

Code	Description	Condition
1	original institution	
2	second institution	Note: Not used in position 1
3	third institution	Note: Not used in positions 1 and 2
4	fourth institution	Note: Not used in positions 1, 2 and 3
5	fifth institution	Note: Not used in positions 1, 2, 3 and 4
6	in household	Note: Not used in position 1
9	not stated	Note: Not used in position 1

Example 1: '11229' means that a respondent was at the same institution for cycles 1 and 2, moved to a different institution between cycles 2 and 3, was still at the second institution in cycle 4 and by cycle 5 had died or was a non-respondent to the survey.

Example 2: '16622' means that a respondent moved to a household between cycles 1 and 2, was still in a household in cycle 3, then moved to another institution between cycles 3 and 4 and was still at the second institution in cycle 5.

Detailed specifications:

First 4-digits of Cycle 5 MOVER = MOVER from Cycle 4 (Mover=4digits)

If 5th digit of LONGPAT = 1 then 5th digit of MOVER = 6 (move to a household)
If 5th digit of LONGPAT = 2 then 5th digit of MOVER = 9 (respondent deceased)
If 5th digit of LONGPAT = 5 then 5th digit of MOVER = 9 (non response)

If 5th digit of LONGPAT = 3 (in institution) then do:

If AMI2_ST=AMI0_ST and AMI2_IN=AMI0_IN then
5th digit of MOVER=4th digit of MOVER

Else if AMI2_ST=AMI8_ST and AMI2_IN=AMI8_IN then
5th digit of MOVER=3rd digit of MOVER

Else if AMI2_ST=AMI6_ST and AMI2_IN=AMI6_IN then
5th digit of MOVER=2nd digit of MOVER

Else if AMI2_ST=AMI4_ST and AMI2_IN=AMI4_IN then
5th digit of MOVER=1st digit of MOVER

Else do:
If 4th digit of MOVER <= 4 then 5th digit = 4th digit + 1
Else if 3rd digit of MOVER <= 4 then 5th digit = 3rd digit + 1
Else if 2nd digit of MOVER <= 4 then 5th digit = 2nd digit + 1
Else if 1st digit of MOVER <= 4 then 5th digit = 1st digit +1
End
End

3.5. Type of Health Institution

Cycle 5 Name: SPI2DFTP
Cycle 4 Name: SPI0DFTP
Cycle 3 Name: SPI8DFTP
Cycle 2 Name: SPI6DFTP
Cycle 1 Name: SPI4DFTP

Based on the second digit of AMI*n*_ST, or all of AMI*n* _ST.

*Note: In Cycle 1, code 4 was not possible.

Code	Description	Condition
1	Facility for the aged	substr(AMI*n* _ST,2,1)=1
2	Cognitive care	substr(AMI*n*_ST,2,1)=2

3	Other rehabilitative facility	substr(AMI*n*_ST,2,1)=3
4	In private household	*AMI*n*_ST=199, 299, 399, 499, 599
9	Not stated	AMI*n*_ST=999

SAMPLE AND ADMINISTRATION VARIABLES DROPPED:

1. Longitudinal Response Pattern
Cycle 2 Name: SPI6LPAT
Reason: *Replaced by Longitudinal Variable – LONGPAT*

2. Type of health institution - Grouped
Cycle 2 Name: SPI6GFTP
Cycle 1 Name: SPI4GFTP
Reason*: Grouped Variable (PUMF only)*

3. Agreement to Share
Cycle 3 Name: AMI8_SHA
Cycle 2 Name: AMI6LSHR
Cycle 1 Name: AMI4_SHR
Reason: *Replaced by Longitudinal Variable – SHARE*

4. Institution Mover Status
Cycle 3 Name: AMI8LMOV
Reason: *Replaced by Longitudinal Variable – MOVER*

4. CHRONIC CONDITIONS (CC)

4.1. Number of Chronic Conditions

Cycle 5 Name: CCI2DNUM
Cycle 4 Name: CCI0DNUM
Cycle 3 Name: CCI8DNUM
Cycle 2 Name: CCI6DNUM
Cycle 1 Name: CCI4DNUM

Based on CCI*n*_1A to CCI*n*_1W.

This derived variable indicates the number of chronic conditions for the respondent.

The chronic condition list changed in Cycle 3 (1998).

For Cycle 5, based on CCI2_1A to CCI2_1W (maximum possible = 23).
For Cycle 4, based on CCI0_1A to CCI0_1W (maximum possible = 23).
For Cycle 3, based on CCI8_1A to CCI8_1W (maximum possible = 23).
For Cycle 2, based on CCI6_1A to CCI6_1V (maximum possible = 22).
For Cycle 1, based on CCI4_1A to CCI4_1I, CCI4_44J, CCI4_1L to CCI4_1O, CCI4_44O, CCI4_1Q, CCI4_44Q to CCI4_44V, CCI4_1V and CCI4_1W (maximum possible = 24).

If the person answering either refused or didn't know whether the respondent has a chronic condition, then the number of conditions variable is set to "not stated".

Code	Description	Condition
0-23 (or 24)	Number of chronic conditions	Sum of "yes" answers for CCI*n*_1A to CCI*n*_1W
96	Not applicable	CCI*n*_1A=6
99	Not stated	Any of CCI*n*_1A to 1X=7, 8 or 9

5. DRUG USE (DG)

5.1. Coded Drug #1 to Drug #12

Cycle 5 Name: DGI2C3A to DGI2C3L
Cycle 4 Name: DGI0C3A to DGI0C3L
Cycle 3 Name: DGI8C3A to DGI8C3L
Cycle 2 Name: DGI6C3A to DGI6C3L
Cycle 1 Name: DGI4C3A to DGI4C3L

Internet Site**:** *Health Canada: www.hc-cs.gc.ca/dhp-mps/prodpharma/databasdon/index_e.htm*

The drug classification is based on the Anatomical Therapeutic Chemical (ATC) Classification developed by the World Health Organization as available on the Health Canada Drug Product Database (DPD) in September 2003. A complete revision of the drug codes was done for all NPHS longitudinal respondents for Cycle 5 (2002/2003) and for all previous cycles. A complete list of codes used by the NPHS is available upon request.

5.2. Coded Drug #1 to Drug #12 - Grouped

Cycle 5 Name: DGI2G3A to DGI2G3L
Cycle 4 Name: DGI0G3A to DGI0G3L
Cycle 3 Name: DGI8G3A to DGI8G3L
Cycle 2 Name: DGI6G3A to DGI6G3L
Cycle 1 Name: DGI4G3A to DGI4G3L

Based on DGI*n*C3A to DGI*n*C3L. *See Appendix B*.

The drug classification is based on the Anatomical Therapeutic Chemical (ATC) Classification developed by the World Health Organization as available on the Health Canada Drug Product Database (DPD) in September 2003. For the grouped variables, the codes used are not the actual ATC codes, but are numbers from 1 to 26 that correspond to the first letter of the assigned drug code ranging from A to Z. *See Appendix B* for the code list.

Code	Description	Condition
1	Alimentary tract & metabolism	substr (DGI*n*C3*x*,1,1)='A'
2	Blood & blood forming organs	substr (DGI*n*C3*x*,1,1)='B'
3	Cardiovascular system	substr (DGI*n*C3*x*,1,1)='C'
4	Dermatologicals	substr (DGI*n*C3*x*,1,1)='D'
7	Genito-urinary / sex hormones	substr (DGI*n*C3*x*,1,1)='G'
8	Systemic hormonal preparations	substr (DGI*n*C3*x*,1,1)='H'
10	General anti-infectives	substr (DGI*n*C3*x*,1,1)='J'
12	Antineoplastics	substr (DGI*n*C3*x*,1,1)='L'
13	Musculo-skeletal system	substr (DGI*n*C3*x*,1,1)='M'
14	Nervous system	substr (DGI*n*C3*x*,1,1)='N'
16	Antiparasitic products	substr (DGI*n*C3*x*,1,1)='P'
18	Respiratory system	substr (DGI*n*C3*x*,1,1)='R'
19	Sensory organs	substr (DGI*n*C3*x*,1,1)='S'
22	Various	substr (DGI*n*C3*x*,1,1)='V'

Code	Description	Condition
24	Natural medicines	substr (DGI*n*C3*x*,1,1)='X'
26	Unknown medications or health products	substr (DGI*n*C3*x*,1,1)='Z'
96	Not applicable	DGI*n*C3*x*='9999996'
99	Not stated	DGI*n*C3*x*='9999997' or '9999998' or '9999999'

6. HOUSEHOLD VARIABLES - DEMOGRAPHICS (DH)

6.1. Age at Admission in the Facility

Cycle 5 Name: DHI2DADM
Cycle 4 Name: DHI0DADM
Cycle 3 Name: DHI8DADM
Cycle 2 Name: DHI6DADM
Cycle 1 Name: DHI4DADM

Based on DHI*n*DAGE (Source: MOB, YOB, AMI*n*_BMM, AMI*n*_BYY) and DHI*n*DSTY (Source: AMI*n*_BMM, AMI*n*_BYY, DHI*n*_MOA, DHI*n*_YOA).

This derived variable indicates the respondent's age at admission in the facility.

DHI*n*DADM = DHI*n*DAGE – DHI*n*DSTY (age at admission = derived age - derived length of stay)

Note: This variable is set to "not applicable" for respondents who live in a private household.

6.2. Age at Interview

Cycle 5 Name: DHI2DAGE
Cycle 4 Name: DHI0DAGE
Cycle 3 Name: DHI8DAGE
Cycle 2 Name: DHI6DAGE
Cycle 1 Name: DHI4DAGE

Based on birth date (MOB, YOB) and date of interview (AMI*n*_BMM, AMI*n*_BYY).

This derived variable indicates the respondent's age at time of interview.

DHI*n*DAGE = (AMI*n*_BMM, AMI*n*_BYY) - (MOB, YOB).

Note: For cycles 3, 4 and 5, the internal names for date of interview AMI*n*_MOI and AMI*n*_YOI was used in the program, but AMI*n*_BMM and AMI*n*_BYY were the external names. This variable is derived in the reformat stage of processing, since it is needed for edits.

6.3. Length of Stay in the Facility

Cycle 5 Name: DHI2DSTY
Cycle 4 Name: DHI0DSTY
Cycle 3 Name: DHI8DSTY
Cycle 2 Name: DHI6DSTY
Cycle 1 Name: DHI4DSTY

Based on date of interview (AMI*n*_BMM, AMI*n*_BYY), and date of admission in the facility (DHI*n*_MOA, DHI*n*_YOA).

This derived variable indicates the respondent's length of stay in the facility.

DHI*n*DSTY = (AMI*n*_BYY, AMI*n*_BMM) - (DHI*n*_YOA, DHI*n*_MOA)

Answers expressed in years.

Note: This variable is set to "not applicable" for people who live in households. Also, for cycles 3, 4 and 5, internal names for date of interview AMI*n*_MOI and AMI*n*_YOI were used in the program, but AMI*n*_BMM and AMI*n*_BYY were the external names.

HOUSEHOLD VARIABLES DROPPED:

1. Day of Death
Cycle 2 Name: DHI6CDOD
Reason: *Replaced by Longitudinal Variable – DOD*

2. Month of Death
Cycle 2 Name: DHI6CMOD
Reason: *Replaced by Longitudinal Variable – MOD*

3. Year of Death
Cycle 2 Name: DHI6CYOD
Reason: *Replaced by Longitudinal Variable – YOD*

4. Cause of Death
Cycle 2 Name: DHI6CCOD
Reason: *Replaced by Longitudinal Variables – COD9 and COD10*

5. Cause of Death - Grouped
Cycle 2 Name: DHI6GCOD
Reason: *Replaced by Longitudinal Variables – CODG9 and CODG10*

6. Age at time of death
Cycle 2 Name: DHI6DAGD
Reason: *Replaced by Longitudinal Variable – AOD*

7. Age - 10 year groups - Grouped
Cycle 2 Name: DHI6GA10
Cycle 1 Name: DHI4GA10
Reason*: Grouped Variable (PUMF only)*

8. Age at admission into the facility - Grouped
Cycle 2 Name: DHI6GAD1
Cycle 1 Name: DHI4GAD1
Reason*: Grouped Variable (PUMF only)*

9. Age at admission - 10 year groups
Cycle 2 Name: DHI6GADM
Cycle 1 Name: DHI4GADM
Reason*: Grouped Variable (PUMF only)*

10. Age at interview - 5 year groups
Cycle 2 Name: DHI6GAG5
Cycle 1 Name: DHI4GAG5
Reason*: Grouped Variable (PUMF only)*

11. Age at interview - Grouped
Cycle 2 Name: DHI6GAGE
Cycle 1 Name: DHI4GAGE
Reason*: Grouped Variable (PUMF only)*

12. Marital status - Grouped
Cycle 2 Name: DHI6GMAR
Cycle 1 Name: DHI4GMAR
Reason*: Grouped Variable (PUMF only)*

13. Previous place of residence - Grouped
Cycle 2 Name: DHI6GRES
Cycle 1 Name: DHI4GRES
Reason*: Grouped Variable (PUMF only)*

14. Length of stay in the facility - Grouped
Cycle 2 Name: DHI6GSTY
Cycle 1 Name: DHI4GSTY
Reason*: Grouped Variable (PUMF only)*

7. GENERAL HEALTH (GH)

7.1. Health Description Index

Cycle 5 Name: GHI2DHDI
Cycle 4 Name: GHI0DHDI
Cycle 3 Name: GHI8DHDI
Cycle 2 Name: GHI6DHDI
Cycle 1 Name: GHI4DHDI

Based on GHI*n*_1.

This derived variable indicates the respondent's health status based on his or her own judgement.

Higher values indicate positive self-reported health status.

The Index descriptions are presented in reverse order from the original question "GHI*n*_1" response categories starting at "0".

Code	Description	Condition
0	Poor	GHI*n*_1=5
1	Fair	GHI*n*_1=4
2	Good	GHI*n*_1=3
3	Very Good	GHI*n*_1=2
4	Excellent	GHI*n*_1=1
6	Not applicable	GHI*n*_1=6
9	Not stated	GHI*n*_1>6

8. HEALTH STATUS (HS)

8.1. Health Utility Index (HUI3)

Cycle 5 Name: HSI2DHSI
Cycle 4 Name: HSI0DHSI
Cycle 3 Name: HSI8DHSI
Cycle 2 Name: HSI6DHSI
Cycle 1 Name: HSI4DHSI

***Source**: McMaster University*

***Internet Site**: McMaster University: www.fhs.mcmaster.ca/hug/update.htm, www.fhs.mcmaster.ca/hug/wp9811.htm, www.healthutilities.com/hui3.htm*

Based on HSI*n*_1 to HSI*n*_21, HSI*n*_23 to HSI*n*_28, and HSI*n*_30 to HSI*n*_33.

The composite index is based on the questions in the Health Status Section.

Higher scale indicates better health index.

-.360 to 1.000 in increments of 0.001
9.996 Not applicable
9.999 Not stated

The Health Status Index or Health Utility Index (HUI) is a generic health status index that is able to synthesize both quantitative and qualitative aspects of health. The index, developed at McMaster University's Centre for Health Economics and Policy Analysis, is based on the Comprehensive Health Status Measurement System (CHSMS). It provides a description of an individual's overall functional health, based on eight attributes: vision, hearing, speech, mobility (ability to get around), dexterity (use of hands and fingers), cognition (memory and thinking), emotion (feelings), and pain and discomfort.

In addition to describing functional health status levels, the CHSMS is the basis for HUI3. The HUI3 is a single numerical value for any possible combination of levels of these eight self-reported health attributes. The HUI3 maps any one of the vectors of eight health attribute levels into a summary health value between -.360 and 1.000. For instance, an individual who is near-sighted, yet fully healthy on the other seven attributes, receives a score of 0.973. On that scale, the most preferred health level (perfect health) is rated 1.000 and death is rated 0.000, while negative scores reflect health states considered worse than death.

Note: For the scale, deaths are rated “0.000”, whereas for the survey data file, deaths are coded to not stated “9.999”.

The scores of the HUI3 embody the views of society concerning health status. These views are termed societal preferences, since preferences about various health states are elicited from a representative sample of individuals.

The HUI3 was developed by McMaster University's Centre for Health Economics and Policy Analysis, and was derived using societal preferences from a random sample of 500 people within the boundaries of the City of Hamilton, chosen from a list obtained from the Planning Department of the Regional Municipality of Hamilton-Wentworth, Ontario, Canada.

The algorithm mapping the questions to the CHSMS itself is the property of Health Utilities Inc. and is protected by copyright. Statistics Canada is authorized, when requested, to share this algorithm with users who wish to replicate results or analyses conducted by Statistics Canada. The use of the algorithm for other purposes, or the sharing of it with others, is prohibited.

For a detailed explanation of the calculation of the HUI3, refer to:

Furlong WJ, Feeny DH, Torrance GW. "Health Utilities Index (HUI): Algorithm for determining HUI Mark 2 (HUI2) / Mark 3 (HUI3) health status classification levels, health states, health-related quality of life utility scores and single-attribute utility score from 40-item interviewer-administered health status questionnaires. Dundas, Canada: Health Utilities Inc. February 1999.

Furlong WJ, Feeny DH, Torrance GW, et al. "Multiplicative multi-attribute utility function for the Health Utilities Index Mark 3 (HUI3) system: a technical report" Hamilton, Canada: McMaster University Centre for Health Economics and Policy Analysis Working Paper #98-11, December 1998.

Note: For Cycles 1 and 2, the HUI was calculated using the MARK II societal preference scores, and a provisional algorithm was developed. When HUI3 became available, Cycle 1 and 2 variables were re-calculated using HUI3 for the longitudinal file. For HUI2, the societal preferences were derived from the small-scale Childhood Cancer Study. This provisional index has been used with other surveys, with some adjustments (e.g., the Ontario Health Survey). Consequently, the HUI2 results were preliminary but relevant. This previous index of the CHSMS was tested for consistency and was deemed to provide a realistic appraisal of individual health status.

For a detailed explanation of the calculation of the HUI2, refer to:

Berthelot J-M, Roberge R, Wolfson MC. "The calculation of health-adjusted life expectancy for a Canadian province using a multi-attribute utility function: a first attempt." Montpellier, France: Colloque *Inserm*/John Libbey Eurotext Ltd, 1993:161-72.

Roberge R, Berthelot J-M, and Wolfson MC. "Measuring health differences in Ontario by socio-economic status" in Statistics Canada. *Health Reports* (Catalogue No. 82-003, Volume 7, Number 2, 1995: 25-32).

8.2. Vision Problem - Function code

Cycle 5 Name: HSI2DVIS
Cycle 4 Name: HSI0DVIS
Cycle 3 Name: HSI8DVIS
Cycle 2 Name: HSI6DVIS
Cycle 1 Name: HSI4DVIS

Based on DVVIS*=HSI*n*_1 || HSI*n*_2 || HSI*n*_3 || HSI*n*_4 || HSI*n*_5.
(*DVVIS concatenates all the values of the individual items into a string).

Note: Example of concatenation: If HSI*n*_1=2, HSI*n* _2=1, HSI*n* _3=6, HSI*n* _4=1, HSI*n* _5=6 then the condition becomes 21616 and the value of HSI*n* DVIS is 2.

This derived variable classifies the respondent based on the status of his / her vision.

Code	Description	Condition
1	No visual problem	DVVIS=16616
2	Problem corrected by lenses	DVVIS=16621, 21616, 21621
3	Problem seeing distance - not corrected	DVVIS=16622, 21622
4	Problem seeing close - not corrected	DVVIS=22116, 22121

Code	Description	Condition
5	Problem seeing close and distance - not corrected	DVVIS=22122
6	No sight at all	DVVIS=22266
96	Not applicable	DVVIS=66666
99	Not stated	Otherwise

8.3. Hearing Problem - Function Code

Cycle 5 Name: HSI2DHER
Cycle 4 Name: HSI0DHER
Cycle 3 Name: HSI8DHER
Cycle 2 Name: HSI6DHER
Cycle 1 Name: HSI4DHER

Based on DVHEA*=HSI*n*_6 || HSI*n*_7 || HSI*n*_8 || HSI*n*_9 || HSI*n*_10.
(*DVHEA concatenates all the values of the individual items into a string).

This derived variable classifies the respondent based on the status of his / her hearing.

Code	Description	Condition
1	No hearing problem	DVHEA=16666
2	Problem hearing in group - corrected	DVHEA=21616
3	Problem hearing in group and individual - corrected	DVHEA=21621, 21622
4	Problem hearing in group - not corrected	DVHEA=22116
5	Problem hearing in group and individual - individual corrected	DVHEA=22121
6	Cannot hear	DVHEA=22122, 22266
96	Not applicable	DVHEA=66666
99	Not stated	Otherwise

8.4. Speech Problem - Function Code

Cycle 5 Name: HSI2DSPE
Cycle 4 Name: HSI0DSPE
Cycle 3 Name: HSI8DSPE
Cycle 2 Name: HSI6DSPE
Cycle 1 Name: HSI4DSPE

Based on DVSPE*=HSI*n*_11 || HSI*n*_12 || HSI*n*_13 || HSI*n*_14.
(*DVSPE concatenates all the values of the individual items into a string).

This derived variable classifies the respondent based on the status of his / her speech.

Code	Description	Condition
1	No speech problem	DVSPE=1666
2	Partially understood by strangers	DVSPE=2116
3	Partially understood by friends	DVSPE=2121
4	Not understood by strangers	DVSPE=2216, 2221

Code	Description	Condition
5	Not understood by friends	DVSPE=2122, 2222
6	Not applicable	DVSPE=6666
9	Not stated	Otherwise

8.5. Mobility Problem - Function Code

Cycle 5 Name: HSI2DMOB
Cycle 4 Name: HSI0DMOB
Cycle 3 Name: HSI8DMOB
Cycle 2 Name: HSI6DMOB
Cycle 1 Name: HSI4DMOB

Based on DVMOB*=HSI*n*_15 || HSI*n*_16 || HSI*n*_17 || HSI*n*_18 || HSI*n*_19.
(*DVMOB concatenates all the values of the individual items into a string).

This derived variable classifies the respondent based on the status of his / her mobility.

Code	Description	Condition
1	No mobility problem	DVMOB=16666
2	Problem - no aid required	DVMOB=21222
3	Problem - requires mechanical support	DVMOB=21122
4	Problem - requires wheelchair	DVMOB=21121, 21221
5	Problem - requires help from people	DVMOB=21111, 21112, 21211, 21212
6	Cannot walk	DVMOB=22661, 22662
96	Not applicable	DVMOB=66666
99	Not stated	Otherwise

8.6. Dexterity Problem - Function Code

Cycle 5 Name: HSI2DDEX
Cycle 4 Name: HSI0DDEX
Cycle 3 Name: HSI8DDEX
Cycle 2 Name: HSI6DDEX
Cycle 1 Name: HSI4DDEX

Based on DVDEX*=HSI*n*_23 || HSI*n*_24 || HSI*n*_25 || HSI*n*_26
(*DVDEX concatenates all the values of the individual items into a string).

This derived variable classifies the respondent based on the status of his / her dexterity.

Code	Description	Condition
1	No dexterity problem	DVDEX=1666
2	Dexterity problem - no help required	DVDEX=2262
3	Dexterity problem - requires special equipment	DVDEX=2261
4	Dexterity problem - requires help with some tasks	DVDEX=2111, 2112
5	Dexterity problem - requires help with most tasks	DVDEX=2121, 2122, 2131, 2132

Code	Description	Condition
6	Dexterity problem - requires help with all tasks	DVDEX=2141, 2142
96	Not applicable	DVDEX=6666
99	Not stated	Otherwise

8.7. Emotional Problem - Function Code

Cycle 5 Name: HSI2DEMO
Cycle 4 Name: HSI0DEMO
Cycle 3 Name: HSI8DEMO
Cycle 2 Name: HSI6DEMO
Cycle 1 Name: HSI4DEMO

Based on HSI*n*_27.

This derived variable classifies the respondent based on his / her level of emotional problems.

Code	Description	Condition
1	Happy and interested in life	HSI*n*_27=1
2	Somewhat happy	HSI*n*_27=2
3	Somewhat unhappy	HSI*n*_27=3
4	Very unhappy	HSI*n*_27=4
5	So unhappy that life is not worthwhile	HSI*n*_27=5
6	Not applicable	HSI*n*_27=6
9	Not stated	Otherwise

8.8. Cognition Problem - Function Code

Cycle 5 Name: HSI2DCOG
Cycle 4 Name: HSI0DCOG
Cycle 3 Name: HSI8DCOG
Cycle 2 Name: HSI6DCOG
Cycle 1 Name: HSI4DCOG

Based on DVCOG*=HSI*n*_28 || HSI*n*_30.
(*DVCOG concatenates all the values of the individual items into a string).

This derived variable classifies the respondent based on his / her level of cognitive problems.

Code	Description	Condition
1	No cognitive problem	DVCOG=11
2	A little difficulty thinking	DVCOG=12, 13
3	Somewhat forgetful	DVCOG=21
4	Somewhat forgetful / a little difficulty thinking	DVCOG=22, 23
5	Very forgetful / great deal of difficulty thinking	DVCOG=14, 24, 31, 32, 33, 34
6	Unable to remember or to think	DVCOG=15, 25, 35, 41, 42, 43, 44, 45

Code	Description	Condition
96	Not applicable	DVCOG=66
99	Not stated	Otherwise

8.9. Activities Prevented By Pain - Function Code

Cycle 5 Name: HSI2DPAD
Cycle 4 Name: HSI0DPAD
Cycle 3 Name: HSI8DPAD
Cycle 2 Name: HSI6DPAD
Cycle 1 Name: HSI4DPAD

Based on DVPAIN*=HSI*n*_31 || HSI*n*_33.
(*DVPAIN concatenates all the values of the individual items into a string).

This derived variable classifies the respondent on his / her activity limitation due to pain or discomfort.

Code	Description	Condition
1	No pain or discomfort	DVPAIN=16
2	Pain does not prevent activity	DVPAIN=21
3	Pain prevents a few activities	DVPAIN=22
4	Pain prevents some activities	DVPAIN=23
5	Pain prevents most activities	DVPAIN=24
6	Not applicable	DVPAIN=66
9	Not stated	Otherwise

Note: Labels for this variable have been changed to better reflect the questions used to derive this variable.

8.10. Imputation Flag for Health Status Index

Cycle 5 Name: HSI2FIMP
Cycle 4 Name: HSI0FIMP
Cycle 3 Name: HSI8FIMP
Cycle 2 Name: HSI6FIMP
Cycle 1 Name: HSI4FIMP

Code	Description
1	Deterministic only
2	Donor only
3	Both deterministic and donor
4	No imputation

HEALTH STATUS VARIABLES DROPPED:

1. Severity of Pain - Function Code

Cycle 2 Name: HSI6DSEV
Cycle 1 Name: HSI4DSEV
Reason: Not used in calculation of HUI (see HSInDPAD)

9. INJURIES

INJURY VARIABLE DROPPED:

1. Most serious injury resulting from fall - Grouped

Cycle 2 Name: FLI6GINJ
Cycle 1 Name: FLI4GINJ
Reason: *Grouped Variable (PUMF only)*

10. RESTRICTION OF ACTIVITIES (RA)

10.1. Restriction of Activity - Flag

Cycle 5 Name: RAI2F1
Cycle 4 Name: RAI0F1
Cycle 3 Name: RAI8F1
Cycle 2 Name: RAI6F1
Cycle 1 Name: N/A

Based on RAI*n*_1A, RAI*n*_1B, and RAI*n*_2.

This derived variable indicates whether or not the respondent has a restriction of activity.

Note: In the calculation of Cycle 1 (1994) Restriction of Activity Flag, the category "No" *included* "Don't Know" and "Refusal" but in Cycle 2 (1996) and beyond, the category "No" was *only* responses of "No".

Code	Description	Condition
1	Yes	RAI*n*_1A=1 or RAI*n*_1B=1 or RAI*n*_2=1
2	No	RAI*n*_1A=2 and RAI*n*_1B=2 and RAI*n*_2=2
6	Not applicable	RAI*n*_1A=6 and RAI*n*_1B=6 and RAI*n*_2=6
9	Not stated	RAI*n*_1A or 1B=7, 8 or 9 & RAI*n*_2=7, 8 or 9

10.2. Main Health Problem - 25 Groups (ICD-9)

Cycle 5 Name: RAI2G25A
Cycle 4 Name: RAI0G25A
Cycle 3 Name: RAI8G25A
Cycle 2 Name: RAI6G25A
Cycle 1 Name: RAI4G25A

Based on RAI*n*CIC1 (The International Classification of Diseases, 9th Revision (ICD-9)). *See Appendix A.*

This derived variable groups "Restriction of activity" codes for the main health problem to 25 groups.

10.3. Main Health Problem - 12 Groups (ICD-9)

Cycle 5 Name: RAI2G12A
Cycle 4 Name: RAI0G12A
Cycle 3 Name: RAI8G12A
Cycle 2 Name: RAI6G12A
Cycle 1 Name: RAI4G12A

Based on RAI*n*G25A. (Source: RAI*n*CIC1).

This derived variable groups "Restriction of activity" codes for the main health problem to 12 groups.

Code	Description	Condition
1	Diseases of nervous system and senses	RAI*n*G25A=1, 2, 3, 4, 5
2	Ischemic heart disease	RAI*n*G25A=7

Code	Description	Condition
3	Other heart conditions	RAI*n*G25A=6, 8
4	Other circulatory diseases	RAI*n*G25A=9
5	Diseases of respiratory and digestive system	RAI*n*G25A=10, 11, 12, 13
6	Arthritis - limbs	RAI*n*G25A=15, 16
7	Arthritis - back and spine	RAI*n*G25A=17
8	Arthritis - other & unspecified	RAI*n*G25A=18
9	Diseases of the MSCT - limbs	RAI*n*G25A=19, 20
10	Diseases of the MSCT – back and spine	RAI*n*G25A=21
11	Diseases of the MSCT - other	RAI*n*G25A=22
12	Other	RAI*n*G25A=23, 24, 25, 14
96	Not applicable	RAI*n*G25A=96
99	Not stated	RAI*n*G25A=99

10.4. Main Health Problem – 22 Groups (ICD-10)

Cycle 5 Name: RAI2G22A
Cycle 4 Name: RAI0G22A
Cycle 3 Name: RAI8G22A
Cycle 2 Name: RAI6G22A
Cycle 1 Name: RAI4G22A

Based on RAI*n*CCD1 (The International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10)). *See Appendix D.*

This derived variable groups "Restriction of activity" codes for the main health problem to 22 groups.

10.5. Second Health Problem - 25 Groups (ICD-9)

Cycle 5 Name: RAI2G25B
Cycle 4 Name: RAI0G25B
Cycle 3 Name: RAI8G25B
Cycle 2 Name: RAI6G25B
Cycle 1 Name: RAI4G25B

Based on RAI*n*CIC2. (The International Classification of Diseases, 9th Revision (ICD-9)). *See Appendix A.*

This derived variable groups "Restriction of activity" codes for the second health problem to 25 groups, same as RAI*n*G25A.

10.6. Second Health Problem -12 Groups (ICD-9)

Cycle 5 Name: RAI2G12B
Cycle 4 Name: RAI0G12B
Cycle 3 Name: RAI8G12B
Cycle 2 Name: RAI6G12B
Cycle 1 Name: RAI4G12B

Based on RAI*n*G25B. (Source: RAI*n*CIC2).

This derived variable groups "Restriction of activity" codes for the second health problem to 12 groups, same as RAI*n*G12A.

10.7. Second Health Problem – 22 Groups (ICD-10)

Cycle 5: RAI*n*G22B
Cycle 4: RAI*n*G22B
Cycle 3: RAI*n*G22B
Cycle 2: RAI*n*G22B
Cycle 1: RAI*n*G22B

Based on RAI*n*CCD2 (The International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10)). *See Appendix D.*

This derived variable groups "Restriction of activity" codes for the second health problem to 22 groups, same as RAI*n*G22A.

10.8. Number of Tasks Needing Help

Cycle 5 Name: RAI2DNUM
Cycle 4 Name: RAI0DNUM
Cycle 3 Name: RAI8DNUM
Cycle 2 Name: RAI6DNUM
Cycle 1 Name: RAI4DNUM

Based on RAI*n*_7A to RAI*n*_7E.

This derived variable indicates whether the respondent needs any help with a series of tasks, based on the answers to RAI*n*_7A to RAI*n*_7E.

All of the respondent's answers of yes (to a maximum of 5) are added together to reveal the number of tasks the respondent needs help with. Note that 7C was not asked in 1994, so the maximum number of tasks was 4.

Code	Description	Condition
0 - 5	Number of tasks needing help	Sum (RAI*n*_7A to RAI*n*_7E=1)
6	Not applicable	Sum (RAI*n*_7A to RAI*n*_7E=6)
9	Not stated	RAI*n*_7A to RAI*n*_7E=7, 8 or 9

11. SOCIO-DEMOGRAPHIC (SD)

11.1. Language(s) in Which Respondent Can Converse

Cycle 5 Name: N/A
Cycle 4 Name: N/A
Cycle 3 Name: N/A
Cycle 2 Name: SDI6DLNG
Cycle 1 Name: SDI4DLNG

Based on SDI*n*_5A to SDI*n*_5D.

This derived variable represents the language(s) in which the respondent can converse.

Code	Description	Condition
1	English Only	SDI*n*_5A=1 and SDI*n*_5B=2 and SDI*n*_5C=2 and SDI*n*_5D=2
2	French Only	SDI*n*_5A=2 and SDI*n*_5B=1 and SDI*n*_5C=2 and SDI*n*_5D=2
3	English & French Only	SDI*n*_5A=1 and SDI*n*_5B=1 and SDI*n*_5C=2 and SDI*n*_5D=2
4	English & French & Other	SDI*n*_5A=1 and SDI*n*_5B=1 and SDI*n*_5C=1 and SDI*n*_5D=2
5	English & Other (Not French)	SDI*n*_5A=1 and SDI*n*_5B=2 and SDI*n*_5C=1 and SDI*n*_5D=2
6	French & Other (Not English)	SDI*n*_5A=2 and SDI*n*_5B=1 and SDI*n*_5C=1 and SDI*n*_5D=2
7	Neither English nor French (Other)	SDI*n*_5A=2 and SDI*n*_5B=2 and SDI*n*_5C=1 and SDI*n*_5D=2
8	Not able to speak or understand	SDI*n*_5A=2 and SDI*n*_5B=2 and SDI*n*_5C=2 and SDI*n*_5D=1
96	Not applicable	SDI*n*_5A = 6
99	Not Stated	SDI*n*_5A > 6

11.2. Length of Time in Canada since Immigration

Cycle 5 Name: SDI2DRES
Cycle 4 Name: SDI0DRES
Cycle 3 Name: SDI8DRES
Cycle 2 Name: SDI6DRES
Cycle 1 Name: SDI4DRES

Based on YOB (year of birth), AMI*n*_BYY (year of interview) and YOI (year of immigration/Source: SDI*n*_2).

This derived variable gives the length of time the respondent has been in Canada since his/her immigration.

Code	Description	Condition
1-135	Years in Canada	SDI*n*DRES=AMI0_BYY - YOI or If SDI*n*DRES>DHI*n*DAGE then SDI*n*DRES= DHI*n*DAGE
996	Not applicable (Born in Canada)	YOI=9995 or YOI=9996
999	Not stated	YOI=9997 or 9998 or 9999

Note: For cycle 1, final status is not needed since the file only contains response records. For cycles 3, 4 and 5, the internal name for date of interview AMI*n*_YOI was used in the program, but AMI*n*_BYY is the external name.

SOCIO-DEMOGRAPHIC VARIABLES DROPPED:

1. Age at Time of Immigration
Cycle 2 Name: SDI6DAIM
Cycle 1 Name: SDI4DAIM
Reason: *Replaced by Longitudinal Variable – AOI*

2. Country of Birth – 4 Groups
Cycle 1 Name: SDI4GCB
Reason: *Grouped Variable (PUMF only)*

3. Code of Country of Birth
Cycle 2 Name: SDI6CCB
Reason: *Replaced by Longitudinal Variable – COBC*

4. Country of Birth - Grouped
Cycle 2 Name: SDI6GCB7
Cycle 1 Name: SDI4GCB7
Reason: *Replaced by Longitudinal Variable – COBGC*

5. Age at time of immigration - Grouped
Cycle 2 Name: SDI6GAIM
Cycle 1 Name: SDI4GAIM
Reason*: Grouped Variable (PUMF only)*

6. Years in Canada - 10 year groups - Grouped
Cycle 2 Name: SDI6GR10
Cycle 1 Name: SDI4GR10
Reason*: Grouped Variable (PUMF only)*

7. Length of time in Canada since immigration - Grouped
Cycle 2 Name: SDI6GRES
Cycle 1 Name: SDI4GRES
Reason*: Grouped Variable (PUMF only)*

12. SMOKING (SM)

12.1. Type of Smoker

Cycle 5 Name: SMI2DTYP
Cycle 4 Name: SMI0DTYP
Cycle 3 Name: SMI8DTYP
Cycle 2 Name: SMI6DTYP
Cycle 1 Name: SMI4DTYP

Based on SMI*n*_1, SMI*n*_4, and SMI*n*_5.

This derived variable describes the type of smoker the respondent is, based on his / her smoking habits.

Code	Description	Condition
1	Daily smoker	SMI*n*_1=1
2	Occasional smoker but former daily smoker	SMI*n*_1=2 & SMI*n*_5=1
3	Always an occasional smoker	SMI*n*_1=2 & SMI*n*_5=2
4	Former daily smoker	SMI*n*_1=3 & SMI*n*_4=1 & SMI*n*_5=1
5	Former occasional smoker	SMI*n*_1=3 & SMI*n*_4=1 & SMI*n*_5=2
6	Never smoked	SMI*n*_1=3 & SMI*n*_4=2
96	Not applicable	SMI*n*_1=6
99	Not stated	Otherwise

12.2. Number of Years Smoked

Cycle 5 Name: SMI2DYRS
Cycle 4 Name: SMI0DYRS
Cycle 3 Name: SMI8DYRS
Cycle 2 Name: SMI6DYRS
Cycle 1 Name: SMI4DYRS

Source*: General Social Survey - Health, Cycle 6 (1991)*

Statistics Canada's Web Site*: www.statcan.ca/english/sdds/3894.htm*

Based on SMI*n*_2, SMI*n*_6, SMI*n*_7, SMI*n*DTYP (Source: SMI*n*_1, SMI*n*_4, SMI*n*_5), and DHI*n*DAGE (Source: AMI*n*_BMM, AMI*n*_BYY, MOB, YOB).

This derived variable determines the number of years the respondent has smoked. This variable includes non-smokers and occasional smokers who previously smoked daily. Respondents that are not daily smokers have been excluded from the population.

Code	Description	Condition
0-135	Number of years smoked - daily smokers or former daily smokers only	If SMI*n*DTYP=1 and DHI*n*DAGE<996 and SMI*n*_2<996 then SMI*n*DYRS=(DHI*n*DAGE-SMI*n*_2) If SMI*n*DTYP=2 or 4 and SMI*n*_7<996 and SMI*n*_6<996 then SMI*n*DYRS=(SMI*n*_7 - SMI*n*_6)
996	Not applicable	SMI*n*DTYP=3 or 5 or 6
999	Not stated	Otherwise

For daily smokers or former daily smokers only. For daily smokers the number of years smoked was calculated by subtracting the value in SMI*n*_2 from the current age (DHI*n*DAGE). For former smokers the value in SMI*n*_6 is subtracted from the value in SMI*n*_7.

SMOKING VARIABLES DROPPED:

1. Age started smoking daily - daily smoker - Grouped
Cycle 2 Name: SMI6G2
Cycle 1 Name: SMI4G2
Reason*: Grouped Variable (PUMF only)*

2. Number of cigarettes smoked each day - daily smoker - Grouped
Cycle 2 Name: SMI6G3
Cycle 1 Name: SMI4G3
Reason*: Grouped Variable (PUMF only)*

3. Age started smoking daily - former daily smoker - Grouped
Cycle 2 Name: SMI6G6
Cycle 1 Name: SMI4G6
Reason*: Grouped Variable (PUMF only)*

4. Age stopped smoking daily - former daily smoker - Grouped
Cycle 2 Name: SMI6G7
Cycle 1 Name: SMI4G7
Reason*: Grouped Variable (PUMF only)*

5. Number of years that respondent smoked - Grouped
Cycle 2 Name: SMI6GYRS
Cycle 1 Name: SMI4GYRS
Reason*: Grouped Variable (PUMF only)*

13. SOCIAL SUPPORT (SS)

13.1. Frequency of social involvement

Cycle 5 Name: SSI2DSIS
Cycle 4 Name: SSI0DSIS
Cycle 3 Name: SSI8DSIS
Cycle 2 Name: SSI6DSIS
Cycle 1 Name: N/A

Based on SSI*n*_2 and SSI*n*_11.

This derived variable looks at the frequency of participation of the resident in social activities inside and outside the facility. It is the maximum frequency of activity of one of two variables SSI*n*_2 "How often did you participate in meetings or activities in the past 12 months?" and SSI*n*_11 "During the past 12 months, how often did you leave this facility for social or recreational purposes?". Since a higher frequency of activity is a lower value of the variables (where 1=daily), the minimum value is used to determine the maximum frequency. Note that this variable is not applicable for respondents who live in households.

Code	Description	Condition
1	Every day	MIN (SSI*n*_2 and SSI*n*_11) Note: SSI*n*_2 is temporarily recoded to 5 if the question was skipped. (No participation in SSI*n*_1)
2	At least once a week	
3	At least once a month	
4	Less than once a month	
5	Not at all	
6	Not applicable	AMI2_LOC=2 (Respondents in households)
9	Not stated	SSI*n*_2>6 or SSI*n*_11>6

13.2. Frequency of contact - friends / relatives outside

Cycle 5 Name: SSI2DCON
Cycle 4 Name: SSI0DCON
Cycle 3 Name: SSI8DCON
Cycle 2 Name: SSI6DCON
Cycle 1 Name: N/A

Based on SSI*n*_5, SSI*n*_8, and SSI*n*_13.

This derived variable measures the frequency of contact that the resident has with friends and relatives living outside the facility either in person, or by telephone. This variable is not applicable for respondents who live in households.

Code	Description	Condition
1	Every day	MIN (SSI*n*_5, SSI*n*_8, and SSI*n*_13) Note: SSI*n*_5 and 8 are temporarily recoded to 5 if the question was skipped. (Zero in SSI*n*_4 and 7)
2	At least once a week	
3	At least once a month	
4	Less than once a month	
5	Not at all	

Code	Description	Condition
6	Not applicable	AMI2_LOC=2 (Respondents in households)
9	Not stated	SSI*n*_5>6 or SSI*n*_8>6 or SSI*n*_13>6

13.3. Diversity of contacts - friends / relatives / staff

Cycle 5 Name: SSI2DDIV
Cycle 4 Name: SSI0DDIV
Cycle 3 Name: SSI8DDIV
Cycle 2 Name: SSI6DDIV
Cycle 1 Name: N/A

Based on SSI*n*_4, SSI*n*_6, SSI*n*_7, and SSI*n*_10.

This derived variable takes the scores of each of the variable that asks how many friends or relatives the resident feels close to and converts them to a yes / no response. The derived variable is calculated base on the sum of these positive responses. The value of 1 for each question is added together for a maximum total of 4. Note that this variable is not applicable for respondents who live in households.

Code	Description	Condition
0	No contacts	SUM (SSI*n*D4, SSI*n*D6, SSI*n*D7, SSI*n*D10) where SSI*n*D#=0 for SSI*n*_#=0 SSI*n*D#=1 for SSI*n*_#>0 and <996
1	One type of contact	
2	Two types of contacts	
3	Three types of contacts	
4	Four types of contacts	
6	Not applicable	AMI2_LOC=2 (Respondents in households)
9	Not stated	SSI*n*_4>996 or SSI*n*_6>996 or SSI*n*_7>996 or SSI*n*_10>996

SOCIAL SUPPORT VARIABLES DROPPED:

1. Number of Close Staff Members

Cycle 2 Name: SSI6D10
Cycle 1 Name: SSI4D10
Reason: *Cell counts too small*

2. Number of close relatives - Grouped

Cycle 2 Name: SSI6G4
Cycle 1 Name: SSI4G4
Reason*: Grouped Variable (PUMF only)*

3. Number of close friends inside facility - Grouped

Cycle 2 Name: SSI6G6
Cycle 1 Name: SSI4G6
Reason*: Grouped Variable (PUMF only)*

4. Number of close friends - outside facility - Grouped

Cycle 2 Name: SSI6G7
Cycle 1 Name: SSI4G7
Reason*: Grouped Variable (PUMF only)*

5. Number of close staff members - Grouped
Cycle 2 Name: SSI6G10
Cycle 1 Name: SSI4G10
Reason*: Grouped Variable (PUMF only)*

APPENDIX A: RESTRICTION OF ACTIVITY CODES (ICD-9)

Main Health Problem - 25 Groups (RAI*n*G25A)
Second Health Problem - 25 Groups (RAI*n*G25B)

Grouping of ICD-9 codes to 25 groups

1. Mental Retardation

3170 - 3190	Mental Retardation
7580	Down's Syndrome

2. Mental Disorders

2900 - 3160	Psychoses, neurotic disorders

3. Sight Disorders

3600 - 3799	Disorders of the Eye and Adnexa
7430 - 7439	Congenital anomalies
8710 - 8719	Open wound eyeball
9213 - 9219	Contusion of eyeball
9400 - 9409	Burn of eye/adnexa
9500 - 9509	Injury optic nerve/traumatic blindness
V410 - V411	Problems with Sight/Other Eye Problems
V425	Cornea transplant
V430 - V431	Replace globe/lens eye
V522	Artificial eye

4. Hearing Disorders

3800 - 3899	Diseases of Ear and Mastoid Process
7440 - 7443	Congenital anomalies
8720 - 8729	Open wound of ear - affecting hearing
9515	Injury acoustic nerve
V412 - V413	Problems with Hearing/Other Ear Problems

5. Other Disorders of Nervous System

3200 - 3599	Meningitis, Parkinson's, Epilepsy etc.
7400 - 7429	Congenital anomalies
8000 - 8049	Fracture of Skull
8060 - 8069	Fracture spinal column - paralysis
8500 - 8540	Intracranial Injury
9510 - 9514	Injury to oculomotor nerve, trochlear nerve, trigeminal nerve, abducent and facial nerves
9516 - 9579	Injury to other cranial nerve(s), peripheral nerve(s), nerve root and other nerves
9520	Cervical Spinal Cord Lesion

6. Hypertensive Disease

4010 - 4059	Hypertensive Disease

7. Ischaemic Heart Disease

4100 - 4149	Ischaemic Heart Disease

8. Other Heart Conditions

3900 - 3989	Rheumatic Fever and heart disease
4150 - 4179	Pulmonary heart disease
4200 - 4299	Other forms of heart disease
7450 - 7459	Anomalies cardiac septal closure
7460 - 7469	Congenital anomalies of heart
7850-7853	Tachycardia, palpitations, cardiac murmurs and other abnormal heart sounds
8610 - 8611	Injury to heart
V421	Heart transplant
V422	Transplant heart valve (mechanical)
V433	Heart valve replace (tissue)
V450	Pacemaker

9. Other Circulatory Disorders

4300 - 4389	Cerebrovascular Disease
4400 - 4489	Diseases of arteries
4510 - 4599	Diseases of veins and lymphatics
7470 - 7479	Other congenital anomalies
7854 - 7859	Gangrene\shock etc.
9000 - 9049	Injury blood vessels
V434	Replace blood vessel

10. Bronchitis & Emphysema

4900 - 4920	Bronchitis and Emphysema

11. Asthma

4930 - 4939	Asthma

12. Other Respiratory Disorders

4770 - 4779	Allergic Rhinitis
4940 - 5199	Bronchiectasis, Pneumoconioses etc.
7480 - 7489	Congenital anomalies
7860 - 7869	Dyspnea, etc.
8612 - 8613	Lung injury

13. Disorders of the Digestive System

5200 - 5299	Oral cavity, Teeth, gums, tongue, etc.
5300 - 5799	Ulcer, appendicitis, intestines etc.
7500 - 7519	Other congenital anomalies
7870 - 7879	Symptoms involving digestive system
8630 - 8641	Injury to gastro tract and liver

14. Infectious and Parasitic Diseases

0010 - 1398	Infectious Diseases

15. Arthritis - lower limbs

VA01 - VA06	Arthritis/Rheumatism

16. Arthritis - upper limbs

VA07 - VA12	Arthritis/Rheumatism

17. Arthritis - back & spine

VA13	Arthritis/Rheumatism

18. Arthritis - other & unspecified

7110 - 7169	Arthropathy, rheumatoid arthritis etc.
7250	Polymalagia rheumatica
7290	Rheumatism
VA00	Arthritis/Rheumatism
VA14 - VA19	Arthritis/Rheumatism

19. Other Musculoskeletal Disorders - lower limbs

7170 - 7179	Internal derangement knee
7265 - 7267	Peripheral Enthesopathies
7321 - 7322	Osteochondropathies hip/femur
7324 - 7325	Osteochondropathies lower leg/foot
7340 - 7359	Acquired deformity foot/toe
7363 - 7367	Acquired deformity lower limb
7395 - 7396	Nonallopathic lesions
7543 - 7547	Congenital deformities
7553	Reduction deformity
7556	Other anomaly
8200 - 8291	Fracture lower limb/hip
8350 - 8381	Dislocation of hip/knee/ankle/foot
8430 - 8451	Sprains of hip/knee/ankle/foot
8900 - 8977	Trauma/amputation
9280 - 9289	Crushing
9596 - 9597	Injury NOS
9912	Frostbite
V521	Artificial leg
VB01 - VB06	Damaged/Removed Discs
VC01 - VC06	Weak/Damaged Bones
VD01 - VD06	Damaged/Torn Cartilages
VE01 - VE06	Sprained/Damaged Ligaments/Tendons
VF01 - VF06	Weak/Pulled/Damaged Muscles
VG01 - VG06	Absence/Missing
VH01 - VH06	Fractures/Breaks
VJ01 - VJ06	Fusions
VK01 - VK06	Deformed/Crooked
VL01 - VL06	Displaced/Dislocated/Slipped
VM01 - VM06	Pain/Soreness
VN01 - VN06	Stiffness
VP01 - VP06	Paralysis
VR01 - VR06	Coordination Problems
VS01 - VS06	Weakness - Site Unspecified
VT01 - VT06	Other Specified Impairments

VU01 - VU06 Other Unspecified Impairments

20. Other Musculoskeletal Disorders - upper limbs

7260 - 7264	Peripheral Enthesopathies
7323	Osteochondrosis upper extremities
7360 - 7362	Acquired deformities arm/hand
7397	Nonallopathic lesions
7552	Congenital Deformity
7555	Congenital deformity
V520	Artificial arm
8100 - 8191	Fracture upper limb
8310 - 8341	Dislocation of shoulder/elbow/finger
8400 - 8421	Sprain of shoulder/elbow/finger
8800 - 8877	Wound/trauma/amputation
9270 - 9279	Crushing
9592 - 9595	Injury NOS
9911	Frostbite
VB07 - VB12	Damaged/Removed Discs
VC07 - VC12	Weak/Damaged Bones
VD07 - VD12	Damaged/Torn Cartilages
VE07 - VE12	Sprained/Damaged Ligaments/Tendons
VF07 - VF12	Weak/Pulled/Damaged Muscles
VG07 - VG12	Absence/Missing
VH07 - VH12	Fractures/Breaks
VJ07 - VJ12	Fusions
VK07 - VK12	Deformed/Crooked
VL07 - VL12	Displaced/Dislocated/Slipped
VM07 - VM12	Pain/Soreness
VN07 - VN12	Stiffness
VP07 - VP12	Paralysis
VR07 - VR12	Coordination Problems
VS07 - VS12	Weakness - site specified
VT07 - VT12	Other Specified Impairments
VU07 - VU12	Other Unspecified Impairments

21. Other Musculoskeletal Disorders - back and spine

7200 - 7209	Ankylosing spondylitis
7210 - 7249	Spondylosis, disorders of back
7268 - 7269	Peripheral enthesopathies
7320	Osteochondrosis of spine
7370 - 7379	Curvature of spine
7384 - 7385	Acquired deformity of spine
7391 - 7394	Back NOS
7542	Congenital lordosis, scoliosis etc.
7561	Other congenital anomalies
8050 - 8059	Fracture spine w/o spinal cord injury
8460 - 8479	Sprains and strains
9591	Injury back NOS
VB13 - VU13**	Impairment to Back/spine/discs

**V*n*13 - where *n* is B to H, J to N, P and R to U.

22. Other and Unspecified Musculoskeletal Disorders

7100 - 7109	Lupus etc.
7180 - 7199	Joint disorder, joint not specified
7270 - 7279	Disorder synovium, tendon, bursa
7280 - 7289	Disorder muscle, ligament, fascia
7291 - 7299	Other soft tissues
7300 - 7319	Osteopathies etc.
7326 - 7339	Osteochondropathies other bone/cart.
7368 - 7369	Other acquired deformities of limbs
7380 - 7383	Acquired deformities
7386 - 7389	Acquired deformities
7390	Nonallopathic lesions
7398 - 7399	Lesions rib cage and abdomen
7540 - 7541	Congenital anomalies
7548	Congenital musculoskeletal deform.
7550 - 7551	Other congenital anomalies of limbs (polydactyly, syndactyly)
7554	Other congenital anomalies (reduction deformities, unspecified limb)
7558 - 7559	Other congenital anomalies (other specified anomalies and unspecified anomalies of unspecified limb)
7560	Anomalies of skull & face bones
7562 - 7569	Other congenital anomalies
8070 - 8091	Fracture rib, sternum, trunk etc.
8300 - 8301	Dislocation of jaw
8390 - 8391	Other ill-defined dislocation
8480 - 8489	Other ill-defined sprains/strains
9260 - 9269	Crushing injury trunk
9598 - 9599	Injury - Site unspecified
V436	Joint replaced by other means

23. Neoplasms

1400 - 2089	Malignant neoplasms
2100 - 2299	Benign neoplasms
2300 - 2399	Carcinoma-in-situ

24. Endocrine, Nutritional, Metabolic and Immunity Disorders

2400 - 2469	Disorders of thyroid gland
2500 - 2509	Diabetes
2510 - 2799	Endocrine Glands, nutrition defic etc.

25. Other

All others

***Musculoskeletal Impairment Supplementary Coding Scheme**

Example VA01 - Arthritis/Rheumatism of Toes

Impairment	**Site**
VA__ - Arthritis/Rheumatism	__00 - Not stated
VB__ - Damaged/Removed Discs	__01 - Toes
VC__ - Weak/Damaged/Degenerating Bones	__02 - Feet
VD__ - Damaged/Torn Cartilages	__03 - Ankles
VE__ - Sprained/Damaged/Torn Ligaments	__04 - Knees/Kneecaps
VF__ - Weak/Pulled/Damaged Muscles	__05 - Legs
VG__ - Absence/Missing	__06 - Hips
VH__ - Fractures/Breaks (only with bones)	__07 - Fingers
VJ__ - Fusions	__08 - Hands
VK__ - Deformed/Crooked	__09 - Wrists
VL__ - Displaced/Dislocated/Slipped	__10 - Elbows
VM__ - Pain/Soreness	__11 - Arms
VN__ - Stiffness	__12 - Shoulders
VP__ - Paralysis	__13 - Back/Spine/Discs
VR__ - Coordination Problems	__14 - Trunk/Chest/Ribs/Collarbone
VS__ - Weakness - site specified	__15 - Neck
VT__ - Other Specified Impairments	__16 - Head/Face
VU__ - Other Unspecified Impairments	__17 - One Side of the Body
	__18 - Below the Waist
	__19 - Entire Body

APPENDIX B: DRUG CODING

Coded Drug #1 to Drug #12 – Grouped (DGI*n*G3A to DGI*n*G3L)

The drug classification is based on the Anatomical Therapeutic Chemical (ATC) Classification developed by the World Health Organization as available on the Health Canada Drug Product Database (DPD) in September 2003. A complete list of codes used by the NPHS is available upon request.

1. Alimentary tract and metabolism

Anti-Obesity Preparations, excluding Diet Products
Mineral Supplements
Enzyme Preparations
Antipropulsives
Antiflatulents
Digestives, Including Enzymes
Antiemetics and Antinauseants
Propulsives
Cathartics/Laxatives
Laxatives (Bulk Forming)
Laxatives (Contact)
Laxatives (Softeners, Emollients)
Laxatives (Osmotically Acting)
Miscellaneous GI
Cholelitholytic and Choleretic
Anti-Peptic Ulcer (H2-Receptor Antagonists)
Anti-Peptic Ulcer (Others)
Antacids
Drugs Used in Diabetes
Drugs Used in Diabetes (Insulins)
Drugs Used in Diabetes (Oral Hypoglycemics)
Antihypoglycemics
Other Mineral Supplements
Nutritional Supplements
Antiobesity Preparations

2. Blood and blood forming organs

Blood Formation and Coagulation
Anticoagulants
Antiplatelet
Antianemic Preparations (Iron)
Electrolyte Solutions (Alkalinizing)
Irrigating Solutions

3. Cardiovascular system

Peripheral Vasodilators
Haemorrheologic
Antihyperlipedemic
Cardiac Drugs
Cardiac (Glycosides and Others)
Cardiac (Antiarrhythmics)
Cardiac (Calcium Channel Blockers)
Antihypertensive
Antihypertensive (Beta Blocking)

Antihypertensive (Converting Enzyme Inhibitors - ACE)
Antihypertensive (Adrenergic Neuron Blockers)
Antihypertensive (A-Blockers)
Antihypertensive (Others)
Vasodilators (Nitrates/Nitrites)
Vasodilators (Others)
Diuretics
Diuretics (Thiazides and Related)
Diuretics (Loop)
Diuretics (Potassium-Sparing)

4. Dermatologicals

Skin/Mucous Membrane Preparation
Antibiotics
Antivirals
Antifungals
Other Anti-Infectives
Anesthetics for Topical Use/Antipruritics
Anti-Acne Preparation
Anipsoriatics and Protectants
Keratolytics
Keratoplastics
Astringents
Depigmenting/Pigmenting
Anti-Inflammatory (Corticosteroids)
Sunscreens
Miscellaneous Dermatological Preparations

7. Genito-urinary system and sex hormones

Urinary Anti-infectives
Androgens
Hormonal Contraceptives
Progestogens
Estrogens
Gonadotrophins
Genitourinary Antispasmodics

8. Systemic hormonal preparations, excluding sex hormones

Hormones
Corticosteroids
Pituitary and Hypothalamic Hormones
Thyroid/Antithyroid
Thyroid Hormones
Antithyroid Preparations

10. General anti-infectives for systemic use

Antimycotics for Systemic Use
Antimycobacterials
Antivirals for Systemic Use
Aminoglycoside Antibacterials
Cephalosporins and Related Substances
Macrolides

Quinolone Antibacterials
Sulfonamides
Tetracyclines
Penicillins
Penicillins (Natural)
Penicillins (Penicillinase-Resistant)
Penicillins (Broadspectrum)
Miscellaneous Antibacterials

12. Antineoplastic agents

Antineoplastic
Alkylating
Anti-Metabolites
Miscellaneous Antineoplastics
Immunosuppressive Agents

13. Musculo-skeletal system

Analgesics/Antipyretics
Antiinflammatory and Antirheumatic (NSAID)
Preparations Increasing Uric Acid
Gold Preparations
Topical Products for Joint and Muscular Pain

14. Nervous system

Parasypathomimetic
Anticholinergic Antimuscarinics/Antispasmodics
Ergot Alkaloids
Antiepileptics
Antimigraine
Anti-Parkinson Drugs
Alcohol
Analgesics/Antipyretics (Salicylic Acid/Derivatives)
Analgesics/Antipyretics (Opioids)
Analgesics/Antipyretics (Opioids-Combinations)
Analgesics/Antipyretics (Opioids-Codeine)
Analgesics/Antipyretics (Miscellaneous)
Analgesics/Antipyretics (Acetaminophen)
Antidepressants
Antidepressants (Mao Inhibitors)
Antidepressants (Tricyclics)
Antidepressants (Serotonin Inhibitors)
Antidepressants (Others)
Anxiolytics, Sedatives, Hypnotics
Anxiolytics (BZD-Short Half-Life)
Anxiolytics (BZD-Medium Half-Life)
Anxiolytics (BZD-Long Half-Life)
Anxiolytics (Other)
Hypnotics and Sedatives (Barbiturates)
Hypnotics and Sedatives (Other)
Antipsychotics (Phenothiazines)
Antipsychotics (Others)
Psychostimulants
Antipsychotic (Lithium)

16. Antiparasitic products

Antiprotozoals (Antimalarials)

18. Respiratory system

Antihistamines (General)
Antihistamines (For Systemic Use)
Antihistamines (For Systemic Use - Other)
Respiratory Stimulants
Anti-Allergic and Other Anti-Asthmatics (Inhaled)
Anti-Asthmatics (Theophyllines)
Anti-Asthmatics (B-Agonists)
Anti-Asthmatics (Others)

19. Sensory organs

Anti-Infectives
Anti-Inflammatory
Carbonic Anhydrase Inhibitors
Antiglaucoma Preparations and Miotics
Mydriatics
Mouth Washes and Gargles
Nasal and Systemic Decongestants (Nasal)
Opthalmological and Otological Preparations
Anti-Infective (Antivirals)
Anti-Infective (Sulfonamides)
Anti-Infective (Miscellaneous)

22. Various

Anti-Smoking Agents
Heavy Metal Antagonists
Local Anesthetics (Parenteral)
Vaccines
Vitamin A Derivatives
Vitamin B Complex
Vitamin C
Vitamin D
Vitamin E
Vitamin K
Miscellaneous Vitamin Preparations
Multivitamins
Placebo
Unclassified Therapeutics

24. Natural medicines

Natural Medicines
Medicinal Herbs
Natural Weight Reduction
Tisanes
Chinese Medicine
Natural Immune/Anti-Allergy

Micro-Algae
Proteins
Amino-Acids
Nucleoside
Amino Sugar
Fatty Acids
Natural Oils, Spices
Natural Enzymes
Natural Vitamins
Natural Antioxidants
Natural Minerals
Nutritional Products
Alternative Therapies
Aroma Therapy
Homeopathic
Natural Medicines (Miscellaneous)

26. Missing

Missing Drugs and Missing Products

APPENDIX C: COUNTRY OF BIRTH CODING

Variables (COBC & COBGC)

Code	Country
13	CANADA
101	GREENLAND
102	ST. PIERRE AND MIQUELON
103	UNITED STATES OF AMERICA
105	NORTH AMERICA
201	BELIZE
202	COSTA RICA
203	EL SALVADOR
204	GUATEMALA
205	HONDURAS
206	MEXICO
207	NICARAGUA
208	PANAMA
209	CENTRAL AMERICA
301	ANGUILLA
302	ANTIGUA
303	ARUBA
304	BAHAMAS
305	BARBADOS
306	BERMUDA
307	CAYMAN ISLANDS
308	CUBA
309	DOMINICA
310	DOMINICAN REPUBLIC
311	GRENADA
312	GUADELOUPE
313	HAITI
314	JAMAICA
315	MARTINIQUE
316	MONTSERRAT
317	NETHERLANDS ANTILLES
318	PUERTO RICO
319	ST. CHRISTOPHER AND NEVIS
320	ST. LUCIA
321	ST. VINCENT AND THE GRENADINES
322	TRINIDAD AND TOBAGO
323	TURKS AND CAICOS ISLANDS
324	VIRGIN ISLANDS (BRITISH)
325	VIRGIN ISLANDS (U.S.A.)
326	WEST INDIES
327	CARIBBEAN
401	ARGENTINA
402	BOLIVIA
403	BRAZIL
404	CHILE
405	COLOMBIA
406	ECUADOR
407	FALKLAND ISLANDS
408	FRENCH GUIANA
409	GUYANA

410 PARAGUAY
411 PERU
412 SURINAM
413 URUGUAY
414 VENEZUELA
419 SOUTH AMERICA
501 AUSTRIA
502 BELGIUM
503 FRANCE
505 GERMANY, FEDERATED REPUBLIC OF
506 LIECHTENSTEIN
507 LUXEMBOURG
508 MONACO
509 NETHERLANDS
511 SWITZERLAND
512 WESTERN EUROPE
517 BULGARIA
518 CZECHOSLOVAKIA
519 CZECH REPUBLIC
520 ESTONIA
521 HUNGARY
522 LATVIA
523 LITHUANIA
524 POLAND
525 ROMANIA
526 SLOVAKIA
527 USSR
529 ARMENIA
530 AZERBAIJAN
531 BELARUS, REPUBLIC OF
532 GEORGIA
533 MOLDOVA
534 RUSSIA
535 UKRAINE
536 KAZAKHSTAN
537 KYRGYZSTAN
538 TAJIKISTAN
539 TURKMENISTAN
540 UZBEKISTAN
541 EASTERN EUROPE
546 IRELAND, REPUBLIC OF (EIRE)
547 IRELAND
548 UNITED KINGDOM
551 NORTHERN EUROPE
556 DENMARK
557 FINLAND
558 ICELAND
559 NORWAY
560 SWEDEN
561 SCANDINAVIA
566 ALBANIA
567 ANDORRA
568 BOSNIA-HERZEGOVINA
569 CROATIA
570 CYPRUS
571 GIBRALTAR

572 GREECE
573 ITALY
574 MACEDONIA, FORMER YUGOSLAV REPUBLIC OF
575 MALTA
576 MONTENEGRO
577 PORTUGAL
578 SAN MARINO
579 SERBIA
580 SLOVENIA
581 SPAIN
582 VATICAN CITY STATE
583 YUGOSLAVIA, FORMER
584 SOUTHERN EUROPE
585 FEDERAL REPUBLIC OF YUGOSLAVIA
586 MACEDONIA (GREECE OR FYR OF MACEDONIA)
589 EUROPE
601 BENIN
602 BURKINA FASO
603 CAPE VERDE ISLANDS
604 GAMBIA
605 GHANA
606 GUINEA
607 GUINEA-BISSAU
608 IVORY COAST
609 LIBERIA
610 MALI
611 MAURITANIA
612 NIGER
613 NIGERIA
614 ST. HELENA AND ASCENSION
615 SENEGAL
616 SIERRA LEONE
617 TOGO
618 WEST AFRICA
623 BURUNDI
624 COMOROS
625 DJIBOUTI, REPUBLIC OF
626 ERITREA
627 ETHIOPIA
628 KENYA
629 MADAGASCAR
630 MALAWI
631 MAURITIUS
632 MAYOTTE
633 MOZAMBIQUE
634 REUNION
635 RWANDA
636 SEYCHELLES
637 SOMALIA
638 TANZANIA
639 UGANDA
640 ZAMBIA
641 ZIMBABWE
642 EASTERN AFRICA
647 ALGERIA
648 EGYPT

649 LIBYA
650 MOROCCO
651 SUDAN
652 TUNISIA
653 WESTERN SAHARA
654 NORTHERN AFRICA
659 ANGOLA
660 CAMEROON
661 CENTRAL AFRICAN REPUBLIC
662 CHAD
663 CONGO (REPUBLIC OF THE CONGO)
664 EQUATORIAL GUINEA
665 GABON
666 SAO TOME AND PRINCIPE
667 DEMOCRATIC REPUBLIC OF THE CONGO
672 BOTSWANA
673 LESOTHO
674 NAMIBIA
675 SOUTH AFRICA, REPUBLIC OF
676 SWAZILAND
681 AFRICA
701 AFGHANISTAN
702 TURKEY
703 WESTERN ASIA
708 BAHRAIN
709 IRAN
710 IRAQ
711 ISRAEL
712 JORDAN
713 KUWAIT
714 LEBANON
715 OMAN
716 QATAR
717 SAUDI ARABIA
718 SYRIA
719 UNITED ARAB EMIRATES
720 YEMEN, REPUBLIC OF
721 MIDDLE EAST
726 CHINA
727 CHINA, PEOPLE'S REPUBLIC OF
728 HONG KONG
729 JAPAN
730 KOREA, NORTH
731 KOREA, SOUTH
732 KOREA
733 MACAO
734 MONGOLIA
735 TAIWAN
736 EASTERN ASIA
741 BRUNEI
742 INDONESIA
743 KAMPUCHEA
744 LAOS
745 MALAYSIA
746 MYANMAR, UNION OF
747 PHILIPPINES

748 SINGAPORE
749 THAILAND
750 VIETNAM
751 SOUTH EAST ASIA
756 BANGLADESH
757 BHUTAN
758 INDIA
759 MALDIVES, REPUBLIC OF
760 NEPAL
761 PAKISTAN
762 SRI LANKA
763 SOUTH ASIA
764 PALESTINE
768 ASIA
801 AMERICAN SAMOA
802 AUSTRALIA
803 BELAU, REPUBLIC OF
804 COOK ISLANDS
805 FIJI
806 FRENCH POLYNESIA
807 GUAM (U.S.A.)
808 KIRIBATI
809 MARSHALL ISLANDS
810 MICRONESIA, FEDERATED STATES OF
811 NAURU
812 NEW CALEDONIA
813 NEW ZEALAND
814 PAPUA NEW GUINEA
815 PITCAIRN ISLAND
816 SOLOMON ISLANDS
817 TONGA
818 TUVALU
819 U.S. PACIFIC TRUST TERRITORIES
820 VANUATA
821 WALLIS AND FUTUNA
822 WESTERN SAMOA
827 OCEANIA
901 LANDED IMMIGRANT
910 NOT BORN
998 ADOPTED / UNKNOWN
999 AT SEA

APPENDIX D: RESTRICTION OF ACTIVITY CODES AND CAUSE OF DEATH CODES (ICD-10)

Main Health Problem - 22 Groups (RAI*n*G22A)
Second Health Problem – 22 Groups (RAI*n*G22B)
Cause of Death – 22 Groups (CODG10)

Grouping of ICD-10 codes to 22 groups

1. **Certain infectious and parasitic diseases**
   A000 – B99

2. **Neoplasms**
   C000 – D489

3. **Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism**
   D500 – D899

4. **Endocrine, nutritional and metabolic diseases**
   E000 – E90

5. **Mental and behavioural Disorders**
   F000 – F99

6. **Diseases of the nervous system**
   G000 – G998

7. **Diseases of the eye and adnexa**
   H000 – H599

8. **Diseases of the ear and mastoid process**
   H600 – H959

9. **Diseases of the circulatory system**
   I00 – I99

10. **Diseases of the respiratory system**
    J00 – J998

11. **Diseases of the digestive system**
    K000 – K938

12. **Diseases of the skin and subcutaneous tissue**
    L00 – L998

13. **Diseases of the musculoskeletal system and connective tissue**
    M000 – M999

14. **Diseases of the genitourinary system**
    N000 – N999

15. **Pregnancy, childbirth and the puerperium**
    O000 - 0998

16. Certain conditions originating in the perinatal period
P000 – P969

17. Congenital malformations, deformations and chromosomal abnormalities
Q000 – Q999

18. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
R000 – R99

19. Injury, poisoning and certain other consequence of external causes
S000 – T983

20. External causes of morbidity and mortality
V01 – Y98

21. Factors influencing health status and contact with health services
Z000 – Z999

22. Provisional codes for research and temporary assignment Codes for special purposes
U00 – U99