

# **Joint Canada/United States Survey of Health**

## **Derived Variables Documentation**

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## General Health (1 DV)

### 1) Self-Rated Health

**Variable name:** GHJ1DHD1

**Based on:** GHJ1\_01

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

**Note:** Higher scores indicate positive self-reported health status.

<b>Value of GHJ1DHD1</b>	<b>Condition(s)</b>	<b>Description</b>
9 (NS)	(GHJ1_01 = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
0	GHJ1_01 = 5	Poor
1	GHJ1_01 = 4	Fair
2	GHJ1_01 = 3	Good
3	GHJ1_01 = 2	Very good
4	GHJ1_01 = 1	Excellent

## Restriction of Activities (1 DV)

### 1) Impact of Health Problems

**Variable name:** RAJ1DIMP

**Based on:** RAJ1\_2A, RAJ1\_2B1, RAJ1\_2B2, RAJ1\_2C

**Description:** This variable is a crude measure of the impact of long-term physical conditions, mental conditions and health problems on the principal domains of life of: home, work, school, and other activities.

Value of RAJ1DIMP	Condition(s)	Description
9 (NS)	(RAJ1_2A = DK, R, NS) or (RAJ1_2B1 = DK, R, NS) or (RAJ1_2B2 = DK, R, NS) or (RAJ1_2C = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
2	RAJ1_2A = 2 or RAJ1_2B1 = 2 or RAJ1_2B2 = 2 or RAJ1_2C = 2	Often
1	RAJ1_2A = 1 or RAJ1_2B1 = 1 or RAJ1_2B2 = 1 or RAJ1_2C = 1	Sometimes
3	RAJ1_2A = 3 and (RAJ1_2B1 = 3, 4) and (RAJ1_2B2 = 3, 4) and RAJ1_2C = 3	Never

## Chronic Conditions (1 DV)

### 1) Has a Chronic Condition

**Variable name:** CHJ1FCC1

**Based on:** CHJ1\_2A, CHJ1\_4A, CHJ1\_5A, CHJ1\_6A, CHJ1\_7C, CHJ1\_8A, CHJ1\_9A, CHJ1\_10A, CHJ1\_11

**Description:** This variable indicates whether the respondent has one or more chronic health conditions which were diagnosed by a health professional.

Value of CHJ1FCC1	Condition(s)	Description
1	(CHJ1_2A = 1) or (CHJ1_4A = 1) or (CHJ1_5A = 1) or (CHJ1_6A = 1) or (CHJ1_7C = 1) or (CHJ1_8A = 1) or (CHJ1_9A = 1) or (CHJ1_10A = 1) or (CHJ1_11 = 1)	Has at least one chronic condition
9 (NS)	(CHJ1_2A = DK, R or NS) or (CHJ1_4A = DK, R or NS) or (CHJ1_5A = DK, R or NS) or (CHJ1_6A = DK, R or NS) or (CHJ1_7C = DK, R or NS) or (CHJ1_8A = DK, R or NS) or (CHJ1_9A = DK, R or NS) or (CHJ1_10A = DK, R or NS) or (CHJ1_11 = DK, R or NS)	At least one required question was not answered (don't know, refusal, not stated)
2	(CHJ1_2A = 2 or CHJ1_2A = 6) and (CHJ1_4A = 2 or CHJ1_4A = 6) and (CHJ1_5A = 2 or CHJ1_5A = 6) and (CHJ1_6A = 2 or CHJ1_6A = 6) and (CHJ1_7C = 2 or CHJ1_7C = 6) and (CHJ1_8A = 2 or CHJ1_8A = 6) and (CHJ1_9A = 2 or CHJ1_9A = 6) and (CHJ1_10A = 2 or CHJ1_10A = 6) and (CHJ1_11 = 2)	Has no chronic conditions

## Depression (4 DVs)

### Temporary Reformats

Reformat	Description
If DPJ1_02 = 2 then DPJ1T02 = 0 If DPJ1_05 = 2 then DPJ1T05 = 0 If DPJ1_06 = 2 then DPJ1T06 = 0 If DPJ1_07 <= 2 and (DPJ1_08A <> DK, R, NS) then if (DPJ1_08A > 9 and DPJ1_08B = 1) or (DPJ1_08A > 4 and DPJ1_08B = 2) then DPJ1T08A = 1 else DPJ1T08A = 0 If (DPJ1_07 = 3, 4) then DPJ1T08A = 0 If DPJ1_10 = 3 or DPJ1_09 = 2 then DPJ1T10 = 0 If DPJ1_10 = 2 then DPJ1T10 = 1 If DPJ1_11 = 2 then DPJ1T11 = 0 If DPJ1_12 = 2 then DPJ1T12 = 0 If DPJ1_13 = 2 then DPJ1T13 = 0 If DPJ1_16 = 2 then DPJ1T16 = 0 If DPJ1_19 = 2 then DPJ1T19 = 0 If DPJ1_20 <= 2 and (DPJ1_21A <> DK, R, NS) then if (DPJ1_21A > 9 and DPJ1_21B = 1) or (DPJ1_21A > 4 and DPJ1_21B = 2) then DPJ1T21A = 1 else DPJ1T21A = 0 If (DPJ1_20 = 3, 4) then DPJ1T21A = 0 If DPJ1_23 = 3 or DPJ1_22 = 2 then DPJ1T23 = 0 If DPJ1_23 = 2 then DPJ1T23 = 1 If DPJ1_24 = 2 then DPJ1T24 = 0 If DPJ1_25 = 2 then DPJ1T25 = 0 If DPJ1_26 = 2 then DPJ1T26 = 0	Rescale answers needed for calculation so that answers are all 1 for yes and 0 for no.  for Q08 and Q21 answers are rescaled so 1 if respondent gained or lost more than 9 lbs. (4 kg) and 0 if less or didn't lose/gain weight for Q10 and Q23 answers are rescaled so = 1 if respondent had trouble falling asleep every night or almost every night and 0 if less often or not at all

### 1) Derived Depression Scale – Short Form Score

**Variable name:** DPJ1DSF

**Based on:** DPJ1\_02, DPJ1\_05, DPJ1\_06, DPJ1\_08A, DPJ1\_08B, DPJ1\_10, DPJ1\_11, DPJ1\_12, DPJ1\_13, DPJ1\_16, DPJ1\_17, DPJ1\_18, DPJ1\_19, DPJ1\_21A, DPJ1\_21B, DPJ1\_23, DPJ1\_24, DPJ1\_25, DPJ1\_26

**Description:** This variable assesses the depression level for respondents that felt depressed or lost interest in things for 2 weeks or more last year. These include normal periods of sadness (for example, after the death of a loved one), as well as “serious” depression.

**Notes:** 1) The items used to measure depression are based on the work of Kessler and Mroczek. They selected a subset of items from the Composite International Diagnostic Interview (CIDI) that measure major depressive episode (MDE). The CIDI is a structure diagnostic instrument that was designed to produce diagnoses according to the definitions and the criteria of both DSM-III-R and the Diagnostic Criteria for the Research of the ICD-10. The short-form of MDE used in the JCUSH was developed to operationalize Criteria A through C of the DSM-III-R diagnosis of MDE. The diagnostic hierarchy rules defined in the Criterion D (not superimposed on schizophrenia, schizophrenia form disorder, delusional disorders, or psychotic disorders NOS) were ignored.

2) Higher scores indicate higher level of depression.

**Internet sites:** National Comorbidity Survey: [www.hcp.med.harvard.edu/ncs/](http://www.hcp.med.harvard.edu/ncs/)  
 Composite International Diagnostic Interview (CIDI): [www.who.int/msa/cidi/index.htm](http://www.who.int/msa/cidi/index.htm)

Value of DPJ1DSF	Condition(s)	Description
99 (NS)	(DPJ1T02 = DK, R, NS) or (DPJ1T05 = DK, R, NS) or (DPJ1T06 = DK, R, NS) or (DPJ1T08A = DK, R, NS) or (DPJ1T10 = DK, R, NS) or (DPJ1T11 = DK, R, NS) or (DPJ1T12 = DK, R, NS) or (DPJ1T13 = DK, R, NS) or (DPJ1T16 = DK, R, NS) or (DPJ1_17 = DK, R, NS) or (DPJ1_18 = DK, R, NS) or (DPJ1T19 = DK, R, NS) or (DPJ1T21A = DK, R, NS) or (DPJ1T23 = DK, R, NS) or (DPJ1T24 = DK, R, NS) or (DPJ1T25 = DK, R, NS) or (DPJ1T26 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
0	DPJ1T02 < NA and DPJ1T05 = NA and DPJ1T19 = NA	Did not feel depressed or did not lose interest in things for two weeks last year, or did so only mildly (less than most of day and at least almost everyday for at least two weeks)
DPJ1T02 + DPJ1T05 + DPJ1T06 + DPJ1T08A + DPJ1T10 + DPJ1T11 + DPJ1T12 + DPJ1T13  (max: 8; min: 1)	DPJ1T02 = 1 and (DPJ1T05 = 1, 0) and (DPJ1T06 = 1, 0) and (DPJ1T08A = 1, 0) and (DPJ1T10 = 1, 0) and (DPJ1T11 = 1, 0) and (DPJ1T12 = 1, 0) and (DPJ1T13 = 1, 0)	Felt depressed for 2 weeks or more last year



<p>DPJ1T16 + DPJ1T19 + DPJ1T21A + DPJ1T23 + DPJ1T24 + DPJ1T25 + DPJ1T26</p> <p>(max: 7; min: 1)</p>	<p>DPJ1T16 = 1 and (DPJ1T19 = 1, 0) and (DPJ1T21A = 1, 0) and (DPJ1T23 = 1, 0) and (DPJ1T24 = 1, 0) and (DPJ1T25 = 1, 0) and (DPJ1T26 = 1, 0)</p>	<p>Lost interest in things for 2 weeks or more last year</p>
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## 2) Depression Scale – Probability of Caseness to Respondents

**Variable name:** DPJ1DPP

**Based on:** DPJ1DSF

**Description:** This variable calculates the probability (expressed as a proportion) that the respondent would have been diagnosed as having experienced a major depressive episode in the past 12 months, if they had completed the Long-Form Composite International Diagnostic Interview (CIDI).

**Note:** A probability of caseness of 0 was assigned to respondents who denied the stem questions.

**Internet sites:** National Comorbidity Survey: [www.hcp.med.harvard.edu/ncs/](http://www.hcp.med.harvard.edu/ncs/)  
Composite International Diagnostic Interview (CIDI): [www.who.int/msa/cidi/index.htm](http://www.who.int/msa/cidi/index.htm)

Value of DPJ1DPP	Condition(s)	Description
9.99 (NS)	DPJ1DSF = NS	At least one required question was not answered (don't know, refusal, not stated) or module not asked
0	DPJ1DSF = 0	Probability of caseness to respondents
0.05	DPJ1DSF = 1	
0.25	DPJ1DSF = 2	
0.50	DPJ1DSF = 3	
0.80	DPJ1DSF = 4	
0.90	DPJ1DSF > 4	

### 3) Number of Weeks Feeling Depressed – 12-Months

**Variable name:** DPJ1DWK

**Based on:** DPJ1\_14, DPJ1\_27

**Description:** This variable indicates the number of weeks the respondent felt depressed in the last 12 months.

**Note:** Respondents who did not report feeling sad, blue or depressed and who did not report having lost interest in most things are excluded from the calculation of this variable.

Value of DPJ1DWK	Condition(s)	Description
96 (NA)	DPJ1_14 = NA and DPJ1_27 = NA	Population exclusions
99 (NS)	(DPJ1_14 = DK, R, NS) or (DPJ1_27 = DK, R, NS) or (DPJ1_08A = DK, R, NS) or (DPJ1_21A = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
DPJ1_14	DPJ1_14 < NA	Number of weeks respondent was depressed in the last year
DPJ1_27	DPJ1_14 >= NA and DPJ1_27 < NA	Number of weeks respondent lost interest in things last year

### 4) Specific Month Last Felt Depressed

**Variable name:** DPJ1DMT

**Based on:** DPJ1\_14, DPJ1\_15, DPJ1\_27, DPJ1\_28

**Description:** This variable indicates the specific month when the respondent last felt depressed in the last year.

**Note:** Respondents who did not report feeling sad, blue or depressed and who did not report having lost interest in most things or who were depressed for 52 weeks in the past year are excluded from the calculation of this variable.

Value of DPJ1DMT	Condition(s)	Description
96 (NA)	DPJ1_15 = NA and DPJ1_28 = NA	Population exclusions
99 (NS)	(DPJ1_14 = 52, DK, R, NS) or (DPJ1_15 = DK, R, NS) or (DPJ1_27 = 52, DK, R, NS) or (DPJ1_28 = DK, R, NS) or (DPJ1_08A = DK, R, NS) or (DPJ1_21A = DK, R, NS)	Was depressed for >51 weeks last year or at least one required question was not answered (don't know, refusal, not stated)
DPJ1_15 (min : 1; max : 12)	DPJ1_14 < 52 and DPJ1_15 < NA	Specific month respondent felt depressed for at least 2 weeks in a row
DPJ1_28 (min : 1; max : 12)	DPJ1_14 >= NA and DPJ1_27 < 52 and DPJ1_28 < NA	Specific month respondent last lost interest in things for at least 2 weeks in a row

## Smoking (2 DVs)

### 1) Type of Smoker

**Variable name:** SMJ1DTOS

**Based on:** SMJ1\_01A, SMJ1\_01B, SMJ1\_4, SMJ1\_9

**Description:** This variable indicates the type of smoker the respondent is, based on his/her smoking habits.

Value of SMJ1DTOS	Condition(s)	Description
99 (NS)	(SMJ1_01A = DK, R or NS) or (SMJ1_01B = DK, R or NS) or (SMJ1_4 = DK, R or NS) or (SMJ1_9 = DK, R or NS)	Respondent didn't answer (don't know, refusal, not stated) at least one question required for calculation.
1	(SMJ1_4 = 1)	Current daily smoker
2	(SMJ1_4 = 2) and (SMJ1_9 = 1)	Current occasional smoker but former daily smoker for at least three months
3	(SMJ1_4 = 2) and (SMJ1_9 = 2)	Current occasional smoker, but never formerly smoked daily for at least three months
4	(SMJ1_01A = 1) and (SMJ1_4 = 3)	Currently non-smoker, but has smoked at least 100 cigarettes in lifetime
5	(SMJ1_01A = 2) and (SMJ1_4 = 3)	Currently non-smoker, has not smoked at least 100 cigarettes in lifetime but has smoked a whole cigarette before
6	SMJ1_01B = 2	Respondent has not smoked at least 100 cigarettes in lifetime or ever smoked a whole cigarette. Current smoking patterns unknown.

### 2) Number of Years Smoked Daily (Current Daily Smokers Only)

**Variable name:** SMJ1DYSD

**Based on:** SMJ1\_4, SMJ1\_5, DHJ1\_AGE

**Description:** This variable indicates the number of years the respondent has smoked daily.

**Notes:** 1) Respondents who are not daily smokers have been excluded from the population.

Value of SMJ1DYSD	Condition(s)	Description
999 (NS)	(SMJ1_4 = DK, R, NS) or (SMJ1_5 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
996 (NA)	(SMJ1_4 = 2, 3)	Population exclusions
DHJ1_AGE – SMJ1_5 (min: 0; max: 125)	(SMJ1_4 = 1)	Number of years smoking daily

## Health Utility Index (HUI) (9 DVs)

### 1) Vision Trouble (Function Code)

**Variable name:** HUI1DVIS

**Based on:** HUI1\_01 HUI1\_02 HUI1\_03 HUI1\_04 HUI1\_05

**Description:** This variable classifies the respondents based on their vision state.

Value of HUI1DVIS	Condition(s)	Description
1	HUI1_01 = 1 and HUI1_02 = 6 and HUI1_03 = 6 and HUI1_04 = 1 and HUI1_05 = 6	No visual problems
2	(HUI1_01 = 1 and HUI1_02 = 6 and HUI1_03 = 6 and HUI1_04 = 2 and HUI1_05 = 1) OR (HUI1_01 = 2 and HUI1_02 = 1 and HUI1_03 = 6 and HUI1_04 = 1 and HUI1_05 = 6) OR (HUI1_01 = 2 and HUI1_02 = 1 and HUI1_03 = 6 and HUI1_04 = 2 and HUI1_05 = 1)	Problems corrected by lenses (distance, close, or both)
3	(HUI1_01 = 1 and HUI1_02 = 6 and HUI1_03 = 6 and HUI1_04 = 2 and HUI1_05 = 2) OR (HUI1_01 = 2 and HUI1_02 = 1 and HUI1_03 = 6 and HUI1_04 = 2 and HUI1_05 = 2)	Problems seeing distance – not corrected

4	(HUJ1_01 = 2 and HUJ1_02 = 2 and HUJ1_03 = 1 and HUJ1_04 = 1 and HUJ1_05 = 6) OR (HUJ1_01 = 2 and HUJ1_02 = 2 and HUJ1_03 = 1 and HUJ1_04 = 2 and HUJ1_05 = 1)	Problems seeing close – not corrected
5	HUJ1_01 = 2 and HUJ1_02 = 2 and HUJ1_03 = 1 and HUJ1_04 = 2 and HUJ1_05 = 2	Problem seeing close and distance – not corrected
6	HUJ1_01 = 2 and HUJ1_02 = 2 and HUJ1_03 = 2 and HUJ1_04 = 6 and HUJ1_05 = 6	No sight at all
99 (NS)	(HUJ1_01 = DK, R, NS) or (HUJ1_02 = DK, R, NS) or (HUJ1_03 = DK, R, NS) or (HUJ1_04 = DK, R, NS) or (HUJ1_05 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)

## 2) Hearing Problems (Function Code)

**Variable name:** HUJ1DHER

**Based on:** HUJ1\_06, HUJ1\_07, HUJ1\_07A, HUJ1\_08, HUJ1\_09

**Description:** This variable classifies the respondents based on their hearing state.

Value of HUJ1DHER	Condition(s)	Description
1	HUJ1_06 = 1 and HUJ1_07 = 6 and HUJ1_07A = 6 and HUJ1_08 = 6 and HUJ1_09 = 6	No hearing problems
2	HUJ1_06 = 2 and HUJ1_07 = 1 and HUJ1_07A = 6 and HUJ1_08 = 1 and HUJ1_09 = 6	Problem hearing in group - corrected

3	(HUJ1_06 = 2 and HUJ1_07 = 1 and HUJ1_07A = 6 and HUJ1_08 = 2 and HUJ1_09 = 1) OR (HUJ1_06 = 2 and HUJ1_07 = 1 and HUJ1_07A = 6 and HUJ1_08 = 2 and HUJ1_09 = 2)	Problem hearing in group and individual - corrected
4	HUJ1_06 = 2 and HUJ1_07 = 2 and HUJ1_07A = 1 and HUJ1_08 = 1 and HUJ1_09 = 6	Problem hearing in group – not corrected
5	HUJ1_06 = 2 and HUJ1_07 = 2 and HUJ1_07A = 1 and HUJ1_08 = 2 and HUJ1_09 = 1	Problem hearing in group and individual – individual corrected
6	(HUJ1_06 = 2 and HUJ1_07 = 2 and HUJ1_07A = 1 and HUJ1_08 = 2 and HUJ1_09 = 2) OR (HUJ1_06 = 2 and HUJ1_07 = 2 and HUJ1_07A = 2 and HUJ1_08 = 6 and HUJ1_09 = 6)	Cannot hear
99 (NS)	(HUJ1_06 = DK, R, NS) or (HUJ1_07 = DK, R, NS) or (HUJ1_07A = DK, R, NS) or (HUJ1_08 = DK, R, NS) or (HUJ1_09 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)

### 3) Speech Trouble (Function Code)

**Variable name:** HUI1DSPE

**Based on:** HUI1\_10, HUI1\_11, HUI1\_12, HUI1\_13

**Description:** This variable classifies the respondents based on their state of speech trouble.

Value of HUI1DSPE	Condition(s)	Description
1	HUI1_10 = 1 and HUI1_11 = 6 and HUI1_12 = 6 and HUI1_13 = 6	No speech problems
2	HUI1_10 = 2 and HUI1_11 = 1 and HUI1_12 = 1 and HUI1_13 = 6	Partially understood by strangers
3	HUI1_10 = 2 and HUI1_11 = 1 and HUI1_12 = 2 and HUI1_13 = 1	Partially understood by friends
4	(HUI1_10 = 2 and HUI1_11 = 2 and HUI1_12 = 1 and HUI1_13 = 6) OR (HUI1_10 = 2 and HUI1_11 = 2 and HUI1_12 = 2 and HUI1_13 = 1)	Not understood by strangers
5	(HUI1_10 = 2 and HUI1_11 = 1 and HUI1_12 = 2 and HUI1_13 = 2) OR (HUI1_10 = 2 and HUI1_11 = 2 and HUI1_12 = 2 and HUI1_13 = 2)	Not understood by friends
9 (NS)	(HUI1_010 = DK, R, NS) or (HUI1_011 = DK, R, NS) or (HUI1_012 = DK, R, NS) or (HUI1_013 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)

#### 4) Mobility Trouble (Function Code)

**Variable name:** HUJ1DMOB

**Based on:** HUJ1\_14, HUJ1\_15, HUJ1\_16, HUJ1\_17, HUJ1\_18

**Description:** This variable classifies the respondents based on their state of mobility trouble.

Value of HUJ1DMOB	Condition(s)	Description
1	HUJ1_14 = 1 and HUJ1_15 = 6 and HUJ1_16 = 6 and HUJ1_17 = 6 and HUJ1_18 = 6	No mobility problems
2	HUJ1_14 = 2 and HUJ1_15 = 1 and HUJ1_16 = 2 and HUJ1_17 = 2 and HUJ1_18 = 2	Problem – no aid required
3	HUJ1_14 = 2 and HUJ1_15 = 1 and HUJ1_16 = 1 and HUJ1_17 = 2 and HUJ1_18 = 2	Problem – requires mechanical support
4	(HUJ1_14 = 2 and HUJ1_15 = 1 and HUJ1_16 = 1 and HUJ1_17 = 2 and HUJ1_18 = 1) OR (HUJ1_14 = 2 and HUJ1_15 = 1 and HUJ1_16 = 2 and HUJ1_17 = 2 and HUJ1_18 = 1)	Problem – requires wheelchair



<p>5</p>	<p>(HUJ1_14 = 2 and                      HUJ1_15 = 1 and                      HUJ1_16 = 1 and                      HUJ1_17 = 1 and                      HUJ1_18 = 1)                      OR                      (HUJ1_14 = 2 and                      HUJ1_15 = 1 and                      HUJ1_16 = 1 and                      HUJ1_17 = 1 and                      HUJ1_18 = 2)                      OR                      (HUJ1_14 = 2 and                      HUJ1_15 = 1 and                      HUJ1_16 = 2 and                      HUJ1_17 = 1 and                      HUJ1_18 = 1)                      OR                      (HUJ1_14 = 2 and                      HUJ1_15 = 1 and                      HUJ1_16 = 2 and                      HUJ1_17 = 1 and                      HUJ1_18 = 2)</p>	<p>Problem – requires help from people</p>
<p>6</p>	<p>(HUJ1_14 = 2 and                      HUJ1_15 = 2 and                      HUJ1_16 = 6 and                      HUJ1_17 = 6 and                      HUJ1_18 = 1)                      OR                      (HUJ1_14 = 2 and                      HUJ1_15 = 2 and                      HUJ1_16 = 6 and                      HUJ1_17 = 6 and                      HUJ1_18 = 2)</p>	<p>Cannot walk</p>
<p>99 (NS)</p>	<p>(HUJ1_14 = DK, R, NS) or                      (HUJ1_15 = DK, R, NS) or                      (HUJ1_16 = DK, R, NS) or                      (HUJ1_17 = DK, R, NS) or                      (HUJ1_18 = DK, R, NS)</p>	<p>At least one required question was not answered (don't know, refusal, not stated)</p>

### 5) Dexterity Trouble (Function Code)

**Variable name:** HUJ1DDEX

**Based on:** HUJ1\_21, HUJ1\_22, HUJ1\_23, HUJ1\_24

**Description:** This variable classifies the respondents based on their state of dexterity trouble.

Value of HUJ1DDEX	Condition(s)	Description
1	HUJ1_21 = 1 and HUJ1_22 = 6 and HUJ1_23 = 6 and HUJ1_24 = 6	No dexterity problems
2	HUJ1_21 = 2 and HUJ1_22 = 2 and HUJ1_23 = 6 and HUJ1_24 = 2	Dexterity problem – no help required
3	HUJ1_21 = 2 and HUJ1_22 = 2 and HUJ1_23 = 6 and HUJ1_24 = 1	Dexterity problem – require special equipment
4	(HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 1 and HUJ1_24 = 1) OR (HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 1 and HUJ1_24 = 2)	Dexterity problem – requires help with some tasks
5	(HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 2 and HUJ1_24 = 1) OR (HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 2 and HUJ1_24 = 2) OR (HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 3 and HUJ1_24 = 1) OR (HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 3 and HUJ1_24 = 2)	Dexterity problem – requires help with most tasks

6	(HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 4 and HUJ1_24 = 1) OR (HUJ1_21 = 2 and HUJ1_22 = 1 and HUJ1_23 = 4 and HUJ1_24 = 2)	Dexterity problem – requires help with all tasks
99 (NS)	(HUJ1_21 = DK, R, NS) or (HUJ1_22 = DK, R, NS) or (HUJ1_23 = DK, R, NS) or (HUJ1_24 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)

### 6) Emotional Problems (Function Code)

**Variable name:** HUJ1DEMO

**Based on:** HUJ1\_25

**Description:** This variable classifies the respondents based on their level of emotional problems.

Value of HUJ1DEMO	Condition(s)	Description
1	HUJ1_25 = 1	Happy and interested in life
2	HUJ1_25 = 2	Somewhat happy
3	HUJ1_25 = 3	Somewhat unhappy
4	HUJ1_25 = 4	Very unhappy
5	HUJ1_25 = 5	So unhappy that life is not worthwhile
9 (NS)	(HUJ1_25 = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)

## 7) Cognition (Function Code)

**Variable name:** HUJ1DCOG

**Based on:** HUJ1\_26, HUJ1\_27

**Description:** This variable classifies the respondents based on their level of cognitive problems.

Value of HUJ1DCOG	Condition(s)	Description
1	HUJ1_26 = 1 and HUJ1_27 = 1	No cognitive problems
2	(HUJ1_26 = 1 and HUJ1_27 = 2) OR (HUJ1_26 = 1 and HUJ1_27 = 3)	A little difficulty thinking
3	HUJ1_26 = 2 and HUJ1_27 = 1	Somewhat forgetful
4	(HUJ1_26 = 2 and HUJ1_27 = 2) OR (HUJ1_26 = 2 and HUJ1_27 = 3)	Somewhat forgetful / a little difficulty thinking
5	(HUJ1_26 = 1 and HUJ1_27 = 4) OR (HUJ1_26 = 2 and HUJ1_27 = 4) OR (HUJ1_26 = 3 and HUJ1_27 = 1) OR (HUJ1_26 = 3 and HUJ1_27 = 2) OR (HUJ1_26 = 3 and HUJ1_27 = 3) OR (HUJ1_26 = 3 and HUJ1_27 = 4)	Very forgetful / great deal of difficulty thinking

6	(HUJ1_26 = 1 and HUJ1_27 = 5) OR (HUJ1_26 = 2 and HUJ1_27 = 5) OR (HUJ1_26 = 3 and HUJ1_27 = 5) OR (HUJ1_26 = 4 and HUJ1_27 = 1) OR (HUJ1_26 = 4 and HUJ1_27 = 2) OR (HUJ1_26 = 4 and HUJ1_27 = 3) OR (HUJ1_26 = 4 and HUJ1_27 = 4) OR (HUJ1_26 = 4 and HUJ1_27 = 5)	Unable to remember and / or to think
99 (NS)	(HUJ1_26 = DK, R, NS) or (HUJ1_27 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)

### 8) Activities Prevented / Pain (Function Code)

**Variable name:** HUJ1DPAD

**Based on:** HUJ1\_28, HUJ1\_30

**Description:** This variable classifies the respondents based on their activity limitation due to pain or discomfort.

Value of HUJ1DPAD	Condition(s)	Description
1	HUJ1_28 = 1 and HUJ1_30 = 6	No pain or discomfort
2	HUJ1_28 = 2 and HUJ1_30 = 1	Pain - does not prevent activity
3	HUJ1_28 = 2 and HUJ1_30 = 2	Pain prevents a few activities
4	HUJ1_28 = 2 and HUJ1_30 = 3	Pain prevents some activities
5	HUJ1_28 = 2 and HUJ1_30 = 4	Pain prevents most activities
9 (NS)	(HUJ1_28 = DK, R, NS) or (HUJ1_30 = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)

## 9) Health Utility Index (HUI)

**Variable name:** HUI1DHSI

**Based on:** HUI1DVIS, HUI1DHER, HUI1DSPE, HUI1DMOB, HUI1DDEX, HUI1DEMO, HUI1DCOG, HUI1DPAD

**Description:** 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 -0.360 and 1. 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.

The scores of the HUI 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 (Mark 3) was developed by McMaster University's Centre for Health Economics and Policy Analysis, and is derived using societal preferences from a random sample of 500 people within the boundaries of the City 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.

Higher scale indicates better health index  
Range: -0.360 to 1 in increments of 0.001

## Height/Weight (6 DVs)

### 1) Height (Metres)

**Variable name:** HWJ1DHTM

**Based on:** HWJ1\_02, HWJ1\_02C, HWJ1\_02D, HWJ1\_02E, HWJ1\_02F

**Description:** This variable indicates the height of the respondent in metres.

**Note:** For example, an individual who is 5 feet and 8 inches will have a height of 1.727 metres. The 1.727 is the midpoint of the range (1.715-1.739) around the height 5 feet and 8 inches. The range values were calculated as follows for an individual who is 5'8": LOWER LIMIT: Take the exact value in metres for a person who is 5'7" and average it with the value for 5'8".

UPPER LIMIT: Take the exact value in metres for a person who is 5'9" and average it with the value for 5'8" then subtract 0.001 from it.

Value of HWJ1DHTM	Condition(s)	Description
9.999 (NS)	(HWJ1_02 = DK, R, NS) or (HWJ1_02C = DK, R, NS) or (HWJ1_02D = DK, R, NS) or (HWJ1_02E = DK, R, NS) or (HWJ1_02F = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
.914	HWJ1_02 = 3 and HWJ1_02C = 0	.926 meters or shorter
.940	HWJ1_02 = 3 and HWJ1_02C = 1	.927 to .952 meters
.965	HWJ1_02 = 3 and HWJ1_02C = 2	.953 to .977 meters
.991	HWJ1_02 = 3 and HWJ1_02C = 3	.978 to 1.002 meters
1.016	HWJ1_02 = 3 and HWJ1_02C = 4	1.003 to 1.028 meters
1.041	HWJ1_02 = 3 and HWJ1_02C = 5	1.029 to 1.053 meters
1.067	HWJ1_02 = 3 and HWJ1_02C = 6	1.054 to 1.079 meters
1.092	HWJ1_02 = 3 and HWJ1_02C = 7	1.080 to 1.104 meters
1.118	HWJ1_02 = 3 and HWJ1_02C = 8	1.105 to 1.129 meters
1.143	HWJ1_02 = 3 and HWJ1_02C = 9	1.130 to 1.155 meters
1.168	HWJ1_02 = 3 and HWJ1_02C = 10	1.156 to 1.180 meters
1.194	HWJ1_02 = 3 and HWJ1_02C = 11	1.181 to 1.206 meters
1.219	HWJ1_02 = 4 and HWJ1_02D = 0	1.207 to 1.231 meters
1.245	HWJ1_02 = 4 and HWJ1_02D = 1	1.232 to 1.256 meters
1.270	HWJ1_02 = 4 and HWJ1_02D = 2	1.257 to 1.282 meters

1.295	HWJ1_02 = 4 and HWJ1_02D = 3	1.283 to 1.307 meters
1.321	HWJ1_02 = 4 and HWJ1_02D = 4	1.308 to 1.333 meters
1.346	HWJ1_02 = 4 and HWJ1_02D = 5	1.334 to 1.358 meters
1.372	HWJ1_02 = 4 and HWJ1_02D = 6	1.359 to 1.383 meters
1.397	HWJ1_02 = 4 and HWJ1_02D = 7	1.384 to 1.409 meters
1.422	HWJ1_02 = 4 and HWJ1_02D = 8	1.410 to 1.434 meters
1.448	HWJ1_02 = 4 and HWJ1_02D = 9	1.435 to 1.460 meters
1.473	HWJ1_02 = 4 and HWJ1_02D = 10	1.461 to 1.485 meters
1.499	HWJ1_02 = 4 and HWJ1_02D = 11	1.486 to 1.510 meters
1.524	HWJ1_02 = 5 and HWJ1_02E = 0	1.511 to 1.536 meters
1.549	HWJ1_02 = 5 and HWJ1_02E = 1	1.537 to 1.561 meters
1.575	HWJ1_02 = 5 and HWJ1_02E = 2	1.562 to 1.587 meters
1.600	HWJ1_02 = 5 and HWJ1_02E = 3	1.588 to 1.612 meters
1.626	HWJ1_02 = 5 and HWJ1_02E = 4	1.613 to 1.637 meters
1.651	HWJ1_02 = 5 and HWJ1_02E = 5	1.638 to 1.663 meters
1.676	HWJ1_02 = 5 and HWJ1_02E = 6	1.664 to 1.688 meters
1.702	HWJ1_02 = 5 and HWJ1_02E = 7	1.689 to 1.714 meters
1.727	HWJ1_02 = 5 and HWJ1_02E = 8	1.715 to 1.739 meters
1.753	HWJ1_02 = 5 and HWJ1_02E = 9	1.740 to 1.764 meters
1.778	HWJ1_02 = 5 and HWJ1_02E = 10	1.765 to 1.790 meters
1.803	HWJ1_02 = 5 and HWJ1_02E = 11	1.791 to 1.815 meters
1.829	HWJ1_02 = 6 and HWJ1_02F = 0	1.816 to 1.841 meters
1.854	HWJ1_02 = 6 and HWJ1_02F = 1	1.842 to 1.866 meters
1.880	HWJ1_02 = 6 and HWJ1_02F = 2	1.867 to 1.891 meters
1.905	HWJ1_02 = 6 and HWJ1_02F = 3	1.892 to 1.917 meters
1.930	HWJ1_02 = 6 and HWJ1_02F = 4	1.918 to 1.942 meters



1.956	HWJ1_02 = 6 and HWJ1_02F = 5	1.943 to 1.968 meters
1.981	HWJ1_02 = 6 and HWJ1_02F = 6	1.969 to 1.993 meters
2.007	HWJ1_02 = 6 and HWJ1_02F = 7	1.994 to 2.018 meters
2.032	HWJ1_02 = 6 and HWJ1_02F = 8	2.019 to 2.044 meters
2.057	HWJ1_02 = 6 and HWJ1_02F = 9	2.045 to 2.069 meters
2.083	HWJ1_02 = 6 and HWJ1_02F = 10	2.070 to 2.095 meters
2.108	HWJ1_02 = 6 and HWJ1_02F = 11	2.096 to 2.120 meters
2.134	HWJ1_02 = 7	2.121 meters or taller

## 2) Height (Inches)

**Variable name:** HWJ1DHTI

**Based on:** HWJ1\_02, HWJ1\_02C, HWJ1\_02D, HWJ1\_02E, HWJ1\_02F

**Description:** This variable indicates the height of the respondent in inches.

Value of HWJ1DHTI	Condition(s)	Description
99 (NS)	(HWJ1_02 = DK, R, NS) or (HWJ1_02C = DK, R, NS) or (HWJ1_02D = DK, R, NS) or (HWJ1_02E = DK, R, NS) or (HWJ1_02F = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
36	HWJ1_02 = 3 and HWJ1_02C = 0	3'0" or shorter
37	HWJ1_02 = 3 and HWJ1_02C = 1	3'1"
38	HWJ1_02 = 3 and HWJ1_02C = 2	3'2"
39	HWJ1_02 = 3 and HWJ1_02C = 3	3'3"
40	HWJ1_02 = 3 and HWJ1_02C = 4	3'4"
41	HWJ1_02 = 3 and HWJ1_02C = 5	3'5"
42	HWJ1_02 = 3 and HWJ1_02C = 6	3'6"
43	HWJ1_02 = 3 and HWJ1_02C = 7	3'7"
44	HWJ1_02 = 3 and HWJ1_02C = 8	3'8"
45	HWJ1_02 = 3 and HWJ1_02C = 9	3'9"
46	HWJ1_02 = 3 and HWJ1_02C = 10	3'10"

47	HWJ1_02 = 3 and HWJ1_02C = 11	3'11"
48	HWJ1_02 = 4 and HWJ1_02D = 0	4'0"
49	HWJ1_02 = 4 and HWJ1_02D = 1	4'1"
50	HWJ1_02 = 4 and HWJ1_02D = 2	4'2"
51	HWJ1_02 = 4 and HWJ1_02D = 3	4'3"
52	HWJ1_02 = 4 and HWJ1_02D = 4	4'4"
53	HWJ1_02 = 4 and HWJ1_02D = 5	4'5"
54	HWJ1_02 = 4 and HWJ1_02D = 6	4'6"
55	HWJ1_02 = 4 and HWJ1_02D = 7	4'7"
56	HWJ1_02 = 4 and HWJ1_02D = 8	4'8"
57	HWJ1_02 = 4 and HWJ1_02D = 9	4'9"
58	HWJ1_02 = 4 and HWJ1_02D = 10	4'10"
59	HWJ1_02 = 4 and HWJ1_02D = 11	4'11"
60	HWJ1_02 = 5 and HWJ1_02E = 0	5'0"
61	HWJ1_02 = 5 and HWJ1_02E = 1	5'1"
62	HWJ1_02 = 5 and HWJ1_02E = 2	5'2"
63	HWJ1_02 = 5 and HWJ1_02E = 3	5'3"
64	HWJ1_02 = 5 and HWJ1_02E = 4	5'4"
65	HWJ1_02 = 5 and HWJ1_02E = 5	5'5"
66	HWJ1_02 = 5 and HWJ1_02E = 6	5'6"
67	HWJ1_02 = 5 and HWJ1_02E = 7	5'7"
68	HWJ1_02 = 5 and HWJ1_02E = 8	5'8"
69	HWJ1_02 = 5 and HWJ1_02E = 9	5'9"
70	HWJ1_02 = 5 and HWJ1_02E = 10	5'10"
71	HWJ1_02 = 5 and HWJ1_02E = 11	5'11"
72	HWJ1_02 = 6 and HWJ1_02F = 0	6'0"

73	HWJ1_02 = 6 and HWJ1_02F = 1	6'1"
74	HWJ1_02 = 6 and HWJ1_02F = 2	6'2"
75	HWJ1_02 = 6 and HWJ1_02F = 3	6'3"
76	HWJ1_02 = 6 and HWJ1_02F = 4	6'4"
77	HWJ1_02 = 6 and HWJ1_02F = 5	6'5"
78	HWJ1_02 = 6 and HWJ1_02F = 6	6'6"
79	HWJ1_02 = 6 and HWJ1_02F = 7	6'7"
80	HWJ1_02 = 6 and HWJ1_02F = 8	6'8"
81	HWJ1_02 = 6 and HWJ1_02F = 9	6'9"
82	HWJ1_02 = 6 and HWJ1_02F = 10	6'10"
83	HWJ1_02 = 6 and HWJ1_02F = 11	6'11"
84	HWJ1_02 = 7	7'0" or taller

### 3) Weight (Kilograms)

**Variable name:** HWJ1DWTK

**Based on:** HWJ1\_03, HWJ1\_N04

**Description:** This variable indicates the weight of the respondent in kilograms.

Value of HWJ1DWTK	Condition(s)	Description
999.99 (NS)	(HWJ1_03 = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
HWJ1_03	HWJ1_N04 = 2	Weight in Kg.
HWJ1_03 × .45	HWJ1_N04 = 1	Weight in Kg., converted from Lbs.

### 4) Weight (Pounds)

**Variable name:** HWJ1DWTP

**Based on:** HWJ1\_03, HWJ1\_N04

**Description:** This variable indicates the weight of the respondent in pounds.

Value of HWJ1DWTP	Condition(s)	Description
999 (NS)	(HWJ1_03 = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
HWJ1_03 / .45	HWJ1_N04 = 2	Weight in Lbs., converted from Kg.
HWJ1_03	HWJ1_N04 = 1	Weight in Lbs.



## 5) Body Mass Index

**Variable name:** HWJ1DBMI

**Based on:** HWJ1DHTM, HWJ1DWTM, MAM\_Q04, DHJ1\_AGE, DHJ1\_SEX

**Description:** This variable is a measure of the respondent's weight relative to their height. It is calculated by dividing the respondent's weight in kilograms by their height, measured in meters, squared.  $BMI = \text{WEIGHT (KG)} / \text{HEIGHT (METERS)}^2$

**Note:** The body mass index (BMI) is calculated for persons 18 years old and older. BMI is not calculated for those less than 3 feet or for those 7 feet or over. BMI is not calculated for pregnant women.

Value of HWJ1DBMI	Condition(s)	Description
999.6 (NA)	DHJ1_AGE < 18 or MAM_Q04 = 1 or HWJ1DHTM < .914 or (2.108 < HWJ1DHTM < NS)	Population exclusions
999.9 (NS)	HWJ1DHTM = NS or HWJ1DWTM = NS	At least one required question was not answered (don't know, refusal, not stated)
$\text{HWJ1DWTM} / (\text{HWJ1DHTM} \times \text{HWJ1DHTM})$ (Rounded to one decimal place)	(.914 <= HWJ1DHTM <= 2.108) and (0 < HWJ1DWTM <= 260)	BMI calculated from height and weight values

## 6) BMI Category – International Standard

**Variable name:** HWJ1DISW

**Based on:** HWJ1DBMI

**Description:** This variable assigns the respondent to one of the following categories, according to their Body Mass Index: underweight; acceptable weight; overweight; obese class I; obese class II; and obese class III;

The BMI Category is a method of classifying body weight according to health risk. According to World Health Organisation (WHO) and Health Canada guidelines, the following health risks are associated with each of BMI categories: normal weight = least health risk; underweight and overweight = increased health risk; obese class I = high health risk; obese class II = very high health risk; obese class III = extremely high health risk.

This classification can be used to compare and track body weight patterns, and associated patterns or morbidity and mortality *within* populations. Caution should be used when making comparisons *between* populations because the prevalence of disease associated with each category can vary depending on factors including the ethnic composition of the populations involved.

The classification should also be used with caution at the individual level because the health risk associated with each BMI category varies considerably between individuals. Particular caution should be used when classifying: young adults who have not reached maturity, adults who are naturally very lean, very muscular adults, some ethnic and racial groups, and seniors

For more detailed information on the appropriate use of this classification: *Canadian Guidelines for Body Weight Classification in Adults*, Health Canada, 2003.

[http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-bppn/weight\\_book\\_e.pdf](http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-bppn/weight_book_e.pdf)

<b>Value of HWJ1DISW</b>	<b>Condition(s)</b>	<b>Description</b>
96 (NA)	HWJ1DBMI = NA	Population exclusions
99 (NS)	HWJ1DBMI = NS	At least one required question was not answered (don't know, refusal, not stated)
1	HWJ1DBMI < 18.5	Underweight
2	(18.5 <= HWJ1DBMI < 25.0)	Normal weight
3	(25.0 <= HWJ1DBMI < 30.0)	Overweight
4	(30.0 <= HWJ1DBMI <= 34.9)	Obese – Class I
5	(35.0 <= HWJ1DBMI <= 39.9)	Obese – Class II
6	HWJ1DBMI >= 40.0	Obese – Class III

## Health Care Utilization (2 DVs)

### 1) Number of Consultations with Medical Doctor

**Variable name:** HCJ1DMC

**Based on:** HCJ1\_2A, HCJ1\_2I

**Description:** This variable indicates the number of respondent's consultations, including over the phone, with medical doctor in the last 12 months.

Value of HCJ1DMC	Condition(s)	Description
999 (NS)	(HCJ1_2A = DK, R, NS) or (HCJ1_2I = DK, R, NS)	At least one required question was not answered (don't know, refusal, not stated)
HCJ1_2A + HCJ1_2I  (min: 0; max: 666)	(0 <= HCJ1_2A <= 366) and (0 <= HCJ1_2I <= 300)	Number of consultations with medical doctor

### 2) Consultations with Health Professionals

**Variable name:** HCJ1FCHP

**Based on:** HCJ1\_2A, HCJ1\_2B, HCJ1\_2C, HCJ1\_2D, HCJ1\_2E, HCJ1\_2F, HCJ1\_2G, HCJ1\_2H, HCJ1\_2I

**Description:** This variable indicates whether respondent consulted, including over the phone, at least 1 health professional in the last 12 months.

Value of HCJ1FCOP	Condition(s)	Description
2	HCJ1_2A = 0 and HCJ1_2B = 0 and HCJ1_2C = 0 and HCJ1_2D = 0 and HCJ1_2E = 0 and HCJ1_2F = 0 and HCJ1_2G = 0 and HCJ1_2H = 0 and HCJ1_2I = 0	Did not consult a health professional last year
1	(0 < HCJ1_2A < NA) or (0 < HCJ1_2B < NA) or (0 < HCJ1_2C < NA) or (0 < HCJ1_2D < NA) or (0 < HCJ1_2E < NA) or (0 < HCJ1_2F < NA) or (0 < HCJ1_2G < NA) or (0 < HCJ1_2H < NA) or (0 < HCJ1_2I < NA)	Consulted a health professional at least once last year

<p>9 (NS)</p>	<p>(HCJ1_2A = DK, R, NS) or                  (HCJ1_2B = DK, R, NS) or                  (HCJ1_2C = DK, R, NS) or                  (HCJ1_2D = DK, R, NS) or                  (HCJ1_2E = DK, R, NS) or                  (HCJ1_2F = DK, R, NS) or                  (HCJ1_2G = DK, R, NS) or                  (HCJ1_2H = DK, R, NS) or                  (HCJ1_2I = DK, R, NS)</p>	<p>At least one required question was not answered (don't know, refusal, not stated)</p>
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## Insurance (1 DV)

### 1) Current Medical Health Insurance Coverage - Respondents from the U.S. only

**Variable name:** ISJ1DNIN

**Based on:** INJ1\_05, INJ1\_06, INJ1\_06A, INJ1\_07, INJ1\_07A, INJ1\_08, INJ1\_09, INJ1\_09A, SPJ1\_TYP

**Description:** The following variable determines if the respondent did not have any form of health insurance coverage at the time of interview.

**Notes:** 1) Canadian respondents were excluded from the population.

2) Respondents with Indian Health Services only are not considered to have health insurance coverage as per NCHS coding standards.

Value of INSJDNIN	Condition(s)	Description
NA(6)	SPJ1_TYP = 1	Respondent from Canada
2	((INJ1_05 = 1) or (INJ1_06 = 1) or (INJ1_06A = 1) or (INJ1_07A = 1) or (INJ1_08 = 1)) or ((INJ1_09AA = 1) or (INJ1_09AB = 1) or (INJ1_09AC = 1) or (INJ1_09AD = 1) or (INJ1_09AF = 1) or (INJ1_09AG = 1) or (INJ1_09AH = 1) or (INJ1_09AI = 1))	U.S. respondent currently has some form of health insurance
NS(9)	((INJ1_05 = DK, R or NS) or (INJ1_06 = DK, R or NS) or (INJ1_06A = DK, R or NS) or (INJ1_07 = DK, R or NS) or (INJ1_07A = DK, R or NS) or (INJ1_08 = DK, R or NS) or (INJ1_09 = DK, R or NS)) or ((INJ1_09AA = DK, R or NS) or (INJ1_09AB = DK, R or NS) or (INJ1_09AC = DK, R or NS) or (INJ1_09AD = DK, R or NS) or (INJ1_09AE = DK, R or NS) or (INJ1_09AF = DK, R or NS) or (INJ1_09AG = DK, R or NS) or (INJ1_09AH = DK, R or NS) or (INJ1_09AI = DK, R or NS))	Respondent didn't answer question (don't know, refusal, not stated).

1	((INJ1_05 = 2) and (INJ1_06 = 2) and (INJ1_06A = 2) and (INJ1_07 = 1 or 2) and (INJ1_07A = 2) and (INJ1_08 = 2)) or ((INJ1_09AA = 2) and (INJ1_09AB = 2) and (INJ1_09AC = 2) and (INJ1_09AD = 2) and (INJ1_09AE = 1 or 2) and (INJ1_09AF = 2) and (INJ1_09AG = 2) and (INJ1_09AH = 2) and (INJ1_09AI = 2))	U.S. respondent currently does not have some form of health insurance
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## Physical Activities (6 DVs)

### 1) Daily Energy Expenditure

**Variable name:** PAJ1DEXP

**Based on:** PAJ1\_1V, PAJ1\_2A, PAJ1\_2B, PAJ1\_2C, PAJ1\_2D, PAJ1\_2E, PAJ1\_2F, PAJ1\_2G, PAJ1\_2H, PAJ1\_2I, PAJ1\_2J, PAJ1\_2K, PAJ1\_2L, PAJ1\_2M, PAJ1\_2N, PAJ1\_2O, PAJ1\_2P, PAJ1\_2Q, PAJ1\_2R, PAJ1\_2S, PAJ1\_2T, PAJ1\_2Z, PAJ1\_2U, PAJ1\_3A, PAJ1\_3B, PAJ1\_3C, PAJ1\_3D, PAJ1\_3E, PAJ1\_3F, PAJ1\_3G, PAJ1\_3H, PAJ1\_3I, PAJ1\_3J, PAJ1\_3K, PAJ1\_3L, PAJ1\_3M, PAJ1\_3N, PAJ1\_3O, PAJ1\_3P, PAJ1\_3Q, PAJ1\_3R, PAJ1\_3S, PAJ1\_3T, PAJ1\_3Z, PAJ1\_3U

**Description:** This variable is a measure of the average daily energy expended during leisure time activities by the respondent in the past three months. The measure is expressed as a multiple of the amount of energy that would be expended if the respondent had done no leisure time activity during the same period.

**Note:** Energy Expenditure is calculated using the frequency and duration per session of the physical activity as well as the MET value of the activity. The MET is a value of metabolic energy cost expressed as a multiple of the resting metabolic rate. For example, an activity of 4 METS requires four times the amount of energy as compared to when the body is at rest.

$$EE \text{ (Energy Expenditure for each activity)} = (N \times D \times \text{METvalue}) / 365$$

Where:

N = the number of times a respondent engaged in an activity over a 12 month period

D = the average duration in hours of the activity

MET value = the energy cost of the activity expressed as kilocalories expended per kilogram of body weight per hour of activity (kcal/kg per hour)/365 (to convert yearly data into daily data)

MET values tend to be expressed in three intensity levels (i.e. low, medium, high). The JCUSH questions did not ask the respondent to specify the intensity level of their activities, therefore the MET values adopted correspond to the low intensity value of each activity. This approach is adopted from the Canadian Fitness and Lifestyle Research Institute because individuals tend to overestimate the intensity, frequency and duration of their activities.

**Internet site:** Canadian Fitness and Lifestyle Research Institute: [www.cflri.ca](http://www.cflri.ca)

The MET values for the JCUSH questions are:

Variable Name	Activity	MET Value (kcal/kg/hr)
PAJ1DEXPA	WALKING FOR EXERCISE	3
PAJ1DEXPB	GARDENING OR YARD WORK	3
PAJ1DEXPC	SWIMMING	3
PAJ1DEXPD	BICYCLING	4
PAJ1DEXPE	POPULAR OR SOCIAL DANCE	3
PAJ1DEXPF	HOME EXERCISES	3
PAJ1DEXPG	ICE HOCKEY	6
PAJ1DEXPH	ICE SKATING	4
PAJ1DEXPI	IN-LINE SKATING OR ROLLERBLADING	5
PAJ1DEXPJ	JOGGING OR RUNNING*	9.5
PAJ1DEXPK	GOLFING	4
PAJ1DEXPL	EXERCISE CLASS OR AEROBICS	4
PAJ1DEXPM	DOWNHILL SKIING OR SNOWBOARDING	4
PAJ1DEXPN	BOWLING	2
PAJ1DEXPO	BASEBALL OR SOFTBALL	3
PAJ1DEXPP	TENNIS	4
PAJ1DEXPQ	WEIGHT-TRAINING	3
PAJ1DEXPR	FISHING	3
PAJ1DEXPS	VOLLEYBALL	5
PAJ1DEXPT	BASKETBALL	6
PACJDEXPZ	SOCCER	5
PACJDEXPU	OTHER	4

\* Jogging (MET value 7) and running (MET value 12) fall under one category. Therefore, the MET value for the combined activity is the average of their MET values (9.5). Since it is difficult to assign a MET value to the category "Other Activities", the MET value used is the average of the listed activities except for the average value of jogging and running. Here, the average value of jogging and running is replaced by the value for jogging only. Some activities have MET values lower than the average, however, this approach is consistent with other studies, such as the Campbell's Survey and the Ontario Health Survey (OHS).

### Calculate EE Values for Each Activity

WALKING FOR EXERCISE:

Value of PAJ1DEXPA	Condition(s)	Description
0	PAJ1_3A = NA	Did not participate in activity
0	(PAJ1_3A = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2A \times 4 \times .2167 \times 3) / 365$	PAJ1_3A = 1	Calculate EE for < 15 min*
$(PAJ1\_2A \times 4 \times .3833 \times 3) / 365$	PAJ1_3A = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2A \times 4 \times .75 \times 3) / 365$	PAJ1_3A = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2A \times 4 \times 1 \times 3) / 365$	PAJ1_3A = 4	Calculate EE for > 60 min*

GARDENING OR YARD WORK:

Value of PAJ1DEXPB	Condition(s)	Description
0	PAJ1_3B = NA	Did not participate in activity
0	(PAJ1_3B = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2B \times 4 \times .2167 \times 3) / 365$	PAJ1_3B = 1	Calculate EE for < 15 min*
$(PAJ1\_2B \times 4 \times .3833 \times 3) / 365$	PAJ1_3B = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2B \times 4 \times .75 \times 3) / 365$	PAJ1_3B = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2B \times 4 \times 1 \times 3) / 365$	PAJ1_3B = 4	Calculate EE for > 60 min*

SWIMMING:

Value of PAJ1DEXPC	Condition(s)	Description
0	PAJ1_3C = NA	Did not participate in activity
0	(PAJ1_3C = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2C \times 4 \times .2167 \times 3) / 365$	PAJ1_3C = 1	Calculate EE for < 15 min*
$(PAJ1\_2C \times 4 \times .3833 \times 3) / 365$	PAJ1_3C = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2C \times 4 \times .75 \times 3) / 365$	PAJ1_3C = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2C \times 4 \times 1 \times 3) / 365$	PAJ1_3C = 4	Calculate EE for > 60 min*

BICYCLING:

Value of PAJ1DEXPD	Condition(s)	Description
0	PAJ1_3D = NA	Did not participate in activity
0	(PAJ1_3D = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2D \times 4 \times .2167 \times 4) / 365$	PAJ1_3D = 1	Calculate EE for < 15 min*
$(PAJ1\_2D \times 4 \times .3833 \times 4) / 365$	PAJ1_3D = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2D \times 4 \times .75 \times 4) / 365$	PAJ1_3D = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2D \times 4 \times 1 \times 4) / 365$	PAJ1_3D = 4	Calculate EE for > 60 min*

POPULAR OR SOCIAL DANCE:

Value of PAJ1DEXPE	Condition(s)	Description
0	PAJ1_3E = NA	Did not participate in activity
0	(PAJ1_3E = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2E \times 4 \times .2167 \times 3) / 365$	PAJ1_3E = 1	Calculate EE for < 15 min*
$(PAJ1\_2E \times 4 \times .3833 \times 3) / 365$	PAJ1_3E = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2E \times 4 \times .75 \times 3) / 365$	PAJ1_3E = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2E \times 4 \times 1 \times 3) / 365$	PAJ1_3E = 4	Calculate EE for > 60 min*

## HOME EXERCISES:

Value of PAJ1DEXPF	Condition(s)	Description
0	PAJ1_3F = NA	Did not participate in activity
0	(PAJ1_3F = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2F \times 4 \times .2167 \times 3) / 365$	PAJ1_3F = 1	Calculate EE for < 15 min*
$(PAJ1\_2F \times 4 \times .3833 \times 3) / 365$	PAJ1_3F = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2F \times 4 \times .75 \times 3) / 365$	PAJ1_3F = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2F \times 4 \times 1 \times 3) / 365$	PAJ1_3F = 4	Calculate EE for > 60 min*

## ICE HOCKEY:

Value of PAJ1DEXPG	Condition(s)	Description
0	PAJ1_3G = NA	Did not participate in activity
0	(PAJ1_3G = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2G \times 4 \times .2167 \times 6) / 365$	PAJ1_3G = 1	Calculate EE for < 15 min*
$(PAJ1\_2G \times 4 \times .3833 \times 6) / 365$	PAJ1_3G = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2G \times 4 \times .75 \times 6) / 365$	PAJ1_3G = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2G \times 4 \times 1 \times 6) / 365$	PAJ1_3G = 4	Calculate EE for > 60 min*

## ICE SKATING:

Value of PAJ1DEXPH	Condition(s)	Description
0	PAJ1_3H = NA	Did not participate in activity
0	(PAJ1_3H = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2H \times 4 \times .2167 \times 4) / 365$	PAJ1_3H = 1	Calculate EE for < 15 min*
$(PAJ1\_2H \times 4 \times .3833 \times 4) / 365$	PAJ1_3H = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2H \times 4 \times .75 \times 4) / 365$	PAJ1_3H = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2H \times 4 \times 1 \times 4) / 365$	PAJ1_3H = 4	Calculate EE for > 60 min*

## IN-LINE SKATING OR ROLLERBLADING:

Value of PAJ1DEXPI	Condition(s)	Description
0	PAJ1_3I = NA	Did not participate in activity
0	(PAJ1_3I = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2I \times 4 \times .2167 \times 5) / 365$	PAJ1_3I = 1	Calculate EE for < 15 min*
$(PAJ1\_2I \times 4 \times .3833 \times 5) / 365$	PAJ1_3I = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2I \times 4 \times .75 \times 5) / 365$	PAJ1_3I = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2I \times 4 \times 1 \times 5) / 365$	PAJ1_3I = 4	Calculate EE for > 60 min*

JOGGING OR RUNNING:

Value of PAJ1DEXPJ	Condition(s)	Description
0	PAJ1_3J = NA	Did not participate in activity
0	(PAJ1_3J = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2J \times 4 \times .2167 \times 9.5) / 365$	PAJ1_3J = 1	Calculate EE for < 15 min*
$(PAJ1\_2J \times 4 \times .3833 \times 9.5) / 365$	PAJ1_3J = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2J \times 4 \times .75 \times 9.5) / 365$	PAJ1_3J = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2J \times 4 \times 1 \times 9.5) / 365$	PAJ1_3J = 4	Calculate EE for > 60 min*

GOLFING:

Value of PAJ1DEXPK	Condition(s)	Description
0	PAJ1_3K = NA	Did not participate in activity
0	(PAJ1_3K = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2K \times 4 \times .2167 \times 4) / 365$	PAJ1_3K = 1	Calculate EE for < 15 min*
$(PAJ1\_2K \times 4 \times .3833 \times 4) / 365$	PAJ1_3K = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2K \times 4 \times .75 \times 4) / 365$	PAJ1_3K = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2K \times 4 \times 1 \times 4) / 365$	PAJ1_3K = 4	Calculate EE for > 60 min*

EXERCISE CLASS OR AEROBICS:

Value of PAJ1DEXPL	Condition(s)	Description
0	PAJ1_3L = NA	Did not participate in activity
0	(PAJ1_3L = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2L \times 4 \times .2167 \times 4) / 365$	PAJ1_3L = 1	Calculate EE for < 15 min*
$(PAJ1\_2L \times 4 \times .3833 \times 4) / 365$	PAJ1_3L = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2L \times 4 \times .75 \times 4) / 365$	PAJ1_3L = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2L \times 4 \times 1 \times 4) / 365$	PAJ1_3L = 4	Calculate EE for > 60 min*

DOWNHILL SKIING OR SNOWBOARDING:

Value of PAJ1DEXPM	Condition(s)	Description
0	PAJ1_3M = NA	Did not participate in activity
0	(PAJ1_3M = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2M \times 4 \times .2167 \times 4) / 365$	PAJ1_3M = 1	Calculate EE for < 15 min*
$(PAJ1\_2M \times 4 \times .3833 \times 4) / 365$	PAJ1_3M = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2M \times 4 \times .75 \times 4) / 365$	PAJ1_3M = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2M \times 4 \times 1 \times 4) / 365$	PAJ1_3M = 4	Calculate EE for > 60 min*

**BOWLING:**

Value of PAJ1DEXPN	Condition(s)	Description
0	PAJ1_3N = NA	Did not participate in activity
0	(PAJ1_3N = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2N \times 4 \times .2167 \times 2) / 365$	PAJ1_3N = 1	Calculate EE for < 15 min*
$(PAJ1\_2N \times 4 \times .3833 \times 2) / 365$	PAJ1_3N = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2N \times 4 \times .75 \times 2) / 365$	PAJ1_3N = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2N \times 4 \times 1 \times 2) / 365$	PAJ1_3N = 4	Calculate EE for > 60 min*

**BASEBALL OR SOFTBALL:**

Value of PAJ1DEXPO	Condition(s)	Description
0	PAJ1_3O = NA	Did not participate in activity
0	(PAJ1_3O = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2O \times 4 \times .2167 \times 3) / 365$	PAJ1_3O = 1	Calculate EE for < 15 min*
$(PAJ1\_2O \times 4 \times .3833 \times 3) / 365$	PAJ1_3O = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2O \times 4 \times .75 \times 3) / 365$	PAJ1_3O = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2O \times 4 \times 1 \times 3) / 365$	PAJ1_3O = 4	Calculate EE for > 60 min*

**TENNIS:**

Value of PAJ1DEXPP	Condition(s)	Description
0	PAJ1_3P = NA	Did not participate in activity
0	(PAJ1_3P = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2P \times 4 \times .2167 \times 4) / 365$	PAJ1_3P = 1	Calculate EE for < 15 min*
$(PAJ1\_2P \times 4 \times .3833 \times 4) / 365$	PAJ1_3P = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2P \times 4 \times .75 \times 4) / 365$	PAJ1_3P = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2P \times 4 \times 1 \times 4) / 365$	PAJ1_3P = 4	Calculate EE for > 60 min*

**WEIGHT-TRAINING:**

Value of PAJ1DEXPQ	Condition(s)	Description
0	PAJ1_3Q = NA	Did not participate in activity
0	(PAJ1_3Q = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2Q \times 4 \times .2167 \times 3) / 365$	PAJ1_3Q = 1	Calculate EE for < 15 min*
$(PAJ1\_2Q \times 4 \times .3833 \times 3) / 365$	PAJ1_3Q = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2Q \times 4 \times .75 \times 3) / 365$	PAJ1_3Q = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2Q \times 4 \times 1 \times 3) / 365$	PAJ1_3Q = 4	Calculate EE for > 60 min*



FISHING:

Value of PAJ1DEXPR	Condition(s)	Description
0	PAJ1_3R = NA	Did not participate in activity
0	(PAJ1_3R = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2R \times 4 \times .2167 \times 3) / 365$	PAJ1_3R = 1	Calculate EE for < 15 min*
$(PAJ1\_2R \times 4 \times .3833 \times 3) / 365$	PAJ1_3R = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2R \times 4 \times .75 \times 3) / 365$	PAJ1_3R = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2R \times 4 \times 1 \times 3) / 365$	PAJ1_3R = 4	Calculate EE for > 60 min*

VOLLEYBALL:

Value of PAJ1DEXPS	Condition(s)	Description
0	PAJ1_3S = NA	Did not participate in activity
0	(PAJ1_3S = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2S \times 4 \times .2167 \times 5) / 365$	PAJ1_3S = 1	Calculate EE for < 15 min*
$(PAJ1\_2S \times 4 \times .3833 \times 5) / 365$	PAJ1_3S = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2S \times 4 \times .75 \times 5) / 365$	PAJ1_3S = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2S \times 4 \times 1 \times 5) / 365$	PAJ1_3S = 4	Calculate EE for > 60 min*

BASKETBALL:

Value of PAJ1DEXPT	Condition(s)	Description
0	PAJ1_3T = NA	Did not participate in activity
0	(PAJ1_3T = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2T \times 4 \times .2167 \times 6) / 365$	PAJ1_3T = 1	Calculate EE for < 15 min*
$(PAJ1\_2T \times 4 \times .3833 \times 6) / 365$	PAJ1_3T = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2T \times 4 \times .75 \times 6) / 365$	PAJ1_3T = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2T \times 4 \times 1 \times 6) / 365$	PAJ1_3T = 4	Calculate EE for > 60 min*

SOCCER:

Value of PAJ1DEXPZ	Condition(s)	Description
0	PAJ1_3Z = NA	Did not participate in activity
0	(PAJ1_3Z = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2Z \times 4 \times .2167 \times 5) / 365$	PAJ1_3Z = 1	Calculate EE for < 15 min*
$(PAJ1\_2Z \times 4 \times .3833 \times 5) / 365$	PAJ1_3Z = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2Z \times 4 \times .75 \times 5) / 365$	PAJ1_3Z = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2Z \times 4 \times 1 \times 5) / 365$	PAJ1_3Z = 4	Calculate EE for > 60 min*

OTHER:

Value of PAJ1DEXPU	Condition(s)	Description
0	PAJ1_3U = NA	Did not participate in activity
0	(PAJ1_3U = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
$(PAJ1\_2U \times 4 \times .2167 \times 4) / 365$	PAJ1_3U = 1	Calculate EE for < 15 min*
$(PAJ1\_2U \times 4 \times .3833 \times 4) / 365$	PAJ1_3U = 2	Calculate EE for 16 to 30 min*
$(PAJ1\_2U \times 4 \times .75 \times 4) / 365$	PAJ1_3U = 3	Calculate EE for 31 to 60 min*
$(PAJ1\_2U \times 4 \times 1 \times 4) / 365$	PAJ1_3U = 4	Calculate EE for > 60 min*

\* Times were assigned an average duration value for the calculation, as with CCHS:  
 (13 minutes or .2167 hour, 23 minutes or .3833 hour, 45 minutes or .75 hour,  
 60 minutes or 1 hour)

TOTAL:

Value of PAJ1DEXP	Condition(s)	Description
99.9 (NS)	(PAJ1_1V = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
0	PAJ1_1V = 1	No physical activity
PAJ1DEXPA + PAJ1DEXPB + PAJ1DEXPC + PAJ1DEXPD + PAJ1DEXPE + PAJ1DEXPF + PAJ1DEXPG + PAJ1DEXPH + PAJ1DEXPI + PAJ1DEXPJ + PAJ1DEXPK + PAJ1DEXPL + PAJ1DEXPM + PAJ1DEXPN + PAJ1DEXPO + PAJ1DEXPP + PAJ1DEXPQ + PAJ1DEXPR + PAJ1DEXPS + PAJ1DEXPT + PAJ1DEXPZ + PAJ1DEXPU  Rounded to one decimal place  (min: 0; max: 99.5)	(0 <= PAJ1DEXPA < NA) and (0 <= PAJ1DEXPB < NA) and (0 <= PAJ1DEXPC < NA) and (0 <= PAJ1DEXPD < NA) and (0 <= PAJ1DEXPE < NA) and (0 <= PAJ1DEXPF < NA) and (0 <= PAJ1DEXPG < NA) and (0 <= PAJ1DEXPH < NA) and (0 <= PAJ1DEXPI < NA) and (0 <= PAJ1DEXPJ < NA) and (0 <= PAJ1DEXPK < NA) and (0 <= PAJ1DEXPL < NA) and (0 <= PAJ1DEXPM < NA) and (0 <= PAJ1DEXPN < NA) and (0 <= PAJ1DEXPO < NA) and (0 <= PAJ1DEXPP < NA) and (0 <= PAJ1DEXPQ < NA) and (0 <= PAJ1DEXPR < NA) and (0 <= PAJ1DEXPS < NA) and (0 <= PAJ1DEXPT < NA) and (0 <= PAJ1DEXPZ < NA) and (0 <= PAJ1DEXPU < NA)	Total daily energy expenditure (kcal/kg/day)

## 2) Participant in Leisure Physical Activity

**Variable name:** PAJ1FLEI

**Based on:** PAJ1\_1V

**Description:** This variable indicates whether the respondent participated in any leisure physical activities in the three months prior to the interview.

**Source:** Ontario Health Survey

**Internet site:** [www.chass.utoronto.ca/datalib/codebooks/utm/ohs/ohs90.htm](http://www.chass.utoronto.ca/datalib/codebooks/utm/ohs/ohs90.htm)

Value of PAJ1FLEI	Condition(s)	Description
9 (NS)	(PAJ1_1V = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
2	PAJ1_1V = 1	Does not participate in leisure physical activity
1	PAJ1_1V = 2	Participates in leisure physical activity

## 3) Average Monthly Frequency of Physical Activity Lasting Over 15 Minutes

**Variable name:** PAJ1DMFR

**Based on:** PAJ1\_1V, PAJ1\_2A, PAJ1\_2B, PAJ1\_2C, PAJ1\_2D, PAJ1\_2E, PAJ1\_2F, PAJ1\_2G, PAJ1\_2H, PAJ1\_2I, PAJ1\_2J, PAJ1\_2K, PAJ1\_2L, PAJ1\_2M, PAJ1\_2N, PAJ1\_2O, PAJ1\_2P, PAJ1\_2Q, PAJ1\_2R, PAJ1\_2S, PAJ1\_2T, PAJ1\_2Z, PAJ1\_2U, PAJ1\_3A, PAJ1\_3B, PAJ1\_3C, PAJ1\_3D, PAJ1\_3E, PAJ1\_3F, PAJ1\_3G, PAJ1\_3H, PAJ1\_3I, PAJ1\_3J, PAJ1\_3K, PAJ1\_3L, PAJ1\_3M, PAJ1\_3N, PAJ1\_3O, PAJ1\_3P, PAJ1\_3Q, PAJ1\_3R, PAJ1\_3S, PAJ1\_3T, PAJ1\_3Z, PAJ1\_3U

**Description:** This variable measures the total number of times per month that respondents took part in a physical activity(ies) lasting more than 15 minutes.

**Note:** The survey questions refer to "the past three months". This variable calculates a one-month average by dividing the total reported frequency by three.

**Source :** Ontario Health Survey

**Internet site:** [www.chass.utoronto.ca/datalib/codebooks/utm/ohs/ohs90.htm](http://www.chass.utoronto.ca/datalib/codebooks/utm/ohs/ohs90.htm)

### Temporary Reformats

Condition	Action
If (PAJ1_3A = 1, NA, DK, R, NS) then PAJ1T2A = 0	Set all values for PAJ1_2n (number of times/3months respondents did physical activity) to 0 if PAJ1_3n is 1 (1 to 15 minutes), NA (did not participate in activity), or DK, R, NS (did not answer question)
If (PAJ1_3B = 1, NA, DK, R, NS) then PAJ1T2B = 0	
If (PAJ1_3C = 1, NA, DK, R, NS) then PAJ1T2C = 0	
If (PAJ1_3D = 1, NA, DK, R, NS) then PAJ1T2D = 0	
If (PAJ1_3E = 1, NA, DK, R, NS) then PAJ1T2E = 0	
If (PAJ1_3F = 1, NA, DK, R, NS) then PAJ1T2F = 0	
If (PAJ1_3G = 1, NA, DK, R, NS) then PAJ1T2G = 0	
If (PAJ1_3H = 1, NA, DK, R, NS) then PAJ1T2H = 0	
If (PAJ1_3I = 1, NA, DK, R, NS) then PAJ1T2I = 0	
If (PAJ1_3J = 1, NA, DK, R, NS) then PAJ1T2J = 0	
If (PAJ1_3K = 1, NA, DK, R, NS) then PAJ1T2K = 0	
If (PAJ1_3L = 1, NA, DK, R, NS) then PAJ1T2L = 0	
If (PAJ1_3M = 1, NA, DK, R, NS) then PAJ1T2M = 0	
If (PAJ1_3N = 1, NA, DK, R, NS) then PAJ1T2N = 0	
If (PAJ1_3O = 1, NA, DK, R, NS) then PAJ1T2O = 0	

If (PAJ1_3P = 1, NA, DK, R, NS) then PAJ1T2P = 0 If (PAJ1_3Q = 1, NA, DK, R, NS) then PAJ1T2Q = 0 If (PAJ1_3R = 1, NA, DK, R, NS) then PAJ1T2R = 0 If (PAJ1_3S = 1, NA, DK, R, NS) then PAJ1T2S = 0 If (PAJ1_3T = 1, NA, DK, R, NS) then PAJ1T2T = 0 If (PAJ1_3Z = 1, NA, DK, R, NS) then PAJ1T2Z = 0 If (PAJ1_3U = 1, NA, DK, R, NS) then PAJ1T2U = 0	
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Value of PAJ1DMFR	Condition(s)	Description
0	PAJ1_1V=1	No physical activity
999 (NS)	(PAJ1_1V = DK, R, NS)	Required question was not answered (don't know, refusal, not stated)
(PAJ1_2A + PAJ1_2B + PAJ1_2C + PAJ1_2D + PAJ1_2E + PAJ1_2F + PAJ1_2G + PAJ1_2H + PAJ1_2I + PAJ1_2J + PAJ1_2K + PAJ1_2L + PAJ1_2M + PAJ1_2N + PAJ1_2O + PAJ1_2P + PAJ1_2Q + PAJ1_2R + PAJ1_2S + PAJ1_2T + PAJ1_2Z + PAJ1_2U / 3  Rounded to nearest integer  (min: 0; max: 995)	(0 <= PAJ1T2A < NA) and (0 <= PAJ1T2B < NA) and (0 <= PAJ1T2C < NA) and (0 <= PAJ1T2D < NA) and (0 <= PAJ1T2E < NA) and (0 <= PAJ1T2F < NA) and (0 <= PAJ1T2G < NA) and (0 <= PAJ1T2H < NA) and (0 <= PAJ1T2I < NA) and (0 <= PAJ1T2J < NA) and (0 <= PAJ1T2K < NA) and (0 <= PAJ1T2L < NA) and (0 <= PAJ1T2M < NA) and (0 <= PAJ1T2N < NA) and (0 <= PAJ1T2O < NA) and (0 <= PAJ1T2P < NA) and (0 <= PAJ1T2Q < NA) and (0 <= PAJ1T2R < NA) and (0 <= PAJ1T2S < NA) and (0 <= PAJ1T2T < NA) and (0 <= PAJ1T2Z < NA) and (0 <= PAJ1T2U < NA)	Monthly frequency of all physical activity lasting over 15 minutes

#### 4) Frequency of All Physical Activity Lasting Over 15 Minutes

**Variable name:** PAJ1DAFR

**Based on:** PAJ1DMFR

**Description:** This variable classifies respondents according to their pattern, or regularity of physical activity lasting more than 15 minutes.

**Note:** The variable uses values for the derived variable Monthly Frequency of Physical Activity (PAJ1DMFR). The values for PAJ1DMFR reflect a one-month average based on data reported for a three-month period.

Value of PAJ1DAFR	Condition(s)	Description
9 (NS)	PAJ1DMFR = NS	Required question was not answered (don't know, refusal, not stated)
1	(12 <= PAJ1DMFR < NA)	Regular practice of activities
2	(4 <= PAJ1DMFR < 12)	Occasional practice of activities
3	PAJ1DMFR < 4	Infrequent practice of activities

#### 5) Participant in Daily Physical Activity Lasting Over 15 minutes

**Variable name:** PAJ1DDFR

**Based on:** PAJ1DMFR

**Description:** This variable indicates whether the respondent participated daily in physical activity lasting over 15 minutes.

**Note:** The variable is based on values for Monthly Frequency of Physical Activity (PAJ1DMFR). Values for PAJ1DMFR reflect a one-month average based on data reported for a three-month period.

Value of PAJ1DDFR	Condition(s)	Description
9 (NS)	PAJ1DMFR = NS	Required question was not answered (don't know, refusal, not stated)
1	(30 <= PAJ1DMFR < NA)	Participates in daily physical activity
2	PAJ1DMFR < 30	Does not participate in daily physical activity

## 6) Physical Activity Index

**Variable name:** PAJ1DIND

**Based on:** PAJ1DEXP

**Description:** This variable categorizes respondents as being “active”, “moderate”, or “inactive” based on the total daily Energy Expenditure values (kcal/kg/day) calculated for PAJ1DEXP, above. **Note:** The Physical Activity Index follows the same criteria used to categorize individuals in the Ontario Health Survey (OHS) and in the Campbell’s Survey on Well Being.

**Internet site:** Campbell Survey on Well-Being in Canada: [www.cflri.ca/cflri/pa/surveys/88survey.html](http://www.cflri.ca/cflri/pa/surveys/88survey.html)

Value of PAJ1DIND	Condition(s)	Description
9 (NS)	PAJ1DEXP = NS	Required question was not answered (don’t know, refusal, not stated)
1	(3 <= PAJ1DEXP < NA)	Active
2	(1.5 <= PAJ1DEXP < 3.0)	Moderate
3	(0 <= PAJ1DEXP < 1.5)	Inactive

## Socio-Demographic Characteristics (4 DVs)

### 1) Racial Origin - Respondents from Canada only

Variable name: SDJ1DRC

**Based on:** SDJ1\_7A - SDJ1\_7M, SPJ1\_TYP

**Description:** The following variable indicates the racial/cultural background of respondents from Canada only.

Value of SDJ1DRC	Condition(s)	Description
6 (NA)	SPJ1_TYP = 2	Respondent from the U.S.
9 (NS)	SDJ1_7A = DK, R or NS	Respondent didn't answer question (don't know, refusal, not stated)
SDJ1DRC = 1	(SDJ1_7A = 1) and (SDJ1_7B > 1) and (SDJ1_7C > 1) and (SDJ1_7D > 1) and (SDJ1_7E > 1) and (SDJ1_7F > 1) and (SDJ1_7G > 1) and (SDJ1_7H > 1) and (SDJ1_7I > 1) and (SDJ1_7J > 1) and (SDJ1_7K > 1) and (SDJ1_7L > 1) and (SDJ1_7M > 1)	White only
SDJ1DRC = 2	Otherwise	Other race or a multiple race

### 2) Racial Origin - Respondents from the U.S. only

Variable name: SDJ1DRUS

**Based on:** SDJ1\_07A - SDJ1\_07F, SPJ1\_TYP

**Description:** The following variable indicates the racial/cultural background of respondents from the U.S. only.

Value of SDJ1DRUS	Condition(s)	Description
96 (NA)	SPJ1_TYP = 1	Respondent from Canada
99 (NS)	SDJ1_07A = DK, R or NS	Respondent didn't answer question (don't know, refusal, not stated)
SDJ1DRUS = 1	(SDJ1_07A = 1) and (SDJ1_07B > 1) and (SDJ1_07C > 1) and (SDJ1_07D > 1) and (SDJ1_07E > 1) and (SDJ1_07F > 1)	American Indian or Alaskan Native only

SDJ1DRUS = 2	(SDJ1_07A > 1) and (SDJ1_07B = 1) and (SDJ1_07C > 1) and (SDJ1_07D > 1) and (SDJ1_07E > 1) and (SDJ1_07F > 1)	Asian only
SDJ1DRUS = 3	(SDJ1_07A > 1) and (SDJ1_07B > 1) and (SDJ1_07C = 1) and (SDJ1_07D > 1) and (SDJ1_07E > 1) and (SDJ1_07F > 1)	Black/African American only
SDJ1DRUS = 4	(SDJ1_07A > 1) and (SDJ1_07B > 1) and (SDJ1_07C > 1) and (SDJ1_07D > 1) and (SDJ1_07E = 1) and (SDJ1_07F > 1)	White only
SDJ1DRUS = 5	(SDJ1_07A > 1) and (SDJ1_07B > 1) and (SDJ1_07C > 1) and (SDJ1_07E > 1) and ((SDJ1_07D = 1) or (SDJ1_07F = 1))	Other Race Only
SDJ1DRUS = 6	Otherwise	Multiple Race

### 3) Country of Birth - Respondents from Canada only

Variable name: SDJ1GCBC

Based on: SDJ1\_03, SPJ1\_TYP

Description: The following variable indicates the country of birth for respondents from Canada only.

Value of SDJ1GCBC	Condition(s)	Explanation
6 (NA)	SPJ1_TYP = 2	Respondent from the U.S.
9 (NS)	SDJ1_03 = DK, R or NS	Respondent didn't answer question (don't know, refusal, not stated)
SDJ1GCBC = 1	SDJ1_03 = 1	Born in Canada
SDJ1GCBC = 2	SDJ1_03 > 1 and SDJ1_03 < NA	Born outside of Canada



#### 4) Country of Birth - Respondents from the U.S. only

Variable name: SDJ1GCBU

**Based on:** SDJ1\_03, SPJ1\_TYP

**Description:** The following variable indicates the country of birth for respondents from the U.S. only.

Value of SDJ1GCBU	Condition(s)	Explanation
6 (NA)	SPJ1_TYP = 1	Respondent from Canada
9 (NS)	SDJ1_03 = DK, R or NS	Respondent didn't answer question (don't know, refusal, not stated)
SDJ1GCBU = 1	SDJ1_03 = 10	Born in U.S.
SDJ1GCBU = 2	SDJ1_03 < 10 or SDJ1_03 = 11	Born outside of the U.S.

## Income and Wealth (8 DVs)

### 1) Total Household Income, All Sources

**Variable name:** IWJ1DTHI

**Based on:** IWJ1\_3A, IWJ1\_3B, IWJ1\_3C, IWJ1\_3D, IWJ1\_3E, IWJ1\_3F, IWJ1\_3G

**Description:** This variable groups the total household income from all sources.

Value of IWJ1DTHI	Condition(s)	Description
99 (NS)	IWJ1_3A = DK, R or NS	Respondent didn't answer (don't know, refusal, not stated) any income questions.
1	(IWJ1_3A = 3)	No income
2	IWJ1_3C = 1	Less than \$5,000
3	IWJ1_3C = 2	\$5,000 TO \$9,999
4	IWJ1_3D = 1	\$10,000 TO \$14,999
5	IWJ1_3D = 2	\$15,000 TO \$19,999
6	IWJ1_3F = 1	\$20,000 TO \$29,999
7	IWJ1_3F = 2	\$30,000 TO \$39,999
8	IWJ1_3G = 1	\$40,000 TO \$49,999
9	IWJ1_3G = 2	\$50,000 TO \$59,999
10	IWJ1_3G = 3	\$60,000 TO \$79,999
11	IWJ1_3G = 4	\$80,000 +
99 (NS)	Else	Not enough information for the classification

### 2) Personal Income, All Sources

**Variable name:** IWJ1DTPI

**Based on:** IWJ1\_4A, IWJ1\_4B, IWJ1\_4C, IWJ1\_4D, IWJ1\_4E, IWJ1\_4F, IWJ1\_4G

**Description:** This variable indicates the respondent's personal income from all sources.

Value of IWJ1DTPI	Condition(s)	Description
99 (NS)	IWJ1_4A = DK, R or NS	Respondent didn't answer (don't know, refusal, not stated) any income questions.
1	(IWJ1_4A = 3 or 6 (NA))	No income
2	IWJ1_4C = 1	Less than \$5,000
3	IWJ1_4C = 2	\$5,000 To \$9,999
4	IWJ1_4D = 1	\$10,000 To \$14,999
5	IWJ1_4D = 2	\$15,000 To \$19,999
6	IWJ1_4F = 1	\$20,000 To \$29,999
7	IWJ1_4F = 2	\$30,000 To \$39,999
8	IWJ1_4G = 1	\$40,000 To \$49,999
9	IWJ1_4G = 2	\$50,000 To \$59,999
10	IWJ1_4G = 3	\$60,000 To \$79,999
11	IWJ1_4G = 4	\$80,000 +
NS	Else	Not enough information for the classification

### 3) Home Equity

**Variable name:** IWJ1GHEQ

**Based on:** IWJ1\_14, IWJ1\_16, IWJ1\_17, IWJ1\_18, IWJ1\_19

**Description:** This variable is a measure of the respondent's wealth based on the equity in the principle place of residence. The variable is calculated by taking the self-reported current selling price of the principle place of residence and subtracting the amounts owed on the first and second mortgages when applicable.

**Note:** Respondents who did not own their principle place of residence were excluded from the population.

Value of IWJ1GHEQ	Condition(s)	Explanation
999996 (NA)	(IWJ1_14 = 2,3)	Respondent does not own principle place of residence
999999 (NS)	IWJ1_14 = DK, R or NS	Respondent didn't answer ownership question (don't know, refusal, not stated).
IWJ1_16 – IWJ1_17	IWJ1_16 < NA, DK, R or NS and IWJ1_17 < NA, DK, R or NS and IWJ1_18 = 2	Current selling price of principle place of residence minus the amount owing on the mortgage
IWJ1_16 – IWJ1_17 – IWJ1_19	IWJ1_16 < NA, DK, R or NS and IWJ1_17 < NA, DK, R or NS and IWJ1_19 < NA, DK, R or NS and IWJ1_18 = 1	Current selling price of principle place of residence minus the amount owing on the 1 <sup>st</sup> and 2 <sup>nd</sup> mortgages (when 2 <sup>nd</sup> mortgage exists)
999999 (NS)	IWJ1_16 = DK, R or NS or IWJ1_17 = DK, R or NS or IWJ1_18 = DK, R or NS or IWJ1_19 = DK, R or NS	Respondent didn't answer question (don't know, refusal, not stated).

### 4) Total Household Income Quintiles

**Variable name:** IWJ1DHIO

**Based on:** IWJ1\_3, IWJ1\_3A--IWJ1\_3G

**Description:** This variable determines within which quintile the reported total household income from all sources falls. The quintiles are constructed using weighted income data rounded to the nearest thousand.

Step 1: For each country, a temporary household income distribution variable is derived. For respondents who provide a valid response to IWJ1\_3, this value is used. For respondents who do not provide a valid response to IWJ1\_3 (DK, R or NS) but provide a valid answer in one of the income categories (IWJ1\_3C, IWJ1\_3D, IWJ1\_3F or IWJ1\_3G), the weighted mean of all records where there is a valid response to IWJ1\_3 in the corresponding category is used.

SPJ1\_TYP = 1 (Canada)

Value of HouseholdIncomeC	Condition(s)	Explanation
NS (999999)	IWJ1_3A = DK, R or NS and IWJ1_3 = DK, R or NS	Respondent didn't answer (don't know, refusal, not stated) any income questions.
IWJ1_3	IWJ1_3 <= 500,000 and SPJ1_TYP = 1	Use continuous household income value given in IWJ1_3
\$0	IWJ1_3 = 0 and SPJ1_TYP = 1	Household has no income

Mean of all weighted values of IWJ1_3 between \$1 and \$4,999	IWJ1_3C = 1 and SPJ1_TYP = 1	Greater than 0\$ and less than \$5,000
Mean of all weighted values of IWJ1_3 between \$5,000 and \$9,999	IWJ1_3C = 2 and SPJ1_TYP = 1	Category value of \$5,000 To \$9,999
Mean of all weighted values of IWJ1_3 between \$10,000 and \$14,999	IWJ1_3D = 1 and SPJ1_TYP = 1	Category value of \$10,000 To \$14,999
Mean of all weighted values of IWJ1_3 between \$15,000 and \$19,999	IWJ1_3D = 2 and SPJ1_TYP = 1	Category value of \$15,000 To \$19,999
Mean of all weighted values of IWJ1_3 between \$20,000 and \$29,999	IWJ1_3F = 1 and SPJ1_TYP = 1	Category value of \$20,000 To \$29,999
Mean of all weighted values of IWJ1_3 between \$30,000 and \$39,999	IWJ1_3F = 2 and SPJ1_TYP = 1	Category value of \$30,000 To \$39,999
Mean of all weighted values of IWJ1_3 between \$40,000 and \$49,999	IWJ1_3G = 1 and SPJ1_TYP = 1	Category value of \$40,000 To \$49,999
Mean of all weighted values of IWJ1_3 between \$50,000 and \$59,999	IWJ1_3G = 2 and SPJ1_TYP = 1	Category value of \$50,000 To \$59,999
Mean of all weighted values of IWJ1_3 between \$60,000 and \$79,999	IWJ1_3G = 3 and SPJ1_TYP = 1	Category value of \$60,000 To \$79,999
Mean of all weighted values of IWJ1_3 between \$80,000 and \$500,000	IWJ1_3G = 4 and SPJ1_TYP = 1	Category value of \$80,000 or more

SPJ1\_TYP = 2 (U.S.)

Value of HouseholdIncomeUS	Condition(s)	Explanation
NS (999999)	IWJ1_3A = DK, R or NS and IWJ1_3 = DK, R or NS	Respondent didn't answer (don't know, refusal, not stated) any income questions.
IWJ1_3	IWJ1_3 <= 500,000 and SPJ1_TYP = 2	Use existing household income value given in IWJ1_3
\$0	IWJ1_3 = 0 and SPJ1_TYP = 2	Household has no income
Mean of all weighted values of IWJ1_3 between \$1 and \$4,999	IWJ1_3C = 1 and SPJ1_TYP = 2	Greater than 0\$ and less than \$5,000
Mean of all weighted values of IWJ1_3 between \$5,000 and \$9,999	IWJ1_3C = 2 and SPJ1_TYP = 2	Category value of \$5,000 To \$9,999
Mean of all weighted values of IWJ1_3 between \$10,000 and \$14,999	IWJ1_3D = 1 and SPJ1_TYP = 2	Category value of \$10,000 To \$14,999
Mean of all weighted values of IWJ1_3 between \$15,000 and \$19,999	IWJ1_3D = 2 and SPJ1_TYP = 2	Category value of \$15,000 To \$19,999

Mean of all weighted values of IWJ1_3 between \$20,000 and \$29,999	IWJ1_3F = 1 and SPJ1_TYP = 2	Category value of \$20,000 To \$29,999
Mean of all weighted values of IWJ1_3 between \$30,000 and \$39,999	IWJ1_3F = 2 and SPJ1_TYP = 2	Category value of \$30,000 To \$39,999
Mean of all weighted values of IWJ1_3 between \$40,000 and \$49,999	IWJ1_3G = 1 and SPJ1_TYP = 2	Category value of \$40,000 To \$49,999
Mean of all weighted values of IWJ1_3 between \$50,000 and \$59,999	IWJ1_3G = 2 and SPJ1_TYP = 2	Category value of \$50,000 To \$59,999
Mean of all weighted values of IWJ1_3 between \$60,000 and \$79,999	IWJ1_3G = 3 and SPJ1_TYP = 2	Category value of \$60,000 To \$79,999
Mean of all weighted values of IWJ1_3 between \$80,000 and \$500,000	IWJ1_3G = 4 and SPJ1_TYP = 2	Category value of \$80,000 or more

Step 2

The continuous income distribution for each country is sorted from lowest to highest. Only valid responses (i.e. do not include any remaining not stated, refusals etc.) are kept. Cut-points based on 20% increments are calculated and then income values at these cut points are used to calculate the quintiles. These steps are done for each country separately.

SPJ1\_TYP = 1 (Canada)

Value of IWJ1DHIQ	Condition(s)	Explanation
NS (9)	HouseholdIncomeC = NS	No income information was obtained
1	HouseholdIncomeC <= Cut-point 1	Lowest Income Quintile
2	HouseholdIncomeC <= Cut-point 2	Lower Middle Income Quintile
3	HouseholdIncomeC <= Cut-point 3	Middle Income Quintile
4	HouseholdIncomeC <= Cut-point 4	Higher Middle Income Quintile
5	HouseholdIncomeC > Cut-point 4	Highest Income Quintile

SPJ1\_TYP = 2 (U.S)

Value of IWJ1DHIQ	Condition(s)	Explanation
NS (9)	HouseholdIncomeUS = NS	No income information was obtained
1	HouseholdIncomeUS <= Cut-point 1	Lowest Income Quintile
2	HouseholdIncomeUS <= Cut-point 2	Lower Middle Income Quintile
3	HouseholdIncomeUS <= Cut-point 3	Middle Income Quintile
4	HouseholdIncomeUS <= Cut-point 4	Higher Middle Income Quintile
5	HouseholdIncomeUS > Cut-point 4	Highest Income Quintile

### 5) Household Income Quintiles Adjusted for Family size

**Variable name:** IWJ1DHQA

**Based on:** IWJ1\_3, IWJ1\_3A--IWJ1\_3G, RS\_DEMOG\_NUMHH

**Description:** This variable is created the exactly same as the unadjusted household income quintiles, and again uses weighted income data rounded to the nearest thousand.

This variable determines within which quintile the reported total household income from all sources falls. The income is adjusted for the number of people living in the household. Adjust for family size by dividing the value in the temporary merged continuous income variable by the square root of the household size.

$$\text{HouseholdIncomeAdj} = \text{HouseholdIncome} / (\text{square root of household size})$$

The cut points of the adjusted income values calculated above are used to calculate the adjusted quintiles for each country.

SPJ1\_TYP = 1 (Canada)

Value of IWJ1DHQA	Condition(s)	Explanation
NS (9)	HouseholdIncomeCAAdj = NS	No income information was obtained
1	HouseholdIncomeCAAdj <= Cut-point 1	Lowest Income Quintile
2	HouseholdIncomeCAAdj <= Cut-point 2	Lower Middle Income Quintile
3	HouseholdIncomeCAAdj <= Cut-point 3	Middle Income Quintile
4	HouseholdIncomeCAAdj <= Cut-point 4	Higher Middle Income Quintile
5	HouseholdIncomeCAAdj > Cut-point 4	Highest Income Quintile

SPJ1\_TYP = 2 (U.S)

Value of IWJ1DHQA	Condition(s)	Explanation
NS (9)	HouseholdIncomeUSAAdj = NS	No income information was obtained
1	HouseholdIncomeUSAAdj <= Cut-point 1	Lowest Income Quintile
2	HouseholdIncomeUSAAdj <= Cut-point 2	Lower Middle Income Quintile
3	HouseholdIncomeUSAAdj <= Cut-point 3	Middle Income Quintile
4	HouseholdIncomeUSAAdj <= Cut-point 4	Higher Middle Income Quintile
5	HouseholdIncomeUSAAdj > Cut-point 4	Highest Income Quintile

## 6) Personal Income Quintiles

**Variable name:** IWJ1DPIQ

**Based on:** IWJ1\_4, IWJ1\_4A--IWJ1\_4G

**Description:** This variable determines within which quintile the reported total personal income from all sources falls. The quintiles are constructed using weighted income data rounded to the nearest thousand.

Step 1: For each country, a temporary personal income distribution variable is derived. For respondents who provide a valid response to IWJ\_4, this value is used. For respondents who do not provide a valid response to IWJ1\_4 (DK, R or NS) but provide a valid answer in one of the income categories (IWJ\_4C, IWJ\_4D, IWJ\_4F or IWJ\_4G), the weighted mean of all records where there is a valid response to IWJ\_4 in the corresponding category is used.

SPJ1\_TYP = 1 (Canada)

Value of Personal IncomeC	Condition(s)	Explanation
NS (999999)	IWJ1_4A = DK, R or NS and IWJ1_4 = DK, R or NS	Respondent didn't answer (don't know, refusal, not stated) any income questions.
IWJ1_4	IWJ1_4 <= 500,000 and SPJ1_TYP = 1	Use continuous Personal income value given in IWJ1_4
\$0	IWJ1_4 = 0 and SPJ1_TYP = 1	Respondent has no income
Mean of all weighted values of IWJ1_4 between \$1 and \$4,999	IWJ1_4C = 1 and SPJ1_TYP = 1	Greater than 0\$ and less than \$5,000
Mean of all weighted values of IWJ1_4 between \$5,000 and \$9,999	IWJ1_4C = 2 and SPJ1_TYP = 1	Category value of \$5,000 To \$9,999
Mean of all weighted values of IWJ1_4 between \$10,000 and \$14,999	IWJ1_4D = 1 and SPJ1_TYP = 1	Category value of \$10,000 To \$14,999
Mean of all weighted values of IWJ1_4 between \$15,000 and \$19,999	IWJ1_4D = 2 and SPJ1_TYP = 1	Category value of \$15,000 To \$19,999
Mean of all weighted values of IWJ1_4 between \$20,000 and \$29,999	IWJ1_4F = 1 and SPJ1_TYP = 1	Category value of \$20,000 To \$29,999
Mean of all weighted values of IWJ1_4 between \$30,000 and \$39,999	IWJ1_4F = 2 and SPJ1_TYP = 1	Category value of \$30,000 To \$39,999
Mean of all weighted values of IWJ1_4 between \$40,000 and \$49,999	IWJ1_4G = 1 and SPJ1_TYP = 1	Category value of \$40,000 To \$49,999
Mean of all weighted values of IWJ1_4 between \$50,000 and \$59,999	IWJ1_4G = 2 and SPJ1_TYP = 1	Category value of \$50,000 To \$59,999
Mean of all weighted values of IWJ1_4 between \$60,000 and \$79,999	IWJ1_4G = 3 and SPJ1_TYP = 1	Category value of \$60,000 To \$79,999
Mean of all weighted values of IWJ1_4 between \$80,000 and \$500,000	IWJ1_4G = 4 and SPJ1_TYP = 1	Category value of \$80,000 or more

SPJ1\_TYP = 2 (U.S.)

Value of PersonalIncomeUS	Condition(s)	Explanation
NS (999999)	IWJ1_4A = DK, R or NS and IWJ1_4 = DK, R or NS	Respondent didn't answer (don't know, refusal, not stated) any income questions.
IWJ1_4	IWJ1_4 <= 500,000 and SPJ1_TYP = 2	Use continuous Personal income value given in IWJ1_4
\$0	IWJ1_4 = 0 and SPJ1_TYP = 2	Respondent has no income
Mean of all weighted values of IWJ1_4 between \$1 and \$4,999	IWJ1_4C = 1 and SPJ1_TYP = 2	Greater than 0\$ and less than \$5,000
Mean of all weighted values of IWJ1_4 between \$5,000 and \$9,999	IWJ1_4C = 2 and SPJ1_TYP = 2	Category value of \$5,000 To \$9,999
Mean of all weighted values of IWJ1_4 between \$10,000 and \$14,999	IWJ1_4D = 1 and SPJ1_TYP = 2	Category value of \$10,000 To \$14,999
Mean of all weighted values of IWJ1_4 between \$15,000 and \$19,999	IWJ1_4D = 2 and SPJ1_TYP = 2	Category value of \$15,000 To \$19,999
Mean of all weighted values of IWJ1_4 between \$20,000 and \$29,999	IWJ1_4F = 1 and SPJ1_TYP = 2	Category value of \$20,000 To \$29,999
Mean of all weighted values of IWJ1_4 between \$30,000 and \$39,999	IWJ1_4F = 2 and SPJ1_TYP = 2	Category value of \$30,000 To \$39,999
Mean of all weighted values of IWJ1_4 between \$40,000 and \$49,999	IWJ1_4G = 1 and SPJ1_TYP = 2	Category value of \$40,000 To \$49,999
Mean of all weighted values of IWJ1_4 between \$50,000 and \$59,999	IWJ1_4G = 2 and SPJ1_TYP = 2	Category value of \$50,000 To \$59,999
Mean of all weighted values of IWJ1_4 between \$60,000 and \$79,999	IWJ1_4G = 3 and SPJ1_TYP = 2	Category value of \$60,000 To \$79,999
Mean of all weighted values of IWJ1_4 between \$80,000 and \$500,000	IWJ1_4G = 4 and SPJ1_TYP = 2	Category value of \$80,000 or more

## Step 2

The continuous income distribution for each country is sorted from lowest to highest. Only valid responses (i.e. do not include any remaining not stated, refusals etc.) are kept. Cut-points based on 20% increments are calculated and then income values at these cut points are used to calculate the quintiles. These steps are done for each country separately.



SPJ1\_TYP = 1 (Canada)

Value of IWJ1DPIQ	Condition(s)	Explanation
NS (9)	PersonalIncomeC = NS	No income information was obtained
1	PersonalIncomeC <= Cut-point 1	Lowest Income Quintile
2	PersonalIncomeC <= Cut-point 2	Lower Middle Income Quintile
3	PersonalIncomeC <= Cut-point 3	Middle Income Quintile
4	PersonalIncomeC <= Cut-point 4	Higher Middle Income Quintile
5	PersonalIncomeC > Cut-point 4	Highest Income Quintile

SPJ1\_TYP = 2 (U.S)

Value of IWJ1DPIQ	Condition(s)	Explanation
NS (9)	PersonalIncomeUS = NS	No income information was obtained
1	PersonalIncomeUS <= Cut-point 1	Lowest Income Quintile
2	PersonalIncomeUS <= Cut-point 2	Lower Middle Income Quintile
3	PersonalIncomeUS <= Cut-point 3	Middle Income Quintile
4	PersonalIncomeUS <= Cut-point 4	Higher Middle Income Quintile
5	PersonalIncomeUS > Cut-point 4	Highest Income Quintile

### 7) Median Daily Exchange Rate - Canada to U.S. Dollars

**Variable name:** IWJ1DXCU

**Description:** This variable is the median daily exchange rate that occurred during survey collection period (November 11 2002 to March 31<sup>st</sup> 2003) and can be used to convert **Canadian to U.S.** dollars.

Value of IWJ1DXCU	Condition(s)	Explanation
0.6513	SPJ1_TYP = 1	Canadian dollars to be converted to U.S. dollars
1	SPJ1_TYP = 2	Amounts already in U.S. dollars no conversion necessary

### 8) Median Daily Exchange Rate - U.S. to Canadian Dollars

**Variable name:** IWJ1DXUC

**Description:** This variable is the median daily exchange rate that occurred during survey collection period (November 11 2002 to March 31<sup>st</sup> 2003) and can be used to convert **U.S. to Canadian** dollars.

Value of IWJ1DXUC	Condition(s)	Explanation
1	SPJ1_TYP = 1	Amounts already Canadian dollars no conversion necessary
1.5353	SPJ1_TYP = 2	U.S. dollars to be converted to Canadian dollars