Health Utilities Index Mark 3 Scores for Major Chronic Conditions: Population Norms for Canada Based on the 2013-2014 Canadian Community Health Survey

Jason R Guertin, $\mathrm{PhD}^{1,2}$, Brittany Humphries, $\mathrm{MSc}^{3}$, David Feeny, $\mathrm{PhD}^{4,5,6}$, Jean-Eric Tarride, $\mathrm{PhD}^{3,4,6,7}$

Affiliations
${ }^{1}$ Department of Social and Preventive Medicine, Faculty of Medicine, Université Laval, Quebec City, Quebec, Canada
${ }^{2}$ Centre de recherche du CHU de Québec - Université Laval, Axe Santé des Populations et Pratiques Optimales en Santé, Hôpital du Saint-Sacrement, Quebec City, Quebec, Canada
${ }^{3}$ Department of Health Research Methods, Evidence and Impact, Faculty of Health Sciences, McMaster University, Hamilton, Ontario, Canada
${ }^{4}$ Department of Economics, Faculty of Social Sciences, McMaster University, Hamilton, Ontario, Canada
${ }^{5}$ Health Utilities Incorporated, Dundas, Ontario, Canada
${ }^{6}$ Centre for Health Economics and Policy Analysis (CHEPA), McMaster University, Hamilton, Ontario, Canada
${ }^{7}$ Programs for Assessment of Technology in Health (PATH), The Research Institute of St. Joe's Hamilton, St. Joseph's Healthcare Hamilton, Ontario, Canada

Word count: 2837

Number of figures: 1

Number of tables: 3

Number of supplementary tables: 23

## Address for correspondence:

Jason R Guertin, PhD
Centre de recherche du CHU de Québec - Université Laval
Axe Santé des Populations et Pratiques Optimales en Santé (SP-POS)
Hôpital du Saint-Sacrement
1050 chemin Sainte-Foy, local J0-09
Quebec City, Quebec
G1S 4L8

Email: jason.guertin@fmed.ulaval.ca
Telephone: (418) 682-7511 ext. 82516
Fax: (418) 682-7949

## Funding statement:

This study did not receive external funding.

## Declaration of author(s) competing interests:

DF has a proprietary interest in Health Utilities Incorporated, the firm that distributes the copyrighted Health Utilities Index questionnaires, algorithms, and related materials. The other authors have no conflicts of interest related to this manuscript to disclose.


#### Abstract

Background: Utility scores are frequently used as preference weights when estimating quality-adjusted life-years within cost-utility analyses or health-adjusted life expectancies. Though previous Canadian estimates for specific chronic conditions have been produced, these may no longer reflect current patient populations.

Data and methods: Data from the 2013-2014 Canadian Community Health Survey were used to provide Canadian utility score norms for seventeen chronic conditions. Utility scores were estimated using the Health Utilities Index Mark 3 (HUI3) instrument and were reported as weighted average ( $95 \%$ confidence intervals [ $95 \% \mathrm{CI}$ ) values. In addition to age and sex-stratified analyses, results were also stratified according to the number of reported chronic conditions (i.e., "none" to " $\geq 5$ "). All results were weighted using sampling and bootstrapped weights provided by Statistics Canada.

Results: Utility scores were estimated for 123,654 (97.2\%) respondents (weighted frequency $=29,337,370[97.7 \%]$ ). Of the chronic conditions that were examined, "Asthma" had the least detrimental effect (weighted average utility score $=0.803[95 \% \mathrm{CI}$ $0.795-0.811]$ ) on respondents' utility scores and "Alzheimer's disease or any other dementia" had the worst (weighted average utility score $=0.374[95 \%$ CI $0.323-0.426])$. Respondents who reported suffering from no chronic conditions had, on average, the highest utility scores (weighted average utility score $=0.928[95 \%$ CI $0.926-0.930]$ ); estimates dropped as a function of the number of reported chronic conditions.

Interpretation: Utility score differed between various chronic conditions and as a function of the number of reported chronic conditions. Results also highlight several differences with previously published Canadian utility norms.


Keywords: Utility scores; Canadian Community Health Survey; Health Utilities Index Mark 3 (HUI3); Canada; Chronic Disease; Multiple Chronic Conditions; Health Status

## What this paper adds

What is already known on this subject?

- Utility scores vary between health states and are negatively correlated to the severity of the health state
- Canadian utility score norms have been produced in the past but are based on data that are over 20 years old

What does this study add?

- This study provides recent Canadian utility score norms based on the 2013-2014 Canadian Community Health Survey
- Though the rank ordering of the chronic conditions in estimates from this study and in previous studies are similar, minimally clinically important differences were observed
- Repeat assessment of population-level norms are required to confirm or refute potential variations in the utilities associated with chronic conditions over time

Health-related quality of life (HRQoL) has many definitions(1). One common definition within the health economic literature for HRQoL is the "values assigned to different health states" which are also known as utility scores (2). By convention, a utility score of 1.00 is assigned to a "Perfect health" state and a utility score of 0.00 is assigned to a "Dead" state. Health states considered worse than dead are assigned a negative value(3, 4).

Though always the same individual metric, utility scores have several applications within the HRQoL and economic literature. First, they can be used as a simple composite measure to represent the excess burden associated with a particular condition when compared to individuals who do not suffer from the condition; notable Canadian examples include studies by Jones et al.(5) comparing individuals with and without multiple sclerosis and by Bowker et al.(6) comparing individuals with and without diabetes and/or cancer. Second, they can be combined with life expectancy tables to provide a health-adjusted life expectancy (HALE) that takes into account the expected duration of life as well as the health states in which the members of a given population are expected to live (7-11). Finally, similar to their use in estimating HALE, they can be used within the context of economic evaluations to quantify the incremental effectiveness of various interventions by way of quality-adjusted life years (QALYs) gained (or lost) (12-16).

One common area of research to the three use of utility scores is to provide populationwide utility score norms. In a Canadian context, utility score norms are of value since they serve as benchmark values to which subsets of the populations can be compared. In addition, utility scores norms are critical inputs for Canadian economic evaluations and
disease-specific HALE tables(17). Many groups have provided Canadian utility score norms for a single chronic condition(18-22) but few teams, notably Mittman et al(23) and Schultz and $\operatorname{Kopec}(24)$, have provided Canadian utility score norms for multiple chronic conditions (i.e., 20 and 21 chronic conditions, respectively). The utility score norms provided by these studies are of particular importance since they highlight the relative detrimental effect each of these multiple conditions have against each other. However, one concern with both sets of norms is the fact that the values they provide may be outdated as they are based on responses to cycles 1 and 2 of the National Population Health Survey (NPHS) which are over 20 years old(25, 26). Additionally, norms provided by Mittmann et al(23) were based on the provisional conversion algorithm based on the Health Utilities Index Mark 2 weights which is not necessarily equivalent to scores based on the Health Utilities Index Mark 3 (HUI3). Furthermore, although both studies provide sex and age-stratified results(23, 24), finer granularity regarding the stratified analyses should be favoured as they may better highlight age and sex-specific effects of diseases.

The work presented within this study provides updated Canadian utility score norms for a broad range of chronic conditions. This study is an extension of prior work aimed at providing age and sex-specific utility score norms for Canada as well as each province and territory(27).

## Methods

## Survey design

As with the prior study(27), data from the two-year combined 2013-2014 Canadian Community Health Survey (CCHS) was used(28, 29). A detailed description of this
survey can be found elsewhere(30). Briefly, Statistics Canada selects a representative sample of the Canadian household population living in the 10 provinces and three territories aged 12 years or older to whom the survey is to be administered. Individuals on Indian Reserves and on Crown Lands, institutionalized Canadian residents, full-time members of the Canadian Forces, and residents of certain remote regions are excluded. Statistics Canada estimates that the 2013-2014 CCHS covered approximately $98 \%$ of the Canadian population(31). For the 2013-2014 CCHS, 147,009 households agreed to participate in the survey and 128,310 individuals responded (response rate of $87.3 \%$ ). Interviews were conducted in person using computer assisted personal interviewing or by telephone using computer assisted telephone interviewing(31).

## Health Utilities Index Mark 3 (HUI3)

Respondents' utility scores were assessed using the HUI3 instrument of the HUI system(32-34). The HUI3 combines a generic comprehensive health status classification system and a generic health-related quality of life utility scoring system. It is one of the indirect methods for the assessment of utility scores recommended by CADTH in their 2017 guidelines for the economic evaluation of healthcare technologies(13). The HUI3 examines eight health attributes (i.e., vision, hearing, speech, ambulation, dexterity, emotion, cognition, and pain/discomfort) with each attribute having five or six levels; combination of the different attributes and levels creates 972,000 unique health states. Utility scores for the HUI3 range from -0.36 to 1.00, with "perfect health" $=1.00$, "Dead" $=0.00$ and "states worse than dead" having utility scores less than 0.00 . The minimum clinically important difference (MCID) for the HUI3 has been estimated at 0.03 though others have used a MCID of $0.01(34,35)$.

## Chronic conditions

Several chronic conditions were examined within the 2013-2014 CCHS(28, 29). Chronic conditions examined for this current study include: "Alzheimer's disease or any other dementia"; "Anxiety disorder"; "Arthritis"; "Asthma"; "Back problems"; "Bowel disease" (this grouping contains the following diseases: "Crohn's disease";
"Incontinence"; Irritable bowel disease"; "Ulcerative colitis"; and "Other"); "(Current) Cancer"; "Chronic obstructive pulmonary disease" (COPD); "Diabetes"; "Effects of a stroke"; "Heart disease"; "High blood pressure"; "Migraines"; "Mood disorder"; "Scoliosis"; "Stomach or intestinal ulcers"; and "Urinary incontinence". Respondents were asked to report conditions that lasted or were expected to last for at least 6 months and that had been diagnosed by a health professional. Of note, the prevalence of certain chronic conditions was not assessed among younger respondents (e.g., respondents aged below 35 were not asked if they suffered from "Alzheimer's disease or other dementia") and respondents who indicated that they currently have cancer were not asked to report which type. Also, though respondents who had diabetes were not asked to report whether they had type 1 or 2 diabetes, responses to other questions via the derived variable "CCCDDIA" were used by Statistics Canada to determine whether a participant has type 1 or 2 diabetes.

In addition to examining each chronic condition individually, the number of chronic conditions respondents' reported suffering from were examined through the use of a categorical variable (i.e., reported suffering from "zero"; "one"; "two"; "three"; "four"; or "five or more" chronic conditions).

## Statistical analyses

Descriptive statistics were used to describe the socio-demographic and clinical characteristics of respondents. Descriptive statistics were presented as absolute and relative frequencies with the exception of respondents' age at the time of answering the survey and the number of reported chronic conditions, which were presented as averages ( $95 \%$ confidence interval [ $95 \% \mathrm{CI}]$ ) as well as absolute and relative frequencies of mutually exclusive categories.

Utility scores were derived by Statistics Canada from answers to specific questions of the HUI3 instrument(30). Respondents who refused to answer any of these questions were assigned a missing value. Average $(95 \% \mathrm{CI})$ and median (interquartile range [IQR]) utility scores were estimated for each of the 17 examined chronic conditions. Though each condition was examined separately, they were not mutually exclusive. As a result, respondents included within each analysis could report suffering from additional chronic conditions. The average $(95 \% \mathrm{CI})$ and median (IQR) of respondents as a function of the number of reported chronic conditions (from none to five or more) were also examined. Both sets of utility score analyses were further stratified by sex and age.

All descriptive statistics were weighted to comply with Statistics Canada vetting rules. Sampling weights and bootstrapped weights, which were used to estimate bootstrapped $95 \%$ CI, were provided by Statistics Canada and used to extrapolate the results to the Canadian household population covered by 2013-2014 CCHS. All analyses were conducted with the SAS version 9.3 program (Cary, North Caroline, USA) and surveyspecific procedures were used when appropriate.

## Results

Socio-demographic and clinical characteristics

A total of 128,310 individuals answered the 2013-2014 CCHS and were weighted to represent a weighted sample of $30,014,589$ household Canadians(30). Socio-demographic characteristics of this population have been previously described(27). In this current study, the chronic condition status of this population was further examined (Table 1). A slightly greater proportion of the weighted sample was female (weighted frequency count $=15,199,574[50.6 \%])$ and the average age at the time of responding to the survey was 44.8 years old ( $95 \%$ CI 44.7 - 44.9). Results indicate that "Back problems" (weighted frequency count $=5,476,049[18.2 \%]$ ) and "High blood pressure" (weighted frequency count $=5,297,278$ [17.6\%]) were the two most frequently reported chronic conditions within the weighted sample whereas "Alzheimer's disease or any other dementia" was the least frequently reported chronic condition (weighted frequency count $=138,713$ [0.5\%]). The average number of reported chronic conditions was 1.15 (95\%CI $1.14-$ 1.17). Over half of the weighted sample reported suffering from at least one chronic condition (weighted frequency count $=16,497,632$ [55.0\%]). In addition, the number of chronic conditions reported by respondents was also examined within a subset of respondents who reported suffering from each of the examined conditions (Table 2). Results highlight that most respondents who reported suffering from at least one of the examined chronic conditions reported suffering from multiple chronic conditions. Results highlighted that multicomorbidity was most prevalent within respondents reporting suffering from those reporting suffering from COPD (93.3\% [92.0\% - 94.6\%]) of respondents reporting suffering from COPD reported suffering from at least a second chronic conditions) and from those reporting suffering from the effects of a stroke (92.9\% [ $91.0 \%-94.7 \%$ ] of respondents reporting suffering from the effects of a stroke reported
suffering from at least a second chronic condition). At the opposite, multicomodbidity was the least frequently reported within respondents reporting suffering from asthma ( $66.0 \%$ [ $64.4 \%-67.5 \%]$ of respondents reporting suffering from asthma reported suffering from at least a second chronic condition).

## Utility score measures

Utility scores could not be estimated for all respondents of the 2013-2014 CCHS; utility scores were estimated for 123,654 respondents ( $96.4 \%$ ), which represents a weighted sample of $29,337,370$ Canadians ( $97.7 \%$ ). Predictors of non-response within this sample have been previously examined(27).

Table 3 provides weighted average $(95 \% \mathrm{CI})$ utility scores for each of the 17 examined chronic conditions (age and sex-stratified averages [95\%CI] and median [IQR] utility score norms for each chronic condition are available within the Supplementary tables 117). Results highlight the fact that utility score norms vary among the various chronic conditions; results ranged from a high of $0.803(0.795-0.811)$ for respondents who reported suffering from "Asthma" to a low of $0.374(0.323-0.426)$ for respondents who reported suffering from "Alzheimer's disease or other dementia".

Figure 1 provides the weighted average utility scores in function of the age of respondents stratified by the number of reported chronic conditions. Results highlight that the average weighted utility score drops in function of the number of reported chronic conditions, from a high of $0.928(0.926-0.930)$ when respondents reported suffering from no chronic condition to a low of $0.490(0.475-0.505)$ when respondents reported suffering from 5 or more chronic conditions. This general tendency was reflected within most of the examined age categories and was more pronounced within respondents aged

70 years and over. Supplementary tables $18-23$ provide the age and sex-stratified analyses in function of the number of reported chronic conditions as well as the median [IQR] utility score norms of each stratum.

## Discussion

This study expands on previous work aimed at updating utility score norms in Canada(27). Specifically, age and sex-stratified utility score norms for the Canadian household population are provided in function of chronic conditions. Results indicate that the 2013-2014 Canadian household population reported suffering from an average of 1.15 ( $95 \%$ CI $1.14-1.17$ ) chronic conditions (Table 1). The weighted average utility score for respondents who reported suffering from a single chronic condition (i.e., 0.887 [0.884$0.930]$ ) was closest, and within the MCID for the HUI3, to the weighted average utility score of the 2013-2014 Canadian household population that was previously reported (i.e., 0.863 [ $95 \%$ CI $0.861-0.865]$ )(27).

In addition, these results echo relationships between utility scores and specific chronic conditions that have been observed by others. For example, similar to results obtained by Mittmann et al(23) and Schultz and Kopec(23, 24), respondents of the 2013-2014 CCHS considered that "Asthma" was the least detrimental and "Alzheimer's disease or any other dementia" was the most detrimental of the 17 examined chronic conditions. Similar to findings observed by others $(23,36)$ results obtained within this study highlight that the average utility scores decreased with each additional reported chronic condition (Figure 1). Although the results had greater variability within respondents who reported suffering from multiple chronic conditions (i.e., 2 or more), results within Figure 1 tended to indicate that the average utility scores within each stratum were independent of
respondents' age when below 70 years old but decreased sharply afterwards. Additional studies are required to validate these trends.

To the best of our knowledge, this is the first Canadian study to examine this relationship in a non-restricted population since Mittman et al(23). Interestingly, compared to those results, weighted average utility scores for respondents who reported suffering from none or only one of the examined chronic conditions do not differ (i.e., are within the MCID for the HUI3). However, estimates were generally lower than previously reported values with differences increasing as respondents reported additional chronic conditions. These differences may be partly explained by the inclusion of alternative sets of chronic conditions, the use of unweighted averages and differences in scoring algorithms (provisional algorithm based on the HUI2 weights versus the final HUI3 version) by Mittman et al(23). Additional work is required to confirm any real difference between both sets of results.

This study has limitations that must be recognized. First,some subsets of the Canadian population were not asked to participate in the 2013-2014 CCHS (e.g., institutionalized Canadian residents, or full-time members of the Canadian Forces)(31). In addition, utility scores could not be estimated for all respondents of the survey (4,656 respondents [3.6\%]; weighted frequency $=677,219[2.3 \%])$. Although the results may not extend beyond the study population, the 2013-2014 CCHS covers most household Canadians aged over 12 years and utility scores could be estimated for the vast majority of respondents. Second, $13 \%$ of participants did not answer the 2013-2014 CCHS. There is no information on who or why potential participants refused to answer the survey. For example, it is unclear whether respondents of CCHS were healthier than non-respondents
(e.g., higher prevalence of severe comorbidities such as Alzheimer's disease in nonrespondents than in respondents). As a result, the risk of respondent bias cannot be excluded. Despite this risk, the response rate to the 2013-2014 CCHS was quite high at 87.3\%. Third, results are based on self-reported responses which may be prone to bias if respondents are confused by the wording of certain questions or if the questions do not grant enough specificity to differentiate fully a disease status. For example, cancer status in this study was based on respondents' answer to the question "(CCC_Q131) Do you have cancer?" of the 2013-2014 CCHS(28, 29). This wording does not provide any detail regarding the type or severity of cancer, which could influence respondents' utility scores. Furthermore, the 2013-2014 CCHS only asks respondents to report the prevalence of a disease. Information is not available on the severity of disease or time since diagnosis. Therefore, it was not possible to further stratify respondents' utility scores in function of these characteristics. Fourth, the utility score norms that are provided were estimated with the use of the HUI3 instrument. Though the HUI3 instrument is one of the most frequently utilized utility score instruments(37), other instruments (e.g., EuroQOL-5 Dimensions(38), Short Form-6 Dimensions(39)) could have been considered. However, unlike other instruments, the HUI3 is the only one that has been asked to an unrestricted representative sample of the Canadian household population. Finally, comparisons between these results and those obtained within other jurisdictions were not conducted despite the fact that utility norms for specific chronic conditions have been produced elsewhere(40-45). The decision to not compare these results was motivated by the fact that differences could be explained by the use of alternative instruments and that
algorithms converting responses to the instruments to utility scores vary between jurisdictions and can produce different results(46).

In conclusion, the results of this study further update Canadian utility score norms. This information will be of value to Canadian clinicians, researchers and decision-makers. Despite the value of the update, the longevity of these updated results remains unclear. As previously mentioned, other groups have provided Canadian utility score norms for specific chronic conditions. Justification for providing this update was based on the fact that many of those norms were derived from data collected over 20 years ago. Although differences between the current and previous studies were found, some greater than the MCID for the HUI3, it is unclear how frequently such differences would appear. Future research examining trends, or the lack of, in utility scores over time is needed. Until then, groups who conduct population-wide surveys that include utility score instruments (e.g. Statistics Canada) should be encouraged to periodically and systematically disclose these norms.

## REFERENCES

1. Karimi M, Brazier J. Health, Health-Related Quality of Life, and Quality of Life: What is the Difference? Pharmacoeconomics. 2016;34(7):645-9.
2. Gold MR, Patrick DL, Torrance GW, Fryback DG, Hadorn DC, Kamlet MS, et al. Identifying and Valuing Outcomes. In: Gold MR, Siegel JE, Russell LB, Weinstein MC, editors. Cost-effectiveness in health and medicine. Oxford: Oxford University Press; 1996.
3. Weinstein MC, Torrance G, McGuire A. QALYs: The Basic. Value Health. 2009;12(Supplement 1):S5-S9.
4. Brazier J. Valuing Health States for Use in Cost-Effectiveness Analysis.

Pharmacoeconomics. 2008;26(9):769-79.
5. Jones CA, Pohar SL, Warren S, Turpin KV, Warren KG. The burden of multiple sclerosis: a community health survey. Health Qual Life Outcomes. 2008;6:1.
6. Bowker SL, Pohar SL, Johnson JA. A cross-sectional study of health-related quality of life deficits in individuals with comorbid diabetes and cancer. Health Qual Life Outcomes. 2006;4:17.
7. Allin S, Graves E, Grignon M, Ridgeway D, Wang L. Health-adjusted potential years of life lost due to treatable causes of death and illness. Health Reports. 2014;25(8):3-9.
8. Sikdar KC, Wang PP, MacDonald D, Gadag VG. Diabetes and its impact on health-related quality of life: a life table analysis. Qual Life Res. 2010;19(6):781-7.
9. Loukine L, Waters C, Choi BC, Ellison J. Health-Adjusted Life Expectancy among Canadian Adults with and without Hypertension. Cardiol Res Pract. 2011;2011:612968.
10. Wolfson MC. Health-Adjusted Life Expectancy. Health Reports. 1996;6(1):41-6.
11. Public Health Agency of Canada Steering Committee on Health-Adjusted Life Expectancy. Health-Adjusted Life Expectancy in Canada: 2012 Report from the Public Health Agency of Canada. Ottawa, Ontario: Public Health Agency of Canada; 2012. 12. Institut national d'excellence en santé et en services sociaux (INESSS). Guide de soumission d'une demande à l'INESSS. In: Direction du médicament, editor. Québec2017. p. 18.
13. Guidelines for the economic evaluation of health technologies: Canada. Ottawa: Canadian Agency for Drug and Technologies in Health. 2017 Mar.
14. National Institute for Health anc Care Excellence. Guide to the methods of technology appraisal 2013. 2013.
15. Haute Autorité de Santé (HAS). Choix méthodologiques pour l'évaluation économique à la HAS. Saint-Denis, France; 2011.
16. PHARMAC. Prescription for Pharmacoeconomic Analysis - Methods for costutility analysis. New Zealand2015.
17. Williams A. Calculating the global burden of disease: time for a strategic reappraisal? Health Econ. 1999;8(1):1-8.
18. Steensma C, Loukine L, Orpana H, McRae L, Vachon J, Mo F, et al. Describing the population health burden of depression: health-adjusted life expectency by depression
status in Canada. Health Promotion and Chronic Disease Prevention in Canada:
Research, Policy and Practice. 2016;36(10):205-13.
19. Maddigan SL, Feeny DH, Johnson JA. Health-related quality of life deficits associated with diabetes and comorbidities in a Canadian National Population Health Survey. Quality of Life Research. 2005;14(5):1311-20.
20. Kopec JA, Williams JI, To T, Austin PC. Measuring Population Health: Correlates of the Health Utilities Index Among English and French Canadians. Can J Public Health. 2000;91(6):465-70.
21. Hopman WM, Towheed T, Anastassiades T, Tenenhouse A, Poliquin S, Berger C, et al. Canadian normative data for the SF-36 health survey. Canadian Multicentre Osteoporosis Study Research Group. CMAJ. 2000;163(3):265-71.
22. Garner RE, Feeny DH, Thompson A, Bernier J, McFarland BH, Huguet N, et al. Bodyweight, gender, and quality of life: a population-based longitudinal study. Qual Life Res. 2012;21(5):813-25.
23. Mittmann N, Trakas K, Risebrough N, Liu BA. Utility scores for chronic conditions in a community-dwelling population. Pharmacoeconomics. 1999;15(4):36976.
24. Schultz SE, Kopec JA. Impact of chronic conditions. Health Rep. 2003;14(4):41-
53.
25. Statistics Canada. National Population Health Survey: 1994-95. Ottawa (ON): Statistics Canada; 1995.
26. Statistics Canada. National Population Health Survey: Household Component, Longitudinal (NPHS) - Detailed information for 1996-1997 (Cycle 2) 1998 [updated

2007-10-24. Available from:
http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey\&Id=4059.
27. Guertin JR, Feeny D, Tarride JE. Age and sex-specific Canadian utility norms based on the 2013-2014 Canadian Community Health Survey CMAJ.

2018;12(190):E155-61.
28. Statistics Canada. Canadian Community Health Survey (CCHS) Annual Component - 2013 Questionnaire: Statistics Canada; 2013 [2017-02-02].
29. Statistics Canada. Canadian Community Health Survey (CCHS) Annual Component - 2014 Questionnaire: Statistics Canada; 2014 [Available from: http://www23.statcan.gc.ca/imdb-bmdi/instrument/3226_Q1_V11-eng.pdf.
30. Statistics Canada. Canadian Community Health Survey - Annuel Component (CCHS). Detailed information for 2014: Statistics Canada; 2015 [updated 2015-04-20.
31. Statistics Canada. Canadian Community Health Survey (CCHS) Annual component. User guide 2014 and 2013-2014 Microdata files. Statistics Canada; 2015.
32. Feeny D. The Health Utilities Index: A tool for Assessing Health Benefits. Patient Reported Outcomes. 2005;34(Spring):2-6.
33. Feeny D, Furlong W, Torrance GW, Goldsmith CH, Zhu Z, DePauw S, et al. Multiattribute and single-attribute utility functions for the health utilities index mark 3 system. Med Care. 2002;40(2):113-28.
34. Horsman J, Furlong W, Feeny D, Torrance G. The Health Utilities Index (HUI®): concepts, measurement properties and applications. Health and Quality of Life Outcomes. 2003;1:54.
35. Drummond M. Introducing economic and quality of life measurements into clinical studies. Annals of Medicine. 2001;33(5):344-9.
36. Maddigan SL, Feeny DH, Johnson JA. The impact of diabetes and co-morbidity on health-related quality of life: Findings from the 1996-1997 NPHS. 2004.
37. Lamu AN, Gamst-Klaussen T, Olsen JA. Preference Weighting of Health State Values: What Difference Does It Make, and Why? Value in Health. 2016.
38. EuroQol Research Foundation. About EQ-5D 2017 [Available from:
https://euroqol.org/eq-5d-instruments/.
39. SF-6D Sheffield (United Kingdom): University of Sheffield; 2017 [Available from: https://www.shef.ac.uk/scharr/sections/heds/mvh/sf-6d.
40. Heyworth IT, Hazell ML, Linehan MF, Frank TL. How do common chronic conditions affect health-related quality of life? Br J Gen Pract. 2009;59(568):e353-8.
41. Brazier J, Roberts J, Tsuchiya A, Busschbach J. A comparison of the EQ-5D and SF-6D across seven patient groups. Health Econ. 2004;13(9):873-84.
42. Penner-Goeke K, Henriksen CA, Chateau D, Latimer E, Sareen J, Katz LY. Reductions in quality of life associated with common mental disorders: results from a nationally representative sample. The Journal of clinical psychiatry. 2015;76(11):150612.
43. Burstrom K, Johannesson M, Diderichsen F. Health-related quality of life by disease and socio-economic group in the general population in Sweden. Health Policy. 2001;55(1):51-69.
44. Saarni SI, Harkanen T, Sintonen H, Suvisaari J, Koskinen S, Aromaa A, et al. The impact of 29 chronic conditions on health-related quality of life: a general population survey in Finland using 15D and EQ-5D. Qual Life Res. 2006;15(8):1403-14.
45. Sullivan PW, Ghushchyan V. Preference-Based EQ-5D index scores for chronic conditions in the United States. Med Decis Making. 2006;26(4):410-20.
46. Johnson JA, Luo N, Shaw JW, Kind P, Coons SJ. Valuations of EQ-5D health states: are the United States and United Kingdom different? Med Care. 2005;43(3):221-8.

Table 1. Socio-demographic characteristics and reported chronic conditions, household population aged 12 and older, Canada, 2013-2014

| Characteristic | Weighted <br> Frequency | Relative Weighted <br> Frequency | 95\% Confidence <br> Interval |
| :---: | :---: | :---: | :---: |
|  | 30,014,589 | 100\% |  |
| Sex |  |  |  |
| Male | 14,815,015 | 49.4\% | (49.4\% - 49.4\%) |
| Female | 15,199,574 | 50.6\% | (50.6\%-50.6\%) |
| Age, mean (95\%CI) |  | 44.8 | (44.7-44.9) |
| Age Groups |  |  |  |
| 12 to 19 | 3,180,697 | 10.6\% | (10.6\%-10.6\%) |
| 20 to 24 | 2,419,203 | 8.1\% | (7.8\%-8.3\%) |
| 25 to 29 | 2,373,260 | 7.9\% | (7.7\%-8.1\%) |
| 30 to 34 | 2,321,576 | 7.7\% | (7.4\%-8.0\%) |
| 35 to 39 | 2,296,321 | 7.7\% | (7.4\%-7.9\%) |
| 40 to 44 | 2,415,306 | 8.0\% | (7.8\%-8.3\%) |
| 45 to 49 | 2,334,694 | 7.8\% | (7.4\%-8.2\%) |
| 50 to 54 | 2,708,861 | 9.0\% | (8.7\%-9.4\%) |
| 55 to 59 | 2,576,617 | 8.6\% | (8.3\%-8.9\%) |
| 60 to 64 | 2,184,281 | 7.3\% | (6.9\%-7.6\%) |
| 65 to 69 | 1,822,033 | 6.1\% | (5.9\%-6.2\%) |
| 70 to 74 | 1,301,405 | 4.3\% | (4.2\%-4.5\%) |
| 75 to 79 | 946,319 | 3.2\% | (3.0\%-3.3\%) |


| 80 to 84 | 656,358 | 2.2\% | (2.1\%-2.3\%) |
| :---: | :---: | :---: | :---: |
| 85 and over | 477,658 | 1.6\% | (1.5\%-1.7\%) |
| Chronic Condition* |  |  |  |
| Alzheimer's or any other dementia Yes <br> Not applicable | $\begin{gathered} 138,713 \\ 10,294,736 \end{gathered}$ | $\begin{gathered} 0.5 \% \\ 34.3 \% \end{gathered}$ | $\begin{aligned} & (0.4 \%-0.5 \%) \\ & (34.0 \%-34.6 \%) \end{aligned}$ |
| Anxiety disorder | 2,059,048 | 6.9\% | (6.6\%-7.1\%) |
| Arthritis <br> Yes <br> Not applicable | $\begin{gathered} 4,677,551 \\ 713,821 \end{gathered}$ | $\begin{gathered} 15.6 \% \\ 2.4 \% \end{gathered}$ | $\begin{gathered} (15.3 \%-15.9 \%) \\ (2.3 \%-2.5 \%) \end{gathered}$ |
| Asthma | 2,405,419 | 8.0\% | (7.8\%-8.3\%) |
| Back problems | 5,476,049 | 18.2\% | (17.9\%-18.6\%) |
| Bowel disease | 1,368,929 | 4.6\% | (4.4\%-4.8\%) |
| Crohn's disease | 122,178 | 0.4\% | (0.4\%-0.5\%) |
| Incontinence | 50,016 | 0.2\% | (0.1\%-0.2\%) |
| Irritable bowel disease | 798,089 | 2.7\% | (2.5\%-2.8\%) |
| Ulcerative colitis | 150,481 | 0.5\% | (0.4\%-0.6\%) |
| Other | 228,577 | 0.8\% | (0.7\%-0.9\%) |
| Not stated | 61,349 | 0.2\% | (0.1\%-0.3\%) |
| Don't know or Refusal | 19,589 | 0.1\% | (0.0\%-0.1\%) |
| Cancer $\dagger$ | 552,843 | 1.8\% | (1.7\%-2.0\%) |
| COPD |  |  |  |


| Yes | 817,894 | 2.7\% | (2.6\%-2.9\%) |
| :---: | :---: | :---: | :---: |
| Not applicable | 10,294,736 | 34.3\% | (34.0\%-34.6\%) |
| Diabetes | 1,988,216 | 6.6\% | (6.4\%-6.9\%) |
| Type 1 | 86,396 | 0.3\% | (0.2\%-0.3\%) |
| Type 2 | 1,833,219 | 6.1\% | (5.9\%-6.3\%) |
| Gestational | 21,593 | 0.1\% | (0.0\%-0.1\%) |
| Not stated | 47,009 | 0.2\% | (0.1\%-0.2\%) |
| Effects of a stroke | 333,606 | 1.1\% | (1.0\%-1.2\%) |
| Heart disease | 1,455,958 | 4.9\% | (4.7\%-5.0\%) |
| High blood pressure | 5,297,278 | 17.6\% | (17.3\%-18.0\%) |
| Migraines | 2,987,249 | 10.0\% | (9.7\%-10.2\%) |
| Mood disorder | 2,304,130 | 7.7\% | (7.4\%-7.9\%) |
| Scoliosis | 982,555 | 3.3\% | (3.1\%-3.4\%) |
| Stomach or intestinal ulcers | 758,148 | 2.5\% | (2.3\%-2.7\%) |
| Urinary incontinence |  |  |  |
| Yes <br> Not applicable | $\begin{aligned} & 1,039,464 \\ & 5,599,900 \end{aligned}$ | $3.5 \%$ <br> 18.7\% | $\begin{gathered} (3.3 \%-3.6 \%) \\ (18.4 \%-18.9 \%) \end{gathered}$ |
| Number of Chronic <br> Condition, mean (95\%CI) |  | 1.15 | (1.14-1.17) |
| Number of Chronic <br> Conditions |  |  |  |
| 0 | 13,516,957 | 45.0\% | (44.5\%-45.5\%) |


| 1 | $7,516,640$ | $25.1 \%$ | $(24.6 \%-25.5 \%)$ |
| :---: | :---: | :---: | :---: |
| 2 | $4,310,331$ | $14.4 \%$ | $(14.1 \%-14.7 \%)$ |
| 3 | $2,311,443$ | $7.7 \%$ | $(7.5 \%-7.9 \%)$ |
| 4 | $1,210,740$ | $4.0 \%$ | $(3.9 \%-4.2 \%)$ |
| 5 or more | $1,148,478$ | $3.8 \%$ | $(3.7 \%-4.0 \%)$ |

2013-2014 Canadian Community Health Survey
*Some chronic conditions (e.g., arthritis) were not asked to all respondents, these conditions are identified within the table.
$\dagger$ Respondents reported currently suffering from cancer
95\%CI, $95 \%$ confidence interval; COPD, Chronic obstructive pulmonary disease

Table 2. Number of chronic diseases reported by respondents in function of the examined chronic conditions, household population aged 12 and older, Canada, 2013-2014

| Chro | Aver | Only one chronic | Two chronic | Three chronic | Four chronic | Five or more chronic |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| nic | age | condition $\ddagger$ | conditions | conditions | condition |  |
| num |  |  |  |  | conditions |  |
| ber |  |  |  |  |  |  |
| of |  |  |  |  |  |  |
| chro |  |  |  |  |  |  |
| nic |  |  |  |  |  |  |
| nic |  |  |  |  |  |  |
| condi |  |  |  |  |  |  |


|  |  | Wei <br> ghte <br> d <br> Freq <br> uenc <br> y | Rela tive Wei ghte d Freq uenc y | 95\% <br> Conf <br> idenc <br> e <br> Inter <br> val | Wei ghte <br> d <br> Freq uenc y | Rela tive Wei ghte d Freq uenc y | 95\% <br> Conf <br> idenc <br> e <br> Inter <br> val | Weig <br> hted <br> Freq <br> uenc <br> y | Relati <br> ve <br> Weig <br> hted <br> Frequ <br> ency | Confi <br> dence <br> Inter <br> val | Weighte <br> d <br> Frequen <br> cy | Rela tive Wei ghte d Freq uenc y | 95 <br> \% <br> Co <br> nfid <br> enc <br> e <br> Inte <br> rval | Weig <br> hted <br> Frequ <br> ency | Rela tive Wei ghte d Freq uenc y | $95 \%$ <br> Conf <br> idenc <br> e <br> Inter <br> val |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Asth <br> ma | $\begin{aligned} & 2.75 \\ & (2.69 \\ & - \\ & 2.81) \end{aligned}$ | $\begin{aligned} & \hline 818, \\ & 394 \end{aligned}$ | $\begin{aligned} & \hline 34.0 \\ & \% \end{aligned}$ | (32.5 <br> \% - <br> 35.6 <br> \%) | $\begin{aligned} & 542, \\ & 612 \end{aligned}$ | $\begin{aligned} & 22.6 \\ & \% \end{aligned}$ | (21.2 <br> \% - <br> 23.9 <br> \%) | $\begin{aligned} & 362,6 \\ & 59 \end{aligned}$ | 15.1\% | (14.0 <br> \% - <br> 16.1 <br> \%) | 269,787 | $\begin{aligned} & 11.2 \\ & \% \end{aligned}$ | (10. <br> $2 \%$ <br> 12. <br> $2 \%$ | $\begin{aligned} & 411, \\ & 967 \end{aligned}$ | $\begin{aligned} & \hline 17.1 \\ & \% \end{aligned}$ | $(15.9$ $\%-$ 18.3 $\%)$ |


| High blood press ure | 2.74 <br> (2.71 2.78) | $\begin{aligned} & 1,36 \\ & 0,60 \\ & 4 \end{aligned}$ | $\begin{aligned} & 25.7 \\ & \% \end{aligned}$ | (24.7 <br> \% - <br> 26.6 <br> \%) | $\begin{aligned} & 1,49 \\ & 3,85 \\ & 2 \end{aligned}$ | $\begin{aligned} & 28.2 \\ & \% \end{aligned}$ | (27.3 <br> \% - <br> 29.2 <br> \%) | $\begin{aligned} & 1,047 \\ & , 631 \end{aligned}$ | 19.8\% | (19.0 <br> \% - <br> 20.5 <br> \%) | 652,684 | $\begin{aligned} & 12.3 \\ & \% \end{aligned}$ | (11. <br> 6\% <br> 13. <br> 0\% <br> ) | $\begin{aligned} & 742,5 \\ & 07 \end{aligned}$ | $\begin{aligned} & 14.0 \\ & \% \end{aligned}$ | (13.3 <br> \% - <br> 14.7 <br> \%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Migra ines | 2.62 (2.57 2.68) | $\begin{aligned} & 982, \\ & 933 \end{aligned}$ | $\begin{aligned} & 32.9 \\ & \% \end{aligned}$ | (31.3 <br> \% - <br> 34.5 <br> \%) | $\begin{aligned} & 778, \\ & 233 \end{aligned}$ | $\begin{aligned} & 26.1 \\ & \% \end{aligned}$ | (24.6 <br> \% - <br> 27.5 <br> \%) | $\begin{aligned} & 505,2 \\ & 23 \end{aligned}$ | 16.9\% | (15.7 <br> \% - <br> 18.1 <br> \%) | 304,822 | $\begin{aligned} & 10.2 \\ & \% \end{aligned}$ | (9.3 <br> \% - <br> 11. <br> $2 \%$ | $\begin{aligned} & 416,0 \\ & 38 \end{aligned}$ | $\begin{aligned} & 13.9 \\ & \% \end{aligned}$ | $(12.9$ $\%-$ 14.9 $\%)$ |
| Scoli osis | 2.94 <br> (2.84 <br> 3.04) | $\begin{aligned} & 230, \\ & 450 \end{aligned}$ | $\begin{aligned} & 23.5 \\ & \% \end{aligned}$ | (21.0 <br> \% - <br> 25.9 <br> \%) | $\begin{aligned} & \hline 260, \\ & 608 \end{aligned}$ | $\begin{aligned} & 26.5 \\ & \% \end{aligned}$ | (24.1 <br> \% - <br> 29.0 <br> \%) | $\begin{aligned} & 189,6 \\ & 82 \end{aligned}$ | 19.3\% | (17.1 <br> \% - <br> 21.5 <br> \%) | 134,534 | $\begin{aligned} & 13.7 \\ & \% \end{aligned}$ | (11. <br> 8\% <br> 15. | $\begin{aligned} & 167,2 \\ & 80 \end{aligned}$ | $\begin{aligned} & 17.0 \\ & \% \end{aligned}$ | (15.2 <br> \% - <br> 18.8 <br> \%) |


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Back <br> probl <br> ems | $\begin{aligned} & 2.82 \\ & (2.78 \\ & - \\ & 2.86) \end{aligned}$ | $\begin{aligned} & 1,38 \\ & 2,36 \\ & 0 \end{aligned}$ | $\begin{aligned} & 25.2 \\ & \% \end{aligned}$ | $\begin{aligned} & 24.2 \\ & \%- \\ & 26.3 \\ & \% \end{aligned}$ | $\begin{aligned} & 1,40 \\ & 3,68 \\ & 3 \end{aligned}$ | $\begin{aligned} & 25.6 \\ & \% \end{aligned}$ | (24.6 <br> \% - <br> 26.6 <br> \%) | $\begin{aligned} & 1,118 \\ & , 142 \end{aligned}$ | 20.4\% | (19.6 <br> \% - <br> 21.3 <br> \%) | 735,722 | $\begin{aligned} & 13.4 \\ & \% \end{aligned}$ | (12. <br> 7\% <br> 14. <br> $1 \%$ | $\begin{aligned} & 836,1 \\ & 41 \end{aligned}$ | $\begin{aligned} & 15.3 \\ & \% \end{aligned}$ | $\begin{aligned} & (14.5 \\ & \%- \\ & 16.0 \\ & \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bowe <br> 1 <br> diseas | $3.29$ (3.20 3.37) | $\begin{aligned} & 268, \\ & 863 \end{aligned}$ | $\begin{aligned} & 19.6 \\ & \% \end{aligned}$ | (17.9 <br> \% - <br> 21.3 <br> \%) | $\begin{aligned} & 308, \\ & 001 \end{aligned}$ | $\begin{aligned} & 22.5 \\ & \% \end{aligned}$ | (20.6 <br> \% - <br> 24.4 <br> \%) | $\begin{aligned} & 272,0 \\ & 91 \end{aligned}$ | 19.9\% | (18.1 <br> \% - <br> 21.7 <br> \%) | 196,274 | $\begin{aligned} & 14.3 \\ & \% \end{aligned}$ | (13. <br> 0\% <br> 15. <br> 7\% | $\begin{aligned} & 323,6 \\ & 99 \end{aligned}$ | $\begin{aligned} & 23.7 \\ & \% \end{aligned}$ | $\begin{aligned} & (21.9 \\ & \%- \\ & 25.4 \\ & \%) \end{aligned}$ |
| Heart <br> diseas <br> e | $\begin{aligned} & 3.54 \\ & (3.47 \end{aligned}$ | $\begin{aligned} & 173, \\ & 159 \end{aligned}$ | $\begin{aligned} & 11.9 \\ & \% \end{aligned}$ | $\begin{aligned} & (10.7 \\ & \%- \end{aligned}$ | $\begin{aligned} & 320, \\ & 046 \end{aligned}$ | $\begin{aligned} & 22.0 \\ & \% \end{aligned}$ | $\begin{aligned} & (20.5 \\ & \%- \end{aligned}$ | $\begin{aligned} & 313,9 \\ & 13 \end{aligned}$ | 21.6\% | $\begin{aligned} & 120.1 \\ & \%- \end{aligned}$ | 280,408 | $\begin{aligned} & 19.3 \\ & \% \end{aligned}$ | (17. $7 \%$ | $\begin{aligned} & 368,4 \\ & 31 \end{aligned}$ | $\begin{aligned} & 25.3 \\ & \% \end{aligned}$ | $\begin{aligned} & (23.7 \\ & \%- \end{aligned}$ |


|  | $3.61)$ |  |  | 13.1 <br> \%) |  |  | $23.5$ <br> $\%$ ) |  |  | $\begin{aligned} & 23.0 \\ & \%) \end{aligned}$ |  |  | $\begin{aligned} & 20 . \\ & 8 \% \end{aligned}$ |  |  | $26.9$ <br> \%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arthri tis | $\begin{array}{\|l} \hline 3.08 \\ (3.04 \\ - \\ 3.11) \end{array}$ | $\begin{aligned} & 834, \\ & 234 \end{aligned}$ | $\begin{aligned} & 17.8 \\ & \% \end{aligned}$ | $\begin{aligned} & (17.0 \\ & \%- \\ & 18.7 \\ & \%) \end{aligned}$ | $\begin{aligned} & 1,17 \\ & 9,41 \\ & 4 \end{aligned}$ | $\begin{aligned} & 25.2 \\ & \% \end{aligned}$ | (24.3 <br> $\%$ - <br> 26.1 <br> \%) | $\begin{aligned} & 1,088 \\ & , 773 \end{aligned}$ | 23.3\% | (22.4 <br> \% - <br> 24.2 <br> \%) | 727,289 | $\begin{aligned} & 15.6 \\ & \% \end{aligned}$ | (14. <br> 8\% <br> 16. <br> $3 \%$ | $\begin{aligned} & 847,8 \\ & 41 \end{aligned}$ | $\begin{aligned} & 18.1 \\ & \% \end{aligned}$ | (17.3 <br> \% - <br> 18.9 <br> \%) |
| Stom <br> ach or <br> intesti <br> nal <br> ulcers | 3.58 <br> (3.42 <br> 3.74) | $\begin{aligned} & 133, \\ & 178 \end{aligned}$ | $\begin{aligned} & 17.6 \\ & \% \end{aligned}$ | (14.0 <br> \% - <br> 21.2 <br> \%) | $\begin{aligned} & 148 \\ & 288 \end{aligned}$ | $\begin{aligned} & 19.6 \\ & \% \end{aligned}$ | (16.9 <br> \% - <br> 22.2 <br> \%) | $\begin{aligned} & 149,9 \\ & 01 \end{aligned}$ | 19.8\% | (16.7 <br> \% - <br> 22.8 <br> \%) | 106,032 | $\begin{aligned} & 14.0 \\ & \% \end{aligned}$ | (12. <br> $0 \%$ <br> 16. <br> $0 \%$ <br> ) | $\begin{aligned} & 220,7 \\ & 49 \end{aligned}$ | $\begin{aligned} & 29.1 \\ & \% \end{aligned}$ | (26.0 <br> \% - <br> 32.2 <br> \%) |


| Anxie ty disor der | 3.26 (3.19 3.33) | $\begin{aligned} & 347, \\ & 309 \end{aligned}$ | $\begin{aligned} & 16.9 \\ & \% \end{aligned}$ | (15.5 <br> \% - <br> 18.3 <br> \%) | $\begin{aligned} & 546, \\ & 450 \end{aligned}$ | $\begin{aligned} & 26.5 \\ & \% \end{aligned}$ | (24.8 <br> \% - <br> 28.3 <br> \%) | $\begin{aligned} & 399,8 \\ & 43 \end{aligned}$ | 19.4\% | (18.0 <br> \% - <br> 20.8 <br> \%) | 289,776 | $\begin{aligned} & 14.1 \\ & \% \end{aligned}$ | (12. <br> 8\% <br> 15. <br> $4 \%$ | $\begin{aligned} & 475,6 \\ & 70 \end{aligned}$ | $\begin{array}{\|l\|} \hline 23.1 \\ \% \end{array}$ | (21.5 <br> \% - <br> 24.7 <br> \%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{COP} \\ & \mathrm{D} \end{aligned}$ | 4.22 <br> (4.11 <br> 4.33) | $\begin{aligned} & 55,0 \\ & 07 \end{aligned}$ | $\begin{aligned} & 6.7 \\ & \% \end{aligned}$ | $\begin{aligned} & \hline(5.4 \\ & \%- \\ & 8.0 \% \\ & ) \end{aligned}$ | $\begin{aligned} & 122, \\ & 409 \end{aligned}$ | $\begin{aligned} & 15.0 \\ & \% \end{aligned}$ | (13.1 <br> \% - <br> 16.8 <br> \%) | $\begin{aligned} & 160,3 \\ & 00 \end{aligned}$ | 19.6\% | (17.7 <br> $\%$ - <br> 21.5 <br> \%) | 153,049 | $\begin{aligned} & 18.7 \\ & \% \end{aligned}$ | (16. <br> $7 \%$ <br> 20. <br> $7 \%$ | $\begin{aligned} & 327,1 \\ & 29 \end{aligned}$ | $\begin{aligned} & 40.0 \\ & \% \end{aligned}$ | (37.6 <br> \% - <br> 42.4 <br> \%) |
| Mood <br> disor <br> der | $\begin{aligned} & 3.32 \\ & (3.26 \end{aligned}$ | $\begin{aligned} & 360, \\ & 473 \end{aligned}$ | $\begin{aligned} & 15.6 \\ & \% \end{aligned}$ | $\begin{aligned} & (14.3 \\ & \%- \end{aligned}$ | $\begin{array}{\|c} 577, \\ 511 \end{array}$ | $\begin{aligned} & 25.1 \\ & \% \end{aligned}$ | $\begin{aligned} & (23.6 \\ & \%- \end{aligned}$ | $\begin{aligned} & 464,3 \\ & 26 \end{aligned}$ | 20.2\% | $\begin{aligned} & (18.8 \\ & \%- \end{aligned}$ | 359,562 | $\begin{aligned} & 15.6 \\ & \% \end{aligned}$ | (14. $4 \%$ | $\begin{aligned} & 542,2 \\ & 59 \end{aligned}$ | $\begin{aligned} & \hline 23.5 \\ & \% \end{aligned}$ | $\begin{aligned} & (22.2 \\ & \%- \end{aligned}$ |


|  | 3.38) |  |  | $\begin{aligned} & 17.0 \\ & \%) \end{aligned}$ |  |  | 26.5 <br> \%) |  |  | $21.5$ <br> \%) |  |  | 16. $9 \%$ <br> ) |  |  | $24.9$ <br> \%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Urina ry incon tinenc e | $\begin{aligned} & 3.93 \\ & (3.84 \\ & - \\ & 4.02) \end{aligned}$ | $\begin{aligned} & 91,4 \\ & 99 \end{aligned}$ | $\begin{aligned} & 8.8 \\ & \% \end{aligned}$ | (7.4 <br> \% - <br> 10.2 <br> \%) | $\begin{aligned} & 184, \\ & 194 \end{aligned}$ | $\begin{aligned} & 17.7 \\ & 2 \end{aligned}$ | (16.1 <br> \% - <br> 19.4 <br> \%) | $\begin{aligned} & 220,9 \\ & 20 \end{aligned}$ | 21.3\% | (19.7 <br> \% - <br> 22.9 <br> \%) | 174,768 | $\begin{aligned} & 16.8 \\ & \% \end{aligned}$ | (15. <br> 3\% <br> 18. <br> $3 \%$ | $\begin{aligned} & 368,0 \\ & 83 \end{aligned}$ | $\begin{aligned} & 35.4 \\ & \% \end{aligned}$ | $\begin{aligned} & (33.3 \\ & \%- \\ & 37.6 \\ & \%) \end{aligned}$ |
| Effect <br> s of a stroke | $\begin{aligned} & 4.29 \\ & (4.10 \\ & - \\ & 4.48) \end{aligned}$ | $\begin{aligned} & 23,8 \\ & 53 \end{aligned}$ | $\begin{aligned} & 7.2 \\ & \% \end{aligned}$ | (5.3 <br> \% - $9.0 \%$ <br> ) | $\begin{aligned} & 57,5 \\ & 09 \end{aligned}$ | $\begin{aligned} & 17.2 \\ & \% \end{aligned}$ | (14.1 <br> \% - <br> 20.4 <br> \%) | $\begin{aligned} & 57,99 \\ & 7 \end{aligned}$ | 17.4\% | (14.5 <br> \% - <br> 20.3 <br> \%) | 58,112 | $\begin{aligned} & 17.4 \\ & \% \end{aligned}$ | (14. <br> 4\% <br> 20. <br> 5\% <br> ) | $\begin{aligned} & 136,1 \\ & 35 \end{aligned}$ | $\begin{aligned} & 40.8 \\ & \% \end{aligned}$ | (36.8 <br> \% - <br> 44.9 <br> $\%)$ |


| Alzhe | 4.13 | 10,9 | 7.9 | (5.1 | 21,1 | 15.3 | (11.5 | 30,41 | 21.9\% | (16.0 | 25,244 | 18.2 | (13. | 50,91 | 36.7 | (30.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| imer' | (3.88 | 86 | \% | \% - | 52 | \% | \% - | 3 |  | \% - |  | \% | $1 \%$ | 9 | \% | \% - |
| S | - |  |  | 10.7 |  |  | 19.0 |  |  | 27.8 |  |  | - |  |  | 42.7 |
| diseas | 4.38) |  |  | \%) |  |  | \%) |  |  | \%) |  |  | 23. |  |  | \%) |
| e or |  |  |  |  |  |  |  |  |  |  |  |  | $3 \%$ |  |  |  |
| any |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| deme |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ntia |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

2013-2014 Canadian Community Health Survey*Chronic conditions are not mutually exclusive
$\dagger$ The minimum number of chronic conditions reported by the respondent is 1 (i.e., the examined chronic condition)
$\ddagger$ Identifies respondents reporting only suffering from the examined chronic condition
§ Respondents reported currently suffering from cancer

Table 3. Utility scores norms for each of the chronic conditions examined within the 2013-2014 Canadian Community Health Survey, household population aged 12 and older, Canada, 2013-2014

| Chronic <br> condition | Total <br> population | Mean | $95 \%$ <br> Confidence <br> Interval |
| :--- | :---: | :---: | :---: |
|  |  | Frequency |  |
| Asthma | 0.803 | $(0.795-$ <br> $0.811)$ | $2,332,134$ |
| High blood | 0.793 | $(0.787-$ <br> pressure | Weighted <br> (0.799) |
| Migraines | 0.780 | $0.771-$ | $2,898,005$ |


| Scoliosis | 0.777 | $(0.764-$ <br> $0.791)$ | 954,053 |
| :--- | :---: | :---: | :---: |
| Diabetes | 0.766 | $(0.757-$ | $1,899,760$ |
| $0.776)$ |  |  |  |
| Cancer* | 0.759 | $(0.741-$ <br> $0.777)$ | 523,278 |
| Back | 0.736 | $(0.730-$ | $5,268,845$ |
| problems | $0.742)$ |  |  |
| Bowel | 0.735 | $(0.723-$ | $1,311,046$ |
| disease | 0.719 | $(0.705-$ | $1,360,251$ |
| Heart |  | $0.732)$ |  |
| disease | 0.715 | $(0.708-$ | $4,437,987$ |
| Arthritis | $0.722)$ |  |  |


| Stomach or |  |  |  |
| :--- | :---: | :---: | :---: |
| intestinal |  |  |  |
| ulcers | 0.693 | $(0.668-$ | 727,240 |
| Anxiety | $0.719)$ |  |  |
| disorder |  |  |  |
| COPD | 0.649 | $(0.633-$ | 760,326 |
| Mood | 0.643 | $(0.632-$ | $2,194,118$ |
| disorder | $0.665)$ |  |  |
| Urinary | 0.621 | $(0.603-$ | 952,930 |
| incontinence |  | $0.639)$ |  |
| Effects of a | 0.581 | $(0.553-$ | 306,139 |
| stroke |  | $0.608)$ |  |
| Alzheimer's | 0.374 | $(0.323-$ | 118,366 |
| disease or |  | $0.426)$ |  |


| any other |  |  |  |
| :--- | :--- | :--- | :--- |
| dementia |  |  |  |

2013-2014 Canadian Community Health Survey

COPD, Chronic obstructive pulmonary disease
*Respondents reported currently suffering from a cancer

Figure 1. Weighted average utility scores of respondents stratified by the number of chronic conditions they reported, household population aged 12 and older, Canada, 2013-2014


2013-2014 Canadian Community Health Survey

Supplementary table 1. Age and sex-stratified utility norms for Alzheimer's disease or any other dementia, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 55,274 | Female |  |  | Weighted <br> Frequency | 63,092 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19* |  |  |  |  | 12 to 19* |  |  |  |  |
| 20 to $24^{*}$ |  |  |  |  | 20 to $24 *$ |  |  |  |  |
| 25 to 29* |  |  |  |  | 25 to 29* |  |  |  |  |
| 30 to 34* |  |  |  |  | 30 to $34 *$ |  |  |  |  |
| 35 to 39† |  |  |  |  | 35 to $39 \dagger$ |  |  |  |  |


| 40 to 44† |  |  |  |  | 40 to 44广 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49† |  |  |  |  | 45 to 49† |  |  |  |  |
| 50 to 54 | 0.565 | (0.148-0.982) | 0.309 | (0.116-0.954) | 50 to 54 | 0.557 | (0.305-0.808) | 0.613 | $\begin{gathered} (0.278- \\ 0.643) \end{gathered}$ |
| 55 to 59 | 0.149 | $\begin{gathered} (-0.056- \\ 0.354) \end{gathered}$ | 0.00 | (-0.063 0.224) | 55 to 59 | 0.290 | (0.026-0.554) | 0.090 | $\begin{gathered} (0.062- \\ 0.510) \end{gathered}$ |
| 60 to 64 | 0.587 | (0.240-0.934) | 0.529 | (0.36-0.667) | 60 to 64 | 0.238 | (0.033-0.442) | 0.163 | $\begin{gathered} (0.091- \\ 0.292) \end{gathered}$ |
| 65 to 69 | 0.798 | (0.710-0.886) | 0.843 | (0.673-0.890) | 65 to 69 | 0.545 | (0.385-0.705) | 0.434 | $\begin{gathered} (0.324- \\ 0.749) \end{gathered}$ |
| 70 to 74 | 0.406 | (0.282-0.529) | 0.385 | (0.144-0.689) | 70 to 74 | 0.474 | (0.322-0.626) | 0.372 | $\begin{gathered} (0.262- \\ 0.851) \end{gathered}$ |
| 75 to 79 | 0.528 | (0.317-0.740) | 0.576 | (0.242-0.934) | 75 to 79 | 0.282 | (0.170-0.394) | 0.332 | $\begin{gathered} (0.012- \\ 0.433) \end{gathered}$ |


| 80 to 84 | 0.349 | (0.218-0.481) | 0.291 | (0.044-0.709) | 80 to 84 | 0.335 | (0.131-0.539) | 0.186 | $\begin{gathered} (-0.059- \\ 0.842) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 85 and over | 0.299 | (0.189-0.409) | 0.232 | (0.033-0.542) | 85 and over | 0.183 | (0.110-0.256) | 0.129 | $\begin{gathered} \hline(0.023- \\ 0.401) \end{gathered}$ |
| All ages | 0.458 | (0.383-0.532) | 0.443 | (0.145-0.744) | All ages | 0.301 | (0.238-0.364) | 0.231 | $\begin{gathered} (0.028- \\ 0.490) \end{gathered}$ |

2013-2014 Canadian Community Health Survey
*Not asked to respondents below 35 years of age
$\dagger$ Cells were hidden to comply with Statistics Canada's vetting rules

Age and sex-stratified utility norms for Alzheimer's disease or other dementia, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | 118,366 |
| :--- | :--- | :--- | :--- | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to $19^{*}$ |  |  |  |  |
| 20 to $24^{*}$ |  |  |  |  |
| 25 to $29^{*}$ |  |  |  |  |
| 30 to $34^{*}$ |  |  | 0.757 | $(0.159-0.818)$ |
| 35 to $39 \dagger$ |  |  |  |  |
| 40 to $44^{*}$ |  |  |  |  |
| 45 to 49 | 0.579 | $(0.198-0.960)$ |  |  |


| 50 to 54 | 0.559 | $(0.361-0.757)$ | 0.609 | $(0.307-0.648)$ |
| :--- | :---: | :---: | :---: | :---: |
| 55 to 59 | 0.217 | $(0.050-0.385)$ | 0.082 | $(-0.003-0.444)$ |
| 60 to 64 | 0.424 | $(0.165-0.684)$ | 0.366 | $(0.199-0.660)$ |
| 65 to 69 | 0.688 | $(0.587-0.790)$ | 0.736 | $(0.436-0.897)$ |
| 70 to 74 | 0.433 | $(0.336-0.530)$ | 0.394 | $(0.147-0.741)$ |
| 75 to 79 | 0.401 | $(0.267-0.535)$ | 0.422 | $(0.126-0.684)$ |
| 80 to 84 | 0.342 | $(0.218-0.466)$ | 0.255 | $(-0.028-0.731)$ |
| 85 and over | 0.220 | $(0.157-0.283)$ | 0.159 | $(0.026-0.415)$ |
|  |  |  |  |  |
| All ages | 0.374 | $(0.323-0.426)$ | 0.338 | $(0.057-0.742)$ |

2013-2014 Canadian Community Health Survey
*Not asked to respondents below 35 years of age
$\dagger$ Cells were hidden to comply with Statistics Canada's vetting rules

Supplementary table 2. Age and sex-stratified utility norms for anxiety disorder, household population aged 12 and older, Canada,
2013-2014

| Male |  |  | Weighted <br> Frequency | 729,893 | Female |  |  | Weighted <br> Frequency | 1,241,685 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.757 | (0.722-0.791) | 0.827 | (0.688-0.921) | 12 to 19 | 0.738 | (0.708-0.768) | 0.767 | (0.631-0.916) |
| 20 to 24 | 0.701 | (0.642-0.759) | 0.794 | (0.503-0.904) | 20 to 24 | 0.763 | (0.730-0.795) | 0.802 | (0.688-0.917) |
| 25 to 29 | 0.691 | (0.631-0.752) | 0.755 | (0.553-0.907) | 25 to 29 | 0.767 | (0.736-0.799) | 0.858 | (0.657-0.929) |
| 30 to 34 | 0.713 | (0.652-0.773) | 0.794 | (0.504-0.903) | 30 to 34 | 0.735 | (0.690-0.780) | 0.857 | (0.600-0.929) |
| 35 to 39 | 0.696 | (0.630-0.761) | 0.811 | (0.436-0.931) | 35 to 39 | 0.715 | (0.670-0.759) | 0.798 | (0.596-0.917) |


| 40 to 44 | 0.733 | $(0.648-0.817)$ | 0.866 | $(0.534-0.956)$ | 40 to 44 | 0.649 | $(0.587-0.711)$ | 0.744 | $(0.361-0.923)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.642 | $(0.568-0.716)$ | 0.731 | $(0.398-0.922)$ | 45 to 49 | 0.635 | $(0.580-0.691)$ | 0.722 | $(0.380-0.883)$ |
| 50 to 54 | 0.484 | $(0.351-0.618)$ | 0.503 | $(0.102-0.890)$ | 50 to 54 | 0.596 | $(0.542-0.650)$ | 0.686 | $(0.328-0.896)$ |
| 55 to 59 | 0.616 | $(0.550-0.681)$ | 0.682 | $(0.319-0.920)$ | 55 to 59 | 0.608 | $(0.560-0.656)$ | 0.686 | $(0.347-0.896)$ |
| 60 to 64 | 0.648 | $(0.583-0.714)$ | 0.772 | $(0.369-0.900)$ | 60 to 64 | 0.669 | $(0.631-0.708)$ | 0.773 | $(0.472-0.903)$ |
| 65 to 69 | 0.653 | $(0.596-0.711)$ | 0.688 | $(0.574-0.897)$ | 65 to 69 | 0.678 | $(0.635-0.72)$ | 0.782 | $(0.517-0.902)$ |
| 70 to 74 | 0.633 | $(0.542-0.725)$ | 0.725 | $(0.287-0.888)$ | 70 to 74 | 0.729 | $(0.679-0.779)$ | 0.826 | $(0.583-0.928)$ |
| 75 to 79 | 0.706 | $(0.567-0.845)$ | 0.846 | $(0.578-0.949)$ | 75 to 79 | 0.602 | $(0.522-0.683)$ | 0.705 | $(0.292-0.887)$ |
| 80 to 84 | 0.519 | $(0.342-0.697)$ | 0.676 | $(0.252-0.777)$ | 80 to 84 | 0.471 | $(0.363-0.578)$ | 0.514 | $(0.114-0.842)$ |
| 85 and over |  |  |  |  | $(0.114-0.778)$ | over | 0.408 | $(0.324-0.492)$ | 0.388 |
|  | 0.451 | $(0.246-0.656)$ | 0.427 | $(0.180-0.672)$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| All ages | 0.665 | $(0.640-0.689)$ | 0.777 | $(0.444-0.921)$ | All ages | 0.684 | $(0.671-0.696)$ | 0.777 | $(0.495-0.919)$ |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for anxiety disorder, household population aged 12 and older, Canada, 2013-2014 (continued)


| 55 to 59 | 0.611 | $(0.573-0.648)$ | 0.686 | $(0.337-0.899)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.661 | $(0.627-0.696)$ | 0.773 | $(0.455-0.902)$ |
| 65 to 69 | 0.669 | $(0.635-0.703)$ | 0.773 | $(0.539-0.900)$ |
| 70 to 74 | 0.699 | $(0.652-0.745)$ | 0.802 | $(0.521-0.907)$ |
| 75 to 79 | 0.643 | $(0.56-0.726)$ | 0.777 | $(0.398-0.915)$ |
| 80 to 84 | 0.483 | $(0.388-0.578)$ | 0.521 | $(0.130-0.838)$ |
| 85 and over | 0.417 | $(0.338-0.496)$ | 0.400 | $(0.136-0.682)$ |
|  |  |  |  |  |
| All ages | 0.677 | $(0.665-0.689)$ | 0.777 | $(0.471-0.920)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 3. Age and sex-stratified utility norms for arthritis, household population aged 12 and older, Canada, 2013-
2014

| Male |  |  | Weighted <br> Frequency | 1,723,960 | Female |  |  | Weighted <br> Frequency | 2,714,027 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.812 | (0.726-0.899) | 0.868 | (0.677-0.951) | 12 to 19 | 0.687 | (0.565-0.809) | 0.780 | (0.614-0.924) |
| 20 to 24 | 0.765 | (0.619-0.912) | 0.864 | (0.700-0.976) | 20 to 24 | 0.682 | (0.561-0.803) | 0.776 | (0.390-0.926) |
| 25 to 29 | 0.644 | (0.524-0.765) | 0.727 | (0.353-0.890) | 25 to 29 | 0.712 | (0.637-0.786) | 0.796 | (0.429-0.950) |
| 30 to 34 | 0.585 | (0.468-0.702) | 0.621 | (0.331-0.892) | 30 to 34 | 0.718 | (0.653-0.783) | 0.810 | (0.607-0.925) |
| 35 to 39 | 0.694 | (0.608-0.781) | 0.793 | (0.443-0.921) | 35 to 39 | 0.692 | (0.634-0.750) | 0.761 | (0.524-0.929) |


| 40 to 44 | 0.691 | (0.626-0.755) | 0.828 | (0.470-0.900) | 40 to 44 | 0.706 | (0.655-0.756) | 0.798 | (0.488-0.941) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.732 | (0.680-0.784) | 0.855 | (0.627-0.914) | 45 to 49 | 0.743 | (0.703-0.782) | 0.841 | (0.612-0.949) |
| 50 to 54 | 0.637 | (0.562-0.711) | 0.773 | (0.365-0.907) | 50 to 54 | 0.696 | (0.667-0.725) | 0.778 | (0.581-0.911) |
| 55 to 59 | 0.708 | (0.681-0.736) | 0.826 | (0.547-0.921) | 55 to 59 | 0.711 | (0.690-0.733) | 0.821 | (0.590-0.926) |
| 60 to 64 | 0.730 | (0.702-0.758) | 0.839 | (0.585-0.947) | 60 to 64 | 0.749 | (0.732-0.766) | 0.839 | (0.627-0.950) |
| 65 to 69 | 0.748 | (0.726-0.769) | 0.842 | (0.612-0.942) | 65 to 69 | 0.758 | (0.744-0.773) | 0.841 | (0.661-0.947) |
| 70 to 74 | 0.778 | (0.755-0.800) | 0.865 | (0.668-0.945) | 70 to 74 | 0.761 | (0.746-0.776) | 0.851 | (0.636-0.947) |
| 75 to 79 | 0.735 | (0.706-0.764) | 0.835 | (0.594-0.946) | 75 to 79 | 0.715 | (0.693-0.738) | 0.815 | (0.568-0.923) |
| 80 to 84 | 0.687 | (0.654-0.720) | 0.764 | (0.517-0.905) | 80 to 84 | 0.660 | (0.634-0.686) | 0.737 | (0.471-0.905) |
| 85 and over | 0.604 | (0.568-0.641) | 0.685 | (0.410-0.841) | 85 and over | 0.565 | (0.533-0.596) | 0.617 | (0.331-0.825) |
| All ages | 0.712 | (0.700-0.725) | 0.832 | (0.571-0.925) | All ages | 0.717 | (0.709-0.724) | 0.830 | (0.590-0.93) |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for arthritis, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | 4,437,987 |
| :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to 19 | 0.725 | (0.637-0.814) | 0.797 | (0.653-0.931) |
| 20 to 24 | 0.722 | (0.627-0.818) | 0.839 | (0.440-0.930) |
| 25 to 29 | 0.683 | (0.615-0.750) | 0.778 | (0.385-0.927) |
| 30 to 34 | 0.661 | (0.593-0.728) | 0.766 | (0.379-0.922) |
| 35 to 39 | 0.693 | (0.641-0.745) | 0.795 | (0.509-0.925) |
| 40 to 44 | 0.700 | (0.660-0.739) | 0.801 | (0.489-0.928) |
| 45 to 49 | 0.738 | (0.706-0.770) | 0.844 | (0.625-0.936) |
| 50 to 54 | 0.674 | (0.643-0.706) | 0.778 | (0.481-0.910) |


| 55 to 59 | 0.710 | $(0.693-0.728)$ | 0.826 | $(0.581-0.924)$ |
| :--- | :--- | :--- | :--- | :--- |
| 60 to 64 | 0.741 | $(0.725-0.757)$ | 0.839 | $(0.612-0.949)$ |
| 65 to 69 | 0.754 | $(0.742-0.766)$ | 0.842 | $(0.624-0.946)$ |
| 70 to 74 | 0.767 | $(0.755-0.779)$ | 0.852 | $(0.662-0.947)$ |
| 75 to 79 | 0.723 | $(0.705-0.741)$ | 0.830 | $(0.581-0.932)$ |
| 80 to 84 | 0.670 | $(0.650-0.690)$ | 0.744 | $(0.485-0.905)$ |
| 85 and over | 0.576 | $(0.551-0.602)$ | 0.645 | $(0.349-0.837)$ |
|  |  |  |  |  |
| All ages | 0.715 | $(0.708-0.722)$ | 0.830 | $(0.581-0.928)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 4. Age and sex-stratified utility norms for asthma, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 997,126 | Female |  |  | Weighted <br> Frequency | 1,335,008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age group |  |  |  |  |
| 12 to 19 | 0.876 | (0.861-0.890) | 0.923 | (0.841-0.977) | 12 to 19 | 0.843 | (0.819-0.867) | 0.918 | (0.763-0.976) |
| 20 to 24 | 0.876 | (0.850-0.902) | 0.924 | (0.864-0.975) | 20 to 24 | 0.828 | (0.790-0.867) | 0.899 | (0.723-0.961) |
| 25 to 29 | 0.883 | (0.851-0.916) | 0.931 | (0.866-0.981) | 25 to 29 | 0.870 | (0.841-0.899) | 0.938 | (0.851-0.976) |
| 30 to 34 | 0.855 | (0.809-0.901) | 0.925 | (0.853-0.981) | 30 to 34 | 0.800 | (0.748-0.853) | 0.923 | (0.764-0.971) |
| 35 to 39 | 0.839 | (0.792-0.887) | 0.925 | (0.838-0.979) | 35 to 39 | 0.814 | (0.774-0.853) | 0.908 | (0.750-0.973) |
| 40 to 44 | 0.863 | (0.830-0.896) | 0.927 | (0.832-0.972) | 40 to 44 | 0.768 | (0.714-0.821) | 0.914 | (0.671-0.966) |


| 45 to 49 | 0.834 | $(0.771-0.897)$ | 0.925 | $(0.778-0.962)$ | 45 to 49 | 0.779 | $(0.73-0.828)$ | 0.896 | $(0.674-0.952)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 50 to 54 | 0.764 | $(0.710-0.818)$ | 0.895 | $(0.678-0.952)$ | 50 to 54 | 0.772 | $(0.735-0.808)$ | 0.866 | $(0.683-0.955)$ |
| 55 to 59 | 0.781 | $(0.727-0.835)$ | 0.903 | $(0.661-0.958)$ | 55 to 59 | 0.714 | $(0.680-0.748)$ | 0.830 | $(0.585-0.948)$ |
| 60 to 64 | 0.706 | $(0.636-0.776)$ | 0.840 | $(0.507-0.950)$ | 60 to 64 | 0.760 | $(0.727-0.792)$ | 0.842 | $(0.664-0.954)$ |
| 65 to 69 | 0.780 | $(0.732-0.828)$ | 0.896 | $(0.647-0.958)$ | 65 to 69 | 0.769 | $(0.738-0.799)$ | 0.882 | $(0.671-0.953)$ |
| 70 to 74 | 0.781 | $(0.713-0.849)$ | 0.898 | $(0.665-0.957)$ | 70 to 74 | 0.768 | $(0.734-0.803)$ | 0.904 | $(0.661-0.955)$ |
| 75 to 79 | 0.710 | $(0.648-0.772)$ | 0.807 | $(0.562-0.922)$ | 75 to 79 | 0.692 | $(0.634-0.750)$ | 0.778 | $(0.483-0.933)$ |
| 80 to 84 | 0.705 | $(0.629-0.781)$ | 0.747 | $(0.523-0.931)$ | 80 to 84 | 0.671 | $(0.606-0.736)$ | 0.741 | $(0.471-0.925)$ |
| 85 and over |  |  |  |  | 85 and |  |  |  |  |
|  | 0.670 | $(0.580-0.759)$ | 0.705 | $(0.558-0.927)$ | over | 0.538 | $(0.447-0.630)$ | 0.585 | $(0.243-0.818)$ |
| All ages | 0.826 | $(0.814-0.838)$ | 0.920 | $(0.767-0.966)$ | All ages | 0.786 | $(0.775-0.797)$ | 0.904 | $(0.688-0.960)$ |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for asthma, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | $2,332,134$ |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
|  |  |  |  |  |
| Age group |  |  | 0.922 | $(0.797-0.977)$ |
| 12 to 19 | 0.859 | $(0.846-0.873)$ | 0.921 | $(0.776-0.968)$ |
| 20 to 24 | 0.852 | $(0.828-0.876)$ | 0.934 | $(0.862-0.978)$ |
| 25 to 29 | 0.876 | $(0.854-0.897)$ | 0.924 | $(0.796-0.977)$ |
| 30 to 34 | 0.825 | $(0.788-0.861)$ | 0.921 | $(0.777-0.975)$ |
| 35 to 39 | 0.824 | $(0.793-0.855)$ | 0.922 | $(0.742-0.968)$ |
| 40 to 44 | 0.808 | $(0.772-0.843)$ | 0.906 | $(0.688-0.958)$ |
| 45 to 49 | 0.805 | $(0.766-0.844)$ | 0.892 | $(0.683-0.954)$ |
| 50 to 54 | 0.768 | $(0.738-0.799)$ |  |  |


| 55 to 59 | 0.741 | $(0.711-0.771)$ | 0.851 | $(0.611-0.953)$ |
| :--- | :--- | :--- | :---: | :---: |
| 60 to 64 | 0.740 | $(0.707-0.773)$ | 0.84 | $(0.614-0.952)$ |
| 65 to 69 | 0.773 | $(0.748-0.798)$ | 0.894 | $(0.663-0.955)$ |
| 70 to 74 | 0.774 | $(0.739-0.808)$ | 0.904 | $(0.662-0.956)$ |
| 75 to 79 | 0.698 | $(0.654-0.742)$ | 0.782 | $(0.540-0.93)$ |
| 80 to 84 | 0.684 | $(0.634-0.734)$ | 0.743 | $(0.486-0.929)$ |
| 85 and over | 0.580 | $(0.512-0.649)$ | 0.668 | $(0.327-0.841)$ |
|  |  |  |  |  |
| All ages | 0.803 | $(0.795-0.811)$ | 0.905 | $(0.726-0.963)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 5. Age and sex-stratified utility norms for back problems, household population aged 12 and older, Canada,
2013-2014

| Male |  |  | Weighted <br> Frequency | 2,462,986 | Female |  |  | Weighted <br> Frequency | 2,805,859 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.787 | (0.731-0.843) | 0.884 | (0.696-0.975) | 12 to 19 | 0.794 | (0.760-0.827) | 0.859 | (0.706-0.95) |
| 20 to 24 | 0.799 | (0.759-0.839) | 0.891 | (0.767-0.930) | 20 to 24 | 0.804 | (0.771-0.836) | 0.866 | (0.731-0.957) |
| 25 to 29 | 0.804 | (0.764-0.844) | 0.919 | (0.758-0.944) | 25 to 29 | 0.797 | (0.774-0.820) | 0.865 | (0.682-0.953) |
| 30 to 34 | 0.764 | (0.713-0.816) | 0.887 | (0.613-0.973) | 30 to 34 | 0.804 | (0.773-0.835) | 0.892 | (0.688-0.958) |
| 35 to 39 | 0.761 | (0.724-0.798) | 0.863 | (0.622-0.941) | 35 to 39 | 0.770 | (0.739-0.801) | 0.865 | (0.663-0.942) |


| 40 to 44 | 0.799 | $(0.769-0.830)$ | 0.890 | $(0.741-0.948)$ | 40 to 44 | 0.744 | $(0.707-0.781)$ | 0.855 | $(0.609-0.939)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| 45 to 49 | 0.767 | $(0.735-0.800)$ | 0.863 | $(0.660-0.948)$ | 45 to 49 | 0.752 | $(0.720-0.784)$ | 0.841 | $(0.658-0.942)$ |
| 50 to 54 | 0.737 | $(0.706-0.768)$ | 0.853 | $(0.611-0.949)$ | 50 to 54 | 0.712 | $(0.677-0.746)$ | 0.828 | $(0.607-0.945)$ |
| 55 to 59 | 0.733 | $(0.708-0.758)$ | 0.841 | $(0.611-0.946)$ | 55 to 59 | 0.701 | $(0.678-0.724)$ | 0.777 | $(0.587-0.914)$ |
| 60 to 64 | 0.719 | $(0.690-0.747)$ | 0.842 | $(0.553-0.946)$ | 60 to 64 | 0.729 | $(0.710-0.747)$ | 0.832 | $(0.611-0.931)$ |
| 65 to 69 | 0.733 | $(0.709-0.757)$ | 0.836 | $(0.591-0.923)$ | 65 to 69 | 0.709 | $(0.689-0.729)$ | 0.777 | $(0.581-0.909)$ |
| 70 to 74 | 0.729 | $(0.701-0.757)$ | 0.834 | $(0.592-0.923)$ | 70 to 74 | 0.697 | $(0.673-0.721)$ | 0.781 | $(0.549-0.910)$ |
| 75 to 79 | 0.699 | $(0.665-0.733)$ | 0.783 | $(0.555-0.910)$ | 75 to 79 | 0.658 | $(0.626-0.691)$ | 0.743 | $(0.472-0.898)$ |
| 80 to 84 | 0.629 | $(0.582-0.675)$ | 0.723 | $(0.432-0.904)$ | 80 to 84 | 0.586 | $(0.546-0.626)$ | 0.666 | $(0.345-0.865)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.59$ |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for back problems, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  | $\begin{array}{c}\text { Weighted } \\ \text { Frequency }\end{array}$ | $5,268,845$ |  |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $\begin{array}{c}95 \% \text { Confidence } \\ \text { Interval }\end{array}$ | Median | Interquartile |
| range |  |  |  |  |$]$| Age group |
| :--- |


| 55 to 59 | 0.717 | $(0.699-0.734)$ | 0.832 | $(0.591-0.927)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.724 | $(0.707-0.741)$ | 0.835 | $(0.582-0.945)$ |
| 65 to 69 | 0.720 | $(0.705-0.736)$ | 0.802 | $(0.586-0.914)$ |
| 70 to 74 | 0.711 | $(0.694-0.729)$ | 0.803 | $(0.581-0.915)$ |
| 75 to 79 | 0.677 | $(0.652-0.701)$ | 0.777 | $(0.517-0.905)$ |
| 80 to 84 | 0.603 | $(0.572-0.634)$ | 0.684 | $(0.375-0.904)$ |
| 85 and over | 0.522 | $(0.489-0.554)$ | 0.563 | $(0.251-0.801)$ |
|  |  |  |  |  |
| All ages | 0.736 | $(0.730-0.742)$ | 0.840 | $(0.612-0.937)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 6. Age and sex-stratified utility norms for bowel disease, household population aged 12 and older, Canada,
2013-2014

| Male |  |  | Weighted <br> Frequency | 401026 | Female |  |  | Weighted <br> Frequency | 910,020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.815 | (0.741-0.888) | 0.908 | (0.745-0.935) | 12 to 19 | 0.641 | (0.496-0.785) | 0.769 | (0.369-0.920) |
| 20 to 24 | 0.776 | (0.671-0.881) | 0.885 | (0.691-0.954) | 20 to 24 | 0.850 | (0.795-0.904) | 0.924 | (0.836-0.965) |
| 25 to 29 | 0.794 | (0.705-0.883) | 0.918 | (0.742-0.972) | 25 to 29 | 0.798 | (0.743-0.852) | 0.900 | (0.688-0.966) |
| 30 to 34 | 0.861 | (0.797-0.925) | 0.929 | (0.868-0.978) | 30 to 34 | 0.772 | (0.690-0.854) | 0.900 | (0.608-0.979) |
| 35 to 39 | 0.774 | (0.706-0.841) | 0.866 | (0.654-0.960) | 35 to 39 | 0.750 | (0.699-0.801) | 0.861 | (0.629-0.951) |


| 40 to 44 | 0.799 | (0.735-0.862) | 0.914 | (0.677-0.976) | 40 to 44 | 0.771 | (0.727-0.815) | 0.866 | (0.672-0.941) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.794 | (0.736-0.853) | 0.829 | (0.650-0.922) | 45 to 49 | 0.743 | (0.688-0.799) | 0.865 | (0.612-0.952) |
| 50 to 54 | 0.753 | (0.687-0.820) | 0.879 | (0.687-0.952) | 50 to 54 | 0.711 | (0.673-0.748) | 0.803 | (0.605-0.911) |
| 55 to 59 | 0.687 | (0.608-0.766) | 0.726 | (0.436-0.915) | 55 to 59 | 0.716 | (0.681-0.751) | 0.820 | (0.606-0.929) |
| 60 to 64 | 0.623 | (0.530-0.715) | 0.794 | (0.243-0.920) | 60 to 64 | 0.707 | (0.669-0.745) | 0.785 | (0.562-0.916) |
| 65 to 69 | 0.715 | (0.647-0.783) | 0.815 | (0.570-0.949) | 65 to 69 | 0.699 | (0.666-0.732) | 0.790 | (0.562-0.918) |
| 70 to 74 | 0.774 | (0.715-0.832) | 0.865 | (0.661-0.950) | 70 to 74 | 0.703 | (0.658-0.747) | 0.802 | (0.519-0.919) |
| 75 to 79 | 0.603 | (0.494-0.712) | 0.645 | (0.388-0.896) | 75 to 79 | 0.675 | (0.617-0.732) | 0.784 | (0.514-0.905) |
| 80 to 84 | 0.635 | (0.549-0.721) | 0.662 | (0.431-0.860) | 80 to 84 | 0.645 | (0.566-0.724) | 0.776 | (0.453-0.901) |
| 85 and over | 0.638 | (0.546-0.729) | 0.680 | (0.437-0.837) | 85 and over | 0.486 | (0.418-0.555) | 0.487 | (0.216-0.798) |
|  | 0.749 | (0.724-0.773) | 0.866 | (0.618-0.950) | All ages | 0.730 | (0.715-0.745) | 0.842 | (0.611-0.947) |
| All ages |  |  |  |  |  |  |  |  |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for bowel disease, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | $1,311,046$ |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to 19 | 0.711 | $(0.611-0.810)$ | 0.868 | $(0.580-0.930)$ |
| 20 to 24 | 0.829 | $(0.775-0.883)$ | 0.922 | $(0.788-0.966)$ |
| 25 to 29 | 0.796 | $(0.751-0.841)$ | 0.909 | $(0.711-0.966)$ |
| 30 to 34 | 0.806 | $(0.747-0.865)$ | 0.924 | $(0.667-0.979)$ |
| 35 to 39 | 0.759 | $(0.719-0.798)$ | 0.865 | $(0.631-0.952)$ |
| 40 to 44 | 0.780 | $(0.743-0.818)$ | 0.875 | $(0.681-0.952)$ |
| 45 to 49 | 0.757 | $(0.713-0.801)$ | 0.857 | $(0.654-0.948)$ |
| 50 to 54 | 0.721 | $(0.687-0.754)$ | 0.837 | $(0.611-0.919)$ |


| 55 to 59 | 0.707 | $(0.672-0.741)$ | 0.793 | $(0.582-0.919)$ |
| :--- | :--- | :--- | :--- | :--- |
| 60 to 64 | 0.679 | $(0.638-0.720)$ | 0.787 | $(0.489-0.916)$ |
| 65 to 69 | 0.704 | $(0.673-0.734)$ | 0.795 | $(0.563-0.941)$ |
| 70 to 74 | 0.721 | $(0.684-0.758)$ | 0.831 | $(0.580-0.946)$ |
| 75 to 79 | 0.657 | $(0.600-0.714)$ | 0.777 | $(0.471-0.905)$ |
| 80 to 84 | 0.642 | $(0.580-0.705)$ | 0.772 | $(0.443-0.898)$ |
| 85 and over | 0.519 | $(0.460-0.578)$ | 0.527 | $(0.277-0.807)$ |
|  |  |  |  |  |
| All ages | 0.735 | $(0.723-0.748)$ | 0.854 | $(0.611-0.948)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 7. Age and sex-stratified utility norms for cancer, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 249,852 | Female |  |  | Weighted <br> Frequency | 273,426 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19* |  |  |  |  | 12 to 19* |  |  |  |  |
| 20 to $24 *$ |  |  |  |  | 20 to $24 *$ |  |  |  |  |
| 25 to 29 | 0.823 | (0.657-0.990) | 0.778 | (0.760-0.795) | 25 to 29 | 0.841 | (0.717-0.965) | 0.875 | (0.644-0.890) |
| 30 to 34 | 0.861 | (0.630-1.000) | 0.913 | (0.518-0.957) | 30 to 34 | 0.695 | (0.213-1.000) | 0.975 | (0.154-0.988) |
| 35 to 39 | 0.603 | (0.264-0.941) | 0.663 | (0.434-0.745) | 35 to 39 | 0.787 | (0.670-0.903) | 0.766 | (0.614-0.917) |
| 40 to 44 | 0.783 | (0.412-1.000) | 0.761 | (0.646-0.849) | 40 to 44 | 0.810 | (0.689-0.931) | 0.895 | (0.810-0.978) |


| 45 to 49 | 0.631 | $(0.390-0.872)$ | 0.398 | $(0.356-0.973)$ | 45 to 49 | 0.876 | $(0.820-0.932)$ | 0.907 | $(0.840-0.918)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 50 to 54 | 0.750 | $(0.637-0.863)$ | 0.872 | $(0.605-0.924)$ | 50 to 54 | 0.740 | $(0.657-0.824)$ | 0.853 | $(0.627-0.935)$ |
| 55 to 59 | 0.798 | $(0.744-0.852)$ | 0.886 | $(0.709-0.959)$ | 55 to 59 | 0.784 | $(0.735-0.832)$ | 0.841 | $(0.657-0.942)$ |
| 60 to 64 | 0.767 | $(0.668-0.866)$ | 0.910 | $(0.687-0.953)$ | 60 to 64 | 0.784 | $(0.737-0.831)$ | 0.887 | $(0.689-0.956)$ |
| 65 to 69 | 0.799 | $(0.762-0.836)$ | 0.898 | $(0.710-0.952)$ | 65 to 69 | 0.797 | $(0.765-0.828)$ | 0.884 | $(0.674-0.952)$ |
| 70 to 74 | 0.777 | $(0.715-0.839)$ | 0.896 | $(0.667-0.955)$ | 70 to 74 | 0.798 | $(0.760-0.836)$ | 0.890 | $(0.723-0.945)$ |
| 75 to 79 | 0.783 | $(0.732-0.834)$ | 0.892 | $(0.732-0.953)$ | 75 to 79 | 0.731 | $(0.675-0.786)$ | 0.776 | $(0.612-0.947)$ |
| 80 to 84 | 0.674 | $(0.601-0.747)$ | 0.774 | $(0.452-0.905)$ | 80 to 84 | 0.685 | $(0.618-0.753)$ | 0.767 | $(0.517-0.900)$ |
| 85 and over |  |  |  |  | 85 and |  |  |  |  |
|  | 0.689 | $(0.595-0.783)$ | 0.798 | $(0.540-0.941)$ | over | 0.497 | $(0.389-0.606)$ | 0.539 | $(0.332-0.778)$ |
| All ages |  |  |  |  |  |  |  |  |  |

2013-2014 Canadian Community Health Survey
*Cells were hidden to comply with Statistics Canada's vetting rules

Age and sex-stratified utility norms for cancer, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | 523,278 |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to 19 | 0.614 | $(0.136-1.000)$ | 0.795 | $(0.330-0.900)$ |
| 20 to 24 | 0.674 | $(0.408-0.940)$ | 0.773 | $(0.573-0.935)$ |
| 25 to 29 | 0.830 | $(0.749-0.911)$ | 0.786 | $(0.758-0.882)$ |
| 30 to 34 | 0.713 | $(0.328-1.000)$ | 0.975 | $(0.434-0.988)$ |
| 35 to 39 | 0.737 | $(0.615-0.859)$ | 0.765 | $(0.664-0.901)$ |
| 40 to 44 | 0.804 | $(0.693-0.914)$ | 0.903 | $(0.805-0.963)$ |
| 45 to 49 | 0.797 | $(0.689-0.906)$ | 0.901 | $(0.743-0.925)$ |
| 50 to 54 | 0.744 | $(0.680-0.808)$ | 0.862 | $(0.623-0.931)$ |


| 55 to 59 | 0.790 | $(0.755-0.826)$ | 0.866 | $(0.664-0.951)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.774 | $(0.714-0.835)$ | 0.894 | $(0.689-0.958)$ |
| 65 to 69 | 0.798 | $(0.774-0.821)$ | 0.895 | $(0.706-0.952)$ |
| 70 to 74 | 0.786 | $(0.748-0.823)$ | 0.895 | $(0.687-0.955)$ |
| 75 to 79 | 0.756 | $(0.719-0.793)$ | 0.839 | $(0.661-0.950)$ |
| 80 to 84 | 0.679 | $(0.627-0.731)$ | 0.773 | $(0.504-0.905)$ |
| 85 and over | 0.605 | $(0.529-0.681)$ | 0.688 | $(0.386-0.919)$ |
|  |  |  |  |  |
| All ages | 0.759 | $(0.741-0.777)$ | 0.866 | $(0.663-0.951)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 8. Age and sex-stratified utility norms for chronic obstructive pulmonary disease, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 338,940 | Female |  |  | Weighted <br> Frequency | 421,386 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19* |  |  |  |  | 12 to 19* |  |  |  |  |
| 20 to $24 *$ |  |  |  |  | 20 to $24 *$ |  |  |  |  |
| 25 to 29* |  |  |  |  | 25 to 29* |  |  |  |  |
| 30 to 34* |  |  |  |  | 30 to 34* |  |  |  |  |
| 35 to 39 | 0.791 | (0.697-0.885) | 0.863 | (0.700-0.973) | 35 to 39 | 0.580 | (0.375-0.784) | 0.706 | (0.133-0.927) |


| 40 to 44 | 0.764 | (0.664-0.865) | 0.866 | (0.679-0.953) | 40 to 44 | 0.523 | (0.395-0.651) | 0.510 | (0.244-0.857) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.701 | (0.570-0.832) | 0.838 | (0.401-0.952) | 45 to 49 | 0.708 | (0.632-0.784) | 0.777 | (0.525-0.897) |
| 50 to 54 | 0.657 | (0.573-0.741) | 0.805 | (0.295-0.924) | 50 to 54 | 0.569 | (0.465-0.673) | 0.686 | (0.263-0.898) |
| 55 to 59 | 0.678 | (0.626-0.730) | 0.786 | (0.432-0.912) | 55 to 59 | 0.628 | (0.573-0.683) | 0.741 | (0.348-0.889) |
| 60 to 64 | 0.608 | (0.525-0.691) | 0.668 | (0.311-0.931) | 60 to 64 | 0.634 | (0.591-0.678) | 0.765 | (0.436-0.904) |
| 65 to 69 | 0.647 | (0.591-0.704) | 0.653 | (0.426-0.900) | 65 to 69 | 0.701 | (0.661-0.741) | 0.831 | (0.563-0.915) |
| 70 to 74 | 0.737 | (0.689-0.785) | 0.843 | (0.602-0.928) | 70 to 74 | 0.706 | (0.660-0.753) | 0.805 | (0.554-0.917) |
| 75 to 79 | 0.723 | (0.659-0.787) | 0.840 | (0.600-0.918) | 75 to 79 | 0.599 | (0.538-0.659) | 0.596 | (0.351-0.905) |
| 80 to 84 | 0.601 | (0.510-0.691) | 0.661 | (0.293-0.905) | 80 to 84 | 0.643 | (0.581-0.704) | 0.718 | (0.448-0.904) |
| 85 and over | 0.569 | (0.471-0.666) | 0.632 | (0.340-0.849) | 85 and over | 0.500 | (0.425-0.575) | 0.477 | (0.200-0.818) |
| All ages | 0.672 | (0.647-0.696) | 0.781 | (0.444-0.922) | All ages | 0.631 | (0.610-0.652) | 0.727 | (0.367-0.905) |

2013-2014 Canadian Community Health Survey
*Not asked to respondents below 35 years of age

Age and sex-stratified utility norms for COPD, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  | Weighted <br> Frequency | 760,326 |  |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to $19^{*}$ |  |  |  |  |
| 20 to $24^{*}$ |  |  | 0.831 | $(0.258-0.928)$ |
| 25 to $29^{*}$ |  |  | 0.697 | $(0.339-0.918)$ |
| 30 to $34^{*}$ | 0.641 | $(0.492-0.790)$ | $(0.506-0.903)$ |  |
| 35 to 39 | 0.631 | $(0.538-0.725)$ | 0.798 |  |
| 40 to 44 | 0.705 | $(0.633-0.777)$ | 0.774 | $(0.269-0.919)$ |
| 45 to 49 | 0.608 | $(0.538-0.679)$ |  |  |
| 50 to 54 |  |  |  |  |


| 55 to 59 | 0.651 | $(0.611-0.690)$ | 0.744 | $(0.387-0.905)$ |
| :--- | :--- | :--- | :--- | :--- |
| 60 to 64 | 0.622 | $(0.576-0.668)$ | 0.740 | $(0.360-0.905)$ |
| 65 to 69 | 0.675 | $(0.642-0.709)$ | 0.756 | $(0.474-0.908)$ |
| 70 to 74 | 0.720 | $(0.686-0.754)$ | 0.834 | $(0.581-0.923)$ |
| 75 to 79 | 0.651 | $(0.602-0.700)$ | 0.727 | $(0.434-0.905)$ |
| 80 to 84 | 0.624 | $(0.570-0.678)$ | 0.687 | $(0.392-0.905)$ |
| 85 and over | 0.525 | $(0.468-0.583)$ | 0.576 | $(0.232-0.821)$ |
|  |  |  |  |  |
| All ages | 0.649 | $(0.633-0.665)$ | 0.744 | $(0.403-0.905)$ |

2013-2014 Canadian Community Health Survey
*Not asked to respondents below 35 years of age

Supplementary table 9. Age and sex-stratified utility norms for diabetes, household population aged 12 and older, Canada, 2013-
2014

| Male |  |  | Weighted <br> Frequency | 1,046,609 | Female |  |  | Weighted <br> Frequency | 853,151 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.878 | (0.806-0.950) | 0.890 | (0.821-0.970) | 12 to 19 | 0.678 | (0.408-0.947) | 0.841 | (0.453-0.974) |
| 20 to 24 | 0.868 | (0.791-0.945) | 0.903 | (0.769-0.964) | 20 to 24 | 0.622 | (0.363-0.880) | 0.759 | (0.369-0.915) |
| 25 to 29 | 0.842 | (0.735-0.948) | 0.891 | (0.833-0.956) | 25 to 29 | 0.857 | (0.772-0.943) | 0.936 | (0.788-0.976) |
| 30 to 34 | 0.901 | (0.841-0.961) | 0.939 | (0.897-0.979) | 30 to 34 | 0.805 | (0.722-0.887) | 0.908 | (0.782-0.957) |
| 35 to 39 | 0.823 | (0.734-0.913) | 0.899 | (0.768-0.963) | 35 to 39 | 0.796 | (0.711-0.882) | 0.924 | (0.689-0.978) |


| 40 to 44 | 0.848 | $(0.794-0.901)$ | 0.929 | $(0.797-0.979)$ | 40 to 44 | 0.827 | $(0.764-0.890)$ | 0.923 | $(0.708-0.975)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.766 | $(0.706-0.826)$ | 0.871 | $(0.654-0.963)$ | 45 to 49 | 0.697 | $(0.619-0.774)$ | 0.834 | $(0.400-0.950)$ |
| 50 to 54 | 0.796 | $(0.741-0.852)$ | 0.913 | $(0.767-0.965)$ | 50 to 54 | 0.752 | $(0.691-0.812)$ | 0.896 | $(0.687-0.959)$ |
| 55 to 59 | 0.809 | $(0.773-0.844)$ | 0.927 | $(0.752-0.964)$ | 55 to 59 | 0.724 | $(0.685-0.764)$ | 0.781 | $(0.605-0.949)$ |
| 60 to 64 | 0.799 | $(0.769-0.829)$ | 0.905 | $(0.714-0.960)$ | 60 to 64 | 0.765 | $(0.733-0.798)$ | 0.896 | $(0.648-0.958)$ |
| 65 to 69 | 0.827 | $(0.807-0.847)$ | 0.905 | $(0.775-0.959)$ | 65 to 69 | 0.737 | $(0.706-0.768)$ | 0.840 | $(0.611-0.951)$ |
| 70 to 74 | 0.798 | $(0.770-0.826)$ | 0.900 | $(0.717-0.957)$ | 70 to 74 | 0.778 | $(0.752-0.805)$ | 0.904 | $(0.660-0.952)$ |
| 75 to 79 | 0.751 | $(0.717-0.784)$ | 0.873 | $(0.632-0.953)$ | 75 to 79 | 0.697 | $(0.657-0.737)$ | 0.802 | $(0.500-0.935)$ |
| 80 to 84 | 0.659 | $(0.599-0.720)$ | 0.775 | $(0.428-0.927)$ | 80 to 84 | 0.663 | $(0.607-0.719)$ | 0.784 | $(0.466-0.928)$ |
| 85 and over |  |  |  |  | $(0.523-0.905)$ | over | 0.552 | $(0.463-0.641)$ | 0.619 |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for diabetes, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  | $\begin{array}{c}\text { Weighted } \\ \text { Frequency }\end{array}$ | $1,899,760$ |  |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $\begin{array}{c}95 \% \text { Confidence } \\ \text { Interval }\end{array}$ | Median | Interquartile |
| range |  |  |  |  |$]$| Age group |
| :--- |


| 55 to 59 | 0.773 | $(0.747-0.798)$ | 0.897 | $(0.655-0.959)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.784 | $(0.761-0.807)$ | 0.905 | $(0.667-0.959)$ |
| 65 to 69 | 0.787 | $(0.768-0.806)$ | 0.904 | $(0.668-0.956)$ |
| 70 to 74 | 0.790 | $(0.770-0.809)$ | 0.904 | $(0.701-0.955)$ |
| 75 to 79 | 0.725 | $(0.698-0.751)$ | 0.839 | $(0.574-0.948)$ |
| 80 to 84 | 0.661 | $(0.618-0.704)$ | 0.780 | $(0.432-0.927)$ |
| 85 and over | 0.594 | $(0.533-0.654)$ | 0.682 | $(0.343-0.904)$ |
|  |  |  |  |  |
| All ages | 0.766 | $(0.757-0.776)$ | 0.904 | $(0.663-0.958)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 10. Age and sex-stratified utility norms for effects of a stroke, household population aged 12 and older, Canada,
2013-2014

| Male |  |  | Weighted <br> Frequency | 151,581 | Female |  |  | Weighted <br> Frequency | 154,558 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19* |  |  |  |  | 12 to 19* |  |  |  |  |
| 20 to $24 *$ |  |  |  |  | 20 to $24 *$ |  |  |  |  |
| 25 to 29* |  |  |  |  | 25 to 29* |  |  |  |  |
| 30 to 34 | 0.768 | (0.388-1.000) | 0.725 | (0.392-0.852) | 30 to 34 | 0.675 | (0.158-1.191) | 0.631 | (-0.102-0.974) |
| 35 to 39 | 0.654 | (0.432-0.876) | 0.534 | (0.452-0.703) | 35 to 39 | 0.784 | (0.585-0.983) | 0.897 | (0.488-0.938) |


| 40 to 44 | 0.693 | $(0.516-0.870)$ | 0.813 | $(0.360-0.867)$ | 40 to 44 | 0.377 | $(0.223-0.531)$ | 0.348 | $(0.336-0.451)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| 45 to 49 | 0.486 | $(0.278-0.695)$ | 0.342 | $(0.230-0.697)$ | 45 to 49 | 0.786 | $(0.657-0.916)$ | 0.808 | $(0.711-0.846)$ |
| 50 to 54 | 0.682 | $(0.584-0.780)$ | 0.808 | $(0.442-0.881)$ | 50 to 54 | 0.476 | $(0.336-0.616)$ | 0.449 | $(0.244-0.763)$ |
| 55 to 59 | 0.663 | $(0.505-0.821)$ | 0.772 | $(0.407-0.953)$ | 55 to 59 | 0.604 | $(0.510-0.698)$ | 0.699 | $(0.427-0.765)$ |
| 60 to 64 | 0.643 | $(0.561-0.724)$ | 0.709 | $(0.414-0.900)$ | 60 to 64 | 0.549 | $(0.433-0.665)$ | 0.680 | $(0.327-0.776)$ |
| 65 to 69 | 0.644 | $(0.569-0.719)$ | 0.735 | $(0.435-0.895)$ | 65 to 69 | 0.544 | $(0.470-0.618)$ | 0.572 | $(0.321-0.789)$ |
| 70 to 74 | 0.677 | $(0.613-0.741)$ | 0.744 | $(0.480-0.903)$ | 70 to 74 | 0.703 | $(0.635-0.771)$ | 0.784 | $(0.522-0.930)$ |
| 75 to 79 | 0.611 | $(0.540-0.681)$ | 0.699 | $(0.401-0.866)$ | 75 to 79 | 0.529 | $(0.436-0.623)$ | 0.621 | $(0.188-0.838)$ |
| 80 to 84 | 0.558 | $(0.444-0.671)$ | 0.662 | $(0.335-0.904)$ | 80 to 84 | 0.477 | $(0.388-0.567)$ | 0.507 | $(0.169-0.747)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.470$ | $(0.178-0.363)$ |

2013-2014 Canadian Community Health Survey
*Cells were hidden to comply with Statistics Canada's vetting rules

Age and sex-stratified utility norms for effects of a stroke, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | 306,139 |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to 19 | 0.582 | $(0.184-0.981)$ | 0.865 | $(0.405-0.934)$ |
| 20 to 24 | 0.828 | $(0.595-1.000)$ | 0.934 | $(0.754-0.965)$ |
| 25 to 29 | 0.536 | $(0.365-0.706)$ | 0.416 | $(0.351-0.626)$ |
| 30 to 34 | 0.718 | $(0.401-1.000)$ | 0.909 | $(0.385-0.945)$ |
| 35 to 39 | 0.734 | $(0.584-0.884)$ | 0.763 | $(0.457-0.921)$ |
| 40 to 44 | 0.579 | $(0.426-0.733)$ | 0.622 | $(0.336-0.829)$ |
| 45 to 49 | 0.645 | $(0.482-0.809)$ | 0.740 | $(0.346-0.852)$ |
| 50 to 54 | 0.548 | $(0.440-0.656)$ | 0.540 | $(0.311-0.835)$ |


| 55 to 59 | 0.633 | $(0.540-0.727)$ | 0.720 | $(0.425-0.896)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.602 | $(0.535-0.669)$ | 0.707 | $(0.358-0.862)$ |
| 65 to 69 | 0.599 | $(0.546-0.651)$ | 0.659 | $(0.384-0.863)$ |
| 70 to 74 | 0.687 | $(0.640-0.734)$ | 0.763 | $(0.501-0.925)$ |
| 75 to 79 | 0.575 | $(0.518-0.633)$ | 0.668 | $(0.330-0.853)$ |
| 80 to 84 | 0.511 | $(0.440-0.582)$ | 0.575 | $(0.253-0.779)$ |
| 85 and over | 0.337 | $(0.257-0.417)$ | 0.276 | $(0.038-0.620)$ |
|  |  |  |  |  |
| All ages | 0.581 | $(0.553-0.608)$ | 0.663 | $(0.331-0.864)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 11. Age and sex-stratified utility norms for heart disease, household population aged 12 and older, Canada,

## 2013-2014

| Male |  |  | Weighted <br> Frequency | 783,218 | Female |  |  | Weighted <br> Frequency | 577,033 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.834 | (0.769-0.899) | 0.911 | (0.759-0.966) | 12 to 19 | 0.613 | (0.263-0.962) | 0.750 | (0.493-0.925) |
| 20 to 24 | 0.796 | (0.662-0.930) | 0.856 | (0.760-0.977) | 20 to 24 | 0.711 | (0.563-0.859) | 0.802 | (0.554-0.929) |
| 25 to 29 | 0.905 | (0.835-0.975) | 0.926 | (0.889-0.982) | 25 to 29 | 0.825 | (0.702-0.948) | 0.906 | (0.688-0.981) |
| 30 to 34 | 0.789 | (0.648-0.930) | 0.888 | (0.595-0.918) | 30 to 34 | 0.749 | (0.576-0.923) | 0.889 | (0.437-0.979) |
| 35 to 39 | 0.708 | (0.501-0.916) | 0.950 | (0.338-0.986) | 35 to 39 | 0.753 | (0.560-0.947) | 0.903 | (0.657-0.964) |


| 40 to 44 | 0.771 | $(0.677-0.866)$ | 0.920 | $(0.621-0.949)$ | 40 to 44 | 0.531 | $(0.339-0.722)$ | 0.561 | $(0.179-0.897)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.830 | $(0.735-0.926)$ | 0.952 | $(0.850-0.969)$ | 45 to 49 | 0.749 | $(0.637-0.861)$ | 0.850 | $(0.706-0.935)$ |
| 50 to 54 | 0.619 | $(0.426-0.811)$ | 0.837 | $(0.244-0.953)$ | 50 to 54 | 0.707 | $(0.560-0.854)$ | 0.904 | $(0.606-0.955)$ |
| 55 to 59 | 0.782 | $(0.736-0.827)$ | 0.899 | $(0.686-0.958)$ | 55 to 59 | 0.652 | $(0.584-0.720)$ | 0.763 | $(0.384-0.902)$ |
| 60 to 64 | 0.775 | $(0.745-0.804)$ | 0.897 | $(0.646-0.956)$ | 60 to 64 | 0.723 | $(0.674-0.772)$ | 0.821 | $(0.611-0.955)$ |
| 65 to 69 | 0.812 | $(0.786-0.837)$ | 0.899 | $(0.726-0.956)$ | 65 to 69 | 0.732 | $(0.696-0.768)$ | 0.835 | $(0.612-0.948)$ |
| 70 to 74 | 0.789 | $(0.761-0.816)$ | 0.891 | $(0.687-0.952)$ | 70 to 74 | 0.738 | $(0.709-0.767)$ | 0.838 | $(0.612-0.948)$ |
| 75 to 79 | 0.737 | $(0.703-0.770)$ | 0.833 | $(0.600-0.947)$ | 75 to 79 | 0.675 | $(0.635-0.715)$ | 0.766 | $(0.528-0.904)$ |
| 80 to 84 | 0.675 | $(0.629-0.721)$ | 0.769 | $(0.491-0.920)$ | 80 to 84 | 0.649 | $(0.605-0.693)$ | 0.743 | $(0.443-0.905)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.730$ |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for heart disease, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | $1,360,251$ |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
|  |  |  |  |  |
| Age group | 0.768 | $(0.641-0.896)$ | 0.896 | $(0.717-0.959)$ |
| 12 to 19 | 0.750 | $(0.648-0.853)$ | 0.805 | $(0.695-0.940)$ |
| 20 to 24 | 0.770 | $(0.657-0.882)$ | 0.897 | $(0.592-0.929)$ |
| 25 to 29 | 0.733 | $(0.593-0.872)$ | 0.912 | $(0.642-0.979)$ |
| 30 to 34 | 0.655 | $(0.539-0.770)$ | 0.841 | $(0.284-0.948)$ |
| 35 to 39 | 0.796 | $(0.722-0.870)$ | 0.917 | $(0.730-0.964)$ |
| 40 to 44 | 0.654 | $(0.526-0.781)$ | 0.864 | $(0.326-0.954)$ |
| 45 to 49 |  |  | $(0.745-0.982)$ |  |
| 50 to 54 |  |  |  |  |


| 55 to 59 | 0.733 | $(0.693-0.773)$ | 0.865 | $(0.611-0.953)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.758 | $(0.733-0.782)$ | 0.904 | $(0.616-0.956)$ |
| 65 to 69 | 0.783 | $(0.763-0.804)$ | 0.904 | $(0.681-0.954)$ |
| 70 to 74 | 0.768 | $(0.748-0.788)$ | 0.851 | $(0.661-0.950)$ |
| 75 to 79 | 0.710 | $(0.683-0.736)$ | 0.780 | $(0.575-0.919)$ |
| 80 to 84 | 0.662 | $(0.631-0.693)$ | 0.763 | $(0.471-0.910)$ |
| 85 and over | 0.537 | $(0.496-0.578)$ | 0.576 | $(0.259-0.828)$ |
|  |  |  |  |  |
| All ages | 0.719 | $(0.705-0.732)$ | 0.842 | $(0.581-0.950)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 12. Age and sex-stratified utility norms for high blood pressure, household population aged 12 and older,
Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 2,586,302 | Female |  |  | Weighted <br> Frequency | 2,472,842 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age group |  |  |  |  |
| 12 to 19 | 0.817 | (0.725-0.909) | 0.907 | (0.727-0.976) | 12 to 19 | 0.671 | (0.370-0.973) | 0.779 | (0.738-0.928) |
| 20 to 24 | 0.718 | (0.565-0.871) | 0.893 | (0.669-0.946) | 20 to 24 | 0.668 | (0.496-0.841) | 0.865 | (0.389-0.903) |
| 25 to 29 | 0.823 | (0.733-0.914) | 0.865 | (0.785-0.931) | 25 to 29 | 0.848 | (0.780-0.915) | 0.923 | (0.772-0.965) |
| 30 to 34 | 0.824 | (0.747-0.901) | 0.923 | (0.735-0.965) | 30 to 34 | 0.842 | (0.785-0.899) | 0.925 | (0.778-0.976) |
| 35 to 39 | 0.833 | (0.785-0.880) | 0.915 | (0.803-0.978) | 35 to 39 | 0.783 | (0.715-0.852) | 0.904 | (0.687-0.975) |


| 40 to 44 | 0.836 | (0.791-0.880) | 0.926 | (0.800-0.971) | 40 to 44 | 0.800 | (0.730-0.870) | 0.917 | (0.686-0.974) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.845 | (0.808-0.882) | 0.926 | (0.800-0.963) | 45 to 49 | 0.797 | (0.764-0.831) | 0.894 | (0.726-0.958) |
| 50 to 54 | 0.806 | (0.755-0.856) | 0.911 | (0.777-0.964) | 50 to 54 | 0.770 | (0.735-0.805) | 0.897 | (0.662-0.957) |
| 55 to 59 | 0.823 | (0.803-0.843) | 0.907 | (0.783-0.962) | 55 to 59 | 0.803 | (0.786-0.820) | 0.896 | (0.688-0.954) |
| 60 to 64 | 0.825 | (0.807-0.843) | 0.905 | (0.778-0.960) | 60 to 64 | 0.800 | (0.782-0.817) | 0.905 | (0.687-0.959) |
| 65 to 69 | 0.820 | (0.804-0.836) | 0.904 | (0.743-0.959) | 65 to 69 | 0.801 | (0.787-0.816) | 0.905 | (0.691-0.957) |
| 70 to 74 | 0.829 | (0.811-0.847) | 0.905 | (0.778-0.958) | 70 to 74 | 0.809 | (0.794-0.824) | 0.905 | (0.727-0.957) |
| 75 to 79 | 0.783 | (0.760-0.806) | 0.904 | (0.704-0.954) | 75 to 79 | 0.750 | (0.728-0.772) | 0.842 | (0.617-0.950) |
| 80 to 84 | 0.721 | (0.690-0.753) | 0.834 | (0.592-0.945) | 80 to 84 | 0.720 | (0.697-0.743) | 0.836 | (0.581-0.947) |
| 85 and over | 0.681 | (0.636-0.726) | 0.783 | (0.547-0.905) | 85 and over | 0.581 | (0.548-0.614) | 0.664 | (0.317-0.867) |
| All ages | 0.811 | (0.802-0.820) | 0.905 | (0.744-0.96) | All ages | 0.775 | (0.767-0.782) | 0.904 | (0.663-0.955) |

[^0]Age and sex-stratified utility norms for high blood pressure, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | , 059,144 |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to 19 | 0.762 | $(0.629-0.895)$ | 0.866 | $(0.737-0.945)$ |
| 20 to 24 | 0.703 | $(0.588-0.817)$ | 0.866 | $(0.459-0.956)$ |
| 25 to 29 | 0.833 | $(0.774-0.891)$ | 0.894 | $(0.786-0.955)$ |
| 30 to 34 | 0.829 | $(0.771-0.887)$ | 0.923 | $(0.750-0.970)$ |
| 35 to 39 | 0.810 | $(0.770-0.850)$ | 0.922 | $(0.762-0.977)$ |
| 40 to 44 | 0.822 | $(0.783-0.861)$ | 0.924 | $(0.767-0.972)$ |
| 45 to 49 | 0.827 | $(0.800-0.854)$ | 0.916 | $(0.748-0.962)$ |
| 50 to 54 | 0.790 | $(0.759-0.822)$ | 0.903 | $(0.725-0.961)$ |


| 55 to 59 | 0.814 | $(0.800-0.827)$ | 0.901 | $(0.744-0.958)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.813 | $(0.801-0.825)$ | 0.905 | $(0.743-0.960)$ |
| 65 to 69 | 0.810 | $(0.800-0.821)$ | 0.905 | $(0.725-0.958)$ |
| 70 to 74 | 0.818 | $(0.806-0.830)$ | 0.905 | $(0.762-0.957)$ |
| 75 to 79 | 0.765 | $(0.748-0.782)$ | 0.865 | $(0.661-0.952)$ |
| 80 to 84 | 0.720 | $(0.702-0.739)$ | 0.835 | $(0.582-0.946)$ |
| 85 and over | 0.614 | $(0.586-0.641)$ | 0.691 | $(0.354-0.904)$ |
|  |  |  |  |  |
| All ages | 0.793 | $(0.787-0.799)$ | 0.905 | $(0.706-0.958)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 13. Age and sex-stratified utility norms for migraines, household population aged 12 and older, Canada, 2013-
2014

| Male |  |  | Weighted <br> Frequency | 850,135 | Female |  |  | Weighted <br> Frequency | 2,047,871 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.831 | (0.806-0.856) | 0.919 | (0.764-0.974) | 12 to 19 | 0.822 | (0.801-0.843) | 0.886 | (0.743-0.958) |
| 20 to 24 | 0.805 | (0.744-0.865) | 0.904 | (0.725-0.979) | 20 to 24 | 0.863 | (0.840-0.886) | 0.924 | (0.801-0.970) |
| 25 to 29 | 0.783 | (0.723-0.842) | 0.900 | (0.743-0.952) | 25 to 29 | 0.847 | (0.823-0.871) | 0.920 | (0.801-0.967) |
| 30 to 34 | 0.813 | (0.751-0.876) | 0.924 | (0.791-0.981) | 30 to 34 | 0.816 | (0.784-0.847) | 0.901 | (0.743-0.969) |
| 35 to 39 | 0.829 | (0.780-0.878) | 0.923 | (0.825-0.974) | 35 to 39 | 0.825 | (0.799-0.852) | 0.918 | (0.744-0.974) |


| 40 to 44 | 0.821 | $(0.782-0.861)$ | 0.897 | $(0.800-0.952)$ | 40 to 44 | 0.777 | $(0.739-0.814)$ | 0.898 | $(0.670-0.970)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| 45 to 49 | 0.723 | $(0.671-0.774)$ | 0.840 | $(0.560-0.927)$ | 45 to 49 | 0.781 | $(0.745-0.816)$ | 0.895 | $(0.682-0.951)$ |
| 50 to 54 | 0.698 | $(0.644-0.753)$ | 0.840 | $(0.505-0.948)$ | 50 to 54 | 0.725 | $(0.693-0.758)$ | 0.833 | $(0.608-0.949)$ |
| 55 to 59 | 0.711 | $(0.644-0.778)$ | 0.840 | $(0.414-0.950)$ | 55 to 59 | 0.736 | $(0.702-0.770)$ | 0.851 | $(0.609-0.951)$ |
| 60 to 64 | 0.664 | $(0.616-0.711)$ | 0.744 | $(0.482-0.904)$ | 60 to 64 | 0.751 | $(0.722-0.780)$ | 0.839 | $(0.622-0.949)$ |
| 65 to 69 | 0.698 | $(0.616-0.780)$ | 0.840 | $(0.437-0.947)$ | 65 to 69 | 0.721 | $(0.681-0.761)$ | 0.838 | $(0.611-0.947)$ |
| 70 to 74 | 0.766 | $(0.684-0.848)$ | 0.869 | $(0.668-0.953)$ | 70 to 74 | 0.714 | $(0.660-0.769)$ | 0.840 | $(0.520-0.941)$ |
| 75 to 79 | 0.601 | $(0.455-0.748)$ | 0.677 | $(0.386-0.815)$ | 75 to 79 | 0.662 | $(0.597-0.728)$ | 0.696 | $(0.565-0.897)$ |
| 80 to 84 | 0.719 | $(0.604-0.835)$ | 0.781 | $(0.616-0.938)$ | 80 to 84 | 0.645 | $(0.544-0.747)$ | 0.731 | $(0.415-0.931)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.59$ |  |

[^1]Age and sex-stratified utility norms for migraines, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  | $\begin{array}{c}\text { Weighted } \\ \text { Frequency }\end{array}$ | $2,898,005$ |  |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $\begin{array}{c}95 \% \text { Confidence } \\ \text { Interval }\end{array}$ | Median | Interquartile |
| range |  |  |  |  |$]$| Age group |
| :--- |


| 55 to 59 | 0.729 | $(0.697-0.760)$ | 0.849 | $(0.601-0.951)$ |
| :--- | :---: | :---: | :---: | :---: |
| 60 to 64 | 0.726 | $(0.700-0.751)$ | 0.834 | $(0.611-0.946)$ |
| 65 to 69 | 0.715 | $(0.681-0.749)$ | 0.838 | $(0.582-0.949)$ |
| 70 to 74 | 0.731 | $(0.687-0.775)$ | 0.851 | $(0.560-0.952)$ |
| 75 to 79 | 0.648 | $(0.586-0.710)$ | 0.694 | $(0.564-0.890)$ |
| 80 to 84 | 0.665 | $(0.586-0.744)$ | 0.748 | $(0.432-0.933)$ |
| 85 and over | 0.529 | $(0.393-0.666)$ | 0.569 | $(0.181-0.839)$ |
|  |  |  |  |  |
| All ages | 0.780 | $(0.771-0.788)$ | 0.894 | $(0.683-0.958)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 14. Age and sex-stratified utility norms for mood disorder, household population aged 12 and older, Canada,
2013-2014

| Male |  |  | Weighted <br> Frequency | 850,939 | Female |  |  | Weighted <br> Frequency | 1,343,179 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.704 | (0.654-0.753) | 0.756 | (0.595-0.895) | 12 to 19 | 0.660 | (0.622-0.698) | 0.709 | (0.462-0.865) |
| 20 to 24 | 0.670 | (0.606-0.734) | 0.761 | (0.493-0.897) | 20 to 24 | 0.748 | (0.715-0.781) | 0.822 | (0.673-0.922) |
| 25 to 29 | 0.722 | (0.664-0.781) | 0.787 | (0.626-0.912) | 25 to 29 | 0.738 | (0.702-0.773) | 0.838 | (0.612-0.924) |
| 30 to 34 | 0.740 | (0.682-0.798) | 0.816 | (0.593-0.914) | 30 to 34 | 0.723 | (0.683-0.762) | 0.802 | (0.593-0.920) |
| 35 to 39 | 0.693 | (0.631-0.755) | 0.799 | (0.453-0.929) | 35 to 39 | 0.693 | (0.654-0.732) | 0.793 | (0.558-0.901) |


| 40 to 44 | 0.693 | $(0.630-0.756)$ | 0.777 | $(0.482-0.921)$ | 40 to 44 | 0.602 | $(0.544-0.660)$ | 0.687 | $(0.357-0.898)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.610 | $(0.543-0.677)$ | 0.679 | $(0.357-0.903)$ | 45 to 49 | 0.598 | $(0.549-0.646)$ | 0.686 | $(0.354-0.845)$ |
| 50 to 54 | 0.580 | $(0.523-0.638)$ | 0.681 | $(0.267-0.894)$ | 50 to 54 | 0.589 | $(0.539-0.640)$ | 0.687 | $(0.296-0.892)$ |
| 55 to 59 | 0.597 | $(0.544-0.650)$ | 0.686 | $(0.319-0.898)$ | 55 to 59 | 0.606 | $(0.568-0.645)$ | 0.688 | $(0.388-0.891)$ |
| 60 to 64 | 0.570 | $(0.510-0.631)$ | 0.626 | $(0.267-0.880)$ | 60 to 64 | 0.604 | $(0.569-0.638)$ | 0.686 | $(0.344-0.864)$ |
| 65 to 69 | 0.647 | $(0.598-0.696)$ | 0.716 | $(0.560-0.893)$ | 65 to 69 | 0.656 | $(0.619-0.692)$ | 0.715 | $(0.485-0.897)$ |
| 70 to 74 | 0.574 | $(0.490-0.657)$ | 0.619 | $(0.230-0.894)$ | 70 to 74 | 0.638 | $(0.592-0.684)$ | 0.720 | $(0.419-0.899)$ |
| 75 to 79 | 0.520 | $(0.346-0.694)$ | 0.612 | $(0.168-0.885)$ | 75 to 79 | 0.552 | $(0.497-0.608)$ | 0.563 | $(0.362-0.783)$ |
| 80 to 84 | 0.498 | $(0.397-0.598)$ | 0.582 | $(0.256-0.745)$ | 80 to 84 | 0.419 | $(0.333-0.505)$ | 0.363 | $(0.113-0.829)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.49$ |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for mood disorder, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted <br> Frequency | $2,194,118$ |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $95 \%$ Confidence <br> Interval | Median | Interquartile <br> range |
|  |  |  |  |  |
| Age group | 0.675 | $(0.644-0.706)$ | 0.713 | $(0.504-0.869)$ |
| 12 to 19 | 0.721 | $(0.688-0.753)$ | 0.794 | $(0.608-0.921)$ |
| 20 to 24 | 0.732 | $(0.702-0.761)$ | 0.801 | $(0.617-0.923)$ |
| 25 to 29 | $(0.696-0.764)$ | 0.821 | $(0.595-0.922)$ |  |
| 30 to 34 | 0.693 | $(0.660-0.726)$ | 0.793 | $(0.499-0.923)$ |
| 35 to 39 | 0.640 | $(0.596-0.684)$ | 0.741 | $(0.373-0.903)$ |
| 40 to 44 | 0.586 | $(0.562-0.646)$ | 0.683 | $(0.357-0.893)$ |
| 45 to 49 | $(0.547-0.625)$ | 0.686 | $(0.273-0.893)$ |  |
| 50 to 54 |  |  |  |  |


| 55 to 59 | 0.603 | $(0.571-0.635)$ | 0.687 | $(0.346-0.894)$ |
| :--- | :--- | :--- | :--- | :--- |
| 60 to 64 | 0.590 | $(0.557-0.622)$ | 0.666 | $(0.324-0.865)$ |
| 65 to 69 | 0.652 | $(0.624-0.680)$ | 0.715 | $(0.505-0.897)$ |
| 70 to 74 | 0.618 | $(0.577-0.658)$ | 0.688 | $(0.355-0.898)$ |
| 75 to 79 | 0.541 | $(0.467-0.615)$ | 0.577 | $(0.291-0.838)$ |
| 80 to 84 | 0.444 | $(0.379-0.509)$ | 0.442 | $(0.130-0.786)$ |
| 85 and over | 0.423 | $(0.362-0.485)$ | 0.404 | $(0.120-0.749)$ |
|  |  |  |  |  |
| All ages | 0.643 | $(0.632-0.654)$ | 0.734 | $(0.410-0.905)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 15. Age and sex-stratified utility norms for scoliosis, household population aged 12 and older, Canada, 2013-
2014

| Male |  |  | Weighted <br> Frequency | 291,647 | Female |  |  | Weighted <br> Frequency | 662,406 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.778 | (0.639-0.918) | 0.889 | (0.753-0.975) | 12 to 19 | 0.820 | (0.761-0.880) | 0.924 | (0.748-0.977) |
| 20 to 24 | 0.864 | (0.815-0.913) | 0.898 | (0.831-0.944) | 20 to 24 | 0.859 | (0.809-0.909) | 0.932 | (0.803-0.977) |
| 25 to 29 | 0.757 | (0.658-0.856) | 0.823 | (0.665-0.923) | 25 to 29 | 0.854 | (0.804-0.903) | 0.929 | (0.792-0.976) |
| 30 to 34 | 0.720 | (0.611-0.829) | 0.853 | (0.391-0.917) | 30 to 34 | 0.827 | (0.779-0.874) | 0.895 | (0.795-0.974) |
| 35 to 39 | 0.786 | (0.727-0.845) | 0.857 | (0.631-0.924) | 35 to 39 | 0.857 | (0.820-0.894) | 0.920 | (0.835-0.959) |


| 40 to 44 | 0.870 | $(0.812-0.929)$ | 0.950 | $(0.884-0.977)$ | 40 to 44 | 0.805 | $(0.754-0.856)$ | 0.867 | $(0.672-0.961)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.812 | $(0.737-0.887)$ | 0.877 | $(0.737-0.960)$ | 45 to 49 | 0.714 | $(0.625-0.803)$ | 0.745 | $(0.532-0.936)$ |
| 50 to 54 | 0.727 | $(0.637-0.817)$ | 0.859 | $(0.647-0.935)$ | 50 to 54 | 0.738 | $(0.683-0.793)$ | 0.820 | $(0.619-0.948)$ |
| 55 to 59 | 0.820 | $(0.750-0.891)$ | 0.909 | $(0.778-0.958)$ | 55 to 59 | 0.764 | $(0.715-0.812)$ | 0.862 | $(0.639-0.955)$ |
| 60 to 64 | 0.801 | $(0.691-0.910)$ | 0.939 | $(0.737-0.980)$ | 60 to 64 | 0.739 | $(0.696-0.783)$ | 0.819 | $(0.609-0.948)$ |
| 65 to 69 | 0.736 | $(0.637-0.835)$ | 0.893 | $(0.613-0.927)$ | 65 to 69 | 0.710 | $(0.665-0.754)$ | 0.796 | $(0.578-0.895)$ |
| 70 to 74 | 0.726 | $(0.634-0.817)$ | 0.802 | $(0.662-0.919)$ | 70 to 74 | 0.662 | $(0.593-0.732)$ | 0.812 | $(0.373-0.946)$ |
| 75 to 79 | 0.727 | $(0.635-0.819)$ | 0.783 | $(0.578-0.873)$ | 75 to 79 | 0.754 | $(0.703-0.806)$ | 0.845 | $(0.625-0.947)$ |
| 80 to 84 | 0.611 | $(0.423-0.799)$ | 0.744 | $(0.362-0.832)$ | 80 to 84 | 0.652 | $(0.552-0.752)$ | 0.738 | $(0.449-0.930)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.794$ |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for scoliosis, household population aged 12 and older, Canada, 2013-2014 (continued)


| 50 to 54 | 0.735 | $(0.687-0.784)$ | 0.837 | $(0.620-0.948)$ |
| :--- | :---: | :---: | :---: | :---: |
| 55 to 59 | 0.781 | $(0.740-0.822)$ | 0.891 | $(0.661-0.956)$ |
| 60 to 64 | 0.760 | $(0.713-0.807)$ | 0.854 | $(0.628-0.961)$ |
| 65 to 69 | 0.716 | $(0.675-0.758)$ | 0.825 | $(0.592-0.904)$ |
| 70 to 74 | 0.676 | $(0.619-0.733)$ | 0.817 | $(0.462-0.943)$ |
| 75 to 79 | 0.746 | $(0.704-0.787)$ | 0.832 | $(0.616-0.938)$ |
| 80 to 84 | 0.640 | $(0.549-0.731)$ | 0.748 | $(0.380-0.908)$ |
| 85 and over | 0.537 | $(0.469-0.605)$ | 0.561 | $(0.368-0.727)$ |
|  |  |  |  |  |
| All ages | 0.777 | $(0.764-0.791)$ | 0.904 | $(0.663-0.957)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 16. Age and sex-stratified utility norms for stomach or intestinal ulcers, household population aged 12 and
older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 333,035 | Female |  |  | Weighted <br> Frequency | 394,205 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.675 | (0.568-0.782) | 0.717 | (0.462-0.878) | 12 to 19 | 0.662 | (0.468-0.856) | 0.780 | (0.516-0.898) |
| 20 to 24 | 0.732 | (0.618-0.845) | 0.864 | (0.662-0.886) | 20 to 24 | 0.733 | (0.632-0.835) | 0.838 | (0.470-0.924) |
| 25 to 29 | 0.814 | (0.731-0.897) | 0.865 | (0.830-0.935) | 25 to 29 | 0.809 | (0.722-0.896) | 0.919 | (0.743-0.956) |
| 30 to 34 | 0.800 | (0.657-0.943) | 0.957 | (0.633-0.985) | 30 to 34 | 0.712 | (0.560-0.864) | 0.841 | (0.598-0.941) |
| 35 to 39 | 0.759 | (0.688-0.831) | 0.803 | (0.660-0.925) | 35 to 39 | 0.790 | (0.727-0.852) | 0.841 | (0.690-0.940) |


| 40 to 44 | 0.823 | (0.740-0.907) | 0.933 | (0.835-0.972) | 40 to 44 | 0.671 | (0.534-0.809) | 0.775 | (0.267-0.933) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.713 | (0.578-0.848) | 0.835 | (0.407-0.906) | 45 to 49 | 0.711 | (0.597-0.826) | 0.800 | (0.384-0.959) |
| 50 to 54 | 0.532 | (0.314-0.751) | 0.746 | $\begin{gathered} (-0.054- \\ 0.939) \end{gathered}$ | 50 to 54 | 0.723 | (0.636-0.810) | 0.879 | (0.613-0.947) |
| 55 to 59 | 0.607 | (0.497-0.717) | 0.662 | (0.319-0.909) | 55 to 59 | 0.653 | (0.578-0.728) | 0.726 | (0.440-0.908) |
| 60 to 64 | 0.705 | (0.632-0.779) | 0.840 | (0.471-0.936) | 60 to 64 | 0.640 | (0.573-0.706) | 0.777 | (0.365-0.885) |
| 65 to 69 | 0.682 | (0.601-0.763) | 0.785 | (0.567-0.903) | 65 to 69 | 0.684 | (0.622-0.746) | 0.777 | (0.568-0.899) |
| 70 to 74 | 0.661 | (0.528-0.794) | 0.805 | (0.458-0.924) | 70 to 74 | 0.650 | (0.569-0.732) | 0.744 | (0.403-0.926) |
| 75 to 79 | 0.609 | (0.500-0.718) | 0.669 | (0.428-0.884) | 75 to 79 | 0.638 | (0.530-0.746) | 0.783 | (0.366-0.889) |
| 80 to 84 | 0.653 | (0.551-0.755) | 0.687 | (0.503-0.866) | 80 to 84 | 0.616 | (0.523-0.708) | 0.566 | (0.487-0.888) |
| 85 and over | 0.604 | (0.490-0.718) | 0.713 | (0.310-0.844) | 85 and over | 0.485 | (0.394-0.575) | 0.517 | (0.186-0.680) |
| All ages | 0.694 | (0.650-0.738) | 0.841 | (0.493-0.943) | All ages | 0.692 | (0.664-0.720) | 0.800 | (0.505-0.927) |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for stomach or intestinal ulcers, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | Weighted | 727,240 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Frequency |  |
|  | Mean | 95\% Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |
| 12 to 19 | 0.667 | (0.541-0.793) | 0.752 | (0.518-0.896) |
| 20 to 24 | 0.733 | (0.662-0.803) | 0.843 | (0.615-0.903) |
| 25 to 29 | 0.811 | (0.750-0.872) | 0.899 | (0.795-0.941) |
| 30 to 34 | 0.760 | (0.649-0.870) | 0.907 | (0.615-0.978) |
| 35 to 39 | 0.773 | (0.728-0.818) | 0.839 | (0.674-0.937) |
| 40 to 44 | 0.750 | (0.660-0.840) | 0.865 | (0.576-0.958) |
| 45 to 49 | 0.712 | (0.624-0.800) | 0.834 | (0.406-0.929) |


| 50 to 54 | 0.625 | $(0.499-0.751)$ | 0.846 | $(0.301-0.949)$ |
| :--- | :---: | :---: | :---: | :---: |
| 55 to 59 | 0.631 | $(0.567-0.695)$ | 0.664 | $(0.328-0.908)$ |
| 60 to 64 | 0.666 | $(0.616-0.716)$ | 0.777 | $(0.443-0.913)$ |
| 65 to 69 | 0.683 | $(0.633-0.733)$ | 0.777 | $(0.568-0.903)$ |
| 70 to 74 | 0.654 | $(0.584-0.725)$ | 0.780 | $(0.411-0.925)$ |
| 75 to 79 | 0.625 | $(0.538-0.711)$ | 0.769 | $(0.428-0.890)$ |
| 80 to 84 | 0.626 | $(0.553-0.698)$ | 0.636 | $(0.489-0.885)$ |
| 85 and over | 0.523 | $(0.449-0.597)$ | 0.536 | $(0.231-0.796)$ |
|  |  |  |  |  |
| All ages | 0.693 | $(0.668-0.718)$ | 0.831 | $(0.504-0.936)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 17. Age and sex-stratified utility norms for urinary incontinence, household population aged 12 and older,
Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 299,376 | Female |  |  | Weighted <br> Frequency | 653,554 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19* |  |  |  |  | 12 to 19* |  |  |  |  |
| 20 to $24 *$ |  |  |  |  | 20 to $24 *$ |  |  |  |  |
| 25 to 29 | 0.511 | (0.297-0.726) | 0.431 | (0.110-0.842) | 25 to 29 | 0.719 | (0.561-0.877) | 0.897 | (0.367-0.931) |
| 30 to 34 | 0.636 | (0.359-0.913) | 0.769 | (0.238-0.872) | 30 to 34 | 0.583 | (0.329-0.838) | 0.769 | (0.254-0.942) |
| 35 to 39 | 0.691 | (0.492-0.890) | 0.681 | (0.436-0.892) | 35 to 39 | 0.612 | (0.503-0.721) | 0.709 | (0.321-0.875) |


| 40 to 44 | 0.494 | (0.295-0.693) | 0.535 | (0.171-0.788) | 40 to 44 | 0.629 | (0.500-0.757) | 0.757 | (0.252-0.929) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.622 | (0.393-0.852) | 0.707 | (0.338-0.907) | 45 to 49 | 0.678 | (0.604-0.752) | 0.709 | (0.543-0.901) |
| 50 to 54 | 0.275 | $\begin{gathered} (-0.131- \\ 0.680) \end{gathered}$ | -0.058 | $\begin{gathered} (-0.090- \\ 0.776) \end{gathered}$ | 50 to 54 | 0.613 | (0.545-0.681) | 0.716 | (0.325-0.881) |
| 55 to 59 | 0.529 | (0.428-0.629) | 0.605 | (0.218-0.881) | 55 to 59 | 0.646 | (0.602-0.690) | 0.722 | (0.477-0.904) |
| 60 to 64 | 0.670 | (0.594-0.746) | 0.795 | (0.452-0.922) | 60 to 64 | 0.644 | (0.598-0.691) | 0.777 | (0.441-0.919) |
| 65 to 69 | 0.669 | (0.611-0.726) | 0.802 | (0.480-0.927) | 65 to 69 | 0.687 | (0.655-0.720) | 0.766 | (0.563-0.905) |
| 70 to 74 | 0.735 | (0.686-0.783) | 0.842 | (0.589-0.945) | 70 to 74 | 0.683 | (0.643-0.723) | 0.818 | (0.473-0.912) |
| 75 to 79 | 0.632 | (0.570-0.695) | 0.727 | (0.403-0.882) | 75 to 79 | 0.635 | (0.592-0.679) | 0.726 | (0.430-0.898) |
| 80 to 84 | 0.569 | (0.496-0.642) | 0.623 | (0.286-0.904) | 80 to 84 | 0.584 | (0.530-0.638) | 0.696 | (0.316-0.904) |
| 85 and over | 0.588 | (0.517-0.658) | 0.618 | (0.380-0.841) | 85 and over | 0.464 | (0.411-0.518) | 0.468 | (0.179-0.748) |
| All ages | 0.608 | (0.567-0.649) | 0.726 | (0.330-0.905) | All ages | 0.626 | (0.608-0.645) | 0.718 | (0.367-0.905) |

2013-2014 Canadian Community Health Survey
*Not asked to respondents below 25 years of age

Age and sex-stratified utility norms for urinary incontinence, household population aged 12 and older, Canada, 2013-2014 (continued)


| 55 to 59 | 0.618 | $(0.575-0.660)$ | 0.704 | $(0.401-0.904)$ |
| :--- | :--- | :--- | :--- | :--- |
| 60 to 64 | 0.654 | $(0.614-0.694)$ | 0.778 | $(0.443-0.920)$ |
| 65 to 69 | 0.680 | $(0.651-0.709)$ | 0.774 | $(0.554-0.909)$ |
| 70 to 74 | 0.702 | $(0.673-0.732)$ | 0.831 | $(0.521-0.924)$ |
| 75 to 79 | 0.634 | $(0.598-0.670)$ | 0.727 | $(0.422-0.894)$ |
| 80 to 84 | 0.578 | $(0.535-0.620)$ | 0.672 | $(0.302-0.904)$ |
| 85 and over | 0.497 | $(0.453-0.541)$ | 0.543 | $(0.222-0.782)$ |
|  |  |  |  |  |
| All ages | 0.621 | $(0.603-0.639)$ | 0.719 | $(0.357-0.905)$ |

2013-2014 Canadian Community Health Survey
*Not asked to respondents below 25 years of age

Supplementary table 18. Age and sex-stratified utility norms for individuals reporting no chronic condition, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 7,177,189 | Female |  |  | Weighted <br> Frequency | 6,207,984 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.908 | (0.902-0.913) | 0.929 | (0.866-0.983) | 12 to 19 | 0.908 | (0.901-0.915) | 0.946 | (0.878-0.982) |
| 20 to 24 | 0.912 | (0.903-0.922) | 0.946 | (0.891-0.983) | 20 to 24 | 0.927 | (0.919-0.935) | 0.956 | (0.903-0.982) |
| 25 to 29 | 0.935 | (0.928-0.943) | 0.965 | (0.920-0.985) | 25 to 29 | 0.941 | (0.934-0.948) | 0.961 | (0.921-0.983) |
| 30 to 34 | 0.938 | (0.932-0.945) | 0.959 | (0.920-0.985) | 30 to 34 | 0.932 | (0.923-0.942) | 0.962 | (0.920-0.984) |
| 35 to 39 | 0.944 | (0.937-0.950) | 0.971 | (0.922-0.986) | 35 to 39 | 0.939 | (0.931-0.947) | 0.963 | (0.919-0.985) |


| 40 to 44 | 0.948 | $(0.941-0.955)$ | 0.968 | $(0.925-0.985)$ | 40 to 44 | 0.943 | $(0.936-0.950)$ | 0.961 | $(0.921-0.982)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.928 | $(0.915-0.940)$ | 0.954 | $(0.901-0.978)$ | 45 to 49 | 0.934 | $(0.919-0.948)$ | 0.957 | $(0.901-0.976)$ |
| 50 to 54 | 0.920 | $(0.908-0.932)$ | 0.950 | $(0.897-0.971)$ | 50 to 54 | 0.929 | $(0.92-0.939)$ | 0.954 | $(0.905-0.969)$ |
| 55 to 59 | 0.930 | $(0.921-0.938)$ | 0.954 | $(0.904-0.969)$ | 55 to 59 | 0.931 | $(0.922-0.940)$ | 0.954 | $(0.905-0.968)$ |
| 60 to 64 | 0.918 | $(0.908-0.928)$ | 0.951 | $(0.904-0.968)$ | 60 to 64 | 0.933 | $(0.925-0.940)$ | 0.953 | $(0.900-0.966)$ |
| 65 to 69 | 0.930 | $(0.921-0.939)$ | 0.952 | $(0.900-0.969)$ | 65 to 69 | 0.936 | $(0.928-0.943)$ | 0.954 | $(0.901-0.968)$ |
| 70 to 74 | 0.926 | $(0.911-0.940)$ | 0.952 | $(0.905-0.969)$ | 70 to 74 | 0.943 | $(0.935-0.952)$ | 0.956 | $(0.915-0.969)$ |
| 75 to 79 | 0.911 | $(0.892-0.931)$ | 0.949 | $(0.894-0.968)$ | 75 to 79 | 0.924 | $(0.911-0.938)$ | 0.938 | $(0.904-0.965)$ |
| 80 to 84 | 0.877 | $(0.853-0.901)$ | 0.919 | $(0.849-0.960)$ | 80 to 84 | 0.895 | $(0.864-0.926)$ | 0.933 | $(0.904-0.963)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.979$ |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for individuals reporting no chronic condition, household population aged 12 and older, Canada, 2013-2014 (continued)
$\left.\begin{array}{|l|c|c|c|c|}\hline \text { Total population } & & \text { Weighted } & 13,385,173 \\ \hline & & & & \\ \hline & \text { Merequency }\end{array}\right]$

| 40 to 44 | 0.946 | $(0.941-0.950)$ | 0.964 | $(0.923-0.984)$ |
| :--- | :--- | :--- | :--- | :--- |
| 45 to 49 | 0.930 | $(0.921-0.940)$ | 0.955 | $(0.901-0.977)$ |
| 50 to 54 | 0.925 | $(0.917-0.932)$ | 0.953 | $(0.905-0.969)$ |
| 55 to 59 | 0.930 | $(0.924-0.936)$ | 0.954 | $(0.905-0.969)$ |
| 60 to 64 | 0.925 | $(0.919-0.932)$ | 0.952 | $(0.905-0.967)$ |
| 65 to 69 | 0.933 | $(0.927-0.938)$ | 0.953 | $(0.901-0.968)$ |
| 70 to 74 | 0.934 | $(0.925-0.942)$ | 0.954 | $(0.905-0.969)$ |
| 75 to 79 | 0.918 | $(0.906-0.929)$ | 0.949 | $(0.904-0.968)$ |
| 80 to 84 | 0.887 | $(0.868-0.906)$ | 0.926 | $(0.865-0.962)$ |
| 85 and over | 0.816 | $(0.779-0.853)$ | 0.904 | $(0.709-0.966)$ |
| All ages | 0.928 | $(0.926-0.930)$ | 0.955 | $(0.905-0.981)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 19. Age and sex stratified utility norms for individuals reporting a single chronic condition, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 3,651,145 | Female |  |  | Weighted <br> Frequency | 3,728,298 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.877 | (0.866-0.888) | 0.923 | (0.826-0.975) | 12 to 19 | 0.853 | (0.837-0.870) | 0.922 | (0.773-0.976) |
| 20 to 24 | 0.895 | (0.881-0.909) | 0.925 | (0.865-0.977) | 20 to 24 | 0.885 | (0.870-0.900) | 0.926 | (0.841-0.975) |
| 25 to 29 | 0.884 | (0.865-0.903) | 0.926 | (0.865-0.978) | 25 to 29 | 0.904 | (0.892-0.916) | 0.930 | (0.890-0.979) |
| 30 to 34 | 0.883 | (0.862-0.905) | 0.935 | (0.827-0.983) | 30 to 34 | 0.905 | (0.892-0.918) | 0.946 | (0.866-0.98) |
| 35 to 39 | 0.891 | (0.876-0.906) | 0.928 | (0.864-0.979) | 35 to 39 | 0.898 | (0.884-0.912) | 0.941 | (0.871-0.979) |


| 40 to 44 | 0.895 | $(0.880-0.910)$ | 0.934 | $(0.865-0.977)$ | 40 to 44 | 0.886 | $(0.868-0.904)$ | 0.945 | $(0.859-0.978)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.891 | $(0.875-0.907)$ | 0.929 | $(0.860-0.969)$ | 45 to 49 | 0.891 | $(0.876-0.906)$ | 0.919 | $(0.890-0.963)$ |
| 50 to 54 | 0.902 | $(0.891-0.913)$ | 0.947 | $(0.883-0.967)$ | 50 to 54 | 0.905 | $(0.894-0.915)$ | 0.949 | $(0.904-0.966)$ |
| 55 to 59 | 0.872 | $(0.854-0.891)$ | 0.929 | $(0.841-0.963)$ | 55 to 59 | 0.875 | $(0.862-0.887)$ | 0.920 | $(0.838-0.960)$ |
| 60 to 64 | 0.890 | $(0.877-0.904)$ | 0.947 | $(0.863-0.967)$ | 60 to 64 | 0.902 | $(0.892-0.913)$ | 0.949 | $(0.894-0.965)$ |
| 65 to 69 | 0.899 | $(0.887-0.910)$ | 0.946 | $(0.904-0.965)$ | 65 to 69 | 0.906 | $(0.896-0.916)$ | 0.949 | $(0.892-0.964)$ |
| 70 to 74 | 0.894 | $(0.879-0.909)$ | 0.946 | $(0.879-0.965)$ | 70 to 74 | 0.898 | $(0.886-0.910)$ | 0.945 | $(0.904-0.962)$ |
| 75 to 79 | 0.872 | $(0.848-0.897)$ | 0.928 | $(0.831-0.967)$ | 75 to 79 | 0.871 | $(0.852-0.891)$ | 0.933 | $(0.840-0.962)$ |
| 80 to 84 | 0.829 | $(0.783-0.876)$ | 0.905 | $(0.765-0.962)$ | 80 to 84 | 0.835 | $(0.797-0.873)$ | 0.912 | $(0.782-0.962)$ |
| 85 and over |  |  |  |  | 85 and |  |  | $(0.979$ |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for individuals reporting a single chronic condition, household population aged 12 and older,
Canada, 2013-2014 (continued)

| Total population |  | Weighted | $7,379,443$ |
| :--- | :--- | :--- | :---: | :---: |
| Frequency |  |  |  |,


| 40 to 44 | 0.891 | $(0.879-0.903)$ | 0.936 | $(0.865-0.977)$ |
| :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.891 | $(0.880-0.902)$ | 0.925 | $(0.864-0.966)$ |
| 50 to 54 | 0.903 | $(0.896-0.911)$ | 0.948 | $(0.887-0.966)$ |
| 55 to 59 | 0.873 | $(0.862-0.885)$ | 0.925 | $(0.841-0.961)$ |
| 60 to 64 | 0.896 | $(0.888-0.905)$ | 0.948 | $(0.891-0.966)$ |
| 65 to 69 | 0.902 | $(0.895-0.909)$ | 0.948 | $(0.904-0.965)$ |
| 70 to 74 | 0.896 | $(0.887-0.906)$ | 0.945 | $(0.904-0.963)$ |
| 75 to 79 | 0.872 | $(0.857-0.887)$ | 0.929 | $(0.837-0.964)$ |
| 80 to 84 | 0.832 | $(0.802-0.863)$ | 0.905 | $(0.776-0.962)$ |
| 85 and over | 0.772 | $(0.742-0.802)$ | 0.841 | $(0.685-0.947)$ |
| All ages | 0.887 | $(0.884-0.890)$ | 0.929 | $(0.858-0.970)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 20. Age and sex-stratified utility norms for individuals reporting two chronic conditions, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 1,919,254 | Female |  |  | Weighted <br> Frequency | 2,248,866 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.758 | (0.704-0.813) | 0.865 | (0.703-0.943) | 12 to 19 | 0.788 | (0.765-0.812) | 0.840 | (0.708-0.929) |
| 20 to 24 | 0.795 | (0.751-0.839) | 0.866 | (0.740-0.929) | 20 to 24 | 0.819 | (0.781-0.857) | 0.900 | (0.708-0.960) |
| 25 to 29 | 0.808 | (0.764-0.851) | 0.879 | (0.724-0.930) | 25 to 29 | 0.846 | (0.823-0.869) | 0.904 | (0.772-0.966) |
| 30 to 34 | 0.799 | (0.756-0.841) | 0.892 | (0.676-0.965) | 30 to 34 | 0.841 | (0.815-0.868) | 0.902 | (0.777-0.964) |
| 35 to 39 | 0.791 | (0.733-0.849) | 0.866 | (0.684-0.956) | 35 to 39 | 0.843 | (0.818-0.869) | 0.900 | (0.778-0.965) |


| 40 to 44 | 0.828 | (0.794-0.862) | 0.897 | (0.774-0.959) | 40 to 44 | 0.851 | (0.826-0.876) | 0.919 | (0.800-0.970) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.785 | (0.746-0.825) | 0.893 | (0.679-0.947) | 45 to 49 | 0.814 | (0.778-0.849) | 0.893 | (0.687-0.954) |
| 50 to 54 | 0.837 | (0.809-0.865) | 0.905 | (0.793-0.960) | 50 to 54 | 0.817 | (0.787-0.846) | 0.897 | (0.772-0.954) |
| 55 to 59 | 0.837 | (0.815-0.859) | 0.903 | (0.800-0.961) | 55 to 59 | 0.843 | (0.825-0.861) | 0.905 | (0.774-0.956) |
| 60 to 64 | 0.834 | (0.811-0.856) | 0.900 | (0.794-0.957) | 60 to 64 | 0.854 | (0.840-0.867) | 0.905 | (0.803-0.960) |
| 65 to 69 | 0.855 | (0.839-0.871) | 0.905 | (0.809-0.959) | 65 to 69 | 0.847 | (0.830-0.864) | 0.905 | (0.794-0.958) |
| 70 to 74 | 0.854 | (0.837-0.871) | 0.905 | (0.816-0.961) | 70 to 74 | 0.855 | (0.836-0.873) | 0.906 | (0.830-0.959) |
| 75 to 79 | 0.853 | (0.834-0.872) | 0.905 | (0.802-0.960) | 75 to 79 | 0.822 | (0.802-0.842) | 0.904 | (0.768-0.956) |
| 80 to 84 | 0.795 | (0.766-0.825) | 0.841 | (0.711-0.946) | 80 to 84 | 0.771 | (0.737-0.804) | 0.842 | (0.683-0.953) |
| 85 and over | 0.656 | (0.591-0.720) | 0.750 | (0.455-0.905) | 85 and over | 0.668 | (0.618-0.718) | 0.743 | (0.494-0.900) |
| All ages | 0.820 | (0.811-0.829) | 0.905 | (0.755-0.957) | All ages | 0.828 | (0.822-0.835) | 0.905 | (0.763-0.958) |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for individuals reporting two chronic conditions, household population aged 12 and older, Canada, 2013-2014 (continued)

| Total population |  |  | $\begin{array}{c}\text { Weighted } \\ \text { Frequency }\end{array}$ | $4,168,120$ |
| :--- | :--- | :--- | :---: | :---: |
|  | Mean | $\begin{array}{c}95 \% \text { Confidence } \\ \text { Interval }\end{array}$ | Median | Interquartile |
| range |  |  |  |  |$]$.


| 50 to 54 | 0.827 | $(0.806-0.848)$ | 0.905 | $(0.775-0.957)$ |
| :--- | :---: | :---: | :---: | :---: |
| 55 to 59 | 0.840 | $(0.826-0.855)$ | 0.905 | $(0.786-0.958)$ |
| 60 to 64 | 0.843 | $(0.830-0.856)$ | 0.905 | $(0.796-0.958)$ |
| 65 to 69 | 0.851 | $(0.839-0.863)$ | 0.905 | $(0.800-0.959)$ |
| 70 to 74 | 0.854 | $(0.842-0.867)$ | 0.905 | $(0.829-0.960)$ |
| 75 to 79 | 0.837 | $(0.822-0.851)$ | 0.905 | $(0.777-0.958)$ |
| 80 to 84 | 0.782 | $(0.758-0.805)$ | 0.842 | $(0.698-0.951)$ |
| 85 and over | 0.663 | $(0.622-0.704)$ | 0.744 | $(0.473-0.905)$ |
|  |  |  |  |  |
| All ages | 0.825 | $(0.819-0.830)$ | 0.905 | $(0.758-0.957)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 21. Age and sex-stratified utility norms for individuals reporting three chronic conditions, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 941,391 | Female |  |  | Weighted <br> Frequency | 1,267,716 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age <br> group |  |  |  |  |
| 12 to 19 | 0.65 | (0.591-0.708) | 0.638 | (0.444-0.822) | 12 to 19 | 0.693 | (0.638-0.748) | 0.749 | (0.579-0.896) |
| 20 to 24 | 0.619 | (0.505-0.732) | 0.722 | (0.371-0.895) | 20 to 24 | 0.742 | (0.683-0.802) | 0.809 | (0.668-0.913) |
| 25 to 29 | 0.698 | (0.602-0.794) | 0.834 | (0.497-0.931) | 25 to 29 | 0.810 | (0.766-0.854) | 0.895 | (0.767-0.949) |
| 30 to 34 | 0.616 | (0.509-0.723) | 0.630 | (0.379-0.905) | 30 to 34 | 0.724 | (0.627-0.821) | 0.865 | (0.566-0.938) |
| 35 to 39 | 0.725 | (0.666-0.785) | 0.799 | (0.517-0.922) | 35 to 39 | 0.803 | (0.764-0.842) | 0.866 | (0.701-0.935) |


| 40 to 44 | 0.789 | (0.744-0.835) | 0.851 | (0.715-0.929) | 40 to 44 | 0.709 | (0.654-0.765) | 0.795 | (0.543-0.926) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.728 | (0.666-0.789) | 0.801 | (0.621-0.944) | 45 to 49 | 0.752 | (0.697-0.808) | 0.842 | (0.608-0.917) |
| 50 to 54 | 0.726 | (0.670-0.782) | 0.846 | (0.611-0.917) | 50 to 54 | 0.724 | (0.676-0.772) | 0.835 | (0.612-0.922) |
| 55 to 59 | 0.743 | (0.696-0.791) | 0.838 | (0.601-0.951) | 55 to 59 | 0.745 | (0.72-0.77) | 0.778 | (0.632-0.910) |
| 60 to 64 | 0.788 | (0.757-0.819) | 0.897 | (0.684-0.955) | 60 to 64 | 0.770 | (0.747-0.792) | 0.840 | (0.658-0.946) |
| 65 to 69 | 0.795 | (0.770-0.821) | 0.883 | (0.664-0.953) | 65 to 69 | 0.785 | (0.766-0.804) | 0.841 | (0.660-0.946) |
| 70 to 74 | 0.821 | (0.794-0.848) | 0.897 | (0.736-0.953) | 70 to 74 | 0.810 | (0.789-0.83) | 0.904 | (0.719-0.952) |
| 75 to 79 | 0.762 | (0.728-0.795) | 0.834 | (0.633-0.924) | 75 to 79 | 0.740 | (0.708-0.772) | 0.830 | (0.612-0.926) |
| 80 to 84 | 0.718 | (0.679-0.758) | 0.784 | (0.563-0.927) | 80 to 84 | 0.710 | (0.666-0.753) | 0.836 | (0.581-0.909) |
| 85 and over | 0.705 | (0.659-0.752) | 0.767 | (0.587-0.904) | 85 and over | 0.599 | (0.556-0.641) | 0.671 | (0.340-0.866) |
| All ages | 0.749 | (0.735-0.763) | 0.841 | (0.631-0.945) | All ages | 0.749 | (0.738-0.76) | 0.837 | (0.631-0.928) |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for individuals reporting three chronic conditions, household population aged 12 and older,
Canada, 2013-2014 (continued)
$\left.\begin{array}{|l|l|l|c|c|}\hline \text { Total population } & & \text { Weighted } & 2,209,106 \\ \text { Frequency }\end{array}\right]$.

| 40 to 44 | 0.741 | $(0.702-0.781)$ | 0.832 | $(0.612-0.927)$ |
| :--- | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.743 | $(0.702-0.784)$ | 0.838 | $(0.611-0.929)$ |
| 50 to 54 | 0.725 | $(0.688-0.762)$ | 0.840 | $(0.612-0.919)$ |
| 55 to 59 | 0.744 | $(0.718-0.770)$ | 0.830 | $(0.612-0.945)$ |
| 60 to 64 | 0.778 | $(0.760-0.797)$ | 0.861 | $(0.661-0.951)$ |
| 65 to 69 | 0.789 | $(0.774-0.805)$ | 0.854 | $(0.663-0.949)$ |
| 70 to 74 | 0.815 | $(0.798-0.832)$ | 0.904 | $(0.721-0.952)$ |
| 75 to 79 | 0.749 | $(0.725-0.774)$ | 0.833 | $(0.617-0.925)$ |
| 80 to 84 | 0.714 | $(0.683-0.744)$ | 0.811 | $(0.572-0.919)$ |
| 85 and over | 0.631 | $(0.597-0.665)$ | 0.692 | $(0.413-0.904)$ |
| All ages | 0.749 | $(0.741-0.758)$ | 0.840 | $(0.631-0.932)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 22. Age and sex-stratified utility norms for individuals reporting four chronic conditions, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 429,608 | Female |  |  | Weighted <br> Frequency | 710,121 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | $95 \%$ <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  |  |  |  |  |  |
| 12 to 19 | 0.684 | (0.565-0.804) | 0.746 | (0.406-0.873) | 12 to 19 | 0.726 | (0.661-0.791) | 0.762 | (0.600-0.887) |
| 20 to 24 | 0.613 | (0.501-0.725) | 0.731 | (0.345-0.837) | 20 to 24 | 0.765 | (0.711-0.819) | 0.820 | (0.686-0.905) |
| 25 to 29 | 0.668 | (0.552-0.785) | 0.703 | (0.617-0.863) | 25 to 29 | 0.632 | (0.569-0.695) | 0.641 | (0.388-0.885) |
| 30 to 34 | 0.585 | (0.307-0.864) | 0.820 | (0.24-0.895) | 30 to 34 | 0.683 | (0.620-0.746) | 0.686 | (0.605-0.859) |
| 35 to 39 | 0.525 | (0.390-0.661) | 0.461 | (0.345-0.771) | 35 to 39 | 0.646 | (0.583-0.708) | 0.661 | (0.395-0.865) |


| 40 to 44 | 0.705 | (0.605-0.804) | 0.798 | (0.501-0.927) | 40 to 44 | 0.639 | (0.542-0.736) | 0.686 | (0.474-0.861) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 to 49 | 0.723 | (0.625-0.820) | 0.777 | (0.557-0.948) | 45 to 49 | 0.650 | (0.575-0.725) | 0.688 | (0.411-0.850) |
| 50 to 54 | 0.607 | (0.536-0.678) | 0.664 | (0.312-0.887) | 50 to 54 | 0.642 | (0.570-0.714) | 0.679 | (0.387-0.894) |
| 55 to 59 | 0.631 | (0.564-0.697) | 0.687 | (0.390-0.901) | 55 to 59 | 0.630 | (0.578-0.681) | 0.685 | (0.396-0.897) |
| 60 to 64 | 0.696 | (0.641-0.752) | 0.831 | (0.533-0.906) | 60 to 64 | 0.678 | (0.629-0.728) | 0.764 | (0.489-0.900) |
| 65 to 69 | 0.683 | (0.634-0.733) | 0.775 | (0.505-0.906) | 65 to 69 | 0.684 | (0.646-0.722) | 0.768 | (0.516-0.905) |
| 70 to 74 | 0.680 | (0.626-0.734) | 0.767 | (0.517-0.905) | 70 to 74 | 0.731 | (0.701-0.761) | 0.816 | (0.612-0.908) |
| 75 to 79 | 0.693 | (0.655-0.731) | 0.770 | (0.530-0.906) | 75 to 79 | 0.689 | (0.644-0.733) | 0.778 | (0.525-0.905) |
| 80 to 84 | 0.563 | (0.477-0.649) | 0.671 | (0.259-0.859) | 80 to 84 | 0.677 | (0.638-0.716) | 0.745 | (0.513-0.902) |
| 85 and over | 0.575 | (0.485-0.664) | 0.624 | (0.232-0.866) | 85 and over | 0.458 | (0.415-0.502) | 0.431 | (0.263-0.671) |
| All ages | 0.657 | (0.633-0.681) | 0.743 | (0.444-0.905) | All ages | 0.661 | (0.644-0.677) | 0.719 | (0.473-0.904) |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for individuals reporting four chronic conditions, household population aged 12 and older,
Canada, 2013-2014 (continued)
$\left.\begin{array}{|l|l|l|c|c|}\hline \text { Total population } & & \text { Weighted } & 1,139,729 \\ \text { Frequency }\end{array}\right]$.

| 40 to 44 | 0.662 | $(0.588-0.736)$ | 0.737 | $(0.482-0.907)$ |
| :--- | :--- | :--- | :--- | :--- |
| 45 to 49 | 0.678 | $(0.616-0.740)$ | 0.743 | $(0.453-0.899)$ |
| 50 to 54 | 0.632 | $(0.577-0.688)$ | 0.687 | $(0.368-0.895)$ |
| 55 to 59 | 0.630 | $(0.589-0.671)$ | 0.686 | $(0.391-0.898)$ |
| 60 to 64 | 0.686 | $(0.647-0.725)$ | 0.778 | $(0.494-0.904)$ |
| 65 to 69 | 0.684 | $(0.653-0.715)$ | 0.772 | $(0.515-0.906)$ |
| 70 to 74 | 0.707 | $(0.679-0.736)$ | 0.783 | $(0.582-0.907)$ |
| 75 to 79 | 0.691 | $(0.660-0.721)$ | 0.778 | $(0.530-0.905)$ |
| 80 to 84 | 0.630 | $(0.586-0.673)$ | 0.726 | $(0.397-0.904)$ |
| 85 and over | 0.496 | $(0.450-0.542)$ | 0.476 | $(0.252-0.770)$ |
| All ages | 0.659 | $(0.645-0.673)$ | 0.732 | $(0.452-0.905)$ |

2013-2014 Canadian Community Health Survey

Supplementary table 23. Age and sex-stratified utility norms for individuals reporting five or more chronic conditions, household population aged 12 and older, Canada, 2013-2014

| Male |  |  | Weighted <br> Frequency | 368,390 | Female |  |  | Weighted <br> Frequency | 687,409 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |  | Mean | 95\% <br> Confidence <br> Interval | Median | Interquartile <br> range |
| Age group |  |  |  |  | Age group |  |  |  |  |
| 12 to 19 | 0.597 | (0.464-0.729) | 0.575 | (0.471-0.596) | 12 to 19 | 0.526 | (0.228-0.823) | 0.629 | (0.478-0.793) |
| 20 to 24 | 0.357 | (0.068-0.647) | 0.339 | $\begin{gathered} (-0.064- \\ 0.676) \end{gathered}$ | 20 to 24 | 0.530 | (0.409-0.651) | 0.499 | (0.337-0.739) |
| 25 to 29 | 0.453 | (0.203-0.703) | 0.330 | (0.118-0.743) | 25 to 29 | 0.538 | (0.407-0.669) | 0.610 | (0.238-0.816) |
| 30 to 34 | 0.644 | (0.457-0.831) | 0.595 | (0.476-0.875) | 30 to 34 | 0.481 | (0.372-0.590) | 0.371 | (0.251-0.794) |


| 35 to 39 | 0.373 | $(0.224-0.521)$ | 0.305 | $(0.105-0.674)$ | 35 to 39 | 0.507 | $(0.412-0.603)$ | 0.601 | $(0.264-0.790)$ |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| 40 to 44 | 0.358 | $(0.239-0.478)$ | 0.212 | $(0.209-0.536)$ | 40 to 44 | 0.454 | $(0.363-0.544)$ | 0.372 | $(0.215-0.727)$ |
| 45 to 49 | 0.442 | $(0.330-0.554)$ | 0.355 | $(0.244-0.660)$ | 45 to 49 | 0.476 | $(0.409-0.544)$ | 0.419 | $(0.240-0.728)$ |
| 50 to 54 |  |  |  | $(-0.058-$ | 50 to 54 |  |  |  |  |
| 55 to 59 | 0.430 | $(0.361-0.499)$ | 0.367 | $(0.166-0.721)$ | 55 to 59 | 0.497 | $(0.455-0.540)$ | 0.563 | $(0.247-0.755)$ |
| 60 to 64 | 0.432 | $(0.373-0.491)$ | 0.412 | $(0.177-0.658)$ | 60 to 64 | 0.535 | $(0.493-0.576)$ | 0.611 | $(0.269-0.778)$ |
| 65 to 69 | 0.556 | $(0.502-0.609)$ | 0.582 | $(0.293-0.839)$ | 65 to 69 | 0.592 | $(0.559-0.625)$ | 0.663 | $(0.331-0.841)$ |
| 70 to 74 | 0.622 | $(0.559-0.685)$ | 0.742 | $(0.345-0.885)$ | 70 to 74 | 0.553 | $(0.512-0.594)$ | 0.582 | $(0.273-0.835)$ |
| 75 to 79 | 0.546 | $(0.456-0.635)$ | 0.612 | $(0.238-0.858)$ | 75 to 79 | 0.522 | $(0.474-0.569)$ | 0.566 | $(0.288-0.759)$ |
| 80 to 84 | 0.479 | $(0.412-0.546)$ | 0.520 | $(0.242-0.753)$ | 80 to 84 | 0.451 | $(0.401-0.501)$ | 0.459 | $(0.170-0.727)$ |
| 85 and over |  |  |  |  |  |  |  |  |  |

2013-2014 Canadian Community Health Survey

Age and sex-stratified utility norms for individuals reporting five or more chronic conditions, household population aged 12 and older,
Canada, 2013-2014 (continued)


| 40 to 44 | 0.429 | $(0.357-0.502)$ | 0.346 | $(0.211-0.683)$ |
| :--- | :--- | :--- | :--- | :---: |
| 45 to 49 | 0.463 | $(0.404-0.522)$ | 0.399 | $(0.242-0.689)$ |
| 50 to 54 | 0.403 | $(0.329-0.477)$ | 0.367 | $(0.114-0.714)$ |
| 55 to 59 | 0.475 | $(0.439-0.512)$ | 0.526 | $(0.219-0.743)$ |
| 60 to 64 | 0.495 | $(0.457-0.532)$ | 0.519 | $(0.239-0.777)$ |
| 65 to 69 | 0.579 | $(0.549-0.608)$ | 0.630 | $(0.330-0.841)$ |
| 70 to 74 | 0.579 | $(0.546-0.612)$ | 0.633 | $(0.290-0.851)$ |
| 75 to 79 | 0.531 | $(0.484-0.577)$ | 0.595 | $(0.276-0.801)$ |
| 80 to 84 | 0.461 | $(0.421-0.501)$ | 0.477 | $(0.196-0.739)$ |
| 85 and over | 0.392 | $(0.338-0.446)$ | 0.374 | $(0.109-0.668)$ |
| All ages | 0.490 | $(0.475-0.505)$ | 0.521 | $(0.229-0.777)$ |

2013-2014 Canadian Community Health Survey


[^0]:    2013-2014 Canadian Community Health Survey

[^1]:    2013-2014 Canadian Community Health Survey

