

Catalogue no. 82-626-X

Canadian Health Measures Survey: Cycle 2 Data Tables



2009 to 2011



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Statistics Canada
Health Statistics Division

Canadian Health Measures Survey: Cycle 2 Data Tables

2009 to 2011

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Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published
- * significantly different from reference category ($p < 0.05$)

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Introduction

The Canadian Health Measures Survey (CHMS) is the most extensive national survey on physical health measures ever conducted in the country. Data collection consists of two main steps, a personal interview at the respondent's household followed later by a visit to the CHMS mobile clinic where physical measurements and blood and urine samples are taken. Indoor air samples are also taken from the home to measure for a number of airborne substances.

The CHMS captures a broad portrait of the health of Canadians by gathering baseline data on a variety of topics, including cardiovascular health, nutritional status, chronic diseases and physical activity, as well as exposure to infectious diseases and environmental contaminants. The survey collects health information that can't be otherwise captured, or that may be inaccurately reported, through self-report questionnaires or health care records.

The CHMS is conducted by Statistics Canada in partnership with Health Canada and the Public Health Agency of Canada.

During CHMS cycle 2, physical measurements were collected in 18 sites across Canada from 6,395 people representing the Canadian population aged 3 to 79. Collection sites were located in seven provinces: Newfoundland and Labrador, Nova Scotia, Quebec, Ontario, Manitoba, Alberta and British Columbia. Collection started in August 2009 and continued until November 2011. Data are representative at the national level.

Tables 33 to 56 are part of the release of CHMS data that began on November 21, 2012. Tables 1 to 32 were released on September 20, 2012. Additional tables will be added to the publication at the time of a future release (planned for April 17, 2013).

In addition to the data tables, each release of data is also accompanied by a user guide, data dictionaries, derived variable documentation, and analytical articles.

Many of the data tables for cycle 2 have the same or similar content to the data tables for cycle 1. Appendix 1 provides a concordance table for the two cycles.

For additional information about the CHMS:

Toll-free number:	1-800-263-1136
E-mail:	infostats@statcan.gc.ca
Telecommunication device for the hearing impaired:	1-866-753-7083
Statistics Canada website:	www.statcan.gc.ca

Statistical tables

Table 1
Average resting diastolic blood pressure, by age and sex, household population, Canada, 2009 to 2011

	Average resting diastolic blood pressure											
	Mean		5th percentile			10th percentile			25th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millimetres of mercury (mmHg)												
Both sexes												
Age 6 to 11	61	61	62	49	48	51	52	51	53	56	55	57
Age 12 to 19	62	60	63	50	48	53	53	51	55	57	55	58
Age 20 to 39	69	67	70	55	54	57	58	57	59	62	61	63
Age 40 to 59	74	73	76	59	56	62	62	60	64	67	66	69
Age 60 to 79	72	71	73	57	55	59	60	58	61	66	64	67
Age 6 to 79	70	69	71	54	54	55	57	57	58	62	61	63
Males												
Age 6 to 11	61	60	62	48	46	50	51	48	53	56	55	57
Age 12 to 19	62	60	64	50	46	54	52	49	55	57	54	59
Age 20 to 39	70	69	72	57	55	60	59	58	61	64	62	65
Age 40 to 59	77	75	79	63	61	66	66	65	67	70	68	71
Age 60 to 79	73	72	74	58	56	59	60	57	62	66	65	68
Age 6 to 79	71	70	72	55	53	56	58	57	59	64	63	65
Females												
Age 6 to 11	62	61	63	51	49	53	53	52	54	56	55	57
Age 12 to 19	62	60	63	51	49	53	54	53	55	57	56	58
Age 20 to 39	67	65	69	53	50	56	57	56	58	60	59	62
Age 40 to 59	71	69	73	56	53	60	60	57	62	65	63	66
Age 60 to 79	71	70	72	56	53	59	59	57	61	65	63	67
Age 6 to 79	68	67	69	54	54	55	56	56	57	61	60	62

	Average resting diastolic blood pressure, by age and sex, household population, Canada, 2009 to 2011											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millimetres of mercury (mmHg)												
Both sexes												
Age 6 to 11	60	59	61	65	64	66	71	70	72	74	72	77
Age 12 to 19	61	60	62	65	64	67	70	68	73	73	70	77
Age 20 to 39	67	66	68	73	71	74	79	76	83	85	80	90
Age 40 to 59	73	71	74	79	77	82	87	84	89	90	86	93
Age 60 to 79	71	70	71	77	76	78	83	81	85	86	84	89
Age 6 to 79	68	68	69	75	74	76	82	80	84	87	85	89
Males												
Age 6 to 11	59	58	60	65	63	66	70	68	72	75	71	79
Age 12 to 19	61	59	63	66	64	68	70	67	73	74	70	78
Age 20 to 39	69	68	70	75	73	78	82	76	88	86	81	91
Age 40 to 59	75	74	77	82	80	84	89	86	92	93	84	101
Age 60 to 79	72	71	74	78	77	80	84	82	86	87	85	89
Age 6 to 79	70	69	71	77	76	79	85	82	88	89	86	91
Females												
Age 6 to 11	61	60	62	66	65	67	72	71	73	74	72	77
Age 12 to 19	61	60	62	65	63	66	71	68	73	73	70	75
Age 20 to 39	65	64	66	70	69	72	76	74	79	83	77	89
Age 40 to 59	70	67	72	76	74	78	82	79	84	86	83	90
Age 60 to 79	69	68	71	75	74	77	81	79	84	85	81	89
Age 6 to 79	67	65	68	73	72	74	79	77	81	84	82	86

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 2
Average resting systolic blood pressure, by age and sex, household population, Canada, 2009 to 2011

	Average resting systolic blood pressure											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millimetres of mercury (mmHg)												
Both sexes												
Age 6 to 11	94	94	95	82	81	83	84	83	85	88	88	89
Age 12 to 19	98	97	99	86	84	87	88	87	89	92	91	93
Age 20 to 39	105	103	107	87	85	90	91	90	92	97	95	98
Age 40 to 59	113	111	116	92	88	96	96	94	99	103	100	106
Age 60 to 79	124	122	125	99	98	100	103	101	104	111	109	114
Age 6 to 79	110	108	111	88	87	88	91	91	92	98	97	99
Males												
Age 6 to 11	94	93	95	82	80	83	84	83	85	88	87	89
Age 12 to 19	100	99	101	87	84	90	89	88	90	93	92	94
Age 20 to 39	109	106	112	92	90	94	94	90	99	101	99	103
Age 40 to 59	117	114	119	97	94	99	101	97	104	107	105	109
Age 60 to 79	122	120	125	99	97	100	102	100	104	111	108	114
Age 6 to 79	112	110	113	89	88	91	93	92	94	101	100	102
Females												
Age 6 to 11	95	94	96	83	81	84	84	82	86	89	88	90
Age 12 to 19	96	95	97	84	83	86	87	86	88	91	90	92
Age 20 to 39	101	100	102	85	83	88	88	86	91	93	91	96
Age 40 to 59	110	107	113	89	85	93	93	88	98	100	96	103
Age 60 to 79	125	124	127	100	97	102	103	100	105	112	109	115
Age 6 to 79	108	106	109	86	85	88	90	89	91	96	95	97

	Average resting systolic blood pressure											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millimetres of mercury (mmHg)												
Both sexes												
Age 6 to 11	93	92	94	99	98	99	104	102	107	109	105	113
Age 12 to 19	97	96	98	102	101	104	108	106	111	112	110	114
Age 20 to 39	103	101	105	111	108	114	119	116	122	126	119	132
Age 40 to 59	112	109	114	121	119	124	131	129	134	139	134	144
Age 60 to 79	121	120	123	133	131	136	146	143	149	157	149	165
Age 6 to 79	107	105	108	118	116	120	130	128	133	138	135	140
Males												
Age 6 to 11	92	91	93	98	96	99	105	101	109	111	106	115
Age 12 to 19	99	97	101	104	102	106	111	109	113	114	112	116
Age 20 to 39	107	105	110	115	112	118	121	117	126	129	119	138
Age 40 to 59	114	111	117	122	120	125	134	128	139	140	131	149
Age 60 to 79	119	116	122	131	126	135	143	139	146	152	148	155
Age 6 to 79	110	107	112	119	117	121	131	127	135	139	135	143
Females												
Age 6 to 11	94	93	95	99	98	101	104	102	106	108	105	110
Age 12 to 19	96	95	97	100	99	102	105	103	107	108	105	111
Age 20 to 39	99	98	101	105	103	107	113	110	117	123	114	131
Age 40 to 59	109	105	113	117	114	120	128	124	131	133	127	138
Age 60 to 79	124	123	126	134	132	136	147	142	152	163	153	173
Age 6 to 79	103	102	105	116	114	117	129	127	131	137	134	140

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 3
Average resting heart rate, by age and sex, household population, Canada, 2009 to 2011

	Average resting heart rate											
	Mean		5th percentile			10th percentile			25th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
beats per minute (bpm)												
Both sexes												
Age 6 to 11	81	79	82	63	62	64	65	64	67	71	69	73
Age 12 to 19	74	72	76	54	53	56	57	55	60	66	64	67
Age 20 to 39	69	68	70	52	50	55	56	55	58	62	60	63
Age 40 to 59	67	66	68	53	51	55	56	55	57	60	60	61
Age 60 to 79	66	65	67	49	48	50	52	51	54	58	57	59
Age 6 to 79	69	69	70	52	51	53	56	55	57	61	60	62
Males												
Age 6 to 11	79	76	81	62	61	64	64	62	65	69	66	72
Age 12 to 19	73	70	75	53	51	55	55	53	57	63	60	66
Age 20 to 39	67	66	69	53	50	55	56	54	58	60	58	62
Age 40 to 59	67	65	68	53	52	54	55	54	56	59	59	60
Age 60 to 79	64	63	65	48	47	49	50	49	51	56	54	58
Age 6 to 79	68	67	69	52	51	53	55	54	56	60	59	61
Females												
Age 6 to 11	83	81	84	64	62	66	68	65	71	75	73	77
Age 12 to 19	75	74	77	59	54	63	62	60	64	68	66	70
Age 20 to 39	71	69	72	51	47	56	58	55	61	63	61	66
Age 40 to 59	68	67	69	54	50	58	58	56	59	61	60	62
Age 60 to 79	68	67	69	51	47	55	56	54	57	60	58	62
Age 6 to 79	71	70	71	54	51	57	58	57	59	63	62	64

	Average resting heart rate											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
beats per minute (bpm)												
Both sexes												
Age 6 to 11	80	77	82	87	86	89	95	92	98	103	96	109
Age 12 to 19	73	71	74	81	78	83	89	87	92	93	88	98
Age 20 to 39	68	67	70	76	74	77	80	78	83	85	83	86
Age 40 to 59	66	64	67	72	71	73	79	77	81	85	82	88
Age 60 to 79	65	64	66	72	70	73	79	77	82	85	83	88
Age 6 to 79	68	67	68	75	74	76	83	82	85	88	87	90
Males												
Age 6 to 11	76	73	79	86	81	90	92	88	96	99	88	109
Age 12 to 19	71	69	74	79	76	82	89	84	94	97	86	108
Age 20 to 39	65	63	68	74	71	77	80	77	82	84	82	86
Age 40 to 59	64	63	66	72	69	74	80	75	84	86	81	91
Age 60 to 79	63	61	64	69	68	70	76	73	80	86	80	92
Age 6 to 79	66	65	67	74	73	76	83	80	85	88	85	90
Females												
Age 6 to 11	82	81	83	89	87	91	97	91	102	104	98	110
Age 12 to 19	74	71	76	82	79	84	89	87	92	92	91	94
Age 20 to 39	71	70	72	77	75	79	81	78	85	85	83	88
Age 40 to 59	67	65	69	72	71	74	78	75	80	82	79	86
Age 60 to 79	67	66	68	74	72	76	82	79	85	85	83	88
Age 6 to 79	70	69	71	76	75	77	84	83	85	88	87	90

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 4
Distribution of the household population by blood pressure norms, by age and sex, Canada, 2009 to 2011

	Blood pressure norms								
	Within the acceptable range			Acceptable, but at the high end of the acceptable range			Above the acceptable range		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 18 to 39	94.7	89.4	97.4	F	.	.	F	.	.
Age 40 to 59	82.7	77.4	86.9	9.3	6.8	12.6	6.5 ^E	3.9	10.6
Age 60 to 79	67.1	62.9	71.0	17.9	14.5	21.9	10.5	8.2	13.5
Age 18 to 79	84.1	80.7	87.0	8.9	7.3	10.9	5.4	3.8	7.5
Males									
Age 18 to 39	91.7	81.8	96.4	F	.	.	F	.	.
Age 40 to 59	75.8	67.8	82.3	11.3 ^E	7.6	16.5	10.5 ^E	5.5	19.2
Age 60 to 79	69.3	61.9	75.8	17.3	12.4	23.7	9.7 ^E	6.5	14.1
Age 18 to 79	80.7	75.0	85.4	10.5	7.6	14.5	6.9^E	4.2	11.3
Females									
Age 18 to 39	97.7	95.7	98.8	F	.	.	F	.	.
Age 40 to 59	89.6	83.9	93.4	7.2 ^E	4.1	12.6	F	.	.
Age 60 to 79	65.0	60.8	69.0	18.4	13.4	24.7	11.3 ^E	7.6	16.5
Age 18 to 79	87.4	85.3	89.2	7.4	5.9	9.1	3.8^E	2.6	5.4

	Blood pressure norms								
	Moderately high			High			Very high		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 18 to 39	X	.	.	X	.	.	0.0	0.0	0.0
Age 40 to 59	F	.	.	X	.	.	0.0	0.0	0.0
Age 60 to 79	3.9 ^E	2.4	6.4	X	.	.	0.0	0.0	0.0
Age 18 to 79	1.1^E	0.7	1.7	X	.	.	0.0	0.0	0.0
Males									
Age 18 to 39	X	.	.	X	.	.	0.0	0.0	0.0
Age 40 to 59	X	.	.	X	.	.	0.0	0.0	0.0
Age 60 to 79	3.1 ^E	1.9	5.0	X	.	.	0.0	0.0	0.0
Age 18 to 79	0.9^E	0.5	1.6	X	.	.	0.0	0.0	0.0
Females									
Age 18 to 39	X	.	.	X	.	.	0.0	0.0	0.0
Age 40 to 59	X	.	.	X	.	.	0.0	0.0	0.0
Age 60 to 79	4.7 ^E	2.3	9.3	X	.	.	0.0	0.0	0.0
Age 18 to 79	1.3^E	0.7	2.3	X	.	.	0.0	0.0	0.0

Note(s): The norms used in this table can be found in D. Abbott, N. Campbell, P. Carruthers-Czyzewski, A. Chockalingam, M. David, G. Dunkley, E. Ellis, J.G. Fodor, D. McKay, V.R. Ramsden, 1994, "Guidelines for measurement of blood pressure, follow-up, and lifestyle counselling", Canadian Journal of Public Health, Vol. 85 (suppl 2), p. S29-S35. Total household population aged 18 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*)

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 5
Household population who self-reported taking hypertension medication or had a hypertensive blood pressure measurement by age and sex, Canada, 2009 to 2011

	Taking hypertension medication or measured hypertension			Not taking hypertension medication and no measured hypertension		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
percent						
Both sexes						
Age 6 to 11	2.7 ^E	1.6	4.6	97.3	95.4	98.4
Age 12 to 19	X	.	.	99.5	98.8	99.8
Age 20 to 39	3.6 ^E	2.0	6.2	96.4	93.8	98.0
Age 40 to 59	21.7	16.6	27.8	78.3	72.2	83.4
Age 60 to 79	52.4	47.7	57.2	47.6	42.8	52.3
Age 6 to 79	18.0	15.8	20.4	82.0	79.6	84.2
Males						
Age 6 to 11	3.2 ^E	1.7	5.9	96.8	94.1	98.3
Age 12 to 19	X	.	.	99.3	97.8	99.8
Age 20 to 39	3.2 ^E	1.6	6.2	96.8	93.8	98.4
Age 40 to 59	28.6	20.4	38.6	71.4	61.4	79.6
Age 60 to 79	57.7	51.6	63.5	42.3	36.5	48.4
Age 6 to 79	20.8	17.0	25.2	79.2	74.8	83.0
Females						
Age 6 to 11	F	.	.	97.8	95.3	99.0
Age 12 to 19	X	.	.	99.8	99.0	100.0
Age 20 to 39	F	.	.	96.0	91.1	98.3
Age 40 to 59	14.7	10.4	20.5	85.3	79.5	89.6
Age 60 to 79	47.6	41.0	54.3	52.4	45.7	59.0
Age 6 to 79	15.2	13.0	17.6	84.8	82.4	87.0

Note(s): Measured hypertension is characterized by a systolic or diastolic blood pressure \geq 95th percentile for 6 to 17 year olds (2004, "National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents", Pediatrics, Vol. 114(2 Suppl. 4th report), pp. 555-76). Measured hypertension is characterized by a systolic blood pressure \geq 140 bpm or a diastolic blood pressure \geq 90 bpm for 18 to 79 year olds (Chobanian AV, Bakris GL, Black HR, et al., 2003, "Seventh report on the Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure", Hypertension, 42(6) pp. 1206-52). Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 6
Total grip strength of the household population, by age and sex, Canada, 2009 to 2011

	Total grip strength											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	kilograms											
Both sexes												
Age 6 to 11	26	25	27	12	11	13	15	13	16	19	18	20
Age 12 to 19	58	56	60	31	29	33	35	33	38	42	40	45
Age 20 to 39	73	70	75	40	35	46	45	43	47	52	50	55
Age 40 to 59	71	68	73	41	39	43	44	43	46	52	49	54
Age 60 to 79	60	58	62	31	28	34	35	33	37	43	42	45
Age 6 to 79	65	63	67	26	25	28	34	33	36	46	45	48
Males												
Age 6 to 11	27	25	28	12	10	14	16	13	19	20	17	22
Age 12 to 19	68	65	71	30	27	34	36	29	42	51	43	58
Age 20 to 39	92	89	95	68	59	76	72	67	77	84	80	88
Age 40 to 59	88	84	92	58	46	70	66	56	75	77	72	82
Age 60 to 79	77	74	80	53	48	58	57	53	60	65	62	68
Age 6 to 79	81	78	83	27	26	29	45	42	48	69	66	73
Females												
Age 6 to 11	25	24	26	12	10	14	14	12	17	19	18	20
Age 12 to 19	47	46	49	32	30	34	35	34	36	39	37	41
Age 20 to 39	53	51	56	35	28	42	41	36	45	47	45	48
Age 40 to 59	53	51	55	36	32	40	41	39	43	46	44	47
Age 60 to 79	45	43	46	29	22	35	31	30	33	37	36	39
Age 6 to 79	49	48	50	25	24	27	32	30	33	42	40	43

	Total grip strength											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	kilograms											
Both sexes												
Age 6 to 11	25	24	25	30	29	32	37	35	39	42	39	46
Age 12 to 19	54	51	57	71	68	74	86	82	89	92	90	94
Age 20 to 39	69	65	74	93	89	96	104	99	110	111	106	116
Age 40 to 59	65	60	69	88	83	92	103	98	108	110	105	115
Age 60 to 79	56	53	58	75	72	78	90	87	94	97	94	99
Age 6 to 79	60	57	62	84	81	86	98	95	102	107	104	110
Males												
Age 6 to 11	25	24	26	31	29	34	39	35	43	44	39	48
Age 12 to 19	70	66	73	84	80	87	92	90	94	100	96	104
Age 20 to 39	93	89	96	100	95	105	111	106	116	118	113	124
Age 40 to 59	88	84	92	100	97	103	110	105	115	116	112	120
Age 60 to 79	76	72	79	87	84	91	97	94	100	103	99	107
Age 6 to 79	84	81	86	96	93	99	107	105	110	113	110	117
Females												
Age 6 to 11	24	22	25	30	28	31	35	33	36	38	36	40
Age 12 to 19	46	44	49	54	53	56	59	58	61	63	59	66
Age 20 to 39	52	50	54	59	56	62	67	62	72	73	65	80
Age 40 to 59	53	50	55	59	57	61	65	62	67	69	65	72
Age 60 to 79	44	42	46	51	49	52	56	53	59	60	55	65
Age 6 to 79	49	48	51	57	55	58	63	61	66	68	63	72

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 7
Distribution of the household population by grip strength norms, by age and sex, Canada, 2009 to 2011

	Grip strength norms								
	Needs improvement			Fair			Good		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 15 to 19	45.9	36.3	55.7	22.2	16.6	29.1	19.9	14.5	26.7
Age 20 to 39	32.8	26.3	40.0	29.6	24.1	35.9	17.9	13.6	23.2
Age 40 to 59	24.8	18.4	32.5	18.6	14.7	23.4	21.1	17.4	25.5
Age 60 to 69	28.1	21.3	36.0	19.7	16.3	23.7	14.0	10.8	18.1
Age 15 to 69	30.0	25.3	35.3	23.2	20.6	25.9	18.8	16.7	21.1
Males									
Age 15 to 19	52.3	38.1	66.2	25.2 ^E	15.8	37.6	12.8 ^E	7.2	21.8
Age 20 to 39	23.6	18.4	29.8	33.2	25.7	41.7	22.5	17.1	29.1
Age 40 to 59	26.1 ^E	16.6	38.6	18.0	12.7	24.8	22.3	15.5	31.0
Age 60 to 69	32.0	23.5	41.9	23.9	18.2	30.7	15.6	11.6	20.5
Age 15 to 69	28.3	22.2	35.3	25.1	22.0	28.6	20.6	16.7	25.1
Females									
Age 15 to 19	39.0	32.1	46.4	19.1	14.3	25.0	27.4	21.5	34.1
Age 20 to 39	42.0	32.8	51.8	26.1	19.1	34.4	13.3 ^E	8.4	20.4
Age 40 to 59	23.6	17.2	31.4	19.3	14.1	25.9	20.0	15.4	25.6
Age 60 to 69	24.4	18.2	31.8	15.7	12.7	19.2	12.6	8.7	17.7
Age 15 to 69	31.8	27.3	36.5	21.2	17.4	25.6	17.0	14.3	20.2

	Grip strength norms					
	Very good			Excellent		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 15 to 19	8.7 ^E	6.0	12.3	3.4 ^E	2.0	5.7
Age 20 to 39	12.8	9.0	17.8	6.9 ^E	3.8	12.0
Age 40 to 59	20.2	15.8	25.6	15.2	11.4	19.9
Age 60 to 69	21.8	18.8	25.3	16.3	11.6	22.6
Age 15 to 69	16.7	13.5	20.5	11.3	8.1	15.4
Males						
Age 15 to 19	6.6 ^E	3.8	11.2	3.1 ^E	1.5	6.0
Age 20 to 39	13.3 ^E	7.5	22.5	7.3 ^E	4.6	11.5
Age 40 to 59	12.5	8.9	17.3	21.2	15.7	28.0
Age 60 to 69	17.3	12.7	23.2	11.2 ^E	7.4	16.8
Age 15 to 69	13.0	9.4	17.6	13.0	9.9	16.9
Females						
Age 15 to 19	10.8 ^E	7.2	16.1	F	.	.
Age 20 to 39	12.2	8.5	17.3	F	.	.
Age 40 to 59	27.8	20.4	36.7	9.3 ^E	6.3	13.5
Age 60 to 69	26.2	21.0	32.1	21.2 ^E	14.5	29.9
Age 15 to 69	20.4	16.3	25.3	9.5^E	6.0	15.0

Note(s): The norms used in this table can be found in Canadian Society for Exercise Physiology, 2004, *The Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA)*, 3rd edition, Ottawa. Total household population aged 15 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 8
Number of partial curl-ups completed by the household population, by age and sex, Canada, 2009 to 2011

	Number of partial curl-ups											
	Mean		5th percentile		10th percentile		25th percentile					
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	number											
Both sexes												
Age 8 to 11	11	10	13	0†	0	0	0‡	0	0	F	.	.
Age 12 to 19	19	18	20	0‡	-3	3	7 ^E	4	10	14	13	16
Age 20 to 39	15	14	16	0†	0	0	0‡	0	0	F	.	.
Age 40 to 59	10	8	11	0†	0	0	0†	0	0	0‡	0	0
Age 60 to 69	4	4	5	0†	0	0	0†	0	0	0†	0	0
Age 8 to 69	12	12	13	0†	0	0	0†	0	0	0†	0	0
Males												
Age 8 to 11	11	9	13	0†	0	0	0‡	0	0	F	.	.
Age 12 to 19	21	20	22	7 ^E	4	11	12	9	15	19	16	22
Age 20 to 39	19	17	20	0†	0	0	0‡	-6	6	13	10	15
Age 40 to 59	13	11	15	0†	0	0	0‡	0	0	0‡	-2	2
Age 60 to 69	7	5	8	0†	0	0	0†	0	0	0†	0	0
Age 8 to 69	15	14	16	0†	0	0	0‡	0	0	F	.	.
Females												
Age 8 to 11	12	10	13	0†	0	0	0†	0	0	F	.	.
Age 12 to 19	17	16	19	0‡	-1	1	F	.	.	12	9	14
Age 20 to 39	11	10	13	0†	0	0	0†	0	0	0†	0	0
Age 40 to 59	6	5	8	0†	0	0	0†	0	0	0†	0	0
Age 60 to 69	2 ^E	1	3	0†	0	0	0†	0	0	0†	0	0
Age 8 to 69	9	9	10	0†	0	0	0†	0	0	0‡	0	0

	Number of partial curl-ups											
	50th percentile		75th percentile		90th percentile		95th percentile					
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	number											
Both sexes												
Age 8 to 11	10	8	12	19	16	21	25†	24	26	25†	25	25
Age 12 to 19	23	22	24	25†	25	25	25†	25	25	25†	25	25
Age 20 to 39	18	16	20	25†	25	25	25†	25	25	25†	25	25
Age 40 to 59	F	.	.	22	20	25	25	24	25	25	25	25
Age 60 to 69	0† ^E	0	0	F	.	.	24	21	26	25†	25	25
Age 8 to 69	12	11	13	24	24	24	25	25	25	25	25	25
Males												
Age 8 to 11	10 ^E	6	13	18	14	22	25†	24	26	25†	25	25
Age 12 to 19	24	23	24	25†	25	25	25†	25	25	25†	25	25
Age 20 to 39	24	21	27	25†	25	25	25†	25	25	25†	25	25
Age 40 to 59	14 ^E	9	19	24	24	25	25	25	25	25	25	25
Age 60 to 69	0† ^E	0	0	13 ^E	6	20	25†	24	26	25†	25	25
Age 8 to 69	19	16	22	24	24	24	25	25	25	25	25	25
Females												
Age 8 to 11	10	8	12	19	16	23	25†	24	26	25†	25	25
Age 12 to 19	19	16	23	25†	25	25	25†	25	25	25†	25	25
Age 20 to 39	10	7	13	22	19	24	25†	25	25	25†	25	25
Age 40 to 59	0† ^E	0	0	13 ^E	8	19	25†	23	27	25†	25	25
Age 60 to 69	0†	0	0	0†	0	0	F	.	.	23 ^E	11	36
Age 8 to 69	F	.	.	19	18	21	25†	25	25	25†	25	25

† noise introduced in order to calculate estimate

‡ coefficient of variation could not be calculated, use confidence interval as quality measure

Note(s): Total household population aged 8 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 9
Distribution of the household population by partial curl-up norms, by age and sex, Canada, 2009 to 2011

	Partial curl-up norms								
	Needs improvement			Fair			Good		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 15 to 19	19.1	13.5	26.5	13.5	9.8	18.4	8.7 E	4.8	15.2
Age 20 to 39	27.8	23.4	32.7	13.1	9.1	18.5	9.8 E	6.6	14.1
Age 40 to 59	51.9	45.1	58.6	5.6 E	3.4	8.9	10.2	7.9	13.2
Age 60 to 69	77.8	75.1	80.3	2.5 E	1.3	4.7	3.9 E	2.5	5.9
Age 15 to 69	43.2	40.1	46.4	8.7	7.2	10.5	9.1	7.5	10.9
Males									
Age 15 to 19	F	.	.	9.8 E	5.0	18.2	F	.	.
Age 20 to 39	18.0	13.7	23.4	11.5 E	7.0	18.3	F	.	.
Age 40 to 59	36.1	28.0	45.1	8.6 E	4.8	14.9	8.8 E	5.8	13.2
Age 60 to 69	68.9	62.5	74.6	F	.	.	4.9 E	2.7	8.4
Age 15 to 69	31.6	27.1	36.5	9.0	6.4	12.6	7.1 E	4.8	10.2
Females									
Age 15 to 19	24.2	17.5	32.4	17.7	12.9	23.9	F	.	.
Age 20 to 39	37.3	30.3	44.9	14.7 E	8.5	24.2	13.7	9.5	19.4
Age 40 to 59	66.5	57.9	74.2	F	.	.	11.5 E	7.4	17.6
Age 60 to 69	87.0	80.4	91.6	X	.	.	F	.	.
Age 15 to 69	54.5	51.2	57.8	8.5	6.1	11.7	11.0	8.3	14.6

	Partial curl-up norms					
	Very good			Excellent		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 15 to 19	12.7	8.9	17.8	45.9	38.8	53.2
Age 20 to 39	15.1	11.8	19.2	34.2	30.0	38.7
Age 40 to 59	12.0	8.4	17.0	20.3	16.1	25.3
Age 60 to 69	6.4	4.9	8.2	9.5	6.9	12.9
Age 15 to 69	12.5	10.1	15.4	26.4	24.1	29.0
Males						
Age 15 to 19	13.4 E	7.8	22.1	53.7	41.9	65.1
Age 20 to 39	15.0	10.4	21.1	49.8	40.3	59.3
Age 40 to 59	16.1 E	10.6	23.7	30.4	23.5	38.3
Age 60 to 69	9.1 E	5.5	14.5	14.4 E	9.6	21.1
Age 15 to 69	14.5	11.3	18.4	37.8	32.6	43.4
Females						
Age 15 to 19	11.9 E	7.6	18.3	37.2	28.4	47.1
Age 20 to 39	15.3	10.9	21.0	19.0	14.9	24.0
Age 40 to 59	8.2 E	5.0	13.1	11.0 E	6.4	18.1
Age 60 to 69	3.6 E	2.0	6.5	F	.	.
Age 15 to 69	10.6	8.1	13.8	15.4	12.8	18.3

Note(s): The norms used in this table can be found in Canadian Society for Exercise Physiology, 2004, *The Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA)*, 3rd edition, Ottawa. Total household population aged 15 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 10
Distribution of the household population by back fitness norms, by age and sex, Canada, 2009 to 2011

	Back fitness norms								
	Needs improvement			Fair			Good		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 15 to 19	6.0 ^E	3.9	9.3	12.7	9.3	17.1	19.9	16.1	24.3
Age 20 to 39	12.5	9.1	17.0	16.9	12.4	22.6	23.4	17.7	30.2
Age 40 to 59	23.7	18.4	30.0	23.2	18.2	29.2	20.0	16.1	24.6
Age 60 to 69	32.1	25.2	40.0	33.3	28.2	38.8	12.6	9.9	15.8
Age 15 to 69	19.4	16.2	23.0	21.5	18.3	25.1	20.1	17.2	23.3
Males									
Age 15 to 19	F	.	.	12.7 ^E	6.7	22.6	25.2	19.0	32.6
Age 20 to 39	9.0 ^E	5.1	15.1	15.5 ^E	8.9	25.5	30.0	20.6	41.5
Age 40 to 59	18.2 ^E	11.6	27.4	20.0	15.6	25.2	22.2	17.2	28.1
Age 60 to 69	31.1	22.9	40.7	30.9	25.3	37.2	17.3	13.2	22.3
Age 15 to 69	15.5	11.6	20.4	19.2	15.9	23.0	24.6	19.7	30.4
Females									
Age 15 to 19	7.6 ^E	3.9	14.5	12.7 ^E	7.5	20.7	14.4 ^E	9.5	21.2
Age 20 to 39	16.2	11.7	22.0	18.4 ^E	12.6	25.9	16.5 ^E	11.1	23.9
Age 40 to 59	29.2	22.7	36.7	26.5	19.0	35.7	17.8	12.8	24.1
Age 60 to 69	33.1	23.3	44.6	35.4	28.2	43.4	8.2 ^E	5.5	12.0
Age 15 to 69	23.3	19.3	27.9	23.8	19.2	29.0	15.6	12.9	18.7

	Back fitness norms					
	Very good			Excellent		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 15 to 19	46.8	40.5	53.3	14.5	11.3	18.5
Age 20 to 39	34.8	29.5	40.4	12.5	10.2	15.1
Age 40 to 59	22.7	18.0	28.1	10.4	7.7	13.9
Age 60 to 69	16.9	12.5	22.3	5.2 ^E	3.4	7.8
Age 15 to 69	28.3	25.3	31.5	10.7	9.4	12.3
Males						
Age 15 to 19	46.8	37.9	55.8	10.8 ^E	7.2	16.0
Age 20 to 39	33.5	26.4	41.4	12.1 ^E	6.9	20.2
Age 40 to 59	24.9	20.5	30.0	14.7 ^E	9.9	21.1
Age 60 to 69	14.6	10.4	20.1	6.1 ^E	3.8	9.4
Age 15 to 69	28.5	24.4	33.0	12.2	9.3	15.8
Females						
Age 15 to 19	46.9	36.5	57.5	18.4	14.1	23.7
Age 20 to 39	36.1	28.9	44.0	12.9	9.6	16.9
Age 40 to 59	20.4 ^E	13.9	29.0	6.1 ^E	3.4	10.8
Age 60 to 69	19.0	13.7	25.7	F	.	.
Age 15 to 69	28.0	24.8	31.6	9.3	7.7	11.2

Note(s): The norms used in this table can be found in Canadian Society for Exercise Physiology, 2004, *The Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA)*, 3rd edition, Ottawa. Total household population aged 15 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 11
Sit and reach measure completed by the household population, by age and sex, Canada, 2009 to 2011

	Sit and reach measure											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
centimetres												
Both sexes												
Age 6 to 11	25.9	25.1	26.7	11.9	9.9	13.8	15.8	14.2	17.3	20.5	19.3	21.6
Age 12 to 19	25.7	24.4	27.0	7.5	5.5	9.5	11.2	9.5	12.9	16.8	14.6	18.9
Age 20 to 39	26.1	24.3	28.0	F	.	.	8.0 ^E	4.2	11.9	18.8	15.0	22.6
Age 40 to 59	25.5	24.3	26.6	8.9	7.4	10.3	11.8	10.2	13.3	18.5	17.2	19.8
Age 60 to 69	21.5	20.4	22.6	3.3 ^E	1.0	5.6	6.5	4.3	8.8	13.7	12.2	15.2
Age 6 to 69	25.2	24.4	26.1	6.3	5.1	7.6	10.3	9.0	11.6	17.8	16.6	18.9
Males												
Age 6 to 11	24.0	23.1	24.8	11.4	9.2	13.6	15.2	13.3	17.1	19.3	17.9	20.7
Age 12 to 19	21.6	19.5	23.7	4.3 ^E	2.5	6.2	8.3	5.6	11.0	13.9	11.9	15.8
Age 20 to 39	22.4	19.6	25.3	0.0 ^{††}	-3.8	3.8	F	.	.	13.9	9.0	18.8
Age 40 to 59	23.0	21.9	24.1	5.9 ^E	2.6	9.3	9.6	7.8	11.4	16.2	14.9	17.5
Age 60 to 69	17.0	16.1	18.0	0.0 ^{††}	-0.7	0.7	3.3 ^E	1.2	5.5	9.4	6.9	12.0
Age 6 to 69	22.0	20.9	23.0	3.2^E	1.7	4.7	7.0	5.2	8.7	14.3	13.3	15.3
Females												
Age 6 to 11	27.9	26.8	29.0	11.9	7.9	15.8	16.7	13.1	20.2	23.2	21.7	24.7
Age 12 to 19	30.1	28.6	31.5	14.2	12.9	15.5	15.9	14.4	17.4	23.9	21.8	26.1
Age 20 to 39	29.9	28.4	31.4	11.1 ^E	6.0	16.2	15.6	12.5	18.7	23.7	20.3	27.2
Age 40 to 59	27.8	26.2	29.5	10.9	7.1	14.8	15.0	13.0	16.9	20.9	18.4	23.5
Age 60 to 69	26.1	24.7	27.6	8.7	6.6	10.9	12.2	10.6	13.8	20.4	18.4	22.3
Age 6 to 69	28.6	27.7	29.4	11.1	9.0	13.1	15.0	14.1	15.9	22.1	20.4	23.8

	Sit and reach measure											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
centimetres												
Both sexes												
Age 6 to 11	26.5	25.6	27.4	31.6	30.8	32.4	35.2	33.9	36.5	37.5	35.9	39.1
Age 12 to 19	26.1	24.3	27.9	34.1	32.7	35.4	39.0	37.2	40.8	43.0	41.1	44.9
Age 20 to 39	27.3	25.3	29.2	34.5	33.2	35.9	41.3	38.8	43.7	43.4	42.6	44.1
Age 40 to 59	25.9	24.6	27.2	32.6	31.2	34.0	37.7	36.6	38.7	41.4	39.2	43.7
Age 60 to 69	21.9	20.5	23.4	28.5	26.9	30.1	36.1	34.5	37.6	39.1	36.8	41.3
Age 6 to 69	26.1	25.4	26.9	33.0	32.2	33.8	38.5	37.6	39.4	42.4	41.6	43.1
Males												
Age 6 to 11	24.0	22.7	25.3	29.4	28.1	30.6	33.3	31.4	35.1	35.4	33.5	37.4
Age 12 to 19	21.3	19.3	23.2	28.7	25.8	31.5	34.7	31.4	38.1	38.0	33.6	42.4
Age 20 to 39	24.0	20.3	27.8	31.2	28.1	34.2	37.1	33.6	40.7	41.0	36.5	45.4
Age 40 to 59	23.3	21.1	25.6	30.7	28.7	32.6	34.7	33.4	36.0	36.6	35.0	38.3
Age 60 to 69	16.4	14.7	18.1	23.9	21.8	25.9	29.9	27.6	32.1	33.2	30.1	36.3
Age 6 to 69	22.4	21.0	23.8	29.9	28.5	31.4	35.0	33.9	36.1	38.0	36.2	39.8
Females												
Age 6 to 11	29.4	28.1	30.6	33.2	32.3	34.1	36.4	35.1	37.7	39.1	37.1	41.0
Age 12 to 19	31.0	29.0	33.1	37.0	34.9	39.1	42.0	39.4	44.5	44.3	42.5	46.1
Age 20 to 39	30.7	28.5	32.9	37.0	35.2	38.8	43.1	41.8	44.4	44.4	43.1	45.7
Age 40 to 59	27.3	25.0	29.6	34.8	32.3	37.3	40.1	36.9	43.3	42.7	40.6	44.7
Age 60 to 69	26.2	24.9	27.5	32.9	29.2	36.6	37.8	35.7	39.9	41.9	39.4	44.3
Age 6 to 69	28.9	27.8	30.1	35.5	34.4	36.5	41.5	39.9	43.1	43.6	42.7	44.5

† noise introduced in order to calculate estimate

‡ coefficient of variation could not be calculated, use confidence interval as quality measure

Note(s): Total household population aged 6 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 12
Distribution of the household population by sit and reach norms, by age and sex, Canada, 2009 to 2011

	Sit and reach norms								
	Needs improvement			Fair			Good		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 15 to 19	46.1	38.8	53.6	17.2	13.1	22.2	14.0	11.4	17.2
Age 20 to 39	41.9	33.7	50.5	18.7	14.3	24.1	16.0 ^E	11.0	22.6
Age 40 to 59	29.3	24.6	34.5	24.6	20.3	29.6	13.6	10.7	17.1
Age 60 to 69	36.1	31.0	41.6	20.0	16.4	24.3	17.2	13.6	21.5
Age 15 to 69	36.5	32.9	40.2	21.1	18.9	23.5	15.0	12.2	18.4
Males									
Age 15 to 19	53.2	41.9	64.1	14.8 ^E	9.9	21.4	13.2	9.6	18.0
Age 20 to 39	48.0	37.9	58.3	18.3	13.5	24.3	14.8 ^E	9.0	23.4
Age 40 to 59	24.6	20.9	28.7	27.2	21.0	34.4	13.8	10.5	17.9
Age 60 to 69	41.7	34.6	49.3	19.5 ^E	12.9	28.5	15.8	11.5	21.3
Age 15 to 69	38.5	34.2	42.9	21.6	18.9	24.6	14.4	11.7	17.6
Females									
Age 15 to 19	38.6	31.0	46.8	19.7	15.2	25.2	14.9	10.4	20.8
Age 20 to 39	35.6	26.1	46.4	19.1	13.2	26.9	17.2 ^E	11.3	25.4
Age 40 to 59	33.9	26.5	42.2	22.2	17.5	27.7	13.4	9.3	18.8
Age 60 to 69	30.3	24.8	36.3	20.5	16.9	24.8	18.7	13.6	25.1
Age 15 to 69	34.4	29.6	39.6	20.6	17.9	23.7	15.7	12.0	20.2

	Sit and reach norms					
	Very good			Excellent		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 15 to 19	13.3	9.6	18.3	9.3 ^E	5.7	14.8
Age 20 to 39	11.5	8.6	15.3	11.9	8.9	15.8
Age 40 to 59	19.6	15.0	25.3	12.8	9.9	16.5
Age 60 to 69	11.9	9.6	14.7	14.8	10.8	19.9
Age 15 to 69	14.9	12.6	17.6	12.5	10.6	14.5
Males						
Age 15 to 19	12.1 ^E	7.4	19.3	F	.	.
Age 20 to 39	11.2 ^E	7.4	16.4	7.8 ^E	4.2	14.2
Age 40 to 59	23.5	16.2	33.0	10.9 ^E	6.6	17.6
Age 60 to 69	16.2	11.6	22.2	6.7	4.8	9.2
Age 15 to 69	16.8	13.3	20.9	8.8	6.7	11.3
Females						
Age 15 to 19	14.6 ^E	8.6	23.8	12.1 ^E	6.4	21.8
Age 20 to 39	11.9 ^E	8.0	17.4	16.1	11.4	22.2
Age 40 to 59	15.9	11.0	22.3	14.7 ^E	10.1	20.8
Age 60 to 69	7.4 ^E	5.0	10.8	23.1 ^E	15.8	32.6
Age 15 to 69	13.1	10.5	16.3	16.2	13.2	19.6

Note(s): The norms used in this table can be found in Canadian Society for Exercise Physiology, 2004, *The Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA)*, 3rd edition, Ottawa. Total household population aged 15 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 13
Distribution of the household population by musculoskeletal fitness norms, by age and sex, Canada, 2009 to 2011

	Musculoskeletal fitness norms								
	Needs Improvement			Fair			Good		
	Estimate	Confidence Interval		Estimate	Confidence Interval		Estimate	Confidence Interval	
		From	To		From	To		From	To
	Percent								
Both sexes									
Age 15 to 19	13.4	10.9	16.2	41.5	35.1	48.2	32.2	26.4	38.5
Age 20 to 39	14.7	10.8	19.7	31.2	27.3	35.4	34.8	29.7	40.3
Age 40 to 59	15.6 ^E	10.6	22.3	25.4	21.3	30.0	34.4	29.4	39.7
Age 60 to 69	19.7 ^E	13.5	27.8	32.1	27.2	37.4	29.1	25.0	33.7
Age 15 to 69	15.7	12.7	19.2	29.9	26.9	33.1	33.6	30.4	36.8
Males									
Age 15 to 19	8.8 ^E	5.6	13.7	48.3	41.1	55.6	32.3	25.2	40.3
Age 20 to 39	9.0 ^E	4.8	16.1	30.0	25.3	35.3	36.0	28.5	44.2
Age 40 to 59	12.2 ^E	6.4	22.1	22.8	16.8	30.1	34.4	28.3	41.1
Age 60 to 69	21.2 ^E	14.5	29.8	34.3	27.3	42.1	29.3	23.4	36.1
Age 15 to 69	12.0	8.4	16.9	29.4	26.3	32.7	34.1	29.8	38.7
Females									
Age 15 to 19	18.2	13.8	23.6	34.3	24.5	45.6	32.0	23.6	41.7
Age 20 to 39	20.5	16.1	25.8	32.4	26.6	38.9	33.6	28.0	39.6
Age 40 to 59	18.9 ^E	12.6	27.3	27.9	23.3	32.9	34.3	27.0	42.5
Age 60 to 69	18.3 ^E	11.8	27.1	30.0	24.7	35.8	28.9	22.2	36.7
Age 15 to 69	19.3	15.8	23.4	30.4	26.8	34.2	33.0	28.2	38.3

	Musculoskeletal fitness norms					
	Very good			Excellent		
	Estimate	Confidence Interval		Estimate	Confidence Interval	
		From	To		From	To
	Percent					
Both sexes						
Age 15 to 19	11.3	8.0	15.7	1.7 ^E	1.0	2.9
Age 20 to 39	16.7	12.6	21.9	2.5 ^E	1.3	4.9
Age 40 to 59	19.4	15.5	23.9	5.3 ^E	3.7	7.6
Age 60 to 69	16.5	13.3	20.4	F	.	.
Age 15 to 69	17.3	14.6	20.4	3.6	2.5	5.1
Males						
Age 15 to 19	8.2 ^E	4.5	14.4	X	.	.
Age 20 to 39	22.3	15.5	31.0	2.7 ^E	1.5	4.9
Age 40 to 59	22.1	17.2	28.0	8.5 ^E	5.2	13.5
Age 60 to 69	11.3 ^E	7.7	16.2	F	.	.
Age 15 to 69	19.4	15.6	23.9	5.1^E	3.4	7.6
Females						
Age 15 to 19	14.5 ^E	8.9	22.8	X	.	.
Age 20 to 39	11.1 ^E	7.6	15.9	F	.	.
Age 40 to 59	16.7 ^E	11.5	23.6	F	.	.
Age 60 to 69	21.6	16.7	27.5	X	.	.
Age 15 to 69	15.2	12.5	18.3	F	.	.

Note(s): The norms used in this table can be found in Canadian Society for Exercise Physiology, 2004, *The Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA)*, 3rd edition, Ottawa. Total household population aged 15 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 14
Distribution of the household population by aerobic fitness norms, by age and sex, Canada, 2009 to 2011

	Aerobic fitness norms								
	Needs improvement			Fair			Good		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 15 to 19	7.4 ^E	4.4	12.3	18.2	15.7	20.9	38.8	32.4	45.6
Age 20 to 39	14.7	10.4	20.3	24.6	20.6	29.1	40.7	31.8	50.2
Age 40 to 59	20.1 ^E	12.8	30.1	31.8	27.5	36.3	25.0	20.7	29.8
Age 60 to 69	45.1	39.0	51.3	33.0	27.0	39.6	16.6	12.1	22.3
Age 15 to 69	19.5	14.9	25.0	27.8	25.8	29.9	31.6	27.0	36.6
Males									
Age 15 to 19	F	.	.	24.5	18.3	31.8	30.0 ^E	19.2	43.6
Age 20 to 39	16.1 ^E	10.5	24.0	32.0	25.8	38.8	30.2	21.0	41.4
Age 40 to 59	18.6 ^E	10.8	30.1	22.3	16.1	30.2	30.1	24.0	36.9
Age 60 to 69	34.1	25.0	44.5	27.9 ^E	18.9	39.1	28.0	20.9	36.4
Age 15 to 69	18.1	12.6	25.3	27.1	24.2	30.1	29.9	24.5	36.0
Females									
Age 15 to 19	6.8 ^E	3.3	13.3	11.4 ^E	7.7	16.5	48.4	37.1	59.8
Age 20 to 39	13.1 ^E	8.0	20.7	16.3 ^E	11.0	23.5	52.5	40.2	64.5
Age 40 to 59	21.6 ^E	13.7	32.4	40.8	34.5	47.5	20.1	13.9	28.1
Age 60 to 69	54.4	45.3	63.1	37.3	29.5	45.8	6.9 ^E	3.5	13.2
Age 15 to 69	20.9	15.9	27.0	28.6	24.7	32.8	33.3	27.0	40.1

	Aerobic fitness norms					
	Very good			Excellent		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 15 to 19	25.2	19.6	31.7	10.4 ^E	6.8	15.7
Age 20 to 39	13.1	9.9	17.1	6.9 ^E	3.4	13.6
Age 40 to 59	18.9	14.1	24.8	4.3 ^E	2.7	6.8
Age 60 to 69	4.7 ^E	2.9	7.5	X	.	.
Age 15 to 69	15.6	13.3	18.3	5.5^E	3.8	7.9
Males						
Age 15 to 19	25.2 ^E	17.2	35.3	12.4 ^E	7.8	19.2
Age 20 to 39	15.0	10.5	20.8	F	.	.
Age 40 to 59	22.5	17.0	29.0	6.6 ^E	3.6	11.7
Age 60 to 69	8.7 ^E	5.2	14.3	X	.	.
Age 15 to 69	18.3	15.1	21.9	6.7^E	4.5	9.9
Females						
Age 15 to 19	25.2	17.4	35.1	8.3 ^E	4.8	13.8
Age 20 to 39	11.0 ^E	6.8	17.2	F	.	.
Age 40 to 59	15.4 ^E	10.3	22.4	F	.	.
Age 60 to 69	X	.	.	X	.	.
Age 15 to 69	13.0	10.4	16.1	4.3^E	2.2	8.2

Note(s): The norms used in this table can be found in Canadian Society for Exercise Physiology, 2004, *The Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA)*, 3rd edition, Ottawa. Total household population aged 15 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 15
Mean predicted maximal aerobic power of the household population, by age and sex, Canada, 2009 to 2011

	Mean maximal oxygen consumption											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millilitres per kilogram per minute												
Both sexes												
Age 8 to 11	50.4	50.1	50.7	45.2	44.8	45.5	45.7	45.4	46.0	47.0	46.0	48.0
Age 12 to 19	47.8	47.5	48.0	38.2	36.8	39.6	40.2	39.5	41.0	43.2	42.8	43.7
Age 20 to 39	41.4	40.5	42.4	32.4	31.4	33.4	33.6	32.9	34.4	36.8	36.0	37.7
Age 40 to 59	32.7	31.4	33.9	22.6	21.3	23.9	24.2	22.3	26.2	28.9	27.4	30.4
Age 60 to 69	25.1	24.6	25.6	18.6	17.6	19.7	19.4	18.9	19.8	21.1	20.6	21.6
Age 8 to 69	38.0	37.3	38.6	22.4	21.6	23.1	25.5	23.8	27.1	30.8	29.9	31.7
Males												
Age 8 to 11	50.8	50.2	51.3	45.0	44.3	45.7	45.6	45.1	46.1	46.9	45.2	48.6
Age 12 to 19	50.6	49.9	51.4	41.2	37.1	45.3	43.6	41.6	45.6	46.8	45.5	48.1
Age 20 to 39	43.7	42.1	45.3	32.9	31.6	34.1	34.0	32.2	35.7	39.5	36.2	42.8
Age 40 to 59	35.3	33.5	37.2	24.2	22.0	26.4	26.7	24.2	29.2	30.2	28.3	32.2
Age 60 to 69	26.5	25.4	27.5	X	.	.	19.4	18.6	20.1	21.5	19.5	23.5
Age 8 to 69	40.5	39.3	41.6	24.2	22.3	26.1	27.7	26.1	29.3	32.7	31.0	34.3
Females												
Age 8 to 11	50.1	49.6	50.5	45.2	44.8	45.5	45.8	45.6	46.1	47.0	45.8	48.3
Age 12 to 19	44.9	44.1	45.6	37.4	35.4	39.4	39.0	37.7	40.4	41.1	40.2	42.0
Age 20 to 39	38.8	38.0	39.7	31.5	30.2	32.9	33.1	32.0	34.3	36.1	35.2	36.9
Age 40 to 59	30.1	29.3	31.0	21.2	19.2	23.3	23.0	21.4	24.6	26.9	24.6	29.3
Age 60 to 69	24.0	23.2	24.8	18.5	17.5	19.5	19.4	18.6	20.2	21.0	20.2	21.8
Age 8 to 69	35.5	34.9	36.0	21.3	20.6	22.0	23.4	22.4	24.3	29.6	28.9	30.4

	Mean maximal oxygen consumption											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millilitres per kilogram per minute												
Both sexes												
Age 8 to 11	50.2	49.9	50.6	53.8	50.9	56.7	55.9	55.7	56.1	56.3	56.2	56.4
Age 12 to 19	47.6	47.2	48.0	52.5	51.9	53.2	54.9	54.3	55.5	56.2	54.5	57.8
Age 20 to 39	40.4	39.6	41.2	45.7	43.7	47.8	50.2	49.4	51.0	51.3	49.2	53.4
Age 40 to 59	31.9	30.8	33.0	36.8	35.0	38.7	41.2	38.7	43.8	44.6	42.8	46.4
Age 60 to 69	23.9	22.8	24.9	28.7	28.1	29.3	30.6	29.8	31.3	33.5	29.6	37.3
Age 8 to 69	37.8	36.9	38.7	45.0	44.1	45.8	50.4	49.8	51.0	53.6	52.6	54.6
Males												
Age 8 to 11	50.6	50.1	51.0	54.7	53.9	55.6	56.0	55.8	56.2	56.3	56.1	56.5
Age 12 to 19	51.8	51.0	52.6	54.1	53.2	55.1	55.9	54.2	57.7	59.5	57.6	61.5
Age 20 to 39	44.0	42.1	45.8	49.1	47.4	50.8	51.0	49.1	52.9	54.2	50.3	58.1
Age 40 to 59	34.4	30.4	38.4	39.8	38.3	41.3	44.6	42.6	46.6	46.1	43.9	48.4
Age 60 to 69	26.8	25.3	28.3	29.8	29.2	30.5	33.3	28.5	38.0	X	.	.
Age 8 to 69	40.9	39.3	42.5	47.8	46.2	49.5	52.3	51.2	53.5	55.0	54.2	55.8
Females												
Age 8 to 11	49.9	49.6	50.3	51.2	50.2	52.2	55.8	55.1	56.4	56.3	56.0	56.6
Age 12 to 19	43.9	43.3	44.5	48.0	47.3	48.7	52.7	50.9	54.5	54.2	53.4	55.0
Age 20 to 39	38.4	37.6	39.3	40.7	39.7	41.6	45.0	40.5	49.6	49.5	44.7	54.4
Age 40 to 59	30.1	29.4	30.9	33.5	32.4	34.5	36.0	35.3	36.6	36.8	36.2	37.5
Age 60 to 69	23.0	22.2	23.8	27.8	26.1	29.6	29.3	28.5	30.0	30.1	28.5	31.6
Age 8 to 69	35.4	34.7	36.2	40.7	40.1	41.3	47.8	46.4	49.3	50.4	49.8	51.0

Note(s): Total household population aged 8 to 69, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). Equation for predicted maximal aerobic power has not been validated for children aged 8 to 14 years.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 16
Measured neck circumference, by age and sex, household population aged 3 to 19, Canada, 2009 to 2011

	Measured neck circumference											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	centimetres											
Both sexes												
Age 3 to 5	24.6	24.4	24.9	21.9	21.4	22.4	22.5	22.2	22.7	23.4	23.2	23.6
Age 6 to 11	27.5	27.3	27.8	24.2	24.0	24.5	24.8	24.5	25.1	25.8	25.5	26.1
Age 12 to 19	32.8	32.4	33.3	27.9	27.2	28.6	28.5	28.0	28.9	30.2	29.8	30.5
Age 3 to 19	29.8	29.6	30.0	23.5	23.4	23.6	24.3	24.2	24.5	26.3	26.0	26.5
Age 6 to 19	30.8	30.5	31.1	25.1	24.9	25.3	25.9	25.6	26.2	27.7	27.4	28.0
Males												
Age 6 to 11	28.1	27.7	28.5	24.8	24.1	25.5	25.3	24.8	25.7	26.1	25.4	26.8
Age 12 to 19	34.7	34.0	35.3	28.1	26.1	30.1	29.8	28.1	31.4	32.6	31.6	33.6
Age 3 to 19	31.0	30.6	31.3	24.2	23.9	24.5	25.0	24.6	25.4	26.6	26.1	27.1
Age 6 to 19	32.1	31.7	32.5	25.5	25.0	26.0	26.1	25.7	26.5	28.1	27.6	28.5
Females												
Age 6 to 11	27.0	26.8	27.1	23.9	23.6	24.3	24.4	24.1	24.7	25.4	25.2	25.6
Age 12 to 19	31.0	30.5	31.4	27.9	27.4	28.4	28.2	27.8	28.5	29.3	28.9	29.7
Age 3 to 19	28.5	28.3	28.8	23.1	22.9	23.4	23.9	23.6	24.2	25.8	25.5	26.0
Age 6 to 19	29.4	29.1	29.7	24.6	24.3	24.9	25.4	25.2	25.6	27.4	27.3	27.6

	Measured neck circumference											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	centimetres											
Both sexes												
Age 3 to 5	24.4	24.2	24.6	25.7	25.2	26.2	27.0	26.1	27.8	27.6	27.0	28.2
Age 6 to 11	27.3	26.9	27.6	28.8	28.5	29.1	30.6	29.7	31.4	31.8	31.4	32.1
Age 12 to 19	32.5	31.8	33.1	35.2	34.7	35.7	37.5	36.9	38.0	39.1	38.0	40.3
Age 3 to 19	29.1	28.8	29.5	32.6	32.1	33.0	35.7	35.2	36.2	37.5	37.0	38.1
Age 6 to 19	30.2	29.8	30.5	33.5	32.8	34.1	36.2	35.6	36.8	38.1	37.4	38.7
Males												
Age 6 to 11	27.8	27.5	28.1	29.4	28.8	30.1	31.6	30.6	32.5	32.2	30.7	33.7
Age 12 to 19	34.9	34.2	35.5	36.7	36.0	37.5	38.8	37.7	39.8	40.9	39.4	42.3
Age 3 to 19	30.2	29.5	30.8	35.0	34.4	35.5	37.4	36.8	38.0	38.8	37.7	39.9
Age 6 to 19	32.2	31.3	33.1	35.5	35.0	35.9	37.7	37.1	38.4	39.2	37.7	40.7
Females												
Age 6 to 11	26.8	26.6	27.1	28.2	28.0	28.4	29.3	28.8	29.9	30.6	29.3	31.8
Age 12 to 19	30.6	30.1	31.0	32.0	31.3	32.7	33.8	33.1	34.5	34.8	34.1	35.5
Age 3 to 19	28.5	28.1	28.9	30.9	30.4	31.4	32.6	31.8	33.3	33.9	33.1	34.6
Age 6 to 19	29.3	28.9	29.7	31.2	30.7	31.7	33.0	32.2	33.8	34.2	33.3	35.1

Note(s): Total household population aged 3 to 19, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 17
Measured waist circumference of the household population - World Health Organization (WHO) protocol, by age and sex, Canada, 2009 to 2011

	Measured waist circumference											
	Mean		5th percentile			10th percentile			25th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
centimetres												
Both sexes												
Age 3 to 5	51.3	50.6	52.0	45.2	44.6	45.7	46.2	45.4	46.9	48.4	47.6	49.2
Age 6 to 11	60.5	59.8	61.3	49.2	47.7	50.7	50.6	49.3	51.8	53.9	52.8	55.0
Age 12 to 19	74.7	73.1	76.2	58.8	56.2	61.4	61.2	59.5	62.9	66.5	65.0	68.0
Age 20 to 39	85.7	83.6	87.7	66.5	64.6	68.3	69.9	68.1	71.7	75.4	73.4	77.5
Age 40 to 59	93.8	92.1	95.6	71.5	69.2	73.9	75.9	74.0	77.7	83.2	81.1	85.4
Age 60 to 79	97.3	95.4	99.1	72.8	70.1	75.5	77.5	74.8	80.2	86.5	84.0	89.0
Age 3 to 79	86.3	84.9	87.6	54.7	53.9	55.6	63.0	61.7	64.2	73.5	71.9	75.1
Age 6 to 79	87.5	86.1	88.9	60.0	58.6	61.4	66.4	65.6	67.2	75.2	74.1	76.4
Males												
Age 6 to 11	61.8	60.8	62.9	50.3	48.6	51.9	51.8	49.9	53.8	55.1	53.6	56.6
Age 12 to 19	76.3	74.3	78.3	56.2	52.9	59.6	60.9	56.0	65.7	67.8	65.7	69.8
Age 20 to 39	88.9	86.2	91.6	71.3	70.4	72.1	72.7	70.7	74.8	79.0	76.2	81.8
Age 40 to 59	97.7	95.6	99.8	78.5	75.2	81.8	83.3	80.5	86.1	88.6	86.9	90.4
Age 60 to 79	103.2	100.5	106.0	82.4	79.3	85.5	86.2	82.9	89.5	93.8	90.5	97.2
Age 3 to 79	89.5	87.9	91.1	55.3	54.6	56.1	64.5	62.6	66.4	77.9	76.6	79.2
Age 6 to 79	90.9	89.3	92.5	59.5	57.4	61.6	68.9	67.8	70.1	79.4	77.8	81.0
Females												
Age 6 to 11	59.2	58.4	59.9	48.3	46.9	49.6	50.1	48.8	51.4	52.8	51.6	54.0
Age 12 to 19	72.9	71.0	74.9	60.2	58.6	61.7	61.3	60.2	62.4	65.3	63.7	66.8
Age 20 to 39	82.3	79.9	84.8	64.8	62.9	66.7	66.5	64.7	68.3	71.5	69.0	73.9
Age 40 to 59	90.0	87.5	92.4	68.6	65.4	71.9	71.7	68.6	74.7	78.5	76.6	80.5
Age 60 to 79	91.9	89.6	94.1	70.0	66.9	73.2	73.6	71.3	75.8	79.6	77.6	81.6
Age 3 to 79	83.0	81.6	84.4	54.2	53.3	55.1	62.0	60.3	63.6	71.1	69.8	72.4
Age 6 to 79	84.1	82.6	85.6	60.2	58.8	61.6	64.7	63.6	65.8	72.1	70.8	73.5

	Measured waist circumference											
	50th percentile		75th percentile			90th percentile			95th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
centimetres												
Both sexes												
Age 3 to 5	50.5	49.9	51.1	53.1	51.9	54.4	57.2	55.7	58.8	58.8	55.8	61.7
Age 6 to 11	58.0	56.8	59.2	65.4	64.5	66.4	72.6	69.7	75.4	77.9	73.8	82.0
Age 12 to 19	72.4	71.0	73.8	80.5	77.5	83.5	90.3	84.6	95.9	101.1	95.8	106.4
Age 20 to 39	83.5	81.3	85.6	94.2	91.9	96.4	104.5	98.0	111.1	113.6	109.3	118.0
Age 40 to 59	92.4	90.4	94.4	101.9	99.1	104.7	113.7	110.3	117.0	119.9	116.4	123.5
Age 60 to 79	97.2	95.0	99.5	106.6	103.7	109.5	117.9	115.0	120.8	124.7	120.7	128.7
Age 3 to 79	86.1	84.3	87.9	98.0	96.4	99.7	110.2	107.4	113.0	117.4	115.6	119.3
Age 6 to 79	86.8	85.2	88.4	98.5	96.9	100.2	110.5	107.7	113.2	117.9	116.1	119.7
Males												
Age 6 to 11	58.9	57.2	60.5	66.7	64.9	68.4	75.6	71.4	79.8	81.4	70.2	92.6
Age 12 to 19	73.7	71.7	75.7	83.3	79.5	87.0	96.7	88.8	104.5	102.7	99.1	106.2
Age 20 to 39	87.2	83.8	90.5	95.9	92.9	99.0	107.3	100.3	114.4	113.6	108.3	118.8
Age 40 to 59	95.7	93.4	98.0	104.4	100.2	108.5	113.9	109.2	118.5	119.9	114.8	125.0
Age 60 to 79	101.3	98.1	104.6	111.3	108.0	114.5	121.8	117.6	125.9	126.6	122.0	131.2
Age 3 to 79	90.2	88.6	91.7	101.2	98.7	103.6	112.5	109.2	115.7	118.6	115.7	121.6
Age 6 to 79	90.9	89.2	92.6	101.6	99.0	104.2	112.7	109.6	115.8	118.7	115.5	121.8
Females												
Age 6 to 11	57.1	55.6	58.6	64.0	62.9	65.0	70.3	68.6	71.9	74.6	70.8	78.5
Age 12 to 19	70.7	68.3	73.2	77.9	74.0	81.9	87.2	82.8	91.5	94.3	88.1	100.4
Age 20 to 39	78.1	74.5	81.8	89.9	85.7	94.0	100.8	92.7	109.0	114.9	105.2	124.7
Age 40 to 59	86.9	83.7	90.1	98.0	94.4	101.6	111.6	107.3	115.8	120.0	114.6	125.3
Age 60 to 79	91.4	88.6	94.3	99.6	97.3	102.0	111.5	107.3	115.7	118.9	113.7	124.2
Age 3 to 79	80.7	78.7	82.8	94.0	92.0	95.9	106.1	100.8	111.5	115.4	111.4	119.5
Age 6 to 79	81.5	79.4	83.6	94.4	92.5	96.3	107.3	101.8	112.9	115.7	111.7	119.8

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 18
Measured waist circumference of the household population - National Institutes of Health (NIH) protocol, by age and sex, Canada, 2009 to 2011

	Measured waist circumference											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
centimetres												
Both sexes												
Age 3 to 5	51.7	51.0	52.4	45.4	44.8	46.1	46.4	45.6	47.1	48.4	47.3	49.5
Age 6 to 11	61.7	60.9	62.5	49.9	48.3	51.5	51.5	50.5	52.5	54.7	53.7	55.8
Age 12 to 19	76.8	75.1	78.4	59.8	57.2	62.5	63.1	61.1	65.1	68.4	67.0	69.9
Age 20 to 39	87.7	85.7	89.7	68.6	66.9	70.3	71.7	70.1	73.3	77.7	76.3	79.1
Age 40 to 59	95.2	93.4	97.0	73.4	70.3	76.5	78.8	76.5	81.1	85.5	83.5	87.4
Age 60 to 79	98.3	96.6	100.1	75.0	72.0	77.9	79.5	77.1	81.9	88.1	85.6	90.6
Age 3 to 79	87.8	86.5	89.1	55.3	54.4	56.2	64.6	63.4	65.8	75.9	74.6	77.2
Age 6 to 79	89.1	87.7	90.4	61.4	60.2	62.7	68.1	67.1	69.0	77.4	76.2	78.6
Males												
Age 6 to 11	62.8	61.8	63.8	50.8	49.2	52.4	51.8	50.1	53.5	55.3	54.0	56.6
Age 12 to 19	77.7	75.6	79.8	57.1	53.4	60.9	62.3	57.6	67.0	69.0	66.9	71.2
Age 20 to 39	90.3	87.5	93.1	72.0	70.7	73.3	74.2	71.4	77.0	80.7	77.8	83.5
Age 40 to 59	98.3	96.2	100.4	80.5	78.2	82.8	84.2	81.5	86.8	89.5	87.9	91.1
Age 60 to 79	103.3	100.6	106.0	82.6	80.3	85.0	86.8	83.8	89.8	94.0	90.7	97.3
Age 3 to 79	90.4	88.8	92.0	55.4	54.2	56.6	64.9	63.6	66.3	79.3	77.9	80.7
Age 6 to 79	91.8	90.2	93.4	60.9	59.0	62.9	69.9	68.6	71.2	80.8	79.4	82.2
Females												
Age 6 to 11	60.6	59.8	61.4	48.9	47.4	50.5	51.2	49.6	52.7	54.0	52.8	55.3
Age 12 to 19	75.8	73.7	77.9	61.6	59.9	63.4	63.2	61.3	65.1	67.8	66.4	69.2
Age 20 to 39	85.0	82.7	87.3	66.9	64.8	69.0	68.8	66.9	70.7	73.9	71.7	76.2
Age 40 to 59	92.1	89.6	94.6	71.4	69.1	73.8	74.3	71.1	77.6	80.6	78.5	82.6
Age 60 to 79	93.8	91.7	95.8	71.9	68.9	75.0	76.1	73.7	78.4	83.1	80.2	85.9
Age 3 to 79	85.2	83.8	86.6	55.1	54.2	55.9	64.1	62.5	65.8	73.3	71.9	74.7
Age 6 to 79	86.4	84.9	87.8	61.7	60.4	62.9	67.0	65.6	68.3	74.5	72.9	76.0

	Measured waist circumference											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
centimetres												
Both sexes												
Age 3 to 5	50.8	50.1	51.4	53.9	52.9	55.0	57.6	55.9	59.3	60.1	56.1	64.1
Age 6 to 11	59.3	58.0	60.6	67.1	65.9	68.2	74.2	70.7	77.6	79.6	75.2	84.1
Age 12 to 19	74.5	72.8	76.1	82.9	79.8	86.0	92.5	86.6	98.5	103.9	99.1	108.8
Age 20 to 39	85.4	83.5	87.4	96.1	93.7	98.5	106.1	100.3	111.9	117.2	110.8	123.7
Age 40 to 59	93.7	92.1	95.2	103.0	100.6	105.4	113.3	109.4	117.2	120.9	116.1	125.7
Age 60 to 79	98.1	95.7	100.5	107.4	104.7	110.2	118.9	115.5	122.3	124.4	120.8	127.9
Age 3 to 79	87.8	86.2	89.4	99.4	97.7	101.1	111.0	108.4	113.5	119.3	117.2	121.5
Age 6 to 79	88.6	87.1	90.1	99.6	97.8	101.4	111.2	108.8	113.6	119.4	117.5	121.2
Males												
Age 6 to 11	59.7	57.8	61.5	68.4	66.9	70.0	77.9	73.1	82.8	82.1	69.7	94.5
Age 12 to 19	75.2	73.3	77.1	84.9	81.4	88.4	99.5	89.9	109.1	106.0	102.1	109.9
Age 20 to 39	88.4	85.3	91.4	96.9	93.7	100.2	108.1	101.0	115.2	117.2	108.7	125.7
Age 40 to 59	96.6	93.9	99.2	104.7	101.4	108.1	113.5	107.5	119.6	119.4	114.0	124.8
Age 60 to 79	101.8	99.4	104.1	112.3	108.6	116.1	120.4	117.4	123.5	125.0	118.9	131.2
Age 3 to 79	91.5	89.8	93.1	102.3	100.3	104.3	112.4	109.0	115.8	119.8	117.4	122.1
Age 6 to 79	92.1	90.5	93.7	102.4	100.4	104.5	112.8	109.4	116.2	119.8	117.5	122.1
Females												
Age 6 to 11	58.7	56.9	60.5	65.5	64.5	66.4	72.3	70.4	74.2	77.1	73.8	80.5
Age 12 to 19	73.5	71.0	76.0	81.3	77.7	85.0	89.6	85.5	93.6	97.5	90.2	104.8
Age 20 to 39	81.4	78.0	84.9	92.8	88.6	97.0	104.5	96.8	112.1	116.8	107.6	125.9
Age 40 to 59	89.2	86.0	92.4	99.4	96.2	102.6	112.3	107.8	116.7	123.3	115.6	131.0
Age 60 to 79	92.8	90.5	95.1	101.8	99.0	104.5	112.5	107.4	117.6	122.9	117.7	128.2
Age 3 to 79	83.9	81.9	85.9	95.5	92.9	98.1	108.4	104.6	112.2	117.6	113.0	122.2
Age 6 to 79	84.7	82.9	86.6	96.4	93.8	99.0	108.9	105.1	112.7	118.0	113.5	122.6

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 19
Measured hip circumference, by age and sex, household population, Canada, 2009 to 2011

	Measured hip circumference											
	Mean		5th percentile		10th percentile		25th percentile					
	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval				
		From To		From To		From To		From To				
centimetres												
Both sexes												
Age 3 to 5	59.1	58.4 59.9	51.9	51.0 52.8	53.3	52.6 53.9	55.3	54.6 56.1				
Age 6 to 11	73.2	72.4 73.9	59.7	58.3 61.1	61.6	60.1 63.1	66.2	65.0 67.3				
Age 12 to 19	94.2	92.6 95.8	76.9	72.7 81.2	81.4	78.3 84.6	87.8	86.0 89.6				
Age 20 to 39	102.1	100.5 103.7	87.9	85.3 90.5	90.4	88.8 92.0	94.9	93.5 96.3				
Age 40 to 59	104.5	103.1 105.8	89.9	88.2 91.6	91.9	90.0 93.8	97.4	96.2 98.6				
Age 60 to 79	105.1	103.8 106.4	90.2	88.4 91.9	92.9	91.1 94.8	98.1	97.1 99.1				
Age 3 to 79	99.1	98.2 100.0	66.6	65.6 67.5	80.6	79.3 81.9	92.6	91.5 93.7				
Age 6 to 79	100.5	99.5 101.5	75.4	73.9 77.0	84.9	83.5 86.4	93.5	92.5 94.5				
Males												
Age 6 to 11	73.4	72.6 74.2	59.9	57.5 62.4	61.9	59.8 64.1	66.4	64.8 67.9				
Age 12 to 19	93.5	91.4 95.6	73.5	66.3 80.6	78.7	73.2 84.3	87.5	85.0 90.0				
Age 20 to 39	102.0	100.0 103.9	88.9	86.6 91.2	91.0	88.4 93.6	95.4	94.0 96.9				
Age 40 to 59	102.6	101.2 104.0	89.8	87.5 92.1	91.4	88.6 94.1	96.9	95.3 98.6				
Age 60 to 79	103.8	102.2 105.5	91.2	89.8 92.7	93.9	92.2 95.5	98.0	96.4 99.6				
Age 3 to 79	98.1	97.1 99.0	66.6	65.5 67.7	79.4	77.2 81.6	92.9	91.7 94.1				
Age 6 to 79	99.4	98.4 100.5	73.5	71.2 75.8	85.6	84.0 87.2	93.8	92.8 94.8				
Females												
Age 6 to 11	72.9	71.8 74.0	59.5	57.8 61.2	61.2	59.7 62.8	66.0	64.0 68.0				
Age 12 to 19	95.0	92.7 97.2	79.8	76.6 83.0	82.5	80.6 84.4	88.4	86.3 90.6				
Age 20 to 39	102.3	100.3 104.3	85.8	81.4 90.2	89.9	88.5 91.2	93.9	91.8 96.0				
Age 40 to 59	106.3	104.2 108.5	89.9	86.7 93.1	92.4	90.0 94.7	97.5	95.2 99.9				
Age 60 to 79	106.2	104.4 108.1	88.2	85.0 91.5	91.9	89.4 94.3	98.6	97.1 100.0				
Age 3 to 79	100.1	99.0 101.3	66.5	65.0 68.0	81.1	79.7 82.4	92.3	91.1 93.5				
Age 6 to 79	101.6	100.4 102.8	77.0	75.7 78.3	84.8	82.7 86.8	93.2	92.0 94.4				

	Measured hip circumference											
	50th percentile		75th percentile		90th percentile		95th percentile					
	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval				
		From To		From To		From To		From To				
centimetres												
Both sexes												
Age 3 to 5	58.2	57.1 59.4	62.0	60.7 63.3	66.1	64.6 67.5	67.5	65.9 69.0				
Age 6 to 11	71.7	70.8 72.7	79.1	78.1 80.0	85.2	83.6 86.7	90.8	88.3 93.3				
Age 12 to 19	92.8	91.2 94.3	100.7	98.6 102.8	108.3	104.7 111.9	115.2	110.1 120.3				
Age 20 to 39	100.4	98.3 102.4	107.9	106.6 109.2	115.4	110.8 120.1	122.9	119.3 126.4				
Age 40 to 59	102.6	101.4 103.7	108.8	106.0 111.6	119.2	117.1 121.3	124.8	119.6 129.9				
Age 60 to 79	103.8	102.6 105.0	110.4	108.9 111.9	118.4	115.9 120.9	125.0	119.6 130.4				
Age 3 to 79	100.1	98.8 101.3	107.2	106.1 108.3	115.7	113.3 118.1	122.8	120.7 124.9				
Age 6 to 79	100.6	99.5 101.8	107.4	106.4 108.5	116.5	114.2 118.9	123.0	121.0 124.9				
Males												
Age 6 to 11	71.5	70.5 72.6	79.1	77.2 81.0	85.9	82.5 89.4	91.3	89.0 93.5				
Age 12 to 19	91.8	90.0 93.6	100.5	98.0 102.9	108.3	103.2 113.5	115.3	109.2 121.3				
Age 20 to 39	101.1	98.8 103.4	107.4	105.5 109.4	112.3	106.6 118.0	120.1	113.2 126.9				
Age 40 to 59	102.0	100.5 103.5	106.7	104.4 108.9	113.5	109.3 117.7	117.6	114.0 121.1				
Age 60 to 79	102.7	101.2 104.1	108.7	106.7 110.7	113.6	111.6 115.6	119.8	113.9 125.6				
Age 3 to 79	99.7	98.2 101.2	106.1	104.8 107.4	112.1	109.3 114.9	117.4	114.4 120.4				
Age 6 to 79	100.3	98.8 101.8	106.4	105.1 107.7	112.3	109.4 115.2	117.4	114.3 120.5				
Females												
Age 6 to 11	72.0	70.2 73.8	79.0	78.0 80.1	85.1	84.0 86.2	88.2	84.1 92.3				
Age 12 to 19	93.9	91.7 96.1	100.9	97.2 104.7	108.0	103.4 112.5	114.0	106.9 121.1				
Age 20 to 39	99.7	96.6 102.7	108.0	105.6 110.3	118.9	112.4 125.5	126.0	119.4 132.7				
Age 40 to 59	102.9	101.4 104.5	113.1	109.2 117.1	123.5	120.0 127.0	135.2	125.4 145.0				
Age 60 to 79	105.0	103.2 106.9	112.3	109.9 114.7	120.3	116.7 123.8	127.5	119.6 135.3				
Age 3 to 79	100.3	98.9 101.7	108.1	106.5 109.7	119.6	117.2 122.1	126.9	122.1 131.7				
Age 6 to 79	100.9	99.7 102.2	108.5	106.6 110.4	119.8	117.2 122.4	127.0	122.1 131.9				

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 20
Measured waist-to-hip ratio, by age and sex, household population, Canada, 2009 to 2011

	Measured waist-to-hip ratio											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	ratio											
Both sexes												
Age 3 to 5	0.88	0.87	0.88	0.78	0.76	0.80	0.81	0.79	0.83	0.84	0.82	0.85
Age 6 to 11	0.84	0.84	0.85	0.76	0.75	0.76	0.77	0.76	0.77	0.80	0.79	0.80
Age 12 to 19	0.81	0.81	0.82	0.72	0.71	0.73	0.74	0.73	0.75	0.77	0.76	0.78
Age 20 to 39	0.86	0.85	0.86	0.73	0.72	0.74	0.75	0.74	0.76	0.80	0.78	0.81
Age 40 to 59	0.91	0.90	0.92	0.77	0.75	0.79	0.80	0.79	0.81	0.85	0.84	0.86
Age 60 to 79	0.93	0.93	0.94	0.78	0.76	0.79	0.81	0.80	0.83	0.86	0.85	0.87
Age 3 to 79	0.88	0.88	0.89	0.74	0.74	0.75	0.77	0.76	0.77	0.82	0.81	0.82
Age 6 to 79	0.88	0.88	0.89	0.74	0.74	0.75	0.77	0.76	0.77	0.81	0.81	0.82
Males												
Age 6 to 11	0.85	0.84	0.86	0.77	0.76	0.78	0.78	0.77	0.80	0.81	0.80	0.83
Age 12 to 19	0.83	0.82	0.84	0.75	0.74	0.76	0.76	0.75	0.77	0.79	0.78	0.79
Age 20 to 39	0.88	0.87	0.89	0.76	0.74	0.79	0.79	0.76	0.82	0.83	0.82	0.85
Age 40 to 59	0.96	0.95	0.97	0.85	0.83	0.87	0.87	0.86	0.89	0.91	0.89	0.92
Age 60 to 79	0.99	0.98	1.01	0.87	0.86	0.89	0.90	0.88	0.91	0.94	0.92	0.95
Age 3 to 79	0.92	0.91	0.92	0.78	0.77	0.78	0.80	0.79	0.81	0.85	0.84	0.86
Age 6 to 79	0.92	0.91	0.93	0.78	0.77	0.78	0.80	0.79	0.81	0.85	0.84	0.86
Females												
Age 6 to 11	0.83	0.83	0.84	0.74	0.72	0.76	0.76	0.75	0.77	0.79	0.78	0.79
Age 12 to 19	0.80	0.79	0.81	0.70	0.69	0.72	0.72	0.71	0.73	0.75	0.74	0.76
Age 20 to 39	0.83	0.82	0.84	0.72	0.71	0.73	0.74	0.72	0.75	0.76	0.75	0.78
Age 40 to 59	0.86	0.86	0.87	0.73	0.71	0.76	0.77	0.75	0.79	0.81	0.80	0.82
Age 60 to 79	0.88	0.87	0.89	0.76	0.74	0.78	0.78	0.76	0.80	0.83	0.82	0.84
Age 3 to 79	0.85	0.84	0.85	0.73	0.72	0.74	0.75	0.74	0.76	0.79	0.78	0.80
Age 6 to 79	0.85	0.84	0.85	0.73	0.72	0.74	0.75	0.74	0.76	0.79	0.78	0.80

	Measured waist-to-hip ratio											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	ratio											
Both sexes												
Age 3 to 5	0.87	0.86	0.88	0.90	0.90	0.91	0.93	0.92	0.94	0.96	0.93	0.99
Age 6 to 11	0.83	0.83	0.84	0.87	0.86	0.87	0.91	0.90	0.92	0.93	0.91	0.96
Age 12 to 19	0.80	0.80	0.81	0.84	0.83	0.85	0.89	0.87	0.91	0.93	0.91	0.94
Age 20 to 39	0.85	0.84	0.86	0.90	0.89	0.92	0.95	0.94	0.97	0.98	0.95	1.00
Age 40 to 59	0.91	0.89	0.92	0.96	0.95	0.97	1.00	0.99	1.01	1.03	1.01	1.05
Age 60 to 79	0.93	0.92	0.94	0.99	0.98	1.01	1.05	1.04	1.06	1.08	1.06	1.10
Age 3 to 79	0.87	0.87	0.88	0.94	0.93	0.94	0.99	0.98	1.00	1.03	1.01	1.04
Age 6 to 79	0.87	0.87	0.88	0.94	0.93	0.95	0.99	0.99	1.00	1.03	1.02	1.04
Males												
Age 6 to 11	0.84	0.83	0.86	0.87	0.85	0.89	0.92	0.90	0.94	0.94	0.88	1.00
Age 12 to 19	0.82	0.81	0.83	0.85	0.84	0.86	0.91	0.89	0.93	0.94	0.91	0.96
Age 20 to 39	0.87	0.86	0.89	0.92	0.91	0.94	0.97	0.94	1.00	1.00	0.97	1.02
Age 40 to 59	0.95	0.94	0.96	0.99	0.98	1.00	1.03	1.01	1.05	1.06	1.02	1.10
Age 60 to 79	0.99	0.97	1.00	1.04	1.03	1.05	1.08	1.06	1.09	1.10	1.08	1.11
Age 3 to 79	0.91	0.90	0.92	0.97	0.96	0.99	1.02	1.01	1.04	1.05	1.04	1.07
Age 6 to 79	0.91	0.90	0.92	0.97	0.96	0.99	1.02	1.01	1.04	1.06	1.04	1.07
Females												
Age 6 to 11	0.82	0.81	0.83	0.86	0.85	0.87	0.90	0.89	0.91	0.92	0.90	0.94
Age 12 to 19	0.78	0.77	0.79	0.83	0.81	0.84	0.88	0.86	0.90	0.91	0.88	0.93
Age 20 to 39	0.81	0.80	0.82	0.88	0.86	0.89	0.92	0.90	0.94	0.95	0.93	0.97
Age 40 to 59	0.86	0.85	0.87	0.90	0.89	0.91	0.95	0.93	0.96	0.97	0.95	1.00
Age 60 to 79	0.87	0.86	0.88	0.93	0.91	0.94	0.97	0.96	0.98	1.00	0.98	1.01
Age 3 to 79	0.84	0.83	0.85	0.89	0.89	0.90	0.94	0.93	0.95	0.97	0.96	0.98
Age 6 to 79	0.84	0.83	0.85	0.89	0.89	0.90	0.94	0.93	0.95	0.97	0.96	0.98

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 21
Distribution of the household population with a body mass index less than 30 kg/m², by the sum of the five skinfolds, by age and sex, Canada, 2009 to 2011

	Sum of five skinfolds											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millimetres												
Both sexes												
Age 3 to 5	37.5	35.9	39.0	25.6	24.3	26.9	27.2	26.2	28.2	30.2	29.5	30.9
Age 6 to 11	51.5	49.6	53.5	24.8	23.8	25.8	27.1	25.9	28.4	32.1	31.1	33.2
Age 12 to 19	59.5	57.4	61.7	26.3	24.4	28.3	29.5	28.1	31.0	37.5	34.7	40.3
Age 20 to 39	68.8	64.4	73.1	28.9	26.7	31.1	32.9	29.5	36.2	46.9	40.3	53.5
Age 40 to 59	77.4	73.8	81.0	36.4	31.7	41.0	41.9	38.9	44.8	57.5	53.7	61.3
Age 60 to 79	74.9	71.7	78.0	36.5	33.2	39.8	43.9	39.9	47.9	55.6	52.0	59.1
Age 3 to 79	68.1	66.2	70.1	28.7	28.1	29.2	32.5	31.5	33.5	44.6	42.9	46.4
Age 6 to 79	69.6	67.6	71.5	29.0	28.4	29.5	33.5	32.3	34.6	47.1	44.8	49.3
Males												
Age 6 to 11	50.9	47.8	54.0	23.7	22.4	25.0	25.7	24.6	26.9	29.8	27.9	31.7
Age 12 to 19	48.4	45.7	51.1	24.8	22.6	27.0	26.4	24.5	28.2	31.5	29.8	33.2
Age 20 to 39	56.3	51.1	61.5	28.7	24.0	33.4	29.6	27.3	31.8	36.2	30.7	41.8
Age 40 to 59	62.3	58.0	66.6	31.9	25.7	38.1	37.5	32.7	42.4	46.5	39.6	53.3
Age 60 to 79	60.2	57.8	62.7	33.4	27.7	39.2	38.5	35.1	42.0	48.2	44.9	51.4
Age 3 to 79	56.1	54.2	58.1	27.0	25.7	28.2	29.4	28.7	30.1	37.3	35.6	38.9
Age 6 to 79	57.1	55.1	59.1	27.2	25.9	28.5	29.6	28.3	30.9	38.4	36.3	40.4
Females												
Age 6 to 11	52.2	50.0	54.3	26.7	24.4	29.0	29.4	27.7	31.1	34.5	32.3	36.7
Age 12 to 19	71.5	68.5	74.4	36.0	31.8	40.2	41.4	36.6	46.1	52.1	48.8	55.5
Age 20 to 39	81.5	76.4	86.5	40.1	30.6	49.6	51.0	43.9	58.1	62.9	57.3	68.5
Age 40 to 59	91.9	86.9	96.8	51.8	46.1	57.5	56.3	46.4	66.2	75.9	71.6	80.1
Age 60 to 79	87.9	82.8	93.1	49.4	39.2	59.5	57.0	51.4	62.7	71.0	62.9	79.0
Age 3 to 79	80.1	77.6	82.5	33.9	32.2	35.7	40.4	37.8	43.1	59.1	57.2	61.1
Age 6 to 79	81.9	79.4	84.4	36.4	33.0	39.8	45.1	42.3	48.0	61.9	60.2	63.7

	Sum of five skinfolds											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
millimetres												
Both sexes												
Age 3 to 5	35.1	33.6	36.6	41.1	39.2	42.9	48.0	44.1	51.8	59.0	46.4	71.5
Age 6 to 11	42.5	39.2	45.8	65.0	58.5	71.5	89.8	81.2	98.4	107.5	97.0	118.0
Age 12 to 19	54.0	51.5	56.5	76.5	71.9	81.1	98.8	91.5	106.1	113.4	105.4	121.4
Age 20 to 39	67.3	63.1	71.6	87.4	81.2	93.6	108.1	100.3	115.8	123.5	113.5	133.5
Age 40 to 59	75.3	71.6	78.9	97.9	90.8	105.0	111.1	102.0	120.2	125.5	116.3	134.8
Age 60 to 79	71.8	67.9	75.8	90.8	84.2	97.4	113.2	106.5	119.8	120.9	117.0	124.8
Age 3 to 79	65.2	62.6	67.7	87.3	83.8	90.9	107.9	103.8	112.0	119.9	114.4	125.4
Age 6 to 79	67.0	64.6	69.3	88.9	85.2	92.5	108.6	104.2	113.0	120.9	115.6	126.2
Males												
Age 6 to 11	38.9	35.2	42.5	65.3	55.0	75.6	95.4	80.7	110.0	109.1	91.5	126.6
Age 12 to 19	39.9	37.4	42.3	60.4	55.1	65.7	77.8	70.4	85.3	98.5	87.9	109.0
Age 20 to 39	53.9	45.6	62.3	70.2	64.9	75.6	87.3	74.9	99.7	99.2	86.9	111.5
Age 40 to 59	62.4	58.3	66.6	73.1	67.6	78.6	89.3	79.9	98.6	99.0	89.7	108.2
Age 60 to 79	58.8	54.2	63.4	72.1	67.4	76.8	84.8	81.2	88.3	88.5	82.6	94.3
Age 3 to 79	53.9	51.0	56.8	70.1	67.6	72.6	86.1	81.7	90.5	99.3	93.4	105.1
Age 6 to 79	55.3	52.2	58.4	70.8	68.4	73.2	86.7	82.1	91.3	99.4	94.0	104.9
Females												
Age 6 to 11	45.3	42.2	48.5	63.7	57.5	69.9	84.6	77.1	92.0	97.1	90.4	103.8
Age 12 to 19	67.1	62.6	71.6	87.4	81.6	93.1	109.7	98.6	120.9	118.8	108.6	129.0
Age 20 to 39	76.1	70.5	81.6	99.2	89.8	108.5	120.8	108.9	132.7	126.2	122.1	130.3
Age 40 to 59	91.8	85.6	98.1	107.5	100.8	114.2	123.7	113.6	133.7	130.8	124.0	137.5
Age 60 to 79	85.9	79.1	92.7	106.4	101.2	111.5	120.1	115.3	124.9	126.7	118.4	135.0
Age 3 to 79	78.4	75.1	81.8	100.7	96.2	105.2	118.5	113.0	124.0	127.7	124.6	130.9
Age 6 to 79	80.5	77.2	83.8	102.1	97.7	106.4	119.2	113.6	124.8	128.1	125.1	131.2

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 22
Measured standing height, by age and sex, household population, Canada, 2009 to 2011

	Measured standing height											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	centimetres											
Both sexes												
Age 3 to 5	106.46	105.49	107.43	93.73	91.37	96.10	96.08	94.87	97.29	100.98	99.64	102.33
Age 6 to 11	134.84	133.63	136.04	117.16	115.05	119.27	119.78	118.40	121.16	125.75	123.54	127.97
Age 12 to 19	166.26	164.72	167.79	147.82	142.29	153.35	152.46	150.04	154.87	159.15	157.27	161.03
Age 20 to 39	170.35	169.18	171.53	155.09	152.78	157.39	157.91	156.02	159.80	162.43	160.76	164.10
Age 40 to 59	168.27	167.36	169.18	154.10	152.31	155.88	156.44	155.13	157.75	161.55	160.33	162.78
Age 60 to 79	165.33	164.80	165.86	150.57	149.00	152.14	152.90	151.93	153.88	158.87	158.13	159.62
Age 3 to 79	163.74	163.10	164.39	124.82	122.66	126.98	146.02	144.32	147.71	158.44	157.60	159.27
Age 6 to 79	165.77	165.10	166.45	140.08	138.00	142.16	151.58	150.40	152.76	159.27	158.43	160.11
Males												
Age 6 to 11	134.59	133.25	135.92	118.47	116.13	120.81	120.15	118.65	121.65	125.80	122.60	129.00
Age 12 to 19	170.64	168.36	172.92	145.81	134.82	156.81	152.91	144.69	161.13	164.79	160.99	168.58
Age 20 to 39	177.70	176.52	178.87	165.76	163.55	167.97	168.00	165.69	170.30	173.67	171.67	175.67
Age 40 to 59	174.66	173.61	175.72	163.83	162.49	165.16	166.15	164.09	168.22	169.59	168.43	170.75
Age 60 to 79	172.62	171.63	173.61	162.02	161.00	163.04	163.38	161.72	165.04	167.72	165.90	169.54
Age 3 to 79	169.55	168.99	170.11	124.48	121.12	127.83	145.98	143.06	148.91	167.51	166.55	168.48
Age 6 to 79	171.85	171.24	172.45	138.82	136.43	141.21	160.20	158.52	161.89	168.39	167.42	169.37
Females												
Age 6 to 11	135.10	133.17	137.04	115.96	112.03	119.88	119.42	117.12	121.72	125.41	122.37	128.45
Age 12 to 19	161.67	159.99	163.36	150.12	146.55	153.70	152.38	149.85	154.91	157.06	154.67	159.45
Age 20 to 39	162.98	161.42	164.54	153.26	150.77	155.75	155.13	152.81	157.46	158.70	157.04	160.36
Age 40 to 59	161.85	160.79	162.92	150.95	147.78	154.12	154.04	152.19	155.88	157.37	156.22	158.53
Age 60 to 79	158.67	158.19	159.16	147.82	146.19	149.44	150.59	149.02	152.15	154.02	152.83	155.21
Age 3 to 79	157.95	157.10	158.80	126.12	123.38	128.86	146.04	143.98	148.10	155.44	154.39	156.49
Age 6 to 79	159.73	158.87	160.60	142.36	139.36	145.35	150.09	148.52	151.66	155.81	154.86	156.76

	Measured standing height											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	centimetres											
Both sexes												
Age 3 to 5	107.00	105.50	108.50	111.55	109.70	113.39	116.22	114.35	118.09	120.17	117.16	123.18
Age 6 to 11	135.08	133.59	136.57	143.64	142.00	145.28	150.60	148.77	152.43	154.33	152.72	155.94
Age 12 to 19	165.68	164.44	166.91	174.52	173.00	176.05	180.19	178.66	181.72	183.09	180.38	185.81
Age 20 to 39	170.33	169.00	171.66	178.79	177.65	179.94	182.82	181.81	183.82	185.50	184.52	186.48
Age 40 to 59	168.24	167.31	169.16	174.87	173.39	176.36	180.71	179.43	181.98	183.51	182.21	184.80
Age 60 to 79	164.79	163.60	165.97	172.84	171.56	174.12	178.18	177.06	179.30	180.87	180.04	181.69
Age 3 to 79	166.05	165.09	167.01	174.70	173.76	175.63	180.57	179.86	181.27	183.53	182.96	184.10
Age 6 to 79	166.66	165.66	167.66	175.02	174.12	175.92	180.74	179.98	181.50	183.58	183.01	184.15
Males												
Age 6 to 11	134.79	132.50	137.07	142.58	140.96	144.19	150.08	147.01	153.14	152.81	150.45	155.17
Age 12 to 19	173.46	171.72	175.20	178.14	176.10	180.18	182.96	180.32	185.59	186.03	184.10	187.96
Age 20 to 39	178.74	177.41	180.07	181.89	181.03	182.74	185.49	184.50	186.48	187.69	184.61	190.78
Age 40 to 59	174.29	172.65	175.93	179.53	178.38	180.69	183.50	182.20	184.81	185.11	183.38	186.84
Age 60 to 79	172.88	171.58	174.18	177.12	176.03	178.21	180.96	180.11	181.82	183.11	181.70	184.52
Age 3 to 79	174.14	173.13	175.15	179.58	179.19	179.97	183.52	182.95	184.09	185.58	184.98	186.18
Age 6 to 79	174.51	173.54	175.48	179.74	179.32	180.15	183.58	183.01	184.16	185.68	185.01	186.36
Females												
Age 6 to 11	135.17	133.19	137.16	144.54	142.32	146.75	152.14	148.91	155.37	155.35	153.19	157.51
Age 12 to 19	162.09	160.67	163.50	165.79	164.17	167.40	171.03	168.36	173.71	173.60	169.94	177.26
Age 20 to 39	162.86	161.18	164.54	167.94	165.22	170.67	171.20	169.17	173.22	173.23	171.66	174.79
Age 40 to 59	161.79	160.51	163.07	166.36	164.86	167.86	170.25	168.41	172.09	173.53	171.50	175.56
Age 60 to 79	159.06	158.72	159.40	162.57	161.58	163.57	166.91	165.45	168.37	168.98	167.39	170.56
Age 3 to 79	160.66	159.87	161.45	165.22	164.13	166.31	170.02	168.95	171.10	172.80	171.50	174.11
Age 6 to 79	160.87	160.09	161.64	165.39	164.20	166.58	170.26	169.20	171.31	172.81	171.56	174.06

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 23
Measured weight, by age and sex, household population, Canada, 2009 to 2011

	Measured weight											
	Mean		5th percentile		10th percentile		25th percentile					
	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval
kilograms												
Both sexes												
Age 3 to 5	18.7	18.2	19.2	13.9	13.1	14.7	14.4	14.0	14.8	16.1	15.5	16.7
Age 6 to 11	33.4	32.5	34.3	20.7	19.6	21.8	21.9	20.9	22.8	25.5	24.7	26.4
Age 12 to 19	62.8	60.3	65.2	38.4	32.4	44.4	43.0	39.7	46.3	51.2	49.0	53.4
Age 20 to 39	75.6	72.5	78.7	51.1	49.5	52.6	54.9	53.5	56.4	61.7	59.0	64.3
Age 40 to 59	79.8	77.7	81.8	54.2	51.4	56.9	58.5	56.3	60.7	64.8	61.9	67.8
Age 60 to 79	78.0	76.0	80.1	51.6	48.7	54.4	57.2	54.7	59.6	66.5	63.9	69.1
Age 3 to 79	71.1	69.4	72.9	25.5	24.7	26.4	41.1	39.5	42.7	58.2	56.7	59.6
Age 6 to 79	73.0	71.2	74.8	35.3	33.6	36.9	47.7	45.6	49.8	59.8	58.4	61.2
Males												
Age 6 to 11	33.9	32.9	34.9	21.1	19.8	22.3	22.9	20.9	24.8	25.8	24.6	27.0
Age 12 to 19	66.2	63.0	69.4	32.6	26.1	39.1	41.0	32.6	49.5	55.4	50.4	60.3
Age 20 to 39	82.5	79.1	85.9	60.0	57.7	62.4	63.0	59.4	66.7	70.4	68.6	72.2
Age 40 to 59	86.0	83.3	88.6	61.2	57.8	64.5	64.9	60.3	69.6	75.0	72.5	77.5
Age 60 to 79	85.7	82.4	89.0	61.7	56.8	66.7	67.5	63.2	71.8	74.6	71.7	77.5
Age 3 to 79	76.7	74.7	78.6	25.5	24.4	26.6	40.8	37.2	44.4	65.3	62.7	68.0
Age 6 to 79	78.8	76.8	80.8	33.7	31.6	35.7	53.2	49.7	56.7	67.9	65.6	70.2
Females												
Age 6 to 11	32.8	31.7	34.0	19.9	18.6	21.3	21.4	20.6	22.2	24.9	23.1	26.7
Age 12 to 19	59.1	56.0	62.2	41.2	38.0	44.3	43.3	41.9	44.7	49.3	46.8	51.8
Age 20 to 39	68.7	65.0	72.4	48.8	44.9	52.7	51.2	49.6	52.8	56.5	54.5	58.6
Age 40 to 59	73.5	70.7	76.4	50.7	46.9	54.6	54.3	51.4	57.3	60.1	58.2	62.1
Age 60 to 79	71.0	68.7	73.4	48.4	45.1	51.6	52.1	49.0	55.1	60.2	57.7	62.7
Age 3 to 79	65.6	63.8	67.4	25.4	23.9	26.9	41.3	39.5	43.1	54.8	53.3	56.3
Age 6 to 79	67.2	65.4	69.1	36.9	35.4	38.5	44.9	41.8	48.0	55.8	54.4	57.3

	Measured weight											
	50th percentile		75th percentile		90th percentile		95th percentile					
	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval
kilograms												
Both sexes												
Age 3 to 5	18.1	17.5	18.7	20.4	19.4	21.4	23.4	22.8	24.1	24.5	23.0	26.0
Age 6 to 11	31.2	29.8	32.6	39.3	37.8	40.8	46.2	44.0	48.5	53.7	49.2	58.1
Age 12 to 19	60.2	58.3	62.0	71.6	67.8	75.5	85.1	79.1	91.0	95.8	88.6	103.0
Age 20 to 39	72.9	70.3	75.5	86.9	83.0	90.7	101.6	93.3	110.0	110.7	102.9	118.4
Age 40 to 59	77.8	75.3	80.2	91.9	90.0	93.8	104.2	100.7	107.6	111.1	104.7	117.4
Age 60 to 79	76.2	74.2	78.1	87.6	84.1	91.0	102.0	98.1	105.9	108.8	103.1	114.4
Age 3 to 79	71.2	69.3	73.1	85.7	82.9	88.4	99.4	95.0	103.7	108.5	103.9	113.0
Age 6 to 79	72.2	70.2	74.1	86.5	83.8	89.2	100.1	95.8	104.5	108.8	104.1	113.5
Males												
Age 6 to 11	31.3	29.8	32.9	40.2	37.7	42.6	46.3	41.8	50.8	55.8	51.2	60.5
Age 12 to 19	63.6	61.1	66.1	76.9	71.6	82.2	93.0	83.9	102.2	104.5	94.6	114.5
Age 20 to 39	80.9	76.4	85.4	91.4	87.4	95.4	103.1	93.3	112.9	115.1	105.7	124.5
Age 40 to 59	84.0	80.3	87.6	95.0	91.7	98.4	105.5	100.1	111.0	111.0	102.5	119.5
Age 60 to 79	83.0	79.5	86.5	95.0	91.1	98.8	107.1	102.4	111.7	115.2	108.4	121.9
Age 3 to 79	78.8	76.4	81.2	91.6	89.0	94.1	103.4	99.3	107.5	111.0	105.3	116.7
Age 6 to 79	79.5	77.1	82.0	92.0	89.5	94.6	104.0	100.0	108.0	111.3	105.6	117.1
Females												
Age 6 to 11	30.8	28.9	32.8	38.6	37.1	40.1	45.9	43.7	48.2	50.8	45.7	55.9
Age 12 to 19	56.9	54.3	59.5	65.1	60.0	70.1	77.3	71.3	83.2	86.7	77.7	95.7
Age 20 to 39	64.1	59.8	68.5	76.1	72.5	79.8	94.4	82.4	106.5	107.1	97.0	117.2
Age 40 to 59	68.4	64.1	72.7	82.9	77.5	88.3	98.1	91.7	104.6	111.8	100.5	123.1
Age 60 to 79	69.7	67.6	71.8	78.9	75.6	82.2	89.4	82.5	96.3	101.0	93.8	108.2
Age 3 to 79	63.6	61.1	66.1	76.4	74.3	78.5	92.5	88.2	96.9	104.9	98.2	111.5
Age 6 to 79	64.4	61.8	67.0	76.6	74.3	78.9	93.0	88.7	97.3	105.0	98.6	111.4

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 24
Measured body mass index of the household population, by age and sex, Canada, 2009 to 2011

	Measured body mass index											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	kilograms per metre squared											
Both sexes												
Age 3 to 5	16.37	16.11	16.62	14.07	13.76	14.39	14.41	14.11	14.70	15.21	15.02	15.41
Age 6 to 11	17.98	17.70	18.25	13.99	13.66	14.32	14.56	14.05	15.08	15.59	15.20	15.97
Age 12 to 19	22.43	21.78	23.09	16.21	15.32	17.11	17.19	16.48	17.91	19.11	18.73	19.50
Age 20 to 39	25.87	25.09	26.65	19.04	18.63	19.45	20.00	19.00	21.01	22.08	21.39	22.77
Age 40 to 59	28.02	27.38	28.66	20.78	20.22	21.34	21.88	21.10	22.67	23.94	23.42	24.46
Age 60 to 79	28.43	27.75	29.12	20.56	19.76	21.36	22.34	21.57	23.11	24.65	23.91	25.39
Age 3 to 79	25.77	25.29	26.25	16.19	15.96	16.42	18.10	17.86	18.35	21.59	21.18	21.99
Age 6 to 79	26.11	25.61	26.60	17.22	16.94	17.49	19.06	18.84	19.27	22.07	21.59	22.56
Males												
Age 6 to 11	18.35	17.94	18.76	14.11	13.44	14.78	14.83	14.12	15.54	15.78	15.41	16.16
Age 12 to 19	22.38	21.55	23.21	15.35	14.06	16.64	16.79	15.55	18.04	19.10	18.58	19.61
Age 20 to 39	26.11	25.08	27.13	19.41	18.46	20.36	20.89	19.41	22.37	22.68	21.83	23.52
Age 40 to 59	28.08	27.33	28.83	21.82	20.62	23.03	22.83	21.83	23.82	25.00	24.26	25.74
Age 60 to 79	28.70	27.78	29.62	21.72	20.41	23.03	23.23	22.27	24.19	25.39	24.19	26.58
Age 3 to 79	25.88	25.31	26.45	16.17	15.82	16.51	18.18	17.71	18.65	22.24	21.65	22.84
Age 6 to 79	26.22	25.63	26.81	17.16	16.70	17.62	19.34	18.94	19.73	22.67	22.10	23.25
Females												
Age 6 to 11	17.59	17.33	17.85	13.87	13.37	14.38	14.42	14.07	14.76	15.36	14.97	15.76
Age 12 to 19	22.49	21.58	23.40	16.59	16.06	17.11	17.55	16.76	18.35	19.15	18.53	19.78
Age 20 to 39	25.62	24.68	26.56	18.83	18.44	19.22	19.27	18.27	20.28	21.52	20.96	22.08
Age 40 to 59	27.96	26.98	28.94	19.87	18.44	21.30	21.41	20.58	22.24	23.44	22.88	24.00
Age 60 to 79	28.19	27.32	29.07	19.74	18.54	20.94	21.63	20.77	22.49	24.30	23.77	24.83
Age 3 to 79	25.66	25.12	26.20	16.21	16.01	16.41	18.07	17.77	18.37	21.27	20.83	21.70
Age 6 to 79	25.99	25.43	26.55	17.23	16.98	17.48	18.86	18.66	19.05	21.55	21.13	21.96

	Measured body mass index											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	kilograms per metre squared											
Both sexes												
Age 3 to 5	15.98	15.74	16.22	17.25	16.98	17.52	18.52	17.95	19.10	19.56	18.31	20.80
Age 6 to 11	17.20	16.81	17.59	19.59	19.06	20.12	22.84	21.96	23.72	24.46	22.82	26.10
Age 12 to 19	21.43	20.93	21.93	24.39	23.30	25.49	29.04	27.08	31.00	32.53	30.81	34.25
Age 20 to 39	24.85	23.94	25.77	28.61	27.50	29.71	33.29	30.85	35.74	36.50	33.77	39.22
Age 40 to 59	27.25	26.48	28.01	30.64	29.72	31.57	35.57	34.23	36.90	38.89	37.10	40.68
Age 60 to 79	27.70	27.04	28.36	31.46	30.88	32.04	35.14	33.61	36.67	38.65	35.51	41.78
Age 3 to 79	25.16	24.53	25.79	29.07	28.15	29.98	33.60	32.30	34.89	36.97	35.74	38.20
Age 6 to 79	25.41	24.79	26.03	29.39	28.51	30.27	33.78	32.40	35.17	37.13	35.85	38.40
Males												
Age 6 to 11	17.28	16.84	17.72	19.89	18.81	20.97	23.52	22.04	25.00	25.45	22.20	28.71
Age 12 to 19	21.23	20.71	21.75	24.56	23.11	26.01	28.76	25.78	31.74	33.16	31.10	35.22
Age 20 to 39	25.48	24.42	26.54	28.80	27.52	30.09	31.87	28.92	34.83	35.78	32.69	38.87
Age 40 to 59	27.71	27.05	28.37	30.64	29.62	31.67	33.75	31.28	36.21	36.37	34.32	38.42
Age 60 to 79	28.08	27.14	29.02	31.57	30.58	32.57	34.86	33.17	36.54	37.39	34.80	39.98
Age 3 to 79	25.77	25.26	26.28	29.43	28.46	30.41	33.06	31.59	34.52	35.79	34.19	37.40
Age 6 to 79	25.99	25.48	26.50	29.68	28.74	30.63	33.11	31.60	34.62	35.82	34.32	37.33
Females												
Age 6 to 11	17.07	16.50	17.64	19.10	18.65	19.54	21.45	20.49	22.40	23.17	22.01	24.32
Age 12 to 19	21.78	20.91	22.65	24.28	23.04	25.53	29.31	26.43	32.18	31.42	29.22	33.61
Age 20 to 39	23.96	22.68	25.24	28.00	26.46	29.53	34.32	30.88	37.76	39.13	35.64	42.62
Age 40 to 59	26.48	25.23	27.72	30.88	29.06	32.71	37.10	35.31	38.90	40.38	36.80	43.95
Age 60 to 79	27.20	26.31	28.08	31.13	30.12	32.15	35.43	32.92	37.94	40.64	36.64	44.64
Age 3 to 79	24.43	23.74	25.11	28.86	27.91	29.80	35.20	33.43	36.97	39.18	37.17	41.19
Age 6 to 79	24.63	23.83	25.44	29.05	28.07	30.03	35.24	33.71	36.77	39.19	37.33	41.04

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 25
Distribution of the household population aged 5 to 18, by body mass index norms based on direct measures—World Health Organization (WHO) system, by age and sex, Canada, 2009 to 2011

	Body mass index norms based on direct measures—World Health Organization (WHO) system											
	Thinness			Normal			Overweight			Obese		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	percent											
Both sexes												
Age 5 to 11	F	.	.	65.5	61.7	69.1	19.7	16.5	23.4	13.2	10.5	16.4
Age 12 to 18	F	.	.	67.2	61.0	72.9	19.5	14.9	25.1	11.0	7.9	15.2
Age 5 to 18	2.0^E	1.0	3.8	66.5	62.8	69.9	19.6	16.3	23.3	12.0	10.1	14.3
Males												
Age 5 to 11	X	.	.	58.8	51.9	65.5	19.8	14.9	25.9	19.6	15.6	24.3
Age 12 to 18	F	.	.	64.7	55.2	73.1	19.7 ^E	13.1	28.5	11.5 ^E	7.7	16.8
Age 5 to 18	F	.	.	62.0	55.9	67.8	19.8	15.1	25.4	15.2	12.7	18.1
Females												
Age 5 to 11	X	.	.	72.6	69.9	75.2	19.5	16.1	23.5	6.3 ^E	4.1	9.7
Age 12 to 18	X	.	.	69.9	60.7	77.8	19.3	13.9	26.0	10.5 ^E	6.9	15.6
Age 5 to 18	0.9^E	0.5	1.4	71.2	65.4	76.3	19.4	15.2	24.4	8.6	6.4	11.5

Note(s): De Onis M, Onyango AW, Borghi E, Siyam A, Nishida C, Siekmann J. Development of a WHO growth reference for schoolaged children and adolescents. Bulletin of the World Health Organization 2007;85:660-7. www.who.int/childgrowth/en. Total household population aged 5 to 18, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). World Health Organization (WHO).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 26
Distribution of the household population aged 3 to 17, by body mass index norms based on direct measures—Center for Disease Control (CDC) system, by age and sex, Canada, 2009 to 2011

	Body mass index norms based on direct measures—Center for Disease Control (CDC) system											
	Underweight			Normal weight			Overweight			Obese		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	percent											
Both sexes												
Age 3 to 5	2.5 ^E	1.4	4.5	65.5	60.3	70.4	17.5 ^E	11.9	24.9	14.5 ^E	9.7	21.0
Age 6 to 11	4.3 ^E	2.1	8.6	70.5	64.6	75.7	12.4	10.0	15.4	12.7	9.8	16.4
Age 12 to 17	5.6 ^E	3.1	9.7	68.7	60.7	75.6	15.5	11.2	21.1	10.3	7.4	14.0
Age 3 to 17	4.5^E	2.9	7.0	68.8	64.9	72.3	14.7	12.2	17.6	12.0	10.1	14.2
Age 6 to 17	5.0^E	3.1	7.9	69.5	64.9	73.8	14.1	11.3	17.5	11.4	9.7	13.4
Males												
Age 6 to 11	F	.	.	66.2	57.3	74.2	11.3	8.2	15.4	18.5	14.0	24.0
Age 12 to 17	F	.	.	67.8	58.6	75.8	13.0 ^E	8.1	20.3	10.8	7.7	14.9
Age 3 to 17	5.9^E	3.7	9.2	66.5	61.4	71.2	12.9	9.9	16.6	14.7	11.8	18.3
Age 6 to 17	6.4^E	3.9	10.4	67.1	61.8	72.0	12.2	9.1	16.2	14.3	11.7	17.4
Females												
Age 6 to 11	4.7 ^E	2.6	8.3	75.0	70.0	79.4	13.7	10.7	17.3	6.7 ^E	4.2	10.5
Age 12 to 17	X	.	.	69.7	58.0	79.2	18.3 ^E	12.1	26.6	9.6 ^E	6.0	15.2
Age 3 to 17	3.1^E	1.7	5.5	71.2	65.9	76.0	16.7	12.9	21.3	9.0	6.9	11.7
Age 6 to 17	3.5^E	1.9	6.3	72.1	65.4	78.0	16.1	12.3	20.9	8.3	5.9	11.4

Note(s): The norms used in this table can be found in National Center for Health Statistics, 2000, *Clinical Growth Charts*, Department of Health and Human Services, Public Health Service, Center for Disease Control, Hyattsville, MD. <http://www.cdc.gov/nchs/about/major/nhanes/growthcharts/clinicalcharts.htm> (accessed Dec. 19, 2006). Total household population aged 3 to 17, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Center for Disease Control (CDC).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 27
Distribution of the household population aged 3 to 17, by body mass index norms based on direct measures—Cole system, by age and sex, Canada, 2009 to 2011

	Body mass index norms based on direct measures—Cole system								
	Neither overweight or obese			Overweight			Obese		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 3 to 5	79.5	72.4	85.1	14.3 ^E	9.9	20.2	6.2 ^E	3.5	10.9
Age 6 to 11	76.8	72.2	80.9	15.1	12.3	18.3	8.1	5.7	11.4
Age 12 to 17	73.1	66.2	79.1	18.0	13.8	23.1	8.9	6.3	12.3
Age 3 to 17	75.7	71.8	79.2	16.2	13.3	19.7	8.1	6.5	9.9
Age 6 to 17	74.8	70.9	78.4	16.7	13.8	20.0	8.5	6.8	10.5
Males									
Age 6 to 11	73.9	66.1	80.4	15.4	11.0	21.2	10.7 ^E	7.2	15.8
Age 12 to 17	74.7	65.4	82.1	16.6 ^E	11.2	24.0	8.7 ^E	6.0	12.4
Age 3 to 17	75.6	69.0	81.1	15.3	11.1	20.9	9.1	7.1	11.5
Age 6 to 17	74.3	67.6	80.1	16.1	11.9	21.4	9.6	7.3	12.6
Females									
Age 6 to 11	80.0	76.4	83.2	14.7	11.5	18.7	5.3 ^E	3.0	9.2
Age 12 to 17	71.4	60.3	80.4	19.6 ^E	13.0	28.4	9.0 ^E	5.6	14.2
Age 3 to 17	75.8	70.7	80.3	17.1	13.5	21.6	7.0	4.9	9.9
Age 6 to 17	75.4	69.5	80.5	17.3	13.2	22.3	7.3	5.1	10.3

Note(s): The norms used in this table can be found in T.J. Cole, M.C. Bellizzi, K.M. Flegal & W.H. Diets, 2000, "Establishing a Standard Definition for Child Overweight and Obesity Worldwide: International survey," *The BMJ*, Vol. 320, p. 1240-1243. Total household population aged 3 to 17, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 28
Distribution of the household population aged 18 to 79, by body mass index norms based on direct measures, by age and sex, Canada, 2009 to 2011

	Body mass index norms based on direct measures								
	Underweight			Normal Weight			Overweight		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 18 to 39	3.1 ^E	2.0	4.8	49.7	43.3	56.2	28.4	24.0	33.3
Age 40 to 59	0.9 ^E	0.5	1.5	32.2	27.2	37.6	37.4	31.1	44.1
Age 60 to 79	F	.	.	25.6	19.9	32.3	38.8	34.0	43.9
Age 18 to 79	2.0	1.4	2.7	37.6	33.1	42.3	34.2	30.9	37.7
Males									
Age 18 to 39	X	.	.	44.6	37.3	52.1	33.7	27.4	40.6
Age 40 to 59	X	.	.	24.0	18.4	30.5	44.6	35.0	54.6
Age 60 to 79	X	.	.	21.3	14.8	29.6	42.5	33.7	51.7
Age 18 to 79	F	.	.	31.6	27.5	36.0	39.8	35.6	44.2
Females									
Age 18 to 39	3.8 ^E	2.4	5.9	55.0	44.9	64.7	23.0	16.5	31.1
Age 40 to 59	1.4 ^E	0.7	2.7	40.4	32.4	48.9	30.2	24.6	36.5
Age 60 to 79	F	.	.	29.6	22.8	37.5	35.4	30.0	41.2
Age 18 to 79	2.6	1.9	3.7	43.5	37.4	49.8	28.6	24.2	33.5

	Body mass index norms based on direct measures								
	Obese, class I			Obese, class II			Obese, class III		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To
	percent								
Both sexes									
Age 18 to 39	11.3	8.5	14.9	4.8 ^E	2.8	8.1	2.7 ^E	1.5	4.6
Age 40 to 59	17.3	14.1	21.0	8.1 ^E	5.2	12.5	4.2 ^E	2.8	6.1
Age 60 to 79	23.1	20.4	26.1	5.9	4.5	7.8	4.6 ^E	2.8	7.5
Age 18 to 79	16.2	14.0	18.7	6.3	4.6	8.7	3.7	2.8	4.8
Males									
Age 18 to 39	13.3	9.7	18.0	F	.	.	F	.	.
Age 40 to 59	22.6	18.5	27.3	F	.	.	F	.	.
Age 60 to 79	25.7	20.1	32.1	6.6 ^E	4.4	9.7	3.3 ^E	1.7	6.4
Age 18 to 79	19.5	16.9	22.5	5.5^E	3.0	9.9	2.2^E	1.2	4.0
Females									
Age 18 to 39	9.2 ^E	6.2	13.5	5.4 ^E	3.0	9.4	F	.	.
Age 40 to 59	11.9 ^E	7.4	18.7	9.9 ^E	6.3	15.3	6.2 ^E	3.9	9.7
Age 60 to 79	20.8	15.8	26.9	5.4	3.8	7.6	5.8 ^E	3.3	10.0
Age 18 to 79	12.9	9.8	16.7	7.2	5.2	9.9	5.1^E	3.5	7.4

Note(s): The norms used in this table can be found in Health Canada, 2003, "Description of the *Canadian Guidelines for Body Weight Classification in Adults*," Canadian Guidelines for Body Weight Classification in Adults, Health Canada Catalogue no. H49-179/2003E, p. 9-12. http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/weight_book_tc-livres_des_poids_tm-eng.php (accessed Dec 19 2006). Total household population aged 18 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 29
Ratio of the best forced expiratory volume in one second to forced vital capacity (FEV₁/ FVC), by age and sex, household population, Canada, 2009 to 2011

	Best FEV ₁ / FVC ratio											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	ratio											
Both sexes												
Age 6 to 11	0.851	0.842	0.859	0.742	0.710	0.773	0.767	0.747	0.786	0.812	0.803	0.821
Age 12 to 19	0.843	0.835	0.852	0.719	0.694	0.744	0.754	0.727	0.781	0.806	0.794	0.817
Age 20 to 39	0.802	0.790	0.813	0.686	0.648	0.725	0.721	0.696	0.746	0.763	0.752	0.774
Age 40 to 59	0.768	0.762	0.775	0.663	0.629	0.697	0.697	0.684	0.711	0.742	0.732	0.751
Age 60 to 79	0.741	0.736	0.746	0.581	0.544	0.618	0.657	0.648	0.666	0.712	0.702	0.721
Age 6 to 79	0.788	0.782	0.793	0.667	0.651	0.683	0.703	0.694	0.713	0.749	0.742	0.756
Males												
Age 6 to 11	0.836	0.824	0.849	0.725	0.676	0.774	0.745	0.718	0.772	0.799	0.783	0.815
Age 12 to 19	0.823	0.812	0.835	0.676	0.629	0.723	0.723	0.686	0.759	0.791	0.775	0.807
Age 20 to 39	0.796	0.784	0.808	0.691	0.658	0.724	0.718	0.694	0.742	0.756	0.741	0.772
Age 40 to 59	0.767	0.758	0.775	0.658	0.619	0.697	0.691	0.670	0.712	0.736	0.718	0.753
Age 60 to 79	0.735	0.729	0.741	0.570	0.536	0.604	0.649	0.617	0.681	0.707	0.696	0.718
Age 6 to 79	0.782	0.776	0.788	0.661	0.642	0.680	0.698	0.684	0.712	0.742	0.734	0.751
Females												
Age 6 to 11	0.865	0.857	0.873	0.762	0.742	0.782	0.794	0.779	0.809	0.839	0.833	0.845
Age 12 to 19	0.864	0.854	0.874	0.745	0.710	0.780	0.787	0.766	0.807	0.824	0.815	0.832
Age 20 to 39	0.807	0.793	0.822	0.670	0.604	0.736	0.729	0.685	0.773	0.772	0.755	0.790
Age 40 to 59	0.770	0.762	0.778	0.671	0.620	0.721	0.703	0.682	0.723	0.744	0.736	0.753
Age 60 to 79	0.746	0.735	0.757	0.594	0.536	0.652	0.663	0.647	0.679	0.719	0.707	0.731
Age 6 to 79	0.793	0.787	0.800	0.670	0.645	0.695	0.708	0.696	0.719	0.754	0.749	0.759

	Best FEV ₁ / FVC ratio											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	ratio											
Both sexes												
Age 6 to 11	0.857	0.851	0.863	0.890	0.881	0.899	0.926	0.910	0.941	0.942	0.929	0.955
Age 12 to 19	0.848	0.840	0.855	0.889	0.876	0.902	0.931	0.920	0.942	0.950	0.939	0.962
Age 20 to 39	0.806	0.793	0.818	0.842	0.834	0.850	0.880	0.865	0.895	0.907	0.880	0.935
Age 40 to 59	0.775	0.768	0.782	0.803	0.798	0.808	0.828	0.823	0.832	0.841	0.828	0.854
Age 60 to 79	0.753	0.749	0.757	0.787	0.776	0.799	0.814	0.804	0.824	0.836	0.824	0.848
Age 6 to 79	0.791	0.786	0.795	0.830	0.826	0.835	0.875	0.866	0.884	0.903	0.892	0.914
Males												
Age 6 to 11	0.840	0.824	0.856	0.879	0.870	0.889	0.907	0.887	0.926	0.936	0.922	0.950
Age 12 to 19	0.831	0.821	0.841	0.872	0.855	0.889	0.903	0.894	0.912	0.932	0.908	0.956
Age 20 to 39	0.800	0.785	0.815	0.837	0.825	0.849	0.871	0.855	0.887	0.907	0.871	0.944
Age 40 to 59	0.772	0.760	0.783	0.803	0.794	0.812	0.828	0.823	0.832	0.839	0.827	0.851
Age 60 to 79	0.748	0.741	0.755	0.777	0.768	0.786	0.807	0.797	0.817	0.818	0.806	0.830
Age 6 to 79	0.786	0.780	0.792	0.825	0.819	0.831	0.865	0.854	0.875	0.894	0.879	0.909
Females												
Age 6 to 11	0.868	0.861	0.876	0.896	0.887	0.906	0.934	0.920	0.948	0.952	0.931	0.973
Age 12 to 19	0.863	0.851	0.875	0.909	0.890	0.928	0.946	0.931	0.961	0.961	0.946	0.976
Age 20 to 39	0.814	0.800	0.828	0.845	0.834	0.856	0.884	0.870	0.899	0.908	0.879	0.937
Age 40 to 59	0.777	0.767	0.787	0.803	0.798	0.809	0.823	0.813	0.834	0.847	0.827	0.867
Age 60 to 79	0.757	0.748	0.766	0.798	0.785	0.811	0.824	0.805	0.843	0.839	0.821	0.857
Age 6 to 79	0.795	0.790	0.800	0.836	0.828	0.843	0.882	0.873	0.890	0.912	0.896	0.927

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 30
Best forced expiratory volume in one second (FEV₁) of the household population, by age and sex, Canada, 2009 to 2011

	Best forced expiratory volume in one second (FEV ₁)											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
litres												
Both sexes												
Age 6 to 11	1.84	1.77	1.90	1.18	1.09	1.27	1.31	1.23	1.39	1.50	1.42	1.59
Age 12 to 19	3.45	3.35	3.56	2.23	2.09	2.37	2.46	2.32	2.60	2.83	2.72	2.95
Age 20 to 39	3.64	3.54	3.74	2.37	2.19	2.54	2.61	2.42	2.80	3.00	2.85	3.15
Age 40 to 59	3.09	3.00	3.18	1.91	1.72	2.10	2.17	1.99	2.35	2.56	2.46	2.66
Age 60 to 79	2.44	2.39	2.49	1.44	1.36	1.52	1.66	1.60	1.73	1.95	1.86	2.03
Age 6 to 79	3.10	3.04	3.17	1.68	1.62	1.74	1.90	1.82	1.97	2.43	2.34	2.52
Males												
Age 6 to 11	1.86	1.77	1.95	1.18	0.98	1.37	1.31	1.18	1.45	1.53	1.41	1.65
Age 12 to 19	3.81	3.67	3.95	2.11	1.75	2.47	2.50	2.17	2.84	3.14	2.89	3.39
Age 20 to 39	4.22	4.10	4.33	3.12	2.92	3.33	3.44	3.24	3.64	3.77	3.59	3.95
Age 40 to 59	3.58	3.48	3.68	2.53	2.28	2.78	2.76	2.54	2.97	3.17	2.97	3.36
Age 60 to 79	2.89	2.82	2.96	1.87	1.75	1.99	2.11	1.96	2.26	2.44	2.33	2.56
Age 6 to 79	3.58	3.50	3.65	1.84	1.77	1.92	2.31	2.24	2.38	2.97	2.86	3.09
Females												
Age 6 to 11	1.81	1.74	1.87	1.19	1.14	1.24	1.30	1.23	1.38	1.47	1.40	1.54
Age 12 to 19	3.09	2.96	3.21	2.29	2.17	2.42	2.45	2.29	2.60	2.72	2.56	2.89
Age 20 to 39	3.06	2.93	3.19	2.29	2.20	2.37	2.37	2.17	2.56	2.72	2.54	2.90
Age 40 to 59	2.61	2.52	2.70	1.85	1.77	1.92	1.95	1.76	2.14	2.28	2.14	2.42
Age 60 to 79	2.05	1.99	2.10	1.23	1.07	1.38	1.49	1.43	1.56	1.78	1.74	1.82
Age 6 to 79	2.64	2.57	2.71	1.57	1.51	1.63	1.80	1.75	1.85	2.20	2.12	2.29

	Best forced expiratory volume in one second (FEV ₁)											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
litres												
Both sexes												
Age 6 to 11	1.79	1.72	1.86	2.10	2.03	2.17	2.48	2.31	2.65	2.69	2.53	2.86
Age 12 to 19	3.33	3.23	3.43	4.00	3.80	4.20	4.64	4.44	4.84	5.04	4.74	5.33
Age 20 to 39	3.60	3.46	3.75	4.17	3.98	4.35	4.79	4.70	4.87	5.05	4.93	5.17
Age 40 to 59	3.01	2.86	3.16	3.61	3.50	3.71	4.10	3.97	4.22	4.32	4.20	4.43
Age 60 to 79	2.36	2.30	2.42	2.87	2.80	2.93	3.40	3.31	3.49	3.66	3.57	3.75
Age 6 to 79	3.03	2.94	3.12	3.75	3.64	3.86	4.31	4.20	4.43	4.73	4.65	4.80
Males												
Age 6 to 11	1.81	1.73	1.90	2.11	2.03	2.20	2.51	2.23	2.79	2.80	2.54	3.06
Age 12 to 19	3.86	3.64	4.07	4.51	4.28	4.73	5.01	4.71	5.30	5.37	5.06	5.68
Age 20 to 39	4.15	3.95	4.35	4.70	4.60	4.80	5.05	4.93	5.16	5.32	5.07	5.57
Age 40 to 59	3.60	3.49	3.71	3.98	3.84	4.11	4.32	4.20	4.44	4.55	4.45	4.66
Age 60 to 79	2.88	2.80	2.96	3.33	3.26	3.40	3.68	3.60	3.75	3.91	3.77	4.05
Age 6 to 79	3.64	3.55	3.72	4.17	4.05	4.28	4.73	4.65	4.80	5.01	4.87	5.15
Females												
Age 6 to 11	1.77	1.67	1.86	2.07	1.96	2.17	2.43	2.24	2.61	2.59	2.53	2.65
Age 12 to 19	3.08	2.95	3.22	3.42	3.29	3.56	3.72	3.58	3.85	3.90	3.73	4.07
Age 20 to 39	3.03	2.88	3.19	3.41	3.23	3.58	3.80	3.59	4.01	3.99	3.80	4.18
Age 40 to 59	2.61	2.52	2.70	2.90	2.80	3.01	3.22	3.05	3.39	3.47	3.31	3.63
Age 60 to 79	2.05	1.96	2.15	2.36	2.29	2.43	2.60	2.48	2.71	2.78	2.64	2.91
Age 6 to 79	2.65	2.56	2.74	3.09	2.99	3.18	3.49	3.37	3.62	3.73	3.58	3.87

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 31
Best forced vital capacity (FVC) in the household population, by age and sex, Canada, 2009 to 2011

	Best forced vital capacity (FVC)											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
litres												
Both sexes												
Age 6 to 11	2.16	2.08	2.25	1.35	1.23	1.46	1.53	1.43	1.63	1.77	1.66	1.88
Age 12 to 19	4.12	3.98	4.26	2.61	2.46	2.76	2.87	2.72	3.02	3.34	3.18	3.51
Age 20 to 39	4.56	4.41	4.71	2.88	2.54	3.22	3.35	3.08	3.61	3.74	3.54	3.93
Age 40 to 59	4.03	3.91	4.15	2.60	2.36	2.84	2.90	2.69	3.11	3.32	3.20	3.43
Age 60 to 79	3.29	3.22	3.36	2.05	1.96	2.13	2.24	2.14	2.35	2.61	2.52	2.71
Age 6 to 79	3.95	3.85	4.04	2.14	2.07	2.21	2.47	2.39	2.55	3.14	3.04	3.24
Males												
Age 6 to 11	2.24	2.11	2.36	1.40	1.15	1.65	1.58	1.39	1.76	1.83	1.66	2.00
Age 12 to 19	4.65	4.45	4.84	2.62	2.21	3.04	3.00	2.66	3.34	3.75	3.46	4.05
Age 20 to 39	5.30	5.15	5.45	3.81	3.44	4.18	4.29	4.02	4.56	4.78	4.57	5.00
Age 40 to 59	4.68	4.54	4.83	3.41	3.25	3.56	3.59	3.20	3.98	4.13	3.89	4.37
Age 60 to 79	3.93	3.84	4.02	2.69	2.58	2.80	2.91	2.74	3.08	3.39	3.23	3.56
Age 6 to 79	4.58	4.48	4.69	2.39	2.27	2.51	3.04	2.89	3.19	3.89	3.78	4.00
Females												
Age 6 to 11	2.09	2.01	2.18	1.35	1.27	1.42	1.51	1.43	1.59	1.71	1.60	1.81
Age 12 to 19	3.59	3.44	3.73	2.61	2.45	2.76	2.81	2.63	2.99	3.12	2.91	3.33
Age 20 to 39	3.81	3.63	3.99	2.70	2.48	2.92	2.88	2.55	3.22	3.43	3.24	3.62
Age 40 to 59	3.39	3.28	3.51	2.38	2.23	2.54	2.61	2.35	2.87	3.05	2.92	3.18
Age 60 to 79	2.73	2.65	2.81	1.90	1.75	2.04	2.08	1.99	2.17	2.35	2.25	2.44
Age 6 to 79	3.33	3.24	3.43	2.01	1.93	2.09	2.32	2.26	2.38	2.80	2.67	2.92

	Best forced vital capacity (FVC)											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
litres												
Both sexes												
Age 6 to 11	2.13	2.00	2.26	2.50	2.39	2.60	2.90	2.76	3.04	3.10	2.99	3.21
Age 12 to 19	3.91	3.77	4.06	4.81	4.59	5.02	5.69	5.40	5.99	6.03	5.85	6.22
Age 20 to 39	4.50	4.34	4.66	5.38	5.19	5.56	5.93	5.75	6.11	6.33	6.08	6.58
Age 40 to 59	3.91	3.74	4.07	4.74	4.54	4.94	5.30	5.14	5.46	5.64	5.51	5.78
Age 60 to 79	3.17	3.09	3.24	3.88	3.79	3.97	4.50	4.35	4.65	4.97	4.84	5.09
Age 6 to 79	3.87	3.75	3.98	4.77	4.65	4.89	5.53	5.42	5.63	5.91	5.78	6.05
Males												
Age 6 to 11	2.22	2.06	2.39	2.59	2.46	2.72	3.00	2.79	3.21	3.16	2.94	3.38
Age 12 to 19	4.79	4.50	5.09	5.54	5.27	5.82	6.03	5.85	6.21	6.39	6.19	6.60
Age 20 to 39	5.36	5.15	5.57	5.80	5.63	5.97	6.33	6.07	6.58	6.70	6.56	6.84
Age 40 to 59	4.72	4.50	4.95	5.18	5.04	5.32	5.64	5.50	5.79	5.90	5.58	6.22
Age 60 to 79	3.92	3.81	4.04	4.43	4.34	4.51	4.97	4.88	5.06	5.20	5.09	5.32
Age 6 to 79	4.72	4.57	4.86	5.38	5.26	5.50	5.92	5.78	6.05	6.25	6.07	6.42
Females												
Age 6 to 11	2.02	1.88	2.17	2.42	2.31	2.52	2.80	2.63	2.97	2.99	2.87	3.11
Age 12 to 19	3.55	3.38	3.73	3.98	3.83	4.13	4.41	4.23	4.58	4.62	4.45	4.79
Age 20 to 39	3.79	3.57	4.01	4.20	4.04	4.37	4.56	4.37	4.75	4.92	4.51	5.33
Age 40 to 59	3.35	3.23	3.48	3.74	3.59	3.90	4.15	3.99	4.31	4.39	4.22	4.55
Age 60 to 79	2.70	2.59	2.81	3.09	3.02	3.17	3.46	3.27	3.65	3.63	3.45	3.81
Age 6 to 79	3.36	3.25	3.47	3.86	3.73	3.99	4.31	4.17	4.45	4.55	4.45	4.66

Note(s): Total household population aged 6 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 32
Chronic obstructive pulmonary disease (COPD) in the household population aged 35 to 79, by age and sex,
Canada, 2009 to 2011

	Chronic Obstructive Pulmonary Disease (COPD)					
	Measured airflow obstruction consistent with COPD			Absence of COPD based on measured airflow		
	Estimate	Confidence interval		Estimate	Confidence interval	
		To	From		To	From
	percent					
Both sexes						
Age 35 to 59	9.9	7.3	13.5	90.1	86.5	92.7
Age 60 to 79	18.7	15.9	21.9	81.3	78.1	84.1
Age 35 to 79	12.5	10.5	14.9	87.5	85.1	89.5
Males						
Age 35 to 59	11.5 ^E	7.5	17.2	88.5	82.8	92.5
Age 60 to 79	20.6	16.4	25.7	79.4	74.3	83.6
Age 35 to 79	14.1	11.0	17.8	85.9	82.2	89.0
Females						
Age 35 to 59	8.5 ^E	5.6	12.7	91.5	87.3	94.4
Age 60 to 79	17.0	14.1	20.4	83.0	79.6	85.9
Age 35 to 79	11.1	8.6	14.1	88.9	85.9	91.4

Note(s): Airflow obstruction consistent with COPD is characterized by a forced expiratory volume in one second (FEV₁), forced vital capacity (FVC) ratio of less than 70% of the predicted value based on age, sex, height and racial background. Total household population aged 35 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 33
Distribution of high density lipoprotein measured in serum for the household population, by age and sex,
Canada, 2009 to 2011

	High density lipoprotein (HDL)											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/L												
Both sexes												
Age 3 to 5	1.40	1.36	1.44	0.92	0.80	1.05	1.05	1.00	1.10	1.17	1.12	1.22
Age 6 to 11	1.45	1.41	1.49	0.99	0.93	1.05	1.05	1.00	1.11	1.21	1.17	1.24
Age 12 to 19	1.37	1.33	1.41	0.89	0.82	0.95	0.97	0.92	1.02	1.15	1.11	1.18
Age 20 to 39	1.40	1.33	1.47	0.85	0.80	0.89	0.94	0.89	0.99	1.11	1.03	1.18
Age 40 to 59	1.39	1.34	1.44	0.85	0.79	0.90	0.92	0.86	0.98	1.09	1.03	1.14
Age 60 to 79	1.44	1.39	1.49	0.84	0.82	0.87	0.94	0.91	0.96	1.12	1.08	1.16
Age 3 to 79	1.40	1.36	1.45	0.86	0.83	0.88	0.95	0.91	0.98	1.12	1.08	1.16
Age 6 to 79	1.40	1.36	1.45	0.85	0.83	0.88	0.94	0.91	0.98	1.12	1.07	1.16
Males												
Age 6 to 11	1.47	1.42	1.52	0.96	0.85	1.07	1.02	0.92	1.12	1.22	1.14	1.31
Age 12 to 19	1.27	1.22	1.32	0.83	0.76	0.90	0.93	0.86	0.99	1.07	1.01	1.13
Age 20 to 39	1.24	1.17	1.31	0.81	0.77	0.85	0.87	0.81	0.92	1.01	0.93	1.08
Age 40 to 59	1.25	1.20	1.30	0.79	0.75	0.84	0.88	0.82	0.94	1.01	0.95	1.07
Age 60 to 79	1.27	1.22	1.31	0.80	0.73	0.88	0.87	0.84	0.90	1.03	0.98	1.08
Age 3 to 79	1.27	1.23	1.31	0.81	0.79	0.84	0.88	0.85	0.92	1.03	0.98	1.08
Age 6 to 79	1.27	1.23	1.31	0.81	0.78	0.84	0.88	0.85	0.92	1.03	0.98	1.08
Females												
Age 6 to 11	1.43	1.38	1.48	1.00	0.92	1.07	1.07	1.03	1.11	1.20	1.16	1.24
Age 12 to 19	1.46	1.41	1.52	0.99	0.91	1.08	1.09	1.04	1.14	1.22	1.16	1.27
Age 20 to 39	1.56	1.48	1.65	1.00	0.90	1.10	1.07	0.99	1.16	1.26	1.19	1.33
Age 40 to 59	1.53	1.45	1.61	0.89	0.79	0.99	1.00	0.90	1.10	1.21	1.10	1.32
Age 60 to 79	1.60	1.51	1.68	0.95	0.89	1.01	1.06	0.98	1.13	1.30	1.24	1.36
Age 3 to 79	1.53	1.48	1.59	0.95	0.89	1.00	1.05	1.00	1.10	1.24	1.19	1.29
Age 6 to 79	1.54	1.48	1.60	0.95	0.89	1.00	1.05	1.00	1.10	1.24	1.20	1.29

	High density lipoprotein (HDL)											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/L												
Both sexes												
Age 3 to 5	1.38	1.30	1.45	1.59	1.53	1.64	1.77	1.70	1.84	1.91	1.77	2.04
Age 6 to 11	1.42	1.37	1.47	1.64	1.58	1.70	1.85	1.74	1.97	2.03	1.93	2.12
Age 12 to 19	1.32	1.27	1.36	1.54	1.50	1.57	1.78	1.69	1.87	1.91	1.82	2.01
Age 20 to 39	1.33	1.24	1.42	1.63	1.55	1.71	2.02	1.81	2.24	2.13	2.03	2.24
Age 40 to 59	1.34	1.28	1.39	1.62	1.55	1.69	1.93	1.84	2.03	2.10	1.99	2.21
Age 60 to 79	1.38	1.34	1.42	1.69	1.60	1.77	1.97	1.83	2.12	2.22	2.03	2.40
Age 3 to 79	1.35	1.30	1.40	1.62	1.57	1.67	1.92	1.83	2.02	2.11	2.03	2.18
Age 6 to 79	1.35	1.30	1.40	1.62	1.57	1.67	1.93	1.83	2.03	2.11	2.03	2.19
Males												
Age 6 to 11	1.47	1.41	1.53	1.70	1.63	1.76	1.85	1.73	1.97	2.02	1.89	2.16
Age 12 to 19	1.25	1.18	1.31	1.46	1.36	1.57	1.63	1.55	1.70	1.82	1.68	1.97
Age 20 to 39	1.19	1.11	1.27	1.42	1.30	1.53	1.59	1.53	1.65	1.78	1.43	2.13
Age 40 to 59	1.22	1.16	1.28	1.41	1.36	1.47	1.63	1.53	1.73	1.86	1.66	2.06
Age 60 to 79	1.21	1.17	1.25	1.46	1.39	1.53	1.69	1.63	1.75	1.87	1.67	2.07
Age 3 to 79	1.23	1.18	1.27	1.45	1.40	1.50	1.67	1.60	1.73	1.86	1.76	1.96
Age 6 to 79	1.22	1.18	1.27	1.44	1.39	1.49	1.65	1.59	1.72	1.86	1.75	1.97
Females												
Age 6 to 11	1.39	1.32	1.46	1.58	1.53	1.63	1.86	1.69	2.02	2.08	1.92	2.24
Age 12 to 19	1.40	1.34	1.45	1.62	1.56	1.68	1.87	1.78	1.96	2.08	1.79	2.36
Age 20 to 39	1.54	1.42	1.65	1.77	1.61	1.94	2.09	2.01	2.17	2.21	2.13	2.30
Age 40 to 59	1.49	1.42	1.56	1.79	1.67	1.90	2.05	1.94	2.16	2.21	2.08	2.34
Age 60 to 79	1.54	1.46	1.62	1.83	1.73	1.94	2.15	1.95	2.35	2.36	2.06	2.66
Age 3 to 79	1.49	1.45	1.53	1.77	1.68	1.85	2.08	1.98	2.17	2.21	2.13	2.29
Age 6 to 79	1.50	1.45	1.54	1.77	1.68	1.86	2.08	1.98	2.17	2.22	2.14	2.30

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 34
Distribution of low density lipoprotein for the household population, by age and sex, Canada, 2009 to 2011

	Low density lipoprotein (LDL)											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 6 to 11	2.4	2.3	2.5	1.3	1.1	1.4	1.5	1.3	1.7	1.9	1.8	2.1
Age 12 to 19	2.3	2.2	2.4	1.3	1.2	1.5	1.5	1.3	1.6	1.8	1.7	1.9
Age 20 to 39	2.6	2.5	2.7	1.5	1.3	1.7	1.8	1.5	2.0	2.1	2.0	2.2
Age 40 to 59	3.2	3.1	3.4	1.7	1.4	2.0	2.0	1.6	2.3	2.6	2.4	2.8
Age 60 to 79	2.9	2.8	3.0	1.4	1.1	1.6	1.6	1.5	1.8	2.1	1.9	2.2
Age 6 to 79	2.8	2.7	2.9	1.4	1.3	1.6	1.7	1.6	1.8	2.1	2.0	2.2
Males												
Age 6 to 11	2.4	2.3	2.5	1.3	1.1	1.5	1.5	1.2	1.7	1.9	1.8	2.1
Age 12 to 19	2.3	2.2	2.4	1.3	1.2	1.4	1.4	1.3	1.6	1.7	1.6	1.9
Age 20 to 39	2.7	2.6	2.9	1.5	1.3	1.7	1.7	1.5	2.0	2.2	1.9	2.5
Age 40 to 59	3.3	3.0	3.5	1.7	1.3	2.1	2.0	1.5	2.4	2.7	2.4	2.9
Age 60 to 79	2.7	2.5	2.9	1.3 ^E	0.7	1.9	1.5	1.3	1.7	1.8	1.8	1.9
Age 6 to 79	2.8	2.7	2.9	1.4	1.3	1.5	1.7	1.6	1.8	2.1	1.9	2.2
Females												
Age 6 to 11	2.4	2.2	2.6	1.2	0.8	1.5	1.5	1.1	1.9	1.9	1.7	2.1
Age 12 to 19	2.3	2.2	2.4	1.2	0.9	1.6	1.5	1.3	1.7	1.9	1.7	2.1
Age 20 to 39	2.5	2.4	2.7	1.4	0.9	1.8	1.8	1.5	2.0	2.1	1.9	2.2
Age 40 to 59	3.1	3.0	3.3	1.7	1.3	2.1	1.9	1.6	2.3	2.6	2.4	2.7
Age 60 to 79	3.1	2.9	3.2	1.6	1.3	1.9	1.8	1.6	2.1	2.3	2.1	2.5
Age 6 to 79	2.8	2.7	2.9	1.5	1.3	1.6	1.8	1.7	1.9	2.2	2.1	2.2

	Low density lipoprotein (LDL)											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 6 to 11	2.3	2.2	2.5	2.8	2.6	3.0	3.2	3.0	3.4	3.5	3.3	3.8
Age 12 to 19	2.2	2.1	2.3	2.7	2.5	2.8	3.2	2.9	3.4	3.5	3.2	3.7
Age 20 to 39	2.5	2.3	2.6	3.0	2.9	3.1	3.6	3.4	3.8	4.0	3.6	4.4
Age 40 to 59	3.1	2.9	3.4	3.7	3.6	3.9	4.2	3.9	4.5	4.7	4.3	5.2
Age 60 to 79	2.8	2.7	3.0	3.5	3.3	3.7	4.2	4.0	4.5	4.5	4.3	4.8
Age 6 to 79	2.7	2.6	2.7	3.4	3.3	3.5	4.0	3.8	4.1	4.3	4.1	4.5
Males												
Age 6 to 11	2.3	2.2	2.5	2.8	2.4	3.1	3.2	3.0	3.4	3.3	3.2	3.5
Age 12 to 19	2.2	2.1	2.3	2.7	2.4	2.9	3.3	2.9	3.7	3.6	3.2	4.0
Age 20 to 39	2.6	2.5	2.8	3.1	3.0	3.2	3.7	3.2	4.1	4.2	3.7	4.8
Age 40 to 59	3.3	3.0	3.7	3.8	3.5	4.2	4.2	3.6	4.7	4.8	4.1	5.5
Age 60 to 79	2.4	2.1	2.8	3.4	3.1	3.8	4.2	3.9	4.5	4.4	4.1	4.7
Age 6 to 79	2.7	2.6	2.8	3.4	3.2	3.6	4.0	3.8	4.3	4.4	4.0	4.7
Females												
Age 6 to 11	2.4	2.1	2.6	2.7	2.5	2.9	3.3	2.8	3.8	3.6	3.2	4.1
Age 12 to 19	2.2	2.1	2.3	2.7	2.5	2.8	3.1	2.8	3.3	3.4	3.1	3.7
Age 20 to 39	2.4	2.2	2.5	2.8	2.6	3.0	3.5	3.0	3.9	3.8	3.4	4.2
Age 40 to 59	3.0	2.9	3.2	3.7	3.6	3.8	4.1	3.6	4.5	4.7	4.1	5.3
Age 60 to 79	3.0	2.7	3.2	3.6	3.3	3.8	4.3	4.0	4.6	4.7	4.4	5.0
Age 6 to 79	2.7	2.6	2.7	3.3	3.2	3.5	3.9	3.7	4.1	4.3	4.0	4.6

Note(s): Total household population aged 6 to 79 - fasted sub-sample, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 35
Distribution of total cholesterol measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Total cholesterol											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 3 to 5	4.2	4.1	4.3	3.2	3.1	3.4	3.4	3.3	3.5	3.7	3.5	3.8
Age 6 to 11	4.2	4.1	4.3	3.0	2.8	3.2	3.3	3.1	3.5	3.7	3.6	3.8
Age 12 to 19	4.1	4.0	4.2	3.0	2.8	3.1	3.2	3.1	3.3	3.6	3.4	3.7
Age 20 to 39	4.6	4.5	4.7	3.3	3.0	3.5	3.6	3.4	3.8	4.0	3.9	4.1
Age 40 to 59	5.2	5.1	5.3	3.7	3.4	3.9	4.1	3.9	4.2	4.5	4.4	4.6
Age 60 to 79	5.0	4.9	5.1	3.1	3.0	3.3	3.5	3.3	3.7	4.1	3.9	4.3
Age 3 to 79	4.8	4.7	4.9	3.2	3.1	3.3	3.5	3.4	3.6	4.0	4.0	4.1
Age 6 to 79	4.8	4.7	4.9	3.2	3.1	3.3	3.5	3.4	3.6	4.1	4.0	4.1
Males												
Age 6 to 11	4.2	4.0	4.4	3.0	2.7	3.2	3.2	2.9	3.5	3.7	3.5	3.9
Age 12 to 19	4.0	3.9	4.1	2.9	2.8	3.0	3.1	3.0	3.2	3.4	3.3	3.6
Age 20 to 39	4.7	4.5	4.8	3.2	2.9	3.5	3.5	3.2	3.8	3.9	3.9	4.0
Age 40 to 59	5.2	5.1	5.4	3.6	3.4	3.9	4.0	3.8	4.2	4.6	4.4	4.8
Age 60 to 79	4.7	4.6	4.8	2.9	2.7	3.1	3.2	3.0	3.4	3.8	3.7	3.9
Age 3 to 79	4.7	4.7	4.8	3.1	3.1	3.2	3.4	3.3	3.5	4.0	3.9	4.0
Age 6 to 79	4.8	4.7	4.8	3.1	3.1	3.2	3.4	3.3	3.5	4.0	3.9	4.0
Females												
Age 6 to 11	4.3	4.1	4.4	3.1	2.9	3.3	3.4	3.2	3.5	3.7	3.5	3.8
Age 12 to 19	4.2	4.1	4.3	3.2	2.9	3.4	3.3	3.2	3.5	3.7	3.6	3.8
Age 20 to 39	4.6	4.4	4.7	3.3	3.0	3.7	3.6	3.4	3.8	4.0	3.9	4.2
Age 40 to 59	5.2	5.1	5.3	3.7	3.4	4.1	4.1	4.0	4.3	4.4	4.3	4.6
Age 60 to 79	5.3	5.2	5.5	3.5	3.1	3.8	3.8	3.6	4.0	4.5	4.2	4.7
Age 3 to 79	4.8	4.8	4.9	3.3	3.2	3.5	3.6	3.5	3.7	4.1	4.0	4.2
Age 6 to 79	4.9	4.8	4.9	3.4	3.2	3.5	3.6	3.5	3.8	4.1	4.1	4.2

	Total cholesterol											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 3 to 5	4.1	4.0	4.3	4.5	4.4	4.7	5.0	4.7	5.2	5.4	5.0	5.7
Age 6 to 11	4.1	4.1	4.2	4.6	4.5	4.8	5.1	4.9	5.3	5.4	5.1	5.6
Age 12 to 19	4.0	3.9	4.1	4.5	4.4	4.6	5.1	4.9	5.2	5.3	5.1	5.5
Age 20 to 39	4.5	4.4	4.5	5.0	4.9	5.1	5.7	5.5	5.9	6.3	6.1	6.5
Age 40 to 59	5.2	5.0	5.3	5.8	5.6	5.9	6.3	6.1	6.5	6.8	6.6	7.0
Age 60 to 79	4.9	4.7	5.0	5.8	5.6	6.0	6.5	6.3	6.8	6.9	6.8	7.1
Age 3 to 79	4.6	4.6	4.7	5.4	5.3	5.5	6.1	6.0	6.3	6.6	6.4	6.8
Age 6 to 79	4.6	4.6	4.7	5.4	5.3	5.5	6.2	6.0	6.3	6.6	6.5	6.8
Males												
Age 6 to 11	4.1	4.0	4.2	4.7	4.4	4.9	5.1	4.9	5.3	5.3	5.1	5.5
Age 12 to 19	4.0	3.8	4.1	4.4	4.3	4.5	5.0	4.8	5.2	5.2	4.9	5.5
Age 20 to 39	4.4	4.3	4.6	5.1	4.9	5.3	5.9	5.7	6.2	6.5	6.1	6.9
Age 40 to 59	5.2	5.0	5.3	5.8	5.6	6.0	6.3	6.1	6.5	6.7	6.4	6.9
Age 60 to 79	4.5	4.4	4.7	5.4	5.2	5.6	6.2	6.1	6.4	6.6	6.3	6.8
Age 3 to 79	4.6	4.5	4.7	5.4	5.2	5.5	6.1	6.0	6.3	6.5	6.2	6.7
Age 6 to 79	4.6	4.5	4.7	5.4	5.3	5.5	6.2	6.0	6.3	6.5	6.3	6.7
Females												
Age 6 to 11	4.1	4.0	4.3	4.6	4.5	4.8	5.1	4.9	5.4	5.7	5.1	6.3
Age 12 to 19	4.1	4.0	4.2	4.5	4.4	4.7	5.1	5.0	5.3	5.3	5.1	5.6
Age 20 to 39	4.5	4.3	4.6	4.9	4.7	5.1	5.5	5.3	5.8	6.2	5.6	6.7
Age 40 to 59	5.2	5.0	5.3	5.7	5.6	5.9	6.4	6.0	6.7	6.9	6.7	7.1
Age 60 to 79	5.3	5.1	5.5	6.0	5.8	6.3	6.8	6.5	7.1	7.1	6.9	7.2
Age 3 to 79	4.6	4.6	4.7	5.4	5.3	5.5	6.2	6.0	6.3	6.7	6.4	7.0
Age 6 to 79	4.7	4.6	4.7	5.5	5.3	5.6	6.2	6.0	6.3	6.7	6.5	7.0

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 36
Distribution of total cholesterol to high density lipoprotein ratio for the household population, by age and sex,
Canada, 2009 to 2011

	Total cholesterol to high density lipoprotein (HDL) ratio											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/mmol												
Both sexes												
Age 3 to 5	3.1	3.0	3.3	2.1	1.9	2.2	2.2	2.1	2.4	2.6	2.4	2.7
Age 6 to 11	3.0	3.0	3.1	2.0	2.0	2.1	2.2	2.1	2.3	2.5	2.4	2.6
Age 12 to 19	3.1	3.0	3.3	2.0	2.0	2.1	2.2	2.1	2.3	2.5	2.5	2.6
Age 20 to 39	3.6	3.4	3.7	2.1	2.0	2.2	2.2	2.1	2.3	2.6	2.4	2.7
Age 40 to 59	4.0	3.9	4.2	2.2	2.1	2.3	2.5	2.4	2.6	3.0	2.9	3.2
Age 60 to 79	3.7	3.6	3.9	2.1	1.9	2.3	2.4	2.2	2.6	2.8	2.7	2.9
Age 3 to 79	3.6	3.5	3.8	2.1	2.0	2.2	2.3	2.2	2.4	2.7	2.6	2.8
Age 6 to 79	3.7	3.5	3.8	2.1	2.1	2.2	2.3	2.2	2.4	2.7	2.6	2.8
Males												
Age 6 to 11	3.0	2.9	3.1	2.1	2.0	2.1	2.2	2.1	2.2	2.4	2.3	2.5
Age 12 to 19	3.3	3.1	3.4	2.1	2.0	2.2	2.3	2.2	2.3	2.6	2.5	2.7
Age 20 to 39	4.0	3.8	4.2	2.2	2.1	2.4	2.4	2.3	2.6	2.9	2.7	3.2
Age 40 to 59	4.4	4.2	4.7	2.5	2.2	2.8	2.7	2.4	3.1	3.5	3.2	3.8
Age 60 to 79	3.9	3.8	4.0	2.3	2.1	2.5	2.5	2.4	2.7	2.9	2.8	3.1
Age 3 to 79	3.9	3.8	4.1	2.2	2.2	2.3	2.4	2.4	2.5	2.9	2.8	3.0
Age 6 to 79	4.0	3.8	4.1	2.2	2.2	2.3	2.4	2.4	2.5	2.9	2.8	3.1
Females												
Age 6 to 11	3.1	3.0	3.2	2.0	1.8	2.3	2.2	2.1	2.4	2.6	2.4	2.8
Age 12 to 19	3.0	2.9	3.1	1.9	1.8	2.1	2.1	2.0	2.3	2.4	2.3	2.6
Age 20 to 39	3.1	2.9	3.3	1.9	1.8	2.1	2.1	2.0	2.2	2.4	2.3	2.5
Age 40 to 59	3.6	3.4	3.8	2.2	2.1	2.3	2.3	2.2	2.5	2.8	2.6	2.9
Age 60 to 79	3.5	3.4	3.7	2.0	1.8	2.2	2.3	2.0	2.6	2.7	2.6	2.8
Age 3 to 79	3.3	3.2	3.5	2.0	2.0	2.1	2.2	2.1	2.3	2.6	2.5	2.7
Age 6 to 79	3.3	3.2	3.5	2.0	1.9	2.1	2.2	2.1	2.3	2.6	2.5	2.7

	Total cholesterol to high density lipoprotein (HDL) ratio											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/mmol												
Both sexes												
Age 3 to 5	3.0	2.8	3.2	3.5	3.3	3.6	4.0	3.8	4.2	4.3	3.7	5.0
Age 6 to 11	2.9	2.8	3.0	3.3	3.2	3.5	3.9	3.8	4.1	4.3	3.9	4.6
Age 12 to 19	3.0	2.9	3.1	3.5	3.4	3.6	4.1	3.8	4.4	4.7	4.3	5.0
Age 20 to 39	3.2	3.0	3.4	4.2	3.8	4.6	5.2	4.9	5.5	5.9	5.5	6.3
Age 40 to 59	3.8	3.7	3.9	4.6	4.4	4.9	5.7	5.4	6.0	6.3	6.0	6.6
Age 60 to 79	3.4	3.2	3.6	4.3	4.1	4.4	5.3	5.0	5.5	6.0	5.7	6.3
Age 3 to 79	3.3	3.2	3.5	4.3	4.1	4.5	5.2	5.0	5.5	5.9	5.6	6.2
Age 6 to 79	3.4	3.2	3.5	4.3	4.1	4.5	5.3	5.0	5.5	5.9	5.7	6.2
Males												
Age 6 to 11	2.8	2.7	2.9	3.3	3.1	3.5	3.9	3.7	4.1	4.4	3.7	5.1
Age 12 to 19	3.1	2.9	3.3	3.6	3.4	3.9	4.3	3.9	4.8	4.9	4.5	5.3
Age 20 to 39	3.7	3.3	4.0	4.9	4.5	5.3	5.7	5.3	6.0	6.4	5.9	6.8
Age 40 to 59	4.3	4.1	4.6	5.2	4.8	5.6	6.1	5.7	6.5	6.4	6.3	6.6
Age 60 to 79	3.6	3.4	3.8	4.5	4.3	4.7	5.6	5.3	5.8	6.2	5.8	6.5
Age 3 to 79	3.7	3.5	3.8	4.7	4.4	5.0	5.6	5.4	5.9	6.3	6.0	6.5
Age 6 to 79	3.7	3.6	3.9	4.7	4.4	5.1	5.7	5.4	5.9	6.3	6.0	6.5
Females												
Age 6 to 11	3.0	2.9	3.1	3.4	3.2	3.6	4.0	3.8	4.2	4.3	4.0	4.6
Age 12 to 19	2.9	2.8	2.9	3.3	3.2	3.5	3.9	3.6	4.1	4.3	4.0	4.6
Age 20 to 39	2.8	2.6	3.0	3.5	3.2	3.8	4.3	3.9	4.7	4.8	4.3	5.3
Age 40 to 59	3.3	3.1	3.6	4.2	3.8	4.5	5.0	4.5	5.5	5.7	5.1	6.4
Age 60 to 79	3.2	3.0	3.4	4.1	3.9	4.3	5.0	4.8	5.3	5.7	5.2	6.1
Age 3 to 79	3.1	3.0	3.2	3.8	3.6	4.0	4.7	4.5	4.9	5.3	4.8	5.7
Age 6 to 79	3.1	3.0	3.2	3.8	3.6	4.0	4.7	4.5	4.9	5.3	4.8	5.7

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 37
Distribution of triglycerides measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Triglycerides											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/L												
Both sexes												
Age 6 to 11	0.80	0.75	0.85	0.44	0.41	0.47	0.49	0.44	0.53	0.60	0.57	0.63
Age 12 to 19	0.92	0.85	1.00	0.53	0.47	0.58	0.59	0.55	0.64	0.69	0.65	0.73
Age 20 to 39	1.06	0.98	1.16	0.53	0.50	0.55	0.59	0.55	0.62	0.74	0.69	0.80
Age 40 to 59	1.32	1.24	1.41	0.65	0.59	0.71	0.71	0.66	0.76	0.96	0.89	1.03
Age 60 to 79	1.34	1.26	1.43	0.65	0.60	0.70	0.75	0.67	0.83	0.96	0.89	1.02
Age 6 to 79	1.15	1.10	1.20	0.55	0.53	0.57	0.62	0.60	0.64	0.78	0.75	0.82
Males												
Age 6 to 11	0.77	0.70	0.86	0.42	0.38	0.45	0.45	0.41	0.49	0.55	0.49	0.62
Age 12 to 19	0.91	0.83	1.00	0.53	0.46	0.60	0.60	0.55	0.64	0.68	0.63	0.72
Age 20 to 39	1.20	1.07	1.34	0.56	0.51	0.61	0.60	0.56	0.65	0.77	0.67	0.86
Age 40 to 59	1.51	1.36	1.69	0.70	0.54	0.87	0.88	0.75	1.02	1.04	0.91	1.16
Age 60 to 79	1.35	1.25	1.46	0.61	0.52	0.71	0.71	0.63	0.78	0.96	0.83	1.08
Age 6 to 79	1.24	1.16	1.33	0.56	0.54	0.58	0.62	0.59	0.64	0.82	0.76	0.87
Females												
Age 6 to 11	0.83	0.76	0.91	0.50	0.43	0.57	0.55	0.49	0.61	0.62	0.57	0.67
Age 12 to 19	0.93	0.84	1.04	0.53	0.41	0.64	0.59	0.51	0.68	0.70	0.63	0.76
Age 20 to 39	0.94	0.85	1.05	0.51	0.39	0.64	0.54	0.49	0.59	0.71	0.64	0.78
Age 40 to 59	1.15	1.07	1.24	0.64	0.57	0.70	0.69	0.66	0.72	0.86	0.76	0.97
Age 60 to 79	1.33	1.23	1.44	0.67	0.55	0.78	0.79	0.67	0.92	0.96	0.89	1.02
Age 6 to 79	1.06	1.01	1.12	0.53	0.50	0.57	0.62	0.60	0.65	0.76	0.72	0.80

	Triglycerides											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/L												
Both sexes												
Age 6 to 11	0.78	0.68	0.87	1.03	0.91	1.15	1.36	1.18	1.53	1.56	1.11	2.01
Age 12 to 19	0.86	0.80	0.93	1.16	1.03	1.29	1.72	1.31	2.12	2.06	1.62	2.50
Age 20 to 39	0.99	0.87	1.11	1.51	1.21	1.81	2.03	1.78	2.29	2.94	1.94	3.94
Age 40 to 59	1.28	1.14	1.43	1.83	1.61	2.04	2.39	2.12	2.66	2.97	2.27	3.67
Age 60 to 79	1.27	1.13	1.42	1.87	1.67	2.07	2.42	2.19	2.66	2.94	2.38	3.50
Age 6 to 79	1.08	1.01	1.14	1.61	1.46	1.75	2.25	2.07	2.43	2.81	2.50	3.13
Males												
Age 6 to 11	0.71	0.62	0.81	0.97	0.82	1.12	1.51	1.13	1.88	2.04 ^E	1.19	2.88
Age 12 to 19	0.81	0.74	0.88	1.07	0.83	1.31	1.75	1.17	2.33	2.29	1.68	2.90
Age 20 to 39	1.13	0.93	1.33	1.73	1.43	2.03	2.76 ^E	1.60	3.91	3.22	2.32	4.13
Age 40 to 59	1.48	1.24	1.72	2.17	1.75	2.60	2.89	2.05	3.73	4.15	2.89	5.41
Age 60 to 79	1.35	1.16	1.54	1.88	1.72	2.03	2.43	2.18	2.69	2.89	2.45	3.33
Age 6 to 79	1.19	1.05	1.34	1.81	1.60	2.02	2.47	2.16	2.78	3.25	2.74	3.76
Females												
Age 6 to 11	0.83	0.70	0.95	1.07	0.92	1.22	1.23	1.07	1.39	1.40	1.05	1.75
Age 12 to 19	0.93	0.82	1.04	1.18	1.03	1.33	1.45	1.07	1.83	1.83	1.37	2.30
Age 20 to 39	0.86	0.74	0.97	1.24	0.87	1.61	1.92	1.52	2.31	2.03	1.71	2.35
Age 40 to 59	1.09	0.99	1.18	1.60	1.37	1.83	1.97	1.80	2.14	2.26	1.89	2.64
Age 60 to 79	1.21	1.06	1.36	1.77	1.43	2.11	2.41	2.07	2.75	2.98	2.03	3.93
Age 6 to 79	1.02	0.98	1.06	1.41	1.23	1.58	1.99	1.88	2.11	2.29	2.11	2.48

Note(s): Total household population aged 6 to 79 - fasted sub-sample, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 38
Distribution of albumin measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Albumin											
	Mean		5th percentile				10th percentile				25th percentile	
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
g/L												
Both sexes												
Age 3 to 5	45	45	46	40	39	41	41	40	42	43	42	44
Age 6 to 11	46	45	47	41	40	42	42	41	42	44	43	44
Age 12 to 19	46	45	46	41	40	42	42	41	42	43	43	44
Age 20 to 39	45	45	46	39	39	40	40	40	41	42	42	43
Age 40 to 59	44	43	44	39	38	40	40	39	40	42	41	42
Age 60 to 79	43	42	43	37	36	39	39	38	40	41	40	41
Age 3 to 79	44	44	45	39	38	40	40	39	40	42	41	42
Age 6 to 79	44	44	45	39	38	40	40	39	40	42	41	42
Males												
Age 6 to 11	46	45	46	41	39	42	41	40	42	43	42	44
Age 12 to 19	46	46	47	42	41	42	42	42	43	44	44	45
Age 20 to 39	46	46	47	41	41	42	42	42	43	44	43	45
Age 40 to 59	44	44	45	39	39	40	40	40	41	42	42	43
Age 60 to 79	43	43	44	38	37	39	39	39	40	41	40	42
Age 3 to 79	45	45	46	40	39	40	41	40	41	43	42	43
Age 6 to 79	45	45	46	40	39	40	41	40	41	43	42	43
Females												
Age 6 to 11	46	46	47	41	41	42	42	41	43	44	43	45
Age 12 to 19	45	44	45	40	39	41	41	40	42	43	42	43
Age 20 to 39	44	43	44	38	36	40	39	39	40	41	40	42
Age 40 to 59	43	43	44	38	37	40	39	39	40	41	40	42
Age 60 to 79	42	42	43	37	36	38	38	37	40	40	39	41
Age 3 to 79	44	43	44	38	37	39	39	39	40	41	41	42
Age 6 to 79	44	43	44	38	37	39	39	39	40	41	40	42

	Albumin											
	50th percentile		75th percentile				90th percentile				95th percentile	
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
g/L												
Both sexes												
Age 3 to 5	45	44	46	46	46	47	49	48	50	50	49	51
Age 6 to 11	46	45	46	47	47	48	49	48	49	50	49	50
Age 12 to 19	45	45	45	47	46	48	49	48	49	50	49	50
Age 20 to 39	45	44	45	47	46	47	49	48	49	50	50	51
Age 40 to 59	43	43	44	45	45	46	47	46	47	47	47	48
Age 60 to 79	42	42	43	44	44	45	46	45	47	47	46	47
Age 3 to 79	44	43	44	46	46	46	48	47	48	49	48	49
Age 6 to 79	44	43	44	46	45	46	48	47	48	49	48	49
Males												
Age 6 to 11	45	44	46	47	47	48	48	48	49	49	48	49
Age 12 to 19	46	46	47	48	47	49	49	49	50	50	49	51
Age 20 to 39	46	46	47	48	47	48	50	49	50	51	50	51
Age 40 to 59	44	44	44	45	45	46	47	46	48	48	47	49
Age 60 to 79	43	42	44	45	44	46	47	46	47	47	47	48
Age 3 to 79	45	44	45	47	46	47	48	48	49	49	49	50
Age 6 to 79	45	44	45	47	46	47	48	48	49	49	49	50
Females												
Age 6 to 11	46	45	46	47	47	48	49	48	50	50	49	51
Age 12 to 19	44	44	44	46	45	46	48	47	49	49	48	50
Age 20 to 39	43	43	44	45	45	46	47	46	47	48	46	50
Age 40 to 59	43	42	44	44	44	45	46	45	47	47	46	48
Age 60 to 79	42	41	43	44	43	44	45	44	46	46	46	47
Age 3 to 79	43	43	44	45	45	46	47	46	47	48	47	49
Age 6 to 79	43	43	44	45	44	45	47	46	47	48	47	48

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 39
Distribution of total calcium measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Total Calcium											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 3 to 5	2.51	2.50	2.52	2.38	2.34	2.41	2.42	2.40	2.44	2.46	2.45	2.47
Age 6 to 11	2.50	2.49	2.51	2.38	2.36	2.40	2.40	2.38	2.41	2.44	2.43	2.46
Age 12 to 19	2.45	2.44	2.46	2.33	2.32	2.34	2.35	2.34	2.37	2.40	2.39	2.41
Age 20 to 39	2.42	2.41	2.43	2.29	2.28	2.31	2.32	2.31	2.33	2.35	2.33	2.37
Age 40 to 59	2.41	2.39	2.42	2.26	2.23	2.29	2.30	2.28	2.32	2.34	2.33	2.36
Age 60 to 79	2.42	2.40	2.43	2.27	2.26	2.29	2.30	2.29	2.31	2.35	2.33	2.36
Age 3 to 79	2.43	2.42	2.44	2.28	2.27	2.30	2.31	2.30	2.32	2.36	2.35	2.37
Age 6 to 79	2.42	2.41	2.43	2.28	2.27	2.30	2.31	2.30	2.32	2.36	2.34	2.37
Males												
Age 6 to 11	2.49	2.47	2.50	2.38	2.36	2.39	2.39	2.38	2.40	2.43	2.41	2.44
Age 12 to 19	2.47	2.46	2.48	2.35	2.32	2.37	2.37	2.35	2.39	2.42	2.40	2.43
Age 20 to 39	2.44	2.43	2.46	2.32	2.30	2.33	2.34	2.32	2.36	2.38	2.36	2.40
Age 40 to 59	2.41	2.40	2.43	2.28	2.25	2.31	2.31	2.29	2.33	2.36	2.34	2.38
Age 60 to 79	2.40	2.39	2.42	2.27	2.25	2.30	2.29	2.28	2.31	2.34	2.33	2.36
Age 3 to 79	2.43	2.42	2.45	2.30	2.28	2.31	2.32	2.31	2.34	2.37	2.36	2.39
Age 6 to 79	2.43	2.42	2.44	2.30	2.28	2.31	2.32	2.31	2.34	2.37	2.36	2.39
Females												
Age 6 to 11	2.51	2.49	2.53	2.38	2.34	2.41	2.41	2.38	2.45	2.46	2.44	2.48
Age 12 to 19	2.44	2.43	2.45	2.32	2.30	2.33	2.34	2.32	2.36	2.38	2.37	2.39
Age 20 to 39	2.40	2.38	2.42	2.28	2.27	2.30	2.30	2.28	2.32	2.34	2.33	2.35
Age 40 to 59	2.40	2.38	2.41	2.24	2.20	2.29	2.29	2.25	2.32	2.33	2.32	2.35
Age 60 to 79	2.43	2.41	2.44	2.28	2.26	2.29	2.30	2.29	2.31	2.35	2.33	2.37
Age 3 to 79	2.42	2.41	2.43	2.28	2.25	2.30	2.30	2.29	2.32	2.34	2.34	2.35
Age 6 to 79	2.41	2.40	2.43	2.27	2.25	2.30	2.30	2.29	2.32	2.34	2.33	2.35

	Total Calcium											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 3 to 5	2.51	2.49	2.53	2.56	2.54	2.58	2.60	2.58	2.62	2.63	2.62	2.64
Age 6 to 11	2.49	2.48	2.50	2.54	2.53	2.55	2.58	2.56	2.60	2.62	2.59	2.64
Age 12 to 19	2.45	2.44	2.46	2.50	2.49	2.50	2.54	2.53	2.55	2.56	2.54	2.58
Age 20 to 39	2.41	2.39	2.43	2.47	2.45	2.49	2.53	2.51	2.55	2.57	2.54	2.61
Age 40 to 59	2.40	2.39	2.41	2.45	2.44	2.46	2.51	2.48	2.53	2.55	2.51	2.58
Age 60 to 79	2.40	2.39	2.42	2.47	2.45	2.48	2.53	2.51	2.56	2.58	2.56	2.61
Age 3 to 79	2.42	2.40	2.43	2.48	2.47	2.49	2.54	2.52	2.55	2.58	2.56	2.59
Age 6 to 79	2.41	2.40	2.43	2.48	2.47	2.49	2.53	2.52	2.55	2.57	2.55	2.59
Males												
Age 6 to 11	2.48	2.47	2.49	2.53	2.51	2.55	2.57	2.55	2.58	2.59	2.57	2.62
Age 12 to 19	2.47	2.46	2.48	2.51	2.50	2.53	2.55	2.53	2.56	2.57	2.54	2.60
Age 20 to 39	2.43	2.41	2.46	2.50	2.47	2.52	2.55	2.52	2.58	2.58	2.55	2.61
Age 40 to 59	2.41	2.39	2.42	2.45	2.44	2.47	2.50	2.47	2.53	2.54	2.50	2.59
Age 60 to 79	2.40	2.38	2.41	2.45	2.44	2.47	2.51	2.48	2.53	2.55	2.51	2.58
Age 3 to 79	2.43	2.41	2.44	2.48	2.47	2.49	2.54	2.52	2.56	2.57	2.55	2.59
Age 6 to 79	2.42	2.41	2.44	2.48	2.47	2.49	2.54	2.52	2.56	2.57	2.55	2.59
Females												
Age 6 to 11	2.51	2.49	2.53	2.56	2.54	2.58	2.60	2.57	2.63	2.64	2.58	2.69
Age 12 to 19	2.43	2.42	2.44	2.48	2.47	2.49	2.51	2.50	2.53	2.54	2.53	2.56
Age 20 to 39	2.38	2.36	2.40	2.44	2.43	2.46	2.52	2.47	2.57	2.53	2.48	2.58
Age 40 to 59	2.39	2.37	2.40	2.45	2.43	2.47	2.51	2.47	2.54	2.55	2.50	2.61
Age 60 to 79	2.41	2.39	2.43	2.48	2.46	2.50	2.56	2.52	2.59	2.60	2.56	2.64
Age 3 to 79	2.41	2.39	2.42	2.47	2.46	2.49	2.53	2.52	2.55	2.58	2.56	2.60
Age 6 to 79	2.40	2.39	2.42	2.47	2.45	2.48	2.53	2.51	2.54	2.58	2.56	2.59

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 40
Distribution of creatinine measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Creatinine											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	umol/L											
Both sexes												
Age 3 to 5	35	34	37	27	25	28	28	27	30	31	30	33
Age 6 to 11	46	44	47	35	33	38	38	36	40	41	39	43
Age 12 to 19	65	64	67	47	45	49	50	48	52	57	55	58
Age 20 to 39	74	73	75	55	54	56	58	56	60	64	63	66
Age 40 to 59	75	74	77	55	52	59	59	56	61	66	65	68
Age 60 to 79	79	78	81	57	55	58	60	58	61	68	66	69
Age 3 to 79	71	70	71	43	41	44	50	49	52	61	60	62
Age 6 to 79	72	71	73	47	46	48	53	52	55	62	61	63
Males												
Age 6 to 11	45	44	47	35	32	38	37	35	39	41	38	43
Age 12 to 19	69	67	72	49	45	52	52	49	55	60	56	63
Age 20 to 39	84	82	85	67	66	69	70	69	72	77	75	79
Age 40 to 59	83	81	86	63	59	68	68	64	71	75	72	78
Age 60 to 79	89	87	91	69	67	71	72	70	75	77	76	79
Age 3 to 79	78	77	78	43	42	45	53	50	55	71	69	73
Age 6 to 79	80	79	80	48	46	49	59	58	61	73	71	74
Females												
Age 6 to 11	46	44	48	35	32	38	38	35	40	41	40	43
Age 12 to 19	61	60	62	46	43	48	49	47	51	55	54	57
Age 20 to 39	65	63	67	53	51	55	55	54	56	59	57	60
Age 40 to 59	68	67	70	52	50	55	55	52	59	61	58	64
Age 60 to 79	71	69	74	54	51	57	57	56	58	61	60	63
Age 3 to 79	64	63	65	43	41	45	49	48	51	57	56	59
Age 6 to 79	65	64	66	47	46	49	52	50	53	58	57	59

	Creatinine											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	umol/L											
Both sexes												
Age 3 to 5	34	33	36	38	36	40	43	41	46	45	43	47
Age 6 to 11	45	44	46	50	48	51	54	53	56	57	55	58
Age 12 to 19	65	63	67	74	71	77	83	80	87	88	83	92
Age 20 to 39	73	72	75	85	84	86	92	91	94	95	91	99
Age 40 to 59	75	74	76	85	83	87	94	93	96	99	97	102
Age 60 to 79	77	75	79	89	87	91	103	99	107	117	107	127
Age 3 to 79	72	71	73	84	83	85	93	92	94	99	97	101
Age 6 to 79	73	72	73	84	83	85	93	92	95	100	98	101
Males												
Age 6 to 11	45	44	46	49	48	51	53	51	56	57	55	59
Age 12 to 19	70	66	75	79	76	82	87	83	90	92	88	96
Age 20 to 39	85	83	86	91	88	93	95	91	98	101	96	107
Age 40 to 59	83	80	85	93	91	95	99	97	101	104	102	107
Age 60 to 79	86	85	88	98	95	100	110	104	116	124	115	133
Age 3 to 79	82	81	83	90	89	92	98	96	100	105	103	107
Age 6 to 79	82	81	83	91	89	93	98	96	100	105	103	107
Females												
Age 6 to 11	45	44	47	50	48	52	54	53	56	57	54	60
Age 12 to 19	61	59	62	67	67	68	72	69	75	77	73	80
Age 20 to 39	65	63	66	70	67	73	76	73	79	80	76	84
Age 40 to 59	68	66	70	75	74	77	82	79	85	85	81	88
Age 60 to 79	69	67	71	78	75	80	91	84	98	98	79	116
Age 3 to 79	65	64	66	72	71	73	80	78	82	85	82	88
Age 6 to 79	65	64	66	73	72	74	80	78	82	85	82	88

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 41
Distribution of gamma-glutamyl transferase measured in serum for the household population, by age and sex,
Canada, 2009 to 2011

	Gamma-glutamyl transferase											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	U/L											
Both sexes												
Age 3 to 5	14	13	15	7 ^E	3	11	10	9	12	12	11	12
Age 6 to 11	15	14	16	10	9	12	11	11	12	13	12	13
Age 12 to 19	17	16	18	10	10	11	11	11	12	13	12	14
Age 20 to 39	22	20	24	11	10	13	13	12	14	15	14	16
Age 40 to 59	28	26	30	12	12	13	14	13	15	18	16	19
Age 60 to 79	30	28	31	14	13	15	16	15	17	20	19	21
Age 3 to 79	24	22	25	11	11	12	13	12	13	15	14	16
Age 6 to 79	24	23	25	12	11	12	13	12	14	16	15	17
Males												
Age 6 to 11	16	15	17	11	10	12	12	11	12	13	12	14
Age 12 to 19	19	17	20	11	10	13	13	12	14	14	14	15
Age 20 to 39	28	25	30	14	13	15	15	14	16	19	17	21
Age 40 to 59	35	32	38	16	15	18	17	15	19	24	20	28
Age 60 to 79	32	30	35	17	15	18	19	17	20	22	20	24
Age 3 to 79	28	26	29	13	12	14	14	14	15	18	17	19
Age 6 to 79	28	27	30	13	13	14	15	14	15	18	17	19
Females												
Age 6 to 11	15	14	16	10	7	13	11	10	12	13	12	13
Age 12 to 19	15	14	17	10	7	13	11	10	11	12	12	13
Age 20 to 39	17	16	19	.	.	.	12	10	13	14	12	15
Age 40 to 59	22	21	24	11	10	13	13	12	13	15	14	17
Age 60 to 79	27	25	30	13	12	14	15	14	16	18	17	19
Age 3 to 79	20	19	21	11	9	12	12	11	13	14	13	15
Age 6 to 79	20	19	22	11	10	12	12	11	13	14	13	15
	Gamma-glutamyl transferase											
	50th percentile		75th percentile			90th percentile			95th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	U/L											
Both sexes												
Age 3 to 5	13	12	14	16	14	17	17	16	19	19	16	21
Age 6 to 11	15	14	16	17	16	18	20	18	22	22	20	25
Age 12 to 19	16	14	17	19	18	20	24	21	28	31	22	40
Age 20 to 39	20	18	21	30	26	33	44	36	52	54	48	60
Age 40 to 59	25	23	27	38	35	42	64	49	79	89	73	104
Age 60 to 79	27	26	27	39	36	41	59	50	68	77	66	88
Age 3 to 79	21	19	22	31	30	33	49	45	53	69	60	78
Age 6 to 79	21	20	23	32	30	33	50	46	54	70	62	79
Males												
Age 6 to 11	15	14	16	17	16	19	20	18	22	22	19	25
Age 12 to 19	17	15	19	21	19	22	27	19	36	36 ^E	15	58
Age 20 to 39	25	21	29	36	30	42	53	46	60	61	54	67
Age 40 to 59	31	28	34	48	44	52	80	63	96	106	86	126
Age 60 to 79	29	27	32	41	36	45	64	52	75	77	69	85
Age 3 to 79	25	24	27	38	35	40	57	51	62	78	67	90
Age 6 to 79	26	24	27	38	35	41	57	51	63	80	68	92
Females												
Age 6 to 11	14	13	15	17	16	18	20	18	22	23	20	26
Age 12 to 19	15	14	16	18	17	20	22	21	23	25	20	30
Age 20 to 39	17	15	19	21	19	23	31	27	35	35	26	43
Age 40 to 59	20	18	21	28	25	31	41	33	49	70 ^E	42	97
Age 60 to 79	25	22	27	36	32	40	57	48	67	77	57	98
Age 3 to 79	18	17	19	25	23	27	37	34	41	53	46	59
Age 6 to 79	18	17	19	25	23	27	38	35	41	54	47	60

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 42
Distribution of phosphorus measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Phosphorus											
	Mean		5th percentile		10th percentile		25th percentile					
	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval		
	mmol/L											
Both sexes												
Age 3 to 5	1.69	1.67	1.71	1.46	1.44	1.48	1.49	1.47	1.52	1.59	1.56	1.62
Age 6 to 11	1.63	1.60	1.65	1.42	1.38	1.46	1.46	1.43	1.49	1.53	1.51	1.56
Age 12 to 19	1.41	1.38	1.43	1.08	1.03	1.13	1.13	1.07	1.19	1.26	1.23	1.29
Age 20 to 39	1.24	1.23	1.26	0.99	0.96	1.01	1.04	1.01	1.07	1.13	1.11	1.15
Age 40 to 59	1.22	1.19	1.25	0.95	0.93	0.98	1.02	0.98	1.06	1.12	1.09	1.14
Age 60 to 79	1.21	1.19	1.23	0.95	0.92	0.98	1.00	0.96	1.04	1.10	1.08	1.12
Age 3 to 79	1.28	1.27	1.30	0.98	0.96	1.00	1.04	1.02	1.06	1.14	1.12	1.16
Age 6 to 79	1.27	1.26	1.29	0.98	0.96	1.00	1.04	1.02	1.06	1.13	1.12	1.15
Males												
Age 6 to 11	1.63	1.61	1.66	1.42	1.36	1.49	1.47	1.43	1.50	1.55	1.51	1.58
Age 12 to 19	1.45	1.41	1.48	1.09	1.02	1.16	1.14	1.05	1.22	1.28	1.22	1.34
Age 20 to 39	1.24	1.21	1.26	0.98	0.94	1.01	1.02	0.97	1.07	1.10	1.08	1.13
Age 40 to 59	1.18	1.15	1.22	0.91	0.86	0.95	0.97	0.93	1.01	1.08	1.04	1.12
Age 60 to 79	1.16	1.14	1.19	0.93	0.88	0.99	0.97	0.94	1.00	1.05	1.03	1.08
Age 3 to 79	1.27	1.25	1.29	0.96	0.94	0.98	1.01	0.97	1.05	1.11	1.08	1.13
Age 6 to 79	1.25	1.23	1.27	0.95	0.94	0.97	1.01	0.97	1.04	1.10	1.08	1.12
Females												
Age 6 to 11	1.62	1.59	1.64	1.42	1.39	1.45	1.45	1.41	1.49	1.52	1.49	1.54
Age 12 to 19	1.37	1.34	1.39	1.06	0.98	1.14	1.11	1.04	1.18	1.26	1.22	1.29
Age 20 to 39	1.25	1.23	1.27	1.02	0.99	1.06	1.07	1.05	1.10	1.15	1.12	1.17
Age 40 to 59	1.26	1.23	1.29	1.02	0.97	1.07	1.08	1.04	1.12	1.15	1.11	1.19
Age 60 to 79	1.26	1.23	1.28	0.99	0.94	1.04	1.05	1.00	1.09	1.15	1.12	1.19
Age 3 to 79	1.30	1.28	1.32	1.02	1.01	1.04	1.08	1.07	1.10	1.17	1.14	1.20
Age 6 to 79	1.29	1.27	1.31	1.02	1.01	1.04	1.08	1.06	1.10	1.16	1.14	1.19

	Phosphorus											
	50th percentile		75th percentile		90th percentile		95th percentile					
	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval	Estimate	Confidence interval		
	mmol/L											
Both sexes												
Age 3 to 5	1.68	1.66	1.70	1.78	1.74	1.82	1.87	1.83	1.90	1.92	1.87	1.97
Age 6 to 11	1.62	1.59	1.64	1.71	1.69	1.73	1.78	1.76	1.80	1.83	1.79	1.87
Age 12 to 19	1.40	1.37	1.42	1.54	1.51	1.57	1.69	1.65	1.73	1.76	1.70	1.82
Age 20 to 39	1.25	1.23	1.27	1.34	1.32	1.36	1.43	1.40	1.46	1.49	1.47	1.51
Age 40 to 59	1.21	1.17	1.24	1.32	1.28	1.36	1.43	1.37	1.49	1.48	1.44	1.53
Age 60 to 79	1.21	1.18	1.23	1.30	1.27	1.32	1.41	1.38	1.44	1.47	1.45	1.50
Age 3 to 79	1.26	1.24	1.27	1.39	1.37	1.42	1.56	1.54	1.58	1.68	1.66	1.70
Age 6 to 79	1.25	1.23	1.27	1.37	1.35	1.40	1.53	1.51	1.55	1.63	1.61	1.65
Males												
Age 6 to 11	1.63	1.60	1.67	1.72	1.69	1.75	1.77	1.75	1.79	1.83	1.79	1.86
Age 12 to 19	1.42	1.39	1.46	1.60	1.56	1.65	1.74	1.69	1.78	1.83	1.76	1.91
Age 20 to 39	1.24	1.21	1.28	1.34	1.31	1.37	1.45	1.40	1.50	1.50	1.44	1.55
Age 40 to 59	1.17	1.14	1.20	1.27	1.23	1.32	1.40	1.31	1.48	1.48	1.42	1.54
Age 60 to 79	1.16	1.13	1.19	1.26	1.23	1.28	1.35	1.32	1.38	1.42	1.37	1.48
Age 3 to 79	1.23	1.20	1.25	1.38	1.34	1.42	1.59	1.56	1.62	1.70	1.67	1.72
Age 6 to 79	1.22	1.20	1.25	1.36	1.33	1.39	1.55	1.52	1.58	1.66	1.64	1.69
Females												
Age 6 to 11	1.60	1.57	1.63	1.70	1.67	1.73	1.79	1.74	1.83	1.84	1.77	1.91
Age 12 to 19	1.37	1.34	1.40	1.48	1.45	1.51	1.59	1.56	1.61	1.66	1.61	1.71
Age 20 to 39	1.26	1.22	1.29	1.34	1.31	1.37	1.42	1.39	1.46	1.47	1.43	1.52
Age 40 to 59	1.25	1.22	1.27	1.35	1.32	1.38	1.45	1.40	1.50	1.51	1.46	1.57
Age 60 to 79	1.25	1.24	1.27	1.35	1.31	1.38	1.45	1.42	1.48	1.50	1.47	1.54
Age 3 to 79	1.27	1.25	1.29	1.40	1.38	1.42	1.54	1.53	1.56	1.66	1.64	1.68
Age 6 to 79	1.27	1.25	1.29	1.39	1.36	1.41	1.51	1.49	1.53	1.60	1.57	1.62

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 43
Distribution of urea measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Urea											
	Mean		5th percentile		10th percentile		25th percentile					
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 3 to 5	5.0	4.9	5.2	3.3	3.1	3.5	3.5	3.3	3.7	4.2	4.1	4.3
Age 6 to 11	4.8	4.6	4.9	2.9	2.8	3.0	3.3	3.2	3.4	3.9	3.8	4.0
Age 12 to 19	4.6	4.5	4.7	2.7	2.5	2.9	3.1	2.9	3.3	3.7	3.5	3.9
Age 20 to 39	4.9	4.8	5.1	3.0	2.7	3.3	3.4	3.3	3.5	3.9	3.7	4.0
Age 40 to 59	5.5	5.3	5.7	3.2	2.9	3.6	3.8	3.5	4.1	4.4	4.2	4.7
Age 60 to 79	6.3	6.1	6.6	3.7	3.4	4.1	4.2	4.0	4.4	4.9	4.7	5.2
Age 3 to 79	5.3	5.2	5.4	3.1	3.0	3.2	3.5	3.4	3.6	4.2	4.1	4.3
Age 6 to 79	5.3	5.3	5.4	3.1	3.0	3.2	3.5	3.4	3.6	4.2	4.1	4.3
Males												
Age 6 to 11	5.0	4.9	5.2	3.3	2.9	3.7	3.6	3.3	4.0	4.1	4.0	4.3
Age 12 to 19	4.9	4.8	5.1	3.3	2.8	3.7	3.5	3.3	3.7	4.1	3.8	4.3
Age 20 to 39	5.5	5.3	5.7	3.3	2.9	3.8	3.7	3.4	4.0	4.4	4.2	4.7
Age 40 to 59	5.8	5.6	6.0	3.5	3.1	4.0	4.1	3.7	4.4	4.8	4.6	5.1
Age 60 to 79	6.6	6.4	6.8	4.2	3.7	4.6	4.6	4.4	4.8	5.3	5.1	5.5
Age 3 to 79	5.7	5.6	5.8	3.4	3.3	3.6	3.9	3.7	4.1	4.6	4.4	4.8
Age 6 to 79	5.7	5.6	5.8	3.4	3.3	3.6	3.9	3.7	4.1	4.6	4.4	4.8
Females												
Age 6 to 11	4.5	4.4	4.6	2.7	2.4	3.1	3.0	2.8	3.2	3.7	3.5	3.9
Age 12 to 19	4.2	4.1	4.3	2.5	2.3	2.7	2.9	2.7	3.0	3.4	3.3	3.5
Age 20 to 39	4.4	4.2	4.5	2.8	2.2	3.3	3.1	2.8	3.5	3.6	3.5	3.8
Age 40 to 59	5.2	5.0	5.4	3.0	2.3	3.7	3.4	3.0	3.9	4.2	3.9	4.4
Age 60 to 79	6.1	5.6	6.5	3.7	2.9	4.5	4.0	3.6	4.4	4.7	4.4	5.0
Age 3 to 79	5.0	4.8	5.1	2.8	2.6	3.1	3.3	3.1	3.4	3.9	3.8	4.0
Age 6 to 79	5.0	4.8	5.1	2.8	2.6	3.1	3.3	3.1	3.4	3.9	3.8	4.0

	Urea											
	50th percentile		75th percentile		90th percentile		95th percentile					
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	mmol/L											
Both sexes												
Age 3 to 5	4.9	4.6	5.2	5.8	5.4	6.3	6.4	6.2	6.6	6.7	6.5	6.9
Age 6 to 11	4.6	4.5	4.8	5.5	5.3	5.8	6.2	5.9	6.5	6.8	6.2	7.5
Age 12 to 19	4.5	4.4	4.6	5.3	5.1	5.4	5.9	5.7	6.2	6.5	6.1	6.9
Age 20 to 39	4.8	4.6	4.9	5.7	5.5	6.0	6.8	6.3	7.3	7.4	6.9	7.9
Age 40 to 59	5.4	5.2	5.6	6.3	6.1	6.5	7.3	7.0	7.6	7.8	7.4	8.3
Age 60 to 79	5.9	5.7	6.1	7.1	6.9	7.4	8.6	8.1	9.1	9.9	8.8	11.0
Age 3 to 79	5.1	5.0	5.2	6.1	6.0	6.2	7.2	7.1	7.4	8.0	7.8	8.2
Age 6 to 79	5.1	5.0	5.2	6.1	6.0	6.2	7.2	7.1	7.4	8.0	7.8	8.2
Males												
Age 6 to 11	4.9	4.7	5.2	5.8	5.5	6.1	6.3	5.7	6.9	7.1	6.3	8.0
Age 12 to 19	4.9	4.7	5.1	5.6	5.4	5.9	6.4	5.9	6.9	6.8	6.3	7.3
Age 20 to 39	5.4	5.0	5.7	6.2	5.9	6.6	7.3	6.8	7.9	7.9	7.3	8.5
Age 40 to 59	5.7	5.5	6.0	6.6	6.3	7.0	7.4	7.0	7.7	7.8	7.3	8.4
Age 60 to 79	6.2	6.0	6.3	7.4	7.2	7.6	8.7	8.3	9.1	9.6	8.7	10.5
Age 3 to 79	5.5	5.3	5.7	6.4	6.2	6.7	7.5	7.3	7.7	8.0	7.8	8.2
Age 6 to 79	5.6	5.4	5.7	6.5	6.2	6.8	7.5	7.3	7.7	8.1	7.8	8.3
Females												
Age 6 to 11	4.4	4.2	4.5	5.0	4.9	5.2	6.0	5.7	6.4	6.5	5.8	7.2
Age 12 to 19	4.2	4.1	4.3	4.9	4.7	5.1	5.5	5.3	5.8	5.9	5.7	6.2
Age 20 to 39	4.1	4.0	4.3	5.0	4.7	5.4	5.7	5.3	6.1	6.1	5.9	6.3
Age 40 to 59	5.0	4.8	5.2	6.0	5.8	6.2	6.9	6.4	7.3	7.8	7.0	8.6
Age 60 to 79	5.7	5.4	6.0	6.7	6.3	7.2	8.4	7.2	9.6	10.1	8.1	12.1
Age 3 to 79	4.7	4.5	4.9	5.7	5.5	5.9	6.6	6.5	6.8	7.7	7.1	8.3
Age 6 to 79	4.7	4.5	4.9	5.7	5.5	5.9	6.6	6.5	6.8	7.7	7.1	8.4

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 44
Distribution of uric acid measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Uric acid											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	umol/L											
Both sexes												
Age 3 to 5	196	187	205	119	92	146	142	125	158	167	159	175
Age 6 to 11	218	212	225	128	118	138	143	122	163	181	169	192
Age 12 to 19	289	282	296	182	168	196	203	194	212	235	222	247
Age 20 to 39	296	288	305	173	150	196	199	185	213	240	230	250
Age 40 to 59	307	300	314	186	178	195	214	205	223	247	238	256
Age 60 to 79	326	317	336	194	168	221	217	200	234	265	257	273
Age 3 to 79	297	291	302	172	165	180	194	187	202	233	226	240
Age 6 to 79	300	294	305	176	170	182	201	194	207	239	233	246
Males												
Age 6 to 11	212	202	222	125	112	138	133	111	155	178	153	203
Age 12 to 19	326	315	336	204	189	219	226	207	246	280	268	292
Age 20 to 39	345	330	361	248	228	268	260	246	275	302	287	317
Age 40 to 59	345	332	357	218	197	239	243	225	261	289	270	307
Age 60 to 79	361	353	370	241	224	258	269	255	283	306	298	315
Age 3 to 79	332	325	340	190	180	201	224	216	232	278	268	289
Age 6 to 79	337	329	345	208	196	219	232	222	242	284	274	294
Females												
Age 6 to 11	225	218	231	138	122	153	158	143	172	192	179	206
Age 12 to 19	250	243	258	163	144	182	183	166	200	220	211	228
Age 20 to 39	247	239	256	139	107	170	173	150	196	204	191	217
Age 40 to 59	269	260	279	177	165	189	193	180	207	224	218	230
Age 60 to 79	294	279	309	171	144	198	200	173	227	244	225	263
Age 3 to 79	261	255	266	159	146	171	180	174	186	217	211	223
Age 6 to 79	263	257	268	161	147	175	181	174	188	219	214	224

	Uric acid											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	umol/L											
Both sexes												
Age 3 to 5	189	180	198	227	212	243	257	239	274	278	253	303
Age 6 to 11	216	209	223	251	242	259	290	275	305	317	301	334
Age 12 to 19	283	276	290	338	326	350	384	373	395	411	393	430
Age 20 to 39	296	287	304	352	334	369	399	378	420	427	407	446
Age 40 to 59	298	288	307	362	347	377	416	402	430	457	422	492
Age 60 to 79	317	311	324	376	362	391	445	430	461	481	450	511
Age 3 to 79	290	283	296	351	340	361	408	397	420	442	424	460
Age 6 to 79	294	287	300	353	343	362	410	398	422	444	426	462
Males												
Age 6 to 11	209	198	219	240	232	247	284	258	310	322	301	344
Age 12 to 19	325	310	341	372	357	387	410	392	427	443	413	472
Age 20 to 39	338	318	357	388	370	406	426	405	447	450	396	504
Age 40 to 59	339	329	350	399	382	417	443	410	476	482	428	535
Age 60 to 79	356	345	367	408	393	423	459	442	477	497	460	535
Age 3 to 79	331	324	339	387	376	398	432	417	447	466	446	486
Age 6 to 79	334	326	342	389	378	401	434	418	450	468	447	488
Females												
Age 6 to 11	221	215	227	263	249	277	293	278	308	313	291	335
Age 12 to 19	248	239	257	283	276	291	312	302	323	333	313	352
Age 20 to 39	244	231	257	288	276	300	322	304	339	353	331	374
Age 40 to 59	260	244	276	303	293	313	355	328	381	395	369	422
Age 60 to 79	284	272	296	329	319	339	407	364	450	447	389	505
Age 3 to 79	254	248	260	298	291	305	344	334	354	381	359	404
Age 6 to 79	256	249	262	299	292	306	345	335	355	382	359	406

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 45
Distribution of hemoglobin measured in whole blood for the household population, by age and sex,
Canada, 2009 to 2011

	Hemoglobin											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	g/L											
Both sexes												
Age 3 to 5	127	126	128	116	114	117	118	117	119	122	120	123
Age 6 to 11	132	130	134	117	114	120	120	118	123	126	124	128
Age 12 to 19	141	140	142	122	120	124	126	125	127	133	131	134
Age 20 to 39	144	143	146	124	122	125	127	126	129	135	133	136
Age 40 to 59	143	142	144	123	120	126	128	127	130	134	133	135
Age 60 to 79	141	139	142	118	113	123	124	121	127	132	131	134
Age 3 to 79	142	141	143	121	120	122	125	124	127	132	131	133
Age 6 to 79	142	141	143	122	120	123	126	125	127	133	132	134
Males												
Age 6 to 11	132	130	133	118	114	121	120	117	124	126	124	128
Age 12 to 19	148	146	150	131	127	135	136	133	139	142	139	144
Age 20 to 39	153	152	155	138	136	141	141	138	144	146	145	148
Age 40 to 59	151	149	152	136	132	139	139	136	143	144	142	147
Age 60 to 79	148	146	150	128	121	134	134	132	136	141	139	143
Age 3 to 79	149	148	150	127	125	129	133	131	135	141	140	143
Age 6 to 79	150	148	151	129	128	131	135	133	137	142	140	144
Females												
Age 6 to 11	132	130	134	116	110	121	120	116	125	126	123	129
Age 12 to 19	134	132	136	119	118	121	122	120	125	128	126	130
Age 20 to 39	135	134	136	121	119	123	124	122	125	129	127	130
Age 40 to 59	135	134	136	120	117	122	123	120	126	130	128	132
Age 60 to 79	134	132	135	114	103	125	120	116	124	128	125	130
Age 3 to 79	134	133	135	119	117	121	122	121	124	128	127	130
Age 6 to 79	135	133	136	119	117	121	123	121	124	129	128	130

	Hemoglobin											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	g/L											
Both sexes												
Age 3 to 5	127	125	129	131	130	132	136	132	139	138	134	143
Age 6 to 11	132	130	134	137	135	139	142	139	145	145	142	148
Age 12 to 19	140	138	142	149	147	151	156	154	158	159	156	162
Age 20 to 39	144	142	145	153	151	155	162	160	164	165	163	167
Age 40 to 59	142	140	143	151	150	152	158	156	160	163	160	165
Age 60 to 79	140	139	142	149	147	151	157	155	159	162	160	164
Age 3 to 79	141	139	142	150	149	151	158	157	160	163	162	164
Age 6 to 79	141	140	142	150	149	152	158	157	160	163	162	165
Males												
Age 6 to 11	131	129	133	137	135	139	142	139	146	144	141	148
Age 12 to 19	147	145	150	154	152	157	159	156	162	162	158	165
Age 20 to 39	152	150	155	160	158	162	165	163	167	168	166	170
Age 40 to 59	150	149	152	157	155	159	163	160	165	165	162	169
Age 60 to 79	148	146	150	155	153	157	162	160	164	166	163	170
Age 3 to 79	149	148	150	156	155	158	163	162	165	166	164	168
Age 6 to 79	150	148	151	157	155	158	163	162	165	166	164	168
Females												
Age 6 to 11	133	131	135	137	135	139	142	139	145	145	142	148
Age 12 to 19	134	132	135	139	137	141	144	141	148	148	145	151
Age 20 to 39	135	134	137	142	140	144	145	144	147	148	144	152
Age 40 to 59	134	133	136	140	138	142	146	143	149	149	147	151
Age 60 to 79	134	133	136	140	138	142	145	144	147	149	147	151
Age 3 to 79	134	133	135	140	139	142	145	144	147	149	147	150
Age 6 to 79	134	133	135	140	139	142	145	144	147	149	147	151

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 46
Distribution of hematocrit measured in whole blood for the household population, by age and sex, Canada, 2009 to 2011

	Hematocrit											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
L/L												
Both sexes												
Age 3 to 5	0.377	0.373	0.381	0.346	0.338	0.353	0.352	0.348	0.357	0.365	0.361	0.369
Age 6 to 11	0.389	0.383	0.395	0.351	0.346	0.355	0.356	0.350	0.362	0.372	0.366	0.378
Age 12 to 19	0.417	0.412	0.421	0.362	0.355	0.369	0.375	0.367	0.382	0.393	0.387	0.398
Age 20 to 39	0.425	0.421	0.430	0.367	0.364	0.370	0.376	0.370	0.382	0.398	0.392	0.403
Age 40 to 59	0.421	0.417	0.426	0.367	0.362	0.373	0.378	0.372	0.384	0.395	0.389	0.401
Age 60 to 79	0.415	0.411	0.420	0.349	0.335	0.363	0.370	0.360	0.380	0.391	0.386	0.395
Age 3 to 79	0.418	0.414	0.421	0.362	0.358	0.367	0.371	0.367	0.376	0.391	0.387	0.394
Age 6 to 79	0.419	0.415	0.423	0.363	0.359	0.368	0.373	0.368	0.377	0.392	0.389	0.396
Males												
Age 6 to 11	0.388	0.381	0.394	0.348	0.337	0.359	0.358	0.350	0.366	0.371	0.363	0.379
Age 12 to 19	0.437	0.432	0.442	0.388	0.378	0.398	0.401	0.396	0.406	0.420	0.413	0.427
Age 20 to 39	0.452	0.446	0.458	0.408	0.404	0.412	0.416	0.407	0.425	0.432	0.424	0.440
Age 40 to 59	0.444	0.439	0.449	0.402	0.389	0.414	0.408	0.403	0.414	0.425	0.418	0.431
Age 60 to 79	0.436	0.431	0.442	0.380	0.367	0.394	0.395	0.388	0.401	0.414	0.408	0.420
Age 3 to 79	0.439	0.435	0.443	0.377	0.372	0.382	0.393	0.388	0.397	0.418	0.414	0.422
Age 6 to 79	0.441	0.437	0.445	0.383	0.377	0.390	0.400	0.394	0.406	0.420	0.416	0.425
Females												
Age 6 to 11	0.390	0.384	0.397	0.351	0.346	0.356	0.355	0.345	0.365	0.373	0.365	0.382
Age 12 to 19	0.395	0.389	0.401	0.354	0.346	0.362	0.362	0.355	0.370	0.379	0.371	0.386
Age 20 to 39	0.398	0.395	0.402	0.361	0.353	0.369	0.367	0.364	0.370	0.382	0.376	0.388
Age 40 to 59	0.399	0.393	0.404	0.363	0.355	0.371	0.367	0.362	0.373	0.383	0.375	0.390
Age 60 to 79	0.396	0.391	0.401	0.337	0.320	0.355	0.353	0.337	0.370	0.380	0.372	0.389
Age 3 to 79	0.397	0.393	0.401	0.353	0.347	0.359	0.365	0.361	0.369	0.380	0.375	0.385
Age 6 to 79	0.397	0.393	0.401	0.354	0.347	0.360	0.366	0.362	0.370	0.381	0.375	0.386

	Hematocrit											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
L/L												
Both sexes												
Age 3 to 5	0.375	0.369	0.381	0.387	0.383	0.391	0.401	0.394	0.408	0.409	0.397	0.421
Age 6 to 11	0.390	0.384	0.397	0.403	0.398	0.408	0.420	0.410	0.430	0.430	0.421	0.439
Age 12 to 19	0.416	0.409	0.422	0.439	0.433	0.444	0.464	0.455	0.472	0.473	0.465	0.481
Age 20 to 39	0.422	0.418	0.427	0.451	0.445	0.457	0.479	0.470	0.488	0.490	0.485	0.495
Age 40 to 59	0.420	0.414	0.425	0.446	0.439	0.452	0.467	0.461	0.474	0.482	0.474	0.491
Age 60 to 79	0.413	0.409	0.418	0.440	0.434	0.447	0.464	0.459	0.470	0.481	0.473	0.490
Age 3 to 79	0.415	0.411	0.419	0.443	0.438	0.448	0.468	0.463	0.472	0.483	0.478	0.488
Age 6 to 79	0.416	0.412	0.421	0.444	0.439	0.449	0.468	0.463	0.473	0.484	0.479	0.489
Males												
Age 6 to 11	0.388	0.380	0.395	0.402	0.396	0.408	0.421	0.409	0.433	0.431	0.421	0.440
Age 12 to 19	0.434	0.428	0.439	0.456	0.447	0.466	0.473	0.465	0.481	0.480	0.469	0.491
Age 20 to 39	0.451	0.444	0.457	0.472	0.463	0.481	0.490	0.485	0.495	0.498	0.492	0.504
Age 40 to 59	0.442	0.436	0.449	0.461	0.453	0.469	0.482	0.473	0.491	0.492	0.486	0.499
Age 60 to 79	0.438	0.431	0.446	0.457	0.451	0.463	0.482	0.473	0.492	0.492	0.483	0.501
Age 3 to 79	0.439	0.435	0.444	0.461	0.455	0.467	0.483	0.478	0.488	0.493	0.488	0.497
Age 6 to 79	0.441	0.436	0.445	0.462	0.456	0.468	0.484	0.478	0.489	0.493	0.488	0.497
Females												
Age 6 to 11	0.392	0.386	0.399	0.405	0.399	0.410	0.419	0.408	0.429	0.429	0.417	0.442
Age 12 to 19	0.394	0.389	0.400	0.408	0.399	0.417	0.427	0.416	0.439	0.438	0.430	0.446
Age 20 to 39	0.398	0.393	0.403	0.417	0.411	0.423	0.426	0.422	0.430	0.435	0.426	0.444
Age 40 to 59	0.397	0.391	0.403	0.413	0.407	0.420	0.428	0.420	0.437	0.441	0.431	0.451
Age 60 to 79	0.398	0.392	0.404	0.414	0.409	0.418	0.429	0.423	0.435	0.441	0.431	0.451
Age 3 to 79	0.396	0.392	0.400	0.413	0.409	0.418	0.427	0.422	0.431	0.438	0.431	0.444
Age 6 to 79	0.397	0.393	0.401	0.414	0.409	0.418	0.427	0.422	0.432	0.438	0.431	0.445

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 47
Distribution of mean corpuscular volume measured in whole blood for the household population, by age and sex,
Canada, 2009 to 2011

	Mean corpuscular volume											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	fL											
Both sexes												
Age 3 to 5	7.9	7.6	8.2	6.7	6.3	7.0	6.9	6.6	7.1	7.1	6.9	7.3
Age 6 to 11	8.2	8.0	8.5	6.8	6.6	7.1	7.1	6.9	7.4	7.5	7.4	7.7
Age 12 to 19	8.6	8.3	8.8	7.2	7.0	7.4	7.4	7.2	7.6	7.8	7.5	8.1
Age 20 to 39	8.7	8.5	9.0	7.3	7.0	7.6	7.6	7.3	7.9	8.0	7.8	8.3
Age 40 to 59	8.6	8.4	8.9	7.2	6.8	7.6	7.5	7.3	7.8	7.9	7.7	8.1
Age 60 to 79	8.7	8.4	9.0	7.2	6.8	7.5	7.5	7.2	7.7	7.9	7.7	8.2
Age 3 to 79	8.6	8.4	8.9	7.1	6.9	7.4	7.4	7.2	7.7	7.9	7.7	8.1
Age 6 to 79	8.6	8.4	8.9	7.2	6.9	7.5	7.5	7.3	7.7	7.9	7.7	8.1
Males												
Age 6 to 11	8.2	8.0	8.5	6.9	6.5	7.2	7.2	6.9	7.5	7.6	7.3	7.8
Age 12 to 19	8.5	8.3	8.8	7.2	7.0	7.4	7.4	7.2	7.6	7.8	7.5	8.0
Age 20 to 39	8.6	8.3	8.9	7.2	6.8	7.6	7.5	7.1	7.9	8.0	7.7	8.4
Age 40 to 59	8.6	8.3	8.8	7.2	6.7	7.8	7.5	7.2	7.8	7.9	7.6	8.1
Age 60 to 79	8.7	8.3	9.0	6.9	6.5	7.4	7.4	7.0	7.8	7.9	7.5	8.2
Age 3 to 79	8.6	8.3	8.8	7.1	6.7	7.4	7.4	7.1	7.7	7.9	7.6	8.1
Age 6 to 79	8.6	8.3	8.8	7.1	6.8	7.5	7.5	7.2	7.7	7.9	7.6	8.1
Females												
Age 6 to 11	8.2	7.9	8.6	6.8	6.4	7.1	7.1	6.8	7.3	7.5	7.3	7.8
Age 12 to 19	8.6	8.3	8.9	7.2	7.0	7.4	7.4	7.2	7.6	7.8	7.5	8.1
Age 20 to 39	8.8	8.6	9.1	7.3	7.0	7.7	7.7	7.4	7.9	8.1	7.9	8.3
Age 40 to 59	8.7	8.4	8.9	7.2	6.8	7.5	7.5	7.3	7.8	7.9	7.7	8.1
Age 60 to 79	8.7	8.4	9.0	7.3	7.1	7.5	7.6	7.3	7.8	8.0	7.7	8.2
Age 3 to 79	8.7	8.4	8.9	7.2	7.0	7.4	7.5	7.3	7.7	7.9	7.7	8.1
Age 6 to 79	8.7	8.4	8.9	7.2	7.0	7.4	7.5	7.3	7.7	7.9	7.7	8.1

	Mean corpuscular volume											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	fL											
Both sexes												
Age 3 to 5	7.7	7.3	8.1	8.3	8.0	8.7	9.1	8.5	9.7	9.4	9.0	9.8
Age 6 to 11	8.1	7.8	8.4	8.7	8.3	9.1	9.4	9.0	9.8	9.8	9.4	10.3
Age 12 to 19	8.4	8.1	8.8	9.1	8.8	9.4	9.8	9.5	10.2	10.1	9.7	10.6
Age 20 to 39	8.5	8.3	8.8	9.3	8.9	9.6	9.9	9.6	10.2	10.3	10.0	10.7
Age 40 to 59	8.4	8.1	8.7	9.2	9.0	9.4	9.8	9.5	10.1	10.2	9.7	10.7
Age 60 to 79	8.4	8.2	8.7	9.3	8.9	9.6	10.1	9.6	10.6	10.6	10.2	11.1
Age 3 to 79	8.4	8.2	8.7	9.2	8.9	9.4	9.8	9.6	10.1	10.3	10.0	10.6
Age 6 to 79	8.4	8.2	8.7	9.2	8.9	9.4	9.9	9.6	10.1	10.3	10.0	10.6
Males												
Age 6 to 11	8.1	7.8	8.3	8.6	8.2	9.0	9.4	9.1	9.8	9.7	9.4	10.1
Age 12 to 19	8.4	8.0	8.7	9.1	8.8	9.3	9.7	9.4	10.1	10.1	9.8	10.4
Age 20 to 39	8.5	8.2	8.8	9.1	8.8	9.4	9.7	9.3	10.0	10.1	9.7	10.5
Age 40 to 59	8.4	8.1	8.7	9.2	8.9	9.4	9.7	9.4	10.0	10.0	9.6	10.3
Age 60 to 79	8.5	8.1	8.9	9.3	9.0	9.6	9.9	9.5	10.3	10.4	9.9	10.9
Age 3 to 79	8.4	8.1	8.7	9.1	8.9	9.4	9.7	9.5	9.9	10.1	9.8	10.3
Age 6 to 79	8.4	8.1	8.7	9.1	8.9	9.4	9.7	9.5	10.0	10.1	9.8	10.3
Females												
Age 6 to 11	8.1	7.7	8.5	8.8	8.4	9.2	9.4	8.9	10.0	10.1	9.4	10.7
Age 12 to 19	8.5	8.1	8.8	9.1	8.7	9.5	9.9	9.5	10.4	10.3	9.7	10.9
Age 20 to 39	8.6	8.4	8.8	9.4	9.0	9.8	10.0	9.7	10.4	10.5	9.8	11.2
Age 40 to 59	8.5	8.1	8.8	9.2	8.9	9.5	9.9	9.4	10.4	10.5	10.0	11.1
Age 60 to 79	8.4	8.2	8.6	9.2	8.7	9.7	10.2	9.6	10.8	10.7	10.2	11.1
Age 3 to 79	8.5	8.2	8.7	9.2	8.9	9.5	10.0	9.6	10.3	10.5	10.2	10.9
Age 6 to 79	8.5	8.2	8.7	9.2	8.9	9.5	10.0	9.7	10.3	10.5	10.2	10.9

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 48
Distribution of glucose measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Glucose											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/L												
Both sexes												
Age 6 to 11	4.6	4.5	4.7	3.9	3.8	4.0	4.0	3.9	4.1	4.2	4.1	4.4
Age 12 to 19	4.7	4.6	4.8	4.1	4.0	4.1	4.2	4.1	4.3	4.4	4.3	4.4
Age 20 to 39	4.8	4.7	4.9	4.1	4.0	4.2	4.2	4.1	4.3	4.4	4.4	4.5
Age 40 to 59	5.2	5.0	5.4	4.3	4.2	4.4	4.4	4.3	4.5	4.6	4.5	4.7
Age 60 to 79	5.7	5.5	5.8	4.5	4.5	4.6	4.7	4.6	4.7	4.9	4.8	5.1
Age 6 to 79	5.1	5.0	5.1	4.1	4.1	4.2	4.3	4.2	4.4	4.5	4.5	4.6
Males												
Age 6 to 11	4.6	4.5	4.8	3.9	3.7	4.1	4.0	3.8	4.2	4.3	4.1	4.5
Age 12 to 19	4.8	4.7	4.9	4.1	3.9	4.3	4.3	4.1	4.5	4.5	4.4	4.6
Age 20 to 39	5.0	4.8	5.3	4.2	3.9	4.5	4.4	4.1	4.7	4.6	4.5	4.7
Age 40 to 59	5.4	5.2	5.7	4.4	4.3	4.5	4.5	4.4	4.6	4.8	4.6	4.9
Age 60 to 79	5.8	5.6	6.1	4.6	4.4	4.8	4.8	4.6	4.9	5.1	5.0	5.3
Age 6 to 79	5.2	5.1	5.4	4.2	4.1	4.4	4.4	4.3	4.5	4.7	4.6	4.7
Females												
Age 6 to 11	4.5	4.4	4.6	3.9	3.7	4.1	4.0	3.9	4.2	4.2	4.0	4.3
Age 12 to 19	4.6	4.5	4.7	4.0	4.0	4.1	4.1	4.0	4.2	4.3	4.3	4.4
Age 20 to 39	4.6	4.5	4.7	4.1	4.0	4.1	4.1	4.1	4.2	4.3	4.2	4.4
Age 40 to 59	5.0	4.9	5.1	4.2	4.1	4.3	4.4	4.2	4.5	4.6	4.5	4.7
Age 60 to 79	5.6	5.4	5.7	4.5	4.3	4.6	4.6	4.5	4.7	4.8	4.6	4.9
Age 6 to 79	4.9	4.8	5.0	4.1	4.1	4.1	4.2	4.1	4.2	4.4	4.4	4.5

	Glucose											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
mmol/L												
Both sexes												
Age 6 to 11	4.5	4.4	4.6	4.8	4.7	4.8	5.0	4.9	5.1	5.1	5.1	5.2
Age 12 to 19	4.6	4.6	4.7	4.9	4.8	4.9	5.0	5.0	5.1	5.1	5.0	5.2
Age 20 to 39	4.7	4.6	4.8	5.0	4.9	5.0	5.4	5.2	5.6	5.9	5.4	6.5
Age 40 to 59	5.0	4.8	5.1	5.5	5.3	5.6	6.1	5.7	6.5	7.0	6.0	7.9
Age 60 to 79	5.4	5.3	5.5	6.0	5.7	6.2	7.1	6.6	7.7	8.5	7.9	9.1
Age 6 to 79	4.8	4.8	4.9	5.3	5.2	5.4	6.0	5.8	6.1	6.7	6.3	7.1
Males												
Age 6 to 11	4.6	4.5	4.7	4.8	4.7	4.9	5.0	4.9	5.2	5.2	5.0	5.3
Age 12 to 19	4.7	4.6	4.8	4.9	4.9	5.0	5.1	5.0	5.1	5.2	5.1	5.4
Age 20 to 39	4.9	4.8	4.9	5.1	4.9	5.3	5.9	5.2	6.7	6.1	5.6	6.6
Age 40 to 59	5.1	4.8	5.4	5.7	5.3	6.1	6.6	5.7	7.5	7.4	5.2	9.5
Age 60 to 79	5.6	5.4	5.8	6.2	5.8	6.7	7.2	6.5	8.0	8.4	7.3	9.6
Age 6 to 79	4.9	4.9	5.0	5.5	5.3	5.7	6.2	6.0	6.5	7.1	6.6	7.6
Females												
Age 6 to 11	4.5	4.4	4.6	4.7	4.7	4.8	4.9	4.8	5.1	5.1	5.0	5.2
Age 12 to 19	4.5	4.4	4.5	4.8	4.7	4.8	4.9	4.8	5.0	5.1	5.0	5.2
Age 20 to 39	4.5	4.4	4.6	4.7	4.6	4.9	5.1	4.8	5.5	5.4	5.1	5.7
Age 40 to 59	4.8	4.7	5.0	5.2	5.1	5.3	5.6	5.4	5.7	5.8	5.5	6.2
Age 60 to 79	5.2	5.0	5.4	5.8	5.6	5.9	7.0	5.9	8.0	8.7	7.7	9.8
Age 6 to 79	4.7	4.6	4.8	5.1	5.0	5.2	5.6	5.4	5.7	6.1	5.8	6.4

Note(s): Total household population aged 6 to 79 - fasted sub-sample, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 49
Prevalence of hepatitis B surface antibody measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Presence of hepatitis B surface antibody			Absence of hepatitis B surface antibody		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 14 to 19	76.9	72.6	80.7	23.1	19.3	27.4
Age 20 to 39	50.4	43.8	57.0	49.6	43.0	56.2
Age 40 to 59	21.0	16.3	26.5	79.0	73.5	83.7
Age 60 to 79	18.1	13.6	23.6	81.9	76.4	86.4
Age 14 to 79	35.4	31.4	39.6	64.6	60.4	68.6
Males						
Age 14 to 19	77.3	70.4	82.9	22.7	17.1	29.6
Age 20 to 39	45.3	36.6	54.4	54.7	45.6	63.4
Age 40 to 59	14.7 ^E	9.8	21.6	85.3	78.4	90.2
Age 60 to 79	16.5 ^E	10.3	25.3	83.5	74.7	89.7
Age 14 to 79	31.3	27.1	35.9	68.7	64.1	72.9
Females						
Age 14 to 19	76.4	68.7	82.7	23.6	17.3	31.3
Age 20 to 39	55.6	45.7	65.0	44.4	35.0	54.3
Age 40 to 59	27.3	20.7	35.1	72.7	64.9	79.3
Age 60 to 79	19.5	15.0	25.1	80.5	74.9	85.0
Age 14 to 79	39.5	34.6	44.5	60.5	55.5	65.4

Note(s): Presence of hepatitis B surface antibody represents immunity to the virus. Total household population aged 14 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 50
Prevalence of herpes simplex-2 measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Presence of herpes simplex-2			Absence of herpes simplex-2		
	Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To
	percent					
Both sexes						
Age 20 to 39	8.9 ^E	6.0	13.1	91.1	86.9	94.0
Age 40 to 59	20.5	16.5	25.3	79.5	74.7	83.5
Age 20 to 59	15.0	12.4	18.0	85.0	82.0	87.6
Males						
Age 20 to 39	6.2 ^E	3.7	10.2	93.8	89.8	96.3
Age 40 to 59	17.5 ^E	12.0	24.7	82.5	75.3	88.0
Age 20 to 59	12.1	9.0	16.0	87.9	84.0	91.0
Females						
Age 20 to 39	11.6 ^E	7.5	17.6	88.4	82.4	92.5
Age 40 to 59	23.6	18.4	29.8	76.4	70.2	81.6
Age 20 to 59	17.9	14.9	21.4	82.1	78.6	85.1

Note(s): The results for the household population aged 14 to 19 are too unreliable to be published. Therefore this table presents data on the total household population aged 20 to 59, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*).

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 51
Distribution of ferritin measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Ferritin											
	Geometric mean		5th percentile			10th percentile			25th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
ug/L												
Both sexes												
Age 3 to 5	33	29	38	13	11	15	15	13	17	23	18	27
Age 6 to 11	41	38	44	18	15	21	22	19	24	30	27	33
Age 12 to 19	43	40	47	13	10	16	18	15	21	29	27	31
Age 20 to 39	78	70	86	14 ^E	8	20	22	17	26	40	35	45
Age 40 to 59	103	93	113	16	11	20	24	21	28	54	44	63
Age 60 to 79	122	110	135	22 ^E	13	30	36	27	45	75	67	83
Age 3 to 79	81	79	84	15	13	18	23	21	25	40	38	43
Age 6 to 79	84	81	87	16	13	18	23	21	25	42	39	45
Males												
Age 6 to 11	40	36	45	17	11	23	23	19	27	29	26	33
Age 12 to 19	58	53	64	23	19	28	29	26	31	39	35	42
Age 20 to 39	146	128	166	46 ^E	29	63	63	56	70	95	74	115
Age 40 to 59	185	164	207	52	42	62	76	56	96	113	91	135
Age 60 to 79	158	146	171	32	22	41	51	40	63	101	93	110
Age 3 to 79	128	123	133	27	24	29	38	35	40	71	65	77
Age 6 to 79	133	128	138	28	26	31	41	38	44	75	69	81
Females												
Age 6 to 11	42	39	45	18	17	20	21	19	23	31	28	35
Age 12 to 19	32	29	36	10	8	12	13	10	16	22	19	25
Age 20 to 39	41	38	45	10 ^E	5	15	16	11	21	26	23	30
Age 40 to 59	56	49	65	10 ^E	6	15	16	12	21	30	22	39
Age 60 to 79	96	83	111	16 ^E	5	27	27 ^E	13	40	61	47	76
Age 3 to 79	52	49	55	11	9	13	17	15	19	29	25	33
Age 6 to 79	52	49	56	11	9	13	17	15	20	29	25	33

	Ferritin											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
ug/L												
Both sexes												
Age 3 to 5	35	31	40	46	39	53	65	49	80	81	65	96
Age 6 to 11	40	38	43	54	52	56	77	66	88	92	83	101
Age 12 to 19	44	39	48	64	58	69	103	94	112	140	107	173
Age 20 to 39	80	71	89	164	142	186	258	225	292	326	248	404
Age 40 to 59	111	100	121	221	187	255	341	295	387	417	334	501
Age 60 to 79	131	119	143	215	193	236	348	314	383	463	370	557
Age 3 to 79	84	79	89	166	160	171	287	264	309	374	331	416
Age 6 to 79	89	82	95	167	159	176	291	268	315	380	337	423
Males												
Age 6 to 11	40	35	45	54	50	59	72	55	89	91	72	109
Age 12 to 19	58	53	63	84	68	99	127	99	155	164	127	202
Age 20 to 39	161	139	183	230	202	258	325	249	401	439	349	529
Age 40 to 59	182	160	204	309	271	347	408	327	489	556	448	663
Age 60 to 79	164	145	183	287	255	319	430	363	498	549	443	654
Age 3 to 79	141	130	153	242	219	265	371	326	416	466	395	536
Age 6 to 79	146	136	155	248	222	273	373	328	418	472	399	546
Females												
Age 6 to 11	41	37	45	54	49	58	80	66	94	92	83	100
Age 12 to 19	34	31	36	47	43	52	66	49	82	81	66	96
Age 20 to 39	43	40	47	71	63	80	107	97	116	115	104	125
Age 40 to 59	60	44	76	108	88	129	159	121	197	233	186	281
Age 60 to 79	108	92	124	168	149	186	248	186	310	360	281	439
Age 3 to 79	49	46	53	97	89	105	153	142	163	205	174	236
Age 6 to 79	50	47	54	98	90	106	154	142	166	206	172	239

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 52
Distribution of iodine measured in urine for the household population, by age and sex, Canada, 2009 to 2011

	Iodine											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	umol/L											
Both sexes												
Age 3 to 5	1.79	1.57	2.03	0.51	0.38	0.65	0.69	0.48	0.90	1.18	1.06	1.31
Age 6 to 11	1.49	1.33	1.68	0.42	0.30	0.53	0.55	0.48	0.63	0.99	0.88	1.11
Age 12 to 19	1.27	1.14	1.41	0.31	0.24	0.39	0.50	0.41	0.60	0.84	0.72	0.95
Age 20 to 39	1.01	0.91	1.13	0.25 ^E	0.15	0.34	0.40	0.31	0.48	0.70	0.60	0.79
Age 40 to 59	0.91	0.84	0.99	0.22	0.15	0.29	0.33	0.27	0.39	0.57	0.50	0.63
Age 60 to 79	0.92	0.84	1.01	0.21 ^E	0.13	0.29	0.32	0.27	0.37	0.58	0.53	0.63
Age 3 to 79	1.03	0.98	1.09	0.24	0.20	0.28	0.37	0.34	0.41	0.66	0.61	0.70
Age 6 to 79	1.01	0.96	1.07	0.24	0.20	0.27	0.37	0.33	0.40	0.65	0.61	0.70
Males												
Age 6 to 11	1.77	1.52	2.06	0.51	0.41	0.61	0.71	0.59	0.83	1.13	0.93	1.32
Age 12 to 19	1.40	1.23	1.59	0.39 ^E	0.21	0.57	0.59	0.46	0.72	0.97	0.84	1.10
Age 20 to 39	1.01	0.88	1.15	0.23 ^E	0.09	0.37	0.36	0.25	0.47	0.71	0.64	0.79
Age 40 to 59	0.97	0.86	1.08	0.26	0.17	0.34	0.39	0.30	0.47	0.56	0.44	0.69
Age 60 to 79	0.99	0.89	1.11	0.26	0.18	0.35	0.34	0.29	0.40	0.59	0.52	0.65
Age 3 to 79	1.09	1.01	1.18	0.28	0.23	0.34	0.40	0.35	0.45	0.69	0.62	0.77
Age 6 to 79	1.07	0.99	1.16	0.28	0.22	0.34	0.40	0.35	0.44	0.69	0.61	0.77
Females												
Age 6 to 11	1.25	1.08	1.43	F	.	.	0.45	0.39	0.52	0.87	0.77	0.97
Age 12 to 19	1.14	0.99	1.32	0.25 ^E	0.15	0.35	0.39 ^E	0.24	0.54	0.68	0.55	0.80
Age 20 to 39	1.02	0.88	1.18	0.28 ^E	0.17	0.38	0.42	0.31	0.53	0.65	0.53	0.78
Age 40 to 59	0.86	0.77	0.96	.	.	.	0.29	0.21	0.38	0.57	0.45	0.69
Age 60 to 79	0.86	0.77	0.96	.	.	.	0.31	0.23	0.39	0.56	0.48	0.65
Age 3 to 79	0.97	0.92	1.03	0.22	0.19	0.25	0.35	0.31	0.39	0.63	0.57	0.69
Age 6 to 79	0.96	0.90	1.01	0.21	0.17	0.26	0.34	0.30	0.38	0.62	0.56	0.67

	Iodine											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	umol/L											
Both sexes												
Age 3 to 5	1.70	1.18	2.22	2.95	2.58	3.32	4.10	3.40	4.80	5.08 ^E	2.95	7.22
Age 6 to 11	1.49	1.34	1.64	2.67	2.20	3.15	4.19	3.51	4.87	5.15	4.34	5.95
Age 12 to 19	1.28	1.08	1.49	2.17	1.92	2.42	3.07	2.67	3.46	4.05	3.40	4.70
Age 20 to 39	0.98	0.89	1.07	1.58	1.38	1.77	2.64	2.00	3.28	3.75	3.07	4.42
Age 40 to 59	0.96	0.89	1.03	1.37	1.23	1.51	2.73	2.17	3.29	3.78	3.03	4.53
Age 60 to 79	0.99	0.89	1.09	1.49	1.36	1.62	2.66	2.23	3.10	3.33	2.88	3.77
Age 3 to 79	1.06	1.01	1.11	1.66	1.55	1.77	2.94	2.65	3.23	3.88	3.58	4.17
Age 6 to 79	1.04	0.99	1.09	1.62	1.51	1.73	2.87	2.59	3.16	3.82	3.53	4.12
Males												
Age 6 to 11	1.70	1.48	1.92	3.11	2.48	3.73	4.83	4.06	5.60	5.69	4.73	6.65
Age 12 to 19	1.42	1.24	1.59	2.20	1.82	2.58	3.16	2.75	3.57	3.87	2.84	4.90
Age 20 to 39	1.06	0.90	1.23	1.58	1.36	1.79	2.58	1.87	3.28	3.24 ^E	2.03	4.44
Age 40 to 59	0.99	0.89	1.09	1.44	1.22	1.66	2.95	2.50	3.40	3.88	2.89	4.87
Age 60 to 79	1.03	0.91	1.14	1.65	1.39	1.91	3.01	2.56	3.46	3.78	3.22	4.34
Age 3 to 79	1.11	1.05	1.16	1.73	1.56	1.90	3.08	2.74	3.42	4.20	3.59	4.81
Age 6 to 79	1.10	1.04	1.16	1.70	1.55	1.85	3.02	2.71	3.34	4.09	3.48	4.69
Females												
Age 6 to 11	1.26	1.08	1.44	2.22	1.73	2.72	3.27	2.74	3.80	3.81	3.23	4.40
Age 12 to 19	1.18	0.97	1.39	2.13	1.87	2.39	2.88	2.33	3.44	4.22	3.44	5.00
Age 20 to 39	0.97	0.88	1.06	1.57	1.13	2.02	2.74 ^E	1.63	3.85	3.76	3.18	4.35
Age 40 to 59	0.95	0.85	1.05	1.34	1.21	1.48	2.32	1.64	3.01	3.39	2.37	4.40
Age 60 to 79	0.93	0.80	1.05	1.42	1.27	1.57	2.26	1.87	2.65	2.94	2.39	3.50
Age 3 to 79	1.00	0.94	1.07	1.56	1.44	1.69	2.69	2.33	3.04	3.75	3.38	4.11
Age 6 to 79	0.99	0.93	1.04	1.52	1.41	1.63	2.65	2.37	2.94	3.74	3.33	4.16

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 53
Distribution of iodine-to-creatinine ratio for the household population, by age and sex, Canada, 2009 to 2011

	Iodine-to-creatinine ratio											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	nmol/mmol											
Both sexes												
Age 3 to 5	353	314	395	109	84	134	157	135	180	232	211	254
Age 6 to 11	194	175	216	70	61	78	86	78	94	120	106	134
Age 12 to 19	110	102	119	37	31	42	46	39	52	72	65	78
Age 20 to 39	98	89	107	35	32	38	42	38	46	58	54	62
Age 40 to 59	104	96	113	34	26	41	42	37	46	61	56	67
Age 60 to 79	130	120	141	43	38	47	54	48	60	80	72	88
Age 3 to 79	116	110	122	36	33	40	44	41	47	67	64	69
Age 6 to 79	112	106	118	36	33	39	44	41	47	66	62	69
Males												
Age 6 to 11	218	192	248	76	69	83	89	78	100	132	114	149
Age 12 to 19	109	100	119	39	32	46	46	38	54	70	60	80
Age 20 to 39	82	75	89	36	33	38	40	37	44	54	49	58
Age 40 to 59	90	79	102	30	20	40	39	34	44	54	45	63
Age 60 to 79	113	105	122	37	31	42	51	44	58	71	63	80
Age 3 to 79	104	98	110	36	32	40	42	39	44	61	57	64
Age 6 to 79	99	94	105	35	31	40	42	39	45	60	57	64
Females												
Age 6 to 11	171	152	193	59 ^E	34	84	77	66	88	111	97	125
Age 12 to 19	112	101	123	35	28	41	44	38	51	72	64	79
Age 20 to 39	116	98	136	35	28	42	46	39	53	62	49	75
Age 40 to 59	121	108	137	35	23	47	52	42	62	74	66	83
Age 60 to 79	148	134	163	45	36	54	59	46	72	91	78	104
Age 3 to 79	130	121	140	39	33	44	50	44	56	76	71	81
Age 6 to 79	126	117	136	38	33	44	49	44	54	76	71	81

	Iodine-to-creatinine ratio											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	nmol/mmol											
Both sexes												
Age 3 to 5	337	283	390	579	449	709	856	716	995	1,037 ^E	662	1412
Age 6 to 11	191	164	218	312	265	358	503	421	585	639	536	742
Age 12 to 19	109	97	120	170	152	189	262	241	283	347	291	403
Age 20 to 39	88	77	99	155	125	185	255	195	314	319	278	360
Age 40 to 59	103	94	112	167	148	185	285	220	351	369	291	447
Age 60 to 79	128	116	139	213	192	233	322	289	355	386	351	420
Age 3 to 79	111	102	119	193	178	208	312	292	333	415	367	463
Age 6 to 79	107	99	115	183	168	198	293	276	311	381	353	409
Males												
Age 6 to 11	205	171	239	371	302	440	546	435	658	665	540	790
Age 12 to 19	107	96	117	166	142	190	244	204	284	352	275	429
Age 20 to 39	73	62	84	120	92	148	199	162	236	233	165	302
Age 40 to 59	83	64	102	158	130	186	227	159	295	301	243	359
Age 60 to 79	111	101	122	174	154	194	261	231	292	312	244	380
Age 3 to 79	97	90	104	170	157	183	286	265	306	377	344	409
Age 6 to 79	93	85	101	162	150	175	259	230	289	356	324	388
Females												
Age 6 to 11	178	152	204	252	203	302	398	321	475	529	443	615
Age 12 to 19	111	95	128	177	155	199	274	249	300	330	269	392
Age 20 to 39	113	85	141	200	165	236	293	254	333	356	248	464
Age 40 to 59	118	104	133	181	152	211	312	222	401	439 ^E	223	655
Age 60 to 79	142	116	169	241	215	268	370	332	408	418	369	467
Age 3 to 79	127	113	141	210	195	225	333	299	366	460	371	549
Age 6 to 79	122	108	136	205	189	220	317	286	347	408	343	472

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 54
Distribution of parathyroid hormone measured in plasma for the household population, by age and sex,
Canada, 2009 to 2011

	Parathyroid hormone											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	pmol/L											
Both sexes												
Age 3 to 5	1.47	1.34	1.61	0.80	0.70	0.89	0.90	0.80	0.99	1.16	1.01	1.31
Age 6 to 11	1.48	1.39	1.59	0.79	0.69	0.89	0.90	0.87	0.94	1.12	1.05	1.19
Age 12 to 19	1.73	1.63	1.83	0.82	0.75	0.89	0.97	0.87	1.08	1.25	1.15	1.35
Age 20 to 39	1.86	1.74	1.98	0.91	0.77	1.05	1.09	1.00	1.19	1.39	1.27	1.51
Age 40 to 59	2.14	1.94	2.37	1.08	0.89	1.27	1.22	1.04	1.39	1.63	1.42	1.84
Age 60 to 79	2.37	2.24	2.49	1.02	0.90	1.15	1.20	1.08	1.32	1.72	1.63	1.82
Age 3 to 79	1.98	1.88	2.08	0.92	0.86	0.97	1.10	1.05	1.15	1.43	1.36	1.49
Age 6 to 79	1.99	1.89	2.10	0.93	0.86	0.99	1.11	1.06	1.17	1.44	1.37	1.51
Males												
Age 6 to 11	1.41	1.27	1.57	0.76	0.60	0.92	0.88	0.84	0.93	1.08	0.98	1.19
Age 12 to 19	1.92	1.78	2.06	0.86	0.72	0.99	1.10	0.95	1.25	1.39	1.28	1.51
Age 20 to 39	1.97	1.78	2.17	0.91	0.68	1.15	1.12	0.93	1.31	1.48	1.37	1.60
Age 40 to 59	2.23	1.97	2.52	0.98	0.65	1.32	1.26	0.98	1.54	1.70	1.44	1.96
Age 60 to 79	2.50	2.35	2.66	1.11	0.98	1.24	1.27	1.12	1.41	1.77	1.63	1.91
Age 3 to 79	2.07	1.95	2.20	0.91	0.84	0.99	1.12	1.03	1.21	1.48	1.40	1.56
Age 6 to 79	2.09	1.97	2.22	0.92	0.83	1.01	1.15	1.06	1.23	1.49	1.40	1.58
Females												
Age 6 to 11	1.56	1.45	1.69	0.82	0.73	0.90	0.94	0.89	1.00	1.18	1.11	1.26
Age 12 to 19	1.55	1.43	1.68	0.79	0.74	0.84	0.92	0.79	1.04	1.17	1.02	1.31
Age 20 to 39	1.75	1.65	1.86	0.90	0.73	1.07	1.06	0.95	1.17	1.29	1.16	1.43
Age 40 to 59	2.06	1.86	2.28	1.13	1.02	1.23	1.20	1.06	1.33	1.59	1.36	1.81
Age 60 to 79	2.25	2.08	2.43	0.97	0.77	1.17	1.18	1.06	1.31	1.70	1.58	1.82
Age 3 to 79	1.89	1.80	1.99	0.92	0.85	1.00	1.09	1.05	1.13	1.39	1.32	1.46
Age 6 to 79	1.90	1.81	2.00	0.93	0.85	1.01	1.09	1.05	1.14	1.39	1.33	1.46

	Parathyroid hormone											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	pmol/L											
Both sexes												
Age 3 to 5	1.41	1.28	1.54	1.84	1.63	2.06	2.40	2.00	2.81	3.12	2.65	3.58
Age 6 to 11	1.46	1.35	1.57	1.95	1.77	2.13	2.72	2.30	3.13	2.99	2.58	3.40
Age 12 to 19	1.68	1.54	1.82	2.29	2.20	2.39	3.07	2.71	3.42	3.63	3.17	4.09
Age 20 to 39	1.84	1.67	2.01	2.47	2.26	2.68	3.10	2.92	3.28	3.77	3.31	4.23
Age 40 to 59	2.19	1.95	2.42	2.81	2.58	3.05	3.69	3.26	4.11	4.22	3.75	4.69
Age 60 to 79	2.37	2.24	2.49	3.20	2.98	3.42	4.30	3.79	4.81	5.97	4.57	7.37
Age 3 to 79	1.99	1.87	2.11	2.69	2.54	2.84	3.50	3.26	3.73	4.15	3.81	4.48
Age 6 to 79	2.00	1.87	2.12	2.70	2.56	2.85	3.51	3.26	3.75	4.17	3.83	4.51
Males												
Age 6 to 11	1.35	1.22	1.48	1.78	1.48	2.08	2.46	1.67	3.26	3.00	2.21	3.79
Age 12 to 19	1.90	1.77	2.03	2.54	2.25	2.83	3.55	2.92	4.18	4.40	2.88	5.91
Age 20 to 39	1.95	1.69	2.21	2.66	2.36	2.96	3.15	2.90	3.40	3.95	3.43	4.48
Age 40 to 59	2.27	2.01	2.54	2.89	2.57	3.21	3.84	3.44	4.25	4.52	3.61	5.43
Age 60 to 79	2.51	2.37	2.64	3.39	3.13	3.65	4.70	3.96	5.45	6.03 ^E	3.73	8.33
Age 3 to 79	2.07	1.91	2.22	2.79	2.63	2.95	3.69	3.46	3.92	4.49	3.82	5.15
Age 6 to 79	2.10	1.94	2.25	2.80	2.64	2.97	3.71	3.48	3.94	4.50	3.81	5.19
Females												
Age 6 to 11	1.54	1.41	1.66	2.04	1.79	2.29	2.76	2.47	3.05	2.90	2.46	3.34
Age 12 to 19	1.52	1.39	1.66	2.07	1.88	2.25	2.67	2.28	3.07	3.11	2.62	3.60
Age 20 to 39	1.75	1.56	1.94	2.30	2.13	2.47	2.93	2.77	3.09	3.44	2.96	3.93
Age 40 to 59	2.09	1.82	2.35	2.77	2.48	3.06	3.40	2.89	3.91	4.12	3.59	4.66
Age 60 to 79	2.23	2.10	2.37	2.98	2.69	3.28	3.99	3.60	4.38	5.69	3.67	7.70
Age 3 to 79	1.89	1.74	2.04	2.54	2.38	2.69	3.29	3.03	3.56	3.92	3.55	4.29
Age 6 to 79	1.91	1.76	2.07	2.55	2.39	2.70	3.30	3.03	3.56	3.93	3.57	4.29

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 55
Distribution of vitamin B12 measured in serum for the household population, by age and sex, Canada, 2009 to 2011

	Vitamin B12											
	Geometric mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	pmol/L											
Both sexes												
Age 3 to 5	521	483	561	282	236	327	303	226	381	426	350	503
Age 6 to 11	471	450	492	251	231	270	278	239	316	379	352	407
Age 12 to 19	331	316	347	162	144	180	195	179	212	243	223	263
Age 20 to 39	308	290	327	152	140	164	170	151	189	222	202	242
Age 40 to 59	316	298	336	147	133	160	168	153	182	229	210	248
Age 60 to 79	303	282	326	148	126	170	171	155	188	212	198	226
Age 3 to 79	323	310	337	152	142	162	177	164	191	230	218	243
Age 6 to 79	320	306	334	152	142	162	176	162	190	229	216	241
Males												
Age 6 to 11	480	453	508	259	235	283	278	219	338	401	368	435
Age 12 to 19	336	315	359	181	158	204	210	185	235	262	229	295
Age 20 to 39	311	284	340	157	133	182	179	149	210	227	198	256
Age 40 to 59	310	290	330	146	136	157	162	144	179	229	209	249
Age 60 to 79	282	259	307	147	119	175	169	149	190	206	189	223
Age 3 to 79	319	305	334	151	141	162	176	160	192	232	218	245
Age 6 to 79	315	301	330	150	140	161	176	159	192	231	217	244
Females												
Age 6 to 11	462	438	487	236	202	269	277	244	310	361	329	393
Age 12 to 19	325	303	349	150	130	169	174	149	199	229	205	254
Age 20 to 39	305	285	327	148	137	159	162	142	182	210	192	229
Age 40 to 59	323	299	350	158	126	191	179	164	194	230	206	254
Age 60 to 79	326	301	353	150	121	179	175	154	197	225	203	246
Age 3 to 79	327	311	344	152	140	165	178	164	192	228	213	243
Age 6 to 79	324	309	341	152	140	165	177	163	191	225	211	239

	Vitamin B12											
	50th percentile			75th percentile			90th percentile			95th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
	pmol/L											
Both sexes												
Age 3 to 5	578	529	626	682	641	723	718	705	730	728	715	742
Age 6 to 11	518	469	567	616	596	636	677	661	693	714	697	731
Age 12 to 19	330	309	351	460	435	485	560	543	576	636	617	656
Age 20 to 39	316	284	348	428	402	454	524	489	558	596	551	640
Age 40 to 59	311	279	343	450	401	500	602	549	656	654	616	692
Age 60 to 79	300	279	322	434	401	467	595	575	615	654	634	674
Age 3 to 79	328	308	347	464	439	490	599	572	625	658	638	678
Age 6 to 79	323	304	342	453	430	476	591	565	617	652	630	674
Males												
Age 6 to 11	542	486	598	615	592	638	670	655	686	695	666	723
Age 12 to 19	334	308	359	455	422	488	549	528	571	596	551	642
Age 20 to 39	319	270	368	427	385	470	521	479	563	583	526	640
Age 40 to 59	301	271	331	432	391	472	588	520	656	653	608	698
Age 60 to 79	278	251	306	382	345	419	521	483	558	615	566	664
Age 3 to 79	320	298	342	446	421	470	586	551	620	654	624	684
Age 6 to 79	316	295	338	437	416	457	572	539	605	644	613	674
Females												
Age 6 to 11	493	445	541	620	586	654	689	656	722	719	699	739
Age 12 to 19	322	290	355	468	420	515	592	552	633	654	620	688
Age 20 to 39	310	259	360	428	387	469	543	494	591	626	566	686
Age 40 to 59	321	269	374	488	423	553	602	545	659	658	594	721
Age 60 to 79	325	300	351	491	429	553	615	580	650	687	639	734
Age 3 to 79	336	310	363	483	447	518	611	579	644	665	644	687
Age 6 to 79	331	305	357	474	438	510	603	570	636	660	637	683

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Table 56
Distribution of vitamin D [(25-OH)] measured in plasma for the household population, by age and sex,
Canada, 2009 to 2011

	Vitamin D [(25-OH)]											
	Mean			5th percentile			10th percentile			25th percentile		
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
nmol/L												
Both sexes												
Age 3 to 5	73.9	69.0	78.8	41.2	33.2	49.3	48.3	42.7	53.8	58.2	52.8	63.6
Age 6 to 11	67.3	61.7	72.9	29.4	20.4	38.4	39.3	29.3	49.3	50.6	45.1	56.2
Age 12 to 19	63.8	57.1	70.6	22.9	14.9	30.9	30.9	22.1	39.8	47.5	37.9	57.0
Age 20 to 39	60.4	55.0	65.8	19.9	15.2	24.6	25.2	19.7	30.7	38.3	32.5	44.1
Age 40 to 59	62.1	58.4	65.7	24.9	18.9	30.9	30.9	26.9	34.8	45.4	38.6	52.2
Age 60 to 79	69.9	66.4	73.4	27.2	20.5	33.9	35.2	26.8	43.6	50.0	45.5	54.5
Age 3 to 79	63.8	59.7	67.9	23.2	18.6	27.8	30.1	24.8	35.4	44.5	39.0	50.1
Age 6 to 79	63.5	59.3	67.6	23.1	18.6	27.6	30.0	24.7	35.3	44.2	38.5	49.8
Males												
Age 6 to 11	71.8	65.7	77.8	37.3	25.3	49.3	45.2	37.6	52.8	54.5	48.6	60.3
Age 12 to 19	62.2	55.2	69.2	25.1	16.7	33.5	31.1	22.3	39.9	46.9	35.8	58.1
Age 20 to 39	54.8	49.6	60.1	16.9	12.0	21.7	21.2	16.0	26.5	32.4	23.7	41.0
Age 40 to 59	58.7	53.1	64.3	25.2	18.9	31.5	30.4	25.7	35.1	43.4	33.5	53.3
Age 60 to 79	67.7	63.7	71.6	27.5	19.4	35.6	35.1	26.6	43.6	48.3	43.1	53.5
Age 3 to 79	60.8	56.2	65.3	21.4	16.1	26.6	27.5	21.7	33.3	42.5	35.3	49.7
Age 6 to 79	60.3	55.7	64.9	21.3	16.0	26.5	27.0	21.1	32.9	41.5	34.3	48.7
Females												
Age 6 to 11	62.6	57.1	68.2	25.9	17.0	34.8	32.6	22.7	42.6	47.9	41.6	54.1
Age 12 to 19	65.6	57.8	73.3	17.8 ^E	8.1	27.6	28.4 ^E	15.7	41.1	47.7	39.0	56.5
Age 20 to 39	65.9	58.7	73.1	25.5	18.3	32.8	33.3	26.4	40.3	42.9	34.8	51.1
Age 40 to 59	65.4	62.3	68.6	24.7	18.2	31.2	31.2	26.2	36.2	47.5	41.4	53.7
Age 60 to 79	71.9	67.8	76.1	27.0	18.8	35.2	35.3	25.3	45.2	52.3	47.1	57.5
Age 3 to 79	66.8	62.7	70.8	24.9	19.3	30.5	32.4	26.5	38.4	47.1	41.3	53.0
Age 6 to 79	66.7	62.6	70.7	24.9	19.3	30.4	32.2	26.1	38.2	47.0	41.2	52.8
Vitamin D [(25-OH)]												
	50th percentile		75th percentile			90th percentile			95th percentile			
	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To		From	To		From	To		From	To
nmol/L												
Both sexes												
Age 3 to 5	72.0	67.0	77.0	85.8	80.7	91.0	103.7	94.0	113.3	111.9	96.5	127.2
Age 6 to 11	65.9	61.5	70.4	80.2	75.6	84.9	95.8	87.7	103.9	107.9	98.8	117.0
Age 12 to 19	62.1	54.9	69.3	77.6	69.7	85.4	96.1	88.7	103.5	111.7	98.0	125.4
Age 20 to 39	56.5	49.4	63.6	77.6	68.6	86.6	98.0	92.4	103.5	114.4	102.3	126.5
Age 40 to 59	60.4	55.7	65.1	75.3	72.1	78.6	93.5	89.6	97.4	104.2	100.0	108.3
Age 60 to 79	68.1	65.3	70.8	86.3	82.5	90.1	107.4	101.1	113.7	117.6	112.3	123.0
Age 3 to 79	61.8	57.2	66.4	79.1	74.1	84.0	98.0	94.0	101.9	111.2	105.6	116.9
Age 6 to 79	61.3	56.6	66.1	78.9	73.9	83.9	97.9	94.0	101.9	111.0	105.3	116.6
Males												
Age 6 to 11	68.6	63.5	73.6	83.3	74.0	92.5	105.5	94.1	116.9	113.6	102.9	124.3
Age 12 to 19	60.8	53.5	68.2	75.0	67.4	82.7	90.5	82.4	98.6	99.4	84.5	114.4
Age 20 to 39	51.7	45.5	57.8	71.8	64.2	79.4	93.9	85.6	102.2	111.2	93.7	128.6
Age 40 to 59	56.5	49.7	63.2	73.1	67.5	78.6	86.3	81.7	90.8	97.0	90.1	103.8
Age 60 to 79	65.2	62.0	68.5	83.1	79.5	86.6	102.0	94.5	109.4	113.3	106.3	120.4
Age 3 to 79	58.9	53.8	64.1	76.3	72.4	80.3	93.9	90.8	97.0	106.8	100.5	113.2
Age 6 to 79	58.3	53.1	63.5	76.0	71.9	80.1	93.7	90.5	96.9	105.9	99.9	111.9
Females												
Age 6 to 11	62.1	55.8	68.3	76.6	69.9	83.3	89.8	82.4	97.2	96.2	91.4	101.1
Age 12 to 19	64.5	55.9	73.0	80.9	70.5	91.3	101.1	89.5	112.7	117.7	102.9	132.5
Age 20 to 39	62.6	52.6	72.5	85.0	75.4	94.5	101.0	93.2	108.9	115.6	102.2	129.0
Age 40 to 59	62.9	57.7	68.0	78.1	71.1	85.1	99.3	93.4	105.3	110.0	98.7	121.4
Age 60 to 79	69.4	66.1	72.7	88.4	82.8	94.0	108.9	101.5	116.4	118.4	111.7	125.0
Age 3 to 79	64.6	59.8	69.3	83.7	78.4	89.0	101.7	97.8	105.6	116.3	109.5	123.0
Age 6 to 79	64.5	59.7	69.3	83.7	78.2	89.2	101.8	97.8	105.7	116.4	109.7	123.1

Note(s): Total household population aged 3 to 79, except those meeting the exclusion criteria (see the *Canadian Health Measures Survey (CHMS) Data User Guide: Cycle 2*). The sample size for 3 to 5 year olds produces reliable national estimates for both sexes combined only. Results are substituted by the lower limit of detection divided by 2 in cases where the result is below the lower limit of detection.

Source(s): Canadian Health Measures Survey, Cycle 2.

Appendix I

Concordance Table

CHMS Concordance Table for Cycles 1 and 2

Comparability Between Cycles	Cycle 1 Table #	Cycle 1 Table Topic	Cycle 2 Table #	Cycle 2 Table Topic
Comparable	1	Average resting diastolic blood pressure	1	Average resting diastolic blood pressure
Comparable	2	Average resting systolic blood pressure	2	Average resting systolic blood pressure
Comparable	3	Average resting heart rate	3	Average resting heart rate
Comparable	4	Blood pressure norms	4	Blood pressure norms
Hypertensive measurement replaces self-reported diagnosis of hypertension in cycle 2	5	Self-reported being diagnosed with hypertension or taking hypertension medication	5	Self-reported taking hypertension medication or had a hypertensive blood pressure measurement
Comparable	6	Total grip strength	6	Total grip strength
Comparable	7	Grip strength norms	7	Grip strength norms
6 to 7 year olds excl. from cycle 2 (quality concerns)	8	Number of partial curl-ups completed	8	Number of partial curl-ups completed
Comparable	9	Partial curl-up norms	9	Partial curl-up norms
Comparable	10	Back fitness norms	10	Back fitness norms
Comparable	11	Sit and reach measure completed	11	Sit and reach measure completed
Comparable	12	Sit and reach norms	12	Sit and reach norms
Comparable	13	Musculoskeletal fitness norms	13	Musculoskeletal fitness norms
Comparable	14	Aerobic fitness norms	14	Aerobic fitness norms
Comparable + 3 to 5 year olds added	15	Measured waist circumference - World Health Organization (WHO) protocol	17	Measured waist circumference - World Health Organization (WHO) protocol
New in cycle 2			16	Measured neck circumference
Comparable + 3 to 5 year olds added	16	Measured hip circumference	19	Measured hip circumference
New in cycle 2			18	Measured waist circumference - National Institutes of Health (NIH) protocol
Comparable + 3 to 5 year olds added	17	Measured waist-to-hip ratio	20	Measured waist-to-hip ratio
Table not produced for cycle 2	18	Body mass index less than 30 kg/m, by the average ² biceps skinfold		
Table not produced for cycle 2	19	Body mass index less than 30 kg/m, by the average ² triceps skinfold		
Table not produced for cycle 2	20	Body mass index less than 30 kg/m, by the average ² subscapular skinfold		
Table not produced for cycle 2	21	Body mass index less than 30 kg/m, by average iliac crest skinfold ²		
Table not produced for cycle 2	22	Body mass index less than 30 kg/m, by the average medial calf skinfold ²		
Comparable + 3 to 5 year olds added	23	Body mass index less than 30 kg/m, by the sum of the ² five skinfolds	21	Body mass index less than 30 kg/m, by the sum of the ² five skinfolds

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CHMS Concordance Table for Cycles 1 and 2

Comparability Between Cycles	Cycle 1 Table #	Cycle 1 Table Topic	Cycle 2 Table #	Cycle 2 Table Topic
Table not produced for cycle 2	24	Self-reported weight		
Table not produced for cycle 2	25	Self-reported height		
Table not produced for cycle 2	26	Body mass index norms (ages 6 to 17) based on self-reported inputs—Center for Disease Control system		
Table not produced for cycle 2	27	Body mass index norms (ages 6 to 17) based on self-reported inputs—Cole system		
Table not produced for cycle 2	28	Body mass index norms (ages 18 to 79) based on self-reported inputs		
Table not produced for cycle 2	29	Measured sitting height		
Comparable + 3 to 5 year olds added	30	Measured standing height	22	Measured standing height
Comparable + 3 to 5 year olds added	31	Measured weight	23	Measured weight
Comparable + 3 to 5 year olds added	32	Measured body mass index	24	Measured body mass index
New in cycle 2			25	Body mass index norms (ages 5 to 18) based on direct measures—World Health Organization (WHO) system
Comparable + 3 to 5 year olds added	33	Body mass index norms (ages 6 to 17) based on measured inputs—Center for Disease Control system	26	Body mass index norms (ages 3 to 17) based on direct measures—Center for Disease Control (CDC) system
Comparable + 3 to 5 year olds added	34	Body mass index norms (ages 6 to 17) based on measured inputs—Cole system	27	Body mass index norms (ages 3 to 17) based on direct measures—Cole system
Comparable	35	Body mass index norms (ages 18 to 79) based on measured inputs	28	Body mass index norms (ages 18 to 79) based on direct measures
6 to 7 year olds excl. from cycle 2 (quality concerns)	36	Mean predicted maximal aerobic power	15	Mean predicted maximal aerobic power
Comparable	37	Ratio of the best forced expiratory volume in one second to forced vital capacity (FEV ₁ /FVC)	29	Ratio of the best forced expiratory volume in one second to forced vital capacity (FEV ₁ /FVC)
Comparable	38	Best forced expiratory volume in one second (FEV ₁)	30	Best forced expiratory volume in one second (FEV ₁)
Comparable	39	Best forced vital capacity (FVC)	31	Best forced vital capacity (FVC)
New in cycle 2			32	Chronic obstructive pulmonary disease (COPD) (ages 35 to 79)
Content not collected in cycle 2	40	Dental status		
New in cycle 2			38	Albumin measured in serum
New in cycle 2			39	Total calcium measured in serum
New in cycle 2			40	Creatinine measured in serum
Comparable + 3 to 5 year olds added	41	Serum vitamin B12	55	Vitamin B12 measured in serum
Comparable + 3 to 5 year olds added	42	Plasma vitamin D	56	Vitamin D [(25-OH)] measured in plasma
Table not produced for cycle 2	43	Plasma homocysteine		
Table not produced for cycle 2	44	Whole blood red cell folate		
Comparable + 3 to 5 year olds added	45	Serum total cholesterol (full sample)	35	Total cholesterol measured in serum (full sample)

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CHMS Concordance Table for Cycles 1 and 2

Comparability Between Cycles	Cycle 1 Table #	Cycle 1 Table Topic	Cycle 2 Table #	Cycle 2 Table Topic
Table not produced for cycle 2	46	Serum total cholesterol (fasted sub-sample)		
Comparable	47	Serum triglycerides (fasted sub-sample)	37	Triglycerides measured in serum (fasted sub-sample)
Low density lipoprotein measured in Cycle 1 and derived in Cycle 2	48	Serum low density lipoproteins (fasted sub-sample)	34	Low density lipoprotein (fasted sub-sample)
Comparable + 3 to 5 year olds added	49	Serum high density lipoproteins (full sample)	33	High density lipoprotein measured in serum (full sample)
Table not produced for cycle 2	50	Serum high density lipoproteins (fasted sub-sample)		
Comparable + 3 to 5 year olds added	51	Ratio of serum total cholesterol to serum high density lipoproteins (full sample)	36	Total cholesterol to high density lipoprotein ratio (full sample)
Table not produced for cycle 2	52	Ratio of serum total cholesterol to serum high density lipoproteins (fasted sub-sample)		
Table not produced for cycle 2	53	Serum apolipoprotein A1 (fasted sub-sample)		
Table not produced for cycle 2	54	Serum apolipoprotein B (fasted sub-sample)		
Comparable	55	Plasma glucose (fasted sub-sample)	48	Glucose measured in serum (fasted sub-sample)
Table not produced for cycle 2	56	Hepatitis A antibody		
Comparable	57	Hepatitis B surface antibody	49	Hepatitis B surface antibody measured in serum
New in cycle 2			41	Gamma-glutamyl transferase measured in serum
New in cycle 2			42	Phosphorus measured in serum
New in cycle 2			43	Urea measured in serum
New in cycle 2			44	Uric acid measured in serum
New in cycle 2			45	Hemoglobin measured in whole blood
New in cycle 2			46	Hematocrit measured in whole blood
New in cycle 2			47	Mean corpuscular volume measured in whole blood
New in cycle 2			50	Herpes simplex-2 measured in serum
New in cycle 2			51	Ferritin measured in serum
New in cycle 2			52	Iodine measured in urine
New in cycle 2			53	Iodine-to-creatinine ratio
New in cycle 2			54	Parathyroid hormone measured in plasma

Note(s): All tables provide a distribution of the household population by age and sex for Canada for the particular topic indicated. Data collection occurred from 2007 to 2009 for cycle 1 and from 2009 to 2011 for Cycle 2. A blank cell in the table indicates a situation that is not applicable.