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Concentrations of selected environmental chemicals adjusted for creatinine in the Canadian population

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Concentrations of selected environmental chemicals adjusted for creatinine in the Canadian population

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.

This publication provides data users, health professionals and individual Canadians with geometric means and selected percentiles of blood and urine concentrations of selected environmental chemicals adjusted for creatinine for the Canadian population, by sex and age group. The results presented in this publication were collected during cycle 4 of the Canadian Health Measures Survey from January 2014 to December 2015.

Data are representative at the national level.

For additional information about the CHMS:

Toll-free number: 1-888-253-1087

E-mail: infostats@statcan.gc.ca

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Table 1.1
Bisphenol A (BPA) (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile			
	% <LOD [†]	Confidence interval		Confidence interval		Confidence interval		Confidence interval		Confidence interval		Confidence interval				
		Estimate	From	To	Estimate	From	To	Estimate	From	To	Estimate	From	To	Estimate	From	To
Both Sexes																
Age 3 to 5	7.83	2.0	1.7	2.4	0.64 ^E	<LOD ^E	0.90 ^F	1.8	1.5	2.2	6.7	4.7	8.7	13 ^F	4.4 ^E	21 ^E
Age 6 to 11	6.46	1.2	1.0	1.5	0.41	<LOD	0.54	1.1	0.94	1.3	3.2	2.6	3.8	F	F	F
Age 12 to 19	4.95	0.83	0.74	0.93	0.30	<LOD	0.35	0.74	0.61	0.87	2.7	2.1	3.3	3.9	2.6	5.1
Age 20 to 39	7.73	0.91	0.80	1.0	<LOD	<LOD	<LOD	0.87	0.75	0.99	3.5 ^F	1.7 ^E	5.3 ^F	4.6 ^F	2.0 ^F	7.1 ^F
Age 40 to 59	7.72	0.78	0.70	0.86	0.33	<LOD	0.40	0.71	0.64	0.78	1.9 ^E	0.95 ^E	2.9 ^F	3.8 ^F	2.2 ^F	5.4 ^F
Age 60 to 79	10.28	1.0	0.92	1.2	<LOD	<LOD	<LOD	0.99	0.89	1.1	3.5	2.5	4.4	4.8 ^F	2.1 ^F	7.4 ^F
Age 3 to 79	7.30	0.93	0.87	0.99	0.32	<LOD	0.36	0.87	0.80	0.94	3.1	2.6	3.5	4.5	3.9	5.2
Males																
Age 6 to 11	6.69	1.2	0.97	1.6	0.43	<LOD	0.58	1.2	0.88	1.5	3.2 ^E	0.98 ^E	5.4 ^F	F	F	F
Age 12 to 19	3.97	0.85	0.70	1.1	0.30	<LOD	0.37	0.74	0.57	0.91	2.9	2.0	3.8	F	F	F
Age 20 to 39	4.68	0.98	0.77	1.2	0.33 ^E	0.15 ^E	0.51 ^F	0.88	0.63	1.1	2.6 ^F	0.75 ^F	4.5 ^F	x	x	x
Age 40 to 59	7.14	0.76	0.62	0.94	0.28	<LOD	0.36	0.70	0.59	0.81	2.1 ^F	0.89 ^F	3.3 ^F	x	x	x
Age 60 to 79	7.53	0.91	0.70	1.2	0.27	0.19	0.35	0.86	0.62	1.1	2.7	2.0	3.4	x	x	x
Age 3 to 79	5.89	0.92	0.83	1.0	0.30	0.24	0.36	0.87	0.76	0.98	2.8	2.2	3.5	4.1	3.2	4.9
Females																
Age 6 to 11	6.23	1.2	0.97	1.5	0.39 ^E	<LOD ^E	0.58 ^F	1.1	0.97	1.3	3.2	2.2	4.2	F	F	F
Age 12 to 19	5.93	0.81	0.71	0.92	0.30	<LOD	0.36	0.74	0.54	0.94	2.3 ^F	1.4 ^F	3.3 ^F	3.8 ^F	2.1 ^F	5.5 ^F
Age 20 to 39	10.47	0.85	0.70	1.0	<LOD	<LOD	<LOD	0.82	0.58	1.1	4.0 ^E	2.0 ^E	6.0 ^F	x	x	x
Age 40 to 59	8.28	0.79	0.71	0.88	0.38	<LOD	0.46	0.74	0.59	0.90	F	F	F	x	x	x
Age 60 to 79	13.22	1.2	1.0	1.4	<LOD	<LOD	<LOD	1.0	0.82	1.2	4.1 ^E	2.4 ^E	5.8 ^F	x	x	x
Age 3 to 79	8.70	0.94	0.85	1.0	<LOD	<LOD	<LOD	0.88	0.78	0.97	3.4	2.5	4.3	5.0	4.2	5.8

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[†] the results presented in this column represent the proportion of the sample that had results that were below the limit of detection (LOD)

Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 1.2
Triclosan (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	49.12	‡	‡	‡	<LOD	<LOD	<LOD	9.2	<LOD	11	70 ^E	38 ^E	100 ^E	120 ^E	46 ^E	200 ^E
Age 6 to 11	49.22	‡	‡	‡	<LOD	<LOD	<LOD	5.4	<LOD	7.4	F	F	F	190 ^E	60 ^E	330 ^E
Age 12 to 19	38.89	9.1	6.7	12	<LOD	<LOD	<LOD	5.1 ^E	<LOD ^E	7.2 ^E	F	F	F	440	290	590
Age 20 to 39	34.63	9.7 ^E	5.4 ^E	17 ^E	<LOD	<LOD	<LOD	5.8 ^E	<LOD ^E	8.8 ^E	270 ^E	71 ^E	460 ^E	740 ^F	350 ^F	1100 ^F
Age 40 to 59	41.03	‡	‡	‡	<LOD	<LOD	<LOD	8.2 ^E	<LOD ^E	13 ^E	F	F	F	F	F	F
Age 60 to 79	52.50	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 3 to 79	44.57	‡	‡	‡	<LOD	<LOD	<LOD	6.1	<LOD	8.1	250	160	340	540 ^E	310 ^E	770 ^E
Males																
Age 6 to 11	50.79	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 12 to 19	41.67	‡	‡	‡	<LOD	<LOD	<LOD	3.8 ^E	<LOD ^E	5.6 ^E	F	F	F	F	F	F
Age 20 to 39	36.26	F	F	F	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 40 to 59	38.31	12 ^E	6.4 ^E	23 ^E	<LOD	<LOD	<LOD	F	F	F	F	F	F	x	x	x
Age 60 to 79	53.76	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 3 to 79	44.85	‡	‡	‡	<LOD	<LOD	<LOD	5.2	<LOD	7.0	190 ^E	80 ^E	290 ^E	410 ^E	220 ^E	610 ^E
Females																
Age 6 to 11	47.66	‡	‡	‡	<LOD	<LOD	<LOD	5.7	<LOD	7.7	F	F	F	F	F	F
Age 12 to 19	36.11	11	8.7	14	<LOD	<LOD	<LOD	6.9	<LOD	9.2	310 ^E	120 ^E	510 ^E	450 ^E	160 ^E	740 ^E
Age 20 to 39	33.16	12 ^E	7.2 ^E	21 ^E	<LOD	<LOD	<LOD	7.8 ^E	<LOD ^E	11 ^E	F	F	F	x	x	x
Age 40 to 59	43.67	‡	‡	‡	<LOD	<LOD	<LOD	6.8 ^E	<LOD ^E	11 ^E	F	F	F	x	x	x
Age 60 to 79	51.15	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 3 to 79	44.28	‡	‡	‡	<LOD	<LOD	<LOD	7.2	<LOD	9.2	320 ^E	120 ^E	510 ^E	810 ^E	380 ^E	1300 ^E

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‡ if >40% of samples were below the LOD, the percentile distribution is reported but means were not calculated

Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-1
Arsenate (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile			
	% <LOD [†]	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	98.44	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 6 to 11	98.64	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 12 to 19	98.42	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 20 to 39	99.45	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 40 to 59	99.68	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 60 to 79	99.72	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 3 to 79	98.95	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Males																
Age 6 to 11	98.44	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 12 to 19	98.02	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 20 to 39	99.42	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 40 to 59	99.35	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 60 to 79	99.46	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 3 to 79	98.82	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Females																
Age 6 to 11	98.84	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 12 to 19	98.81	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 20 to 39	99.48	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 40 to 59	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 60 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 3 to 79	99.07	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD

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Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-2
Arsenite (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	80.47	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2.1	1.8	2.5	3.0 ^E	1.8 ^E	4.2 ^E
Age 6 to 11	75.88	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.6	1.2	2.0	2.2 ^E	0.77 ^E	3.7 ^E
Age 12 to 19	62.25	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.4	1.0	1.8	2.0 ^F	1.2 ^E	2.8 ^F
Age 20 to 39	62.71	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.6	1.0	2.1	2.1 ^E	1.2 ^F	3.0 ^F
Age 40 to 59	70.83	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.4	0.93	1.9	F	F	F
Age 60 to 79	68.70	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.7	1.3	2.0	2.6 ^E	<LOD ^E	4.0 ^F
Age 3 to 79	70.63	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.6	1.3	1.9	2.2	1.5	2.9
Males																
Age 6 to 11	76.56	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.8 ^E	<LOD ^E	2.6 ^E	F	F	F
Age 12 to 19	62.45	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.5	1.1	1.9	1.6 ^F	0.64 ^E	2.5 ^F
Age 20 to 39	57.89	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.5 ^E	0.67 ^E	2.3 ^E	x	x	x
Age 40 to 59	66.88	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3	0.95	1.6	x	x	x
Age 60 to 79	64.86	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.5 ^E	0.91 ^E	2.2 ^E	x	x	x
Age 3 to 79	69.02	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.5	1.0	1.9	2.0	1.4	2.6
Females																
Age 6 to 11	75.19	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3	0.92	1.7	2.1 ^E	1.3 ^F	2.9 ^F
Age 12 to 19	62.06	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.2 ^E	0.45 ^E	1.9 ^E	2.0 ^F	0.76 ^F	3.2 ^F
Age 20 to 39	67.02	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.6	1.1	2.1	x	x	x
Age 40 to 59	74.68	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.7 ^E	<LOD ^E	2.9 ^E	x	x	x
Age 60 to 79	72.73	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.7 ^E	0.69 ^E	2.8 ^E	x	x	x
Age 3 to 79	72.21	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.7	1.2	2.1	2.6^F	1.4^E	3.9^F

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Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-3
Arsenocholine (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 6 to 11	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 12 to 19	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 20 to 39	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 40 to 59	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 60 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 3 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Males																
Age 6 to 11	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 12 to 19	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 20 to 39	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 40 to 59	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 60 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 3 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Females																
Age 6 to 11	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 12 to 19	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Age 20 to 39	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 40 to 59	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 60 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 3 to 79	100	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD

x suppressed to meet the confidentiality requirements of the *Statistics Act*

<LOD less than the limit of detection

[†] the results presented in this column represent the proportion of the sample that had results that were below the limit of detection (LOD)

‡ if >40% of samples were below the LOD, the percentile distribution is reported but means were not calculated

Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-4
Arsenocholine and arsenobetaine (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	59.96	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	26 [‡]	14 [‡]	38 [‡]	57 [‡]	15 [‡]	98 [‡]
Age 6 to 11	59.77	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	17 [‡]	8.4 [‡]	27 [‡]	F	F	F
Age 12 to 19	49.80	‡	‡	‡	<LOD	<LOD	<LOD	0.72 [‡]	<LOD [‡]	1.0 [‡]	9.9 [‡]	5.4 [‡]	14 [‡]	F	F	F
Age 20 to 39	37.12	1.6	1.2	2.1	<LOD	<LOD	<LOD	1.1 [‡]	<LOD [‡]	1.6 [‡]	20	13	27	29 [‡]	7.7 [‡]	50 [‡]
Age 40 to 59	38.14	1.7	1.2	2.4	<LOD	<LOD	<LOD	1.1 [‡]	<LOD [‡]	1.5 [‡]	F	F	F	F	F	F
Age 60 to 79	30.19	2.8 [‡]	1.7 [‡]	4.4 [‡]	<LOD	<LOD	<LOD	2.2 [‡]	0.93 [‡]	3.5 [‡]	F	F	F	F	F	F
Age 3 to 79	47.85	‡	‡	‡	<LOD	<LOD	<LOD	1.2	<LOD	1.5	23 [‡]	12 [‡]	34 [‡]	46 [‡]	27 [‡]	65 [‡]
Males																
Age 6 to 11	61.18	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 12 to 19	53.75	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	7.5 [‡]	2.6 [‡]	12 [‡]	12 [‡]	7.4 [‡]	17 [‡]
Age 20 to 39	32.35	1.6 [‡]	1.0 [‡]	2.4 [‡]	<LOD	<LOD	<LOD	F	F	F	19 [‡]	10 [‡]	28 [‡]	x	x	x
Age 40 to 59	37.01	1.9 [‡]	1.2 [‡]	3.2 [‡]	<LOD	<LOD	<LOD	1.7 [‡]	<LOD [‡]	2.7 [‡]	F	F	F	x	x	x
Age 60 to 79	27.57	2.3 [‡]	1.3 [‡]	3.9 [‡]	<LOD	<LOD	<LOD	F	F	F	35 [‡]	13 [‡]	58 [‡]	x	x	x
Age 3 to 79	47.68	‡	‡	‡	<LOD	<LOD	<LOD	1.3 [‡]	<LOD [‡]	1.8 [‡]	20 [‡]	9.8 [‡]	30 [‡]	37 [‡]	19 [‡]	55 [‡]
Females																
Age 6 to 11	58.37	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	16 [‡]	5.0 [‡]	28 [‡]	F	F	F
Age 12 to 19	45.85	‡	‡	‡	<LOD	<LOD	<LOD	0.69 [‡]	<LOD [‡]	1.1 [‡]	F	F	F	F	F	F
Age 20 to 39	41.36	‡	‡	‡	<LOD	<LOD	<LOD	1.2 [‡]	<LOD [‡]	2.0 [‡]	F	F	F	x	x	x
Age 40 to 59	39.24	1.4 [‡]	0.92 [‡]	2.3 [‡]	<LOD	<LOD	<LOD	0.87	<LOD	1.1	F	F	F	x	x	x
Age 60 to 79	32.95	3.3 [‡]	1.7 [‡]	6.4 [‡]	<LOD	<LOD	<LOD	F	F	F	F	F	F	x	x	x
Age 3 to 79	48.02	‡	‡	‡	<LOD	<LOD	<LOD	1.1	<LOD	1.4	F	F	F	62 [‡]	36 [‡]	89 [‡]

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[‡] use with caution

F too unreliable to be published

<LOD less than the limit of detection

[†] the results presented in this column represent the proportion of the sample that had results that were below the limit of detection (LOD)

‡ if >40% of samples were below the LOD, the percentile distribution is reported but means were not calculated

Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-5
Dimethylarsinic acid (DMA) (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile			
	% <LOD [†]	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	2.34	6.0	5.4	6.6	2.7	2.3	3.1	5.3	4.8	5.8	15	11	18	21 ^E	12 ^E	30 ^E
Age 6 to 11	2.14	4.2	3.7	4.8	1.9	1.6	2.2	3.7	3.3	4.2	11	7.6	14	14 ^E	7.7 ^E	21 ^E
Age 12 to 19	1.38	2.6	2.3	3.1	1.1	0.92	1.3	2.4	2.0	2.8	7.3	4.7	9.9	10	6.8	13
Age 20 to 39	3.31	2.9	2.5	3.4	1.2	<LOD	1.4	2.5	2.0	3.0	8.4	6.4	10	11 ^E	6.4 ^E	15 ^E
Age 40 to 59	4.17	3.1	2.5	3.7	1.2	1.0	1.4	2.9	2.3	3.5	8.5 ^E	3.3 ^E	14 ^E	15 ^E	7.1 ^E	22 ^E
Age 60 to 79	3.60	3.5	2.9	4.2	1.4	1.1	1.7	2.9	2.0	3.8	11	7.2	14	14 ^E	7.3 ^E	20 ^E
Age 3 to 79	2.65	3.2	2.8	3.6	1.3	1.1	1.4	2.8	2.5	3.2	9.1	6.7	12	13	10	16
Males																
Age 6 to 11	1.56	4.4	3.9	5.1	1.8	1.5	2.2	4.0	3.2	4.8	12 ^E	7.5 ^E	16 ^E	F	F	F
Age 12 to 19	1.58	2.3	1.9	2.8	1.0	<LOD	1.3	2.1	1.6	2.6	5.6 ^E	3.3 ^E	8.0 ^E	8.6 ^E	4.0 ^E	13 ^E
Age 20 to 39	1.17	2.6	2.2	3.2	1.1 ^E	<LOD ^E	1.6 ^E	2.4	2.0	2.8	6.7	4.9	8.4	x	x	x
Age 40 to 59	4.55	2.8	2.2	3.6	1.1	<LOD	1.3	2.4	1.5	3.3	8.3 ^E	2.8 ^E	14 ^E	x	x	x
Age 60 to 79	3.78	2.9	2.2	3.8	1.2	0.87	1.5	2.4	1.9	2.9	9.7 ^E	5.1 ^E	14 ^E	x	x	x
Age 3 to 79	2.27	2.9	2.5	3.4	1.1	0.93	1.3	2.5	2.1	2.9	8.4	6.3	11	12	8.4	15
Females																
Age 6 to 11	2.71	4.0	3.5	4.6	1.9	<LOD	2.4	3.6	3.4	3.9	9.0	6.5	11	12	8.0	16
Age 12 to 19	1.19	3.0	2.4	3.7	1.2	<LOD	1.4	2.7	2.1	3.3	8.3 ^E	5.1 ^E	12 ^E	10 ^E	6.1 ^E	14 ^E
Age 20 to 39	5.24	3.2	2.3	4.3	1.3	<LOD	1.7	2.7 ^E	1.7 ^E	3.7 ^E	11 ^E	5.7 ^E	15 ^E	x	x	x
Age 40 to 59	3.80	3.3	2.8	4.0	1.4	1.1	1.7	2.9	2.5	3.3	F	F	F	x	x	x
Age 60 to 79	3.41	4.2	3.3	5.3	1.8	<LOD	2.0	3.7	2.6	4.9	11	7.0	15	x	x	x
Age 3 to 79	3.02	3.5	3.0	4.1	1.4	1.1	1.7	3.0	2.4	3.5	10	7.4	13	15	11	19

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Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-6
Monomethylarsonic acid (MMA) (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
		From	To	From	To	From	To	From	To	From	To	From	To	From	To	
Both Sexes																
Age 3 to 5	79.10	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.8	1.3	2.2	2.2	1.9	2.5
Age 6 to 11	72.57	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.2	1.0	1.3	1.4	1.2	1.5
Age 12 to 19	57.71	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.98	0.82	1.1	1.1	0.87	1.4
Age 20 to 39	63.54	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.1	0.96	1.2	F	F	F
Age 40 to 59	74.36	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3	<LOD	1.7	1.5	<LOD	1.9
Age 60 to 79	82.27	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.0	0.75	1.3	1.3	1.1	1.6
Age 3 to 79	71.25	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.2	0.97	1.3	1.4	1.2	1.7
Males																
Age 6 to 11	74.22	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.2	<LOD	1.4	1.4	1.2	1.6
Age 12 to 19	54.94	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.98	0.75	1.2	1.2	0.83	1.5
Age 20 to 39	60.82	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.95	0.74	1.2	x	x	x
Age 40 to 59	69.48	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3 ^F	<LOD ^F	1.8 ^E	x	x	x
Age 60 to 79	80.00	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.81	0.57	1.0	x	x	x
Age 3 to 79	69.65	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.0	0.91	1.2	1.3	1.0	1.6
Females																
Age 6 to 11	70.93	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.2	1.0	1.3	1.4	1.2	1.5
Age 12 to 19	60.47	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.99	0.73	1.2	1.1	0.72	1.5
Age 20 to 39	65.97	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 40 to 59	79.11	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3 ^F	0.76 ^F	1.8 ^E	x	x	x
Age 60 to 79	84.66	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3	<LOD	1.7	x	x	x
Age 3 to 79	72.83	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.3	0.97	1.6	1.7	1.2	2.2

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Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.1-7
Combined total of inorganic-related arsenic species (arsenate, arsenite, dimethylarsinic acid and monomethylarsonic acid) (creatinine adjusted) — Urine concentrations (µg As/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	0	8.7	8.0	9.5	4.2	3.6	4.8	7.9	7.2	8.6	19	15	23	26	18	34
Age 6 to 11	0	6.1	5.5	6.7	3.0	2.8	3.3	5.5	4.9	6.0	14	9.9	18	18 ^E	11 ^E	25 ^E
Age 12 to 19	0	4.0	3.5	4.5	1.7	1.4	2.0	3.6	3.0	4.2	9.1	6.3	12	13 ^F	8.0 ^F	18 ^F
Age 20 to 39	0	4.4	3.8	5.1	2.0	1.8	2.3	3.9	3.3	4.5	10	6.6	14	15 ^F	7.5 ^F	22 ^F
Age 40 to 59	0	4.7	3.9	5.5	2.1	1.7	2.4	4.2	3.8	4.6	11 ^E	5.1 ^E	17 ^E	19 ^E	9.6 ^E	29 ^E
Age 60 to 79	0	5.2	4.5	6.1	2.3	2.1	2.5	4.5	3.5	5.5	13	9.2	16	19 ^F	10 ^F	28 ^F
Age 3 to 79	0	4.8	4.3	5.4	2.1	1.9	2.3	4.3	3.8	4.7	12	8.7	16	18	14	22
Males																
Age 6 to 11	0	6.3	5.5	7.1	3.0	2.7	3.4	5.6	4.7	6.6	15	9.8	21	F	F	F
Age 12 to 19	0	3.6	3.1	4.2	1.7	1.3	2.0	3.3	2.7	3.9	8.4	5.7	11	12 ^E	6.3 ^E	18 ^E
Age 20 to 39	0	4.0	3.5	4.6	2.0	1.7	2.3	3.7	3.1	4.4	9.6	7.6	11	x	x	x
Age 40 to 59	0	4.4	3.6	5.5	2.0	1.6	2.4	4.0	3.1	5.0	10 ^E	4.3 ^E	16 ^E	x	x	x
Age 60 to 79	0	4.3	3.5	5.3	2.1	1.7	2.4	3.6	3.0	4.2	13 ^E	7.7 ^E	18 ^E	x	x	x
Age 3 to 79	0	4.4	3.9	5.0	2.0	1.8	2.3	3.9	3.5	4.4	10	7.3	13	15	11	19
Females																
Age 6 to 11	0	5.9	5.3	6.5	3.0	2.7	3.4	5.3	4.8	5.8	11	8.2	14	14	9.1	19
Age 12 to 19	0	4.4	3.6	5.3	1.9	1.5	2.4	4.1	3.2	5.1	10 ^E	6.2 ^E	14 ^E	13 ^F	5.4 ^F	21 ^F
Age 20 to 39	0	4.9	3.7	6.4	2.1 ^E	1.2 ^E	3.0 ^E	4.3	3.0	5.7	14 ^E	6.0 ^E	23 ^E	x	x	x
Age 40 to 59	0	4.9	4.2	5.8	2.3	1.7	2.8	4.2	3.8	4.7	13 ^E	4.0 ^E	23 ^E	x	x	x
Age 60 to 79	0	6.3	5.2	7.6	2.9	2.3	3.4	5.7	3.7	7.7	13 ^E	7.9 ^E	18 ^E	x	x	x
Age 3 to 79	0	5.3	4.5	6.1	2.4	2.0	2.7	4.7	4.1	5.4	14	9.0	18	20	15	25

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F too unreliable to be published

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Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 2.2
Mercury (inorganic) (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	83.98	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.46	<LOD	0.56	0.72 ^E	0.46 ^E	0.99 ^E
Age 6 to 11	69.94	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.58 ^E	0.32 ^E	0.84 ^E	1.3	0.83	1.7
Age 12 to 19	65.49	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.33	0.27	0.40	0.52	0.35	0.70
Age 20 to 39	50.99	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.66 ^E	0.38 ^E	0.94 ^E	0.92	0.60	1.2
Age 40 to 59	40.31	‡	‡	‡	<LOD	<LOD	<LOD	0.24	0.21	0.27	1.3	0.93	1.8	2.1 ^E	1.1 ^E	3.1 ^E
Age 60 to 79	41.69	‡	‡	‡	<LOD	<LOD	<LOD	0.27	0.23	0.31	1.2	1.1	1.4	1.6	1.4	1.9
Age 3 to 79	56.35	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.94	0.78	1.1	1.5	1.2	1.8
Males																
Age 6 to 11	69.74	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.49 ^E	0.25 ^E	0.73 ^E	1.1 ^E	0.62 ^E	1.7 ^E
Age 12 to 19	65.03	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.29	0.23	0.35	0.36 ^E	0.19 ^E	0.53 ^E
Age 20 to 39	51.14	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.50	0.32	0.69	0.83	0.63	1.0
Age 40 to 59	39.42	0.25	0.22	0.29	<LOD	<LOD	<LOD	0.24	0.21	0.27	1.3 ^E	0.60 ^E	2.0 ^E	F	F	F
Age 60 to 79	39.68	0.24	0.19	0.30	<LOD	<LOD	<LOD	0.23	<LOD	0.27	1.0	0.68	1.4	1.6	1.3	1.8
Age 3 to 79	55.68	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.82	0.61	1.0	1.3	1.0	1.6
Females																
Age 6 to 11	70.14	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.73 ^E	0.40 ^E	1.0 ^E	1.4	0.91	1.9
Age 12 to 19	65.97	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.40 ^E	<LOD ^E	0.57 ^E	0.59 ^E	0.29 ^E	0.89 ^E
Age 20 to 39	50.85	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.88 ^E	<LOD ^E	1.3 ^E	F	F	F
Age 40 to 59	41.20	‡	‡	‡	<LOD	<LOD	<LOD	0.24	<LOD	0.31	1.5	1.1	1.9	1.8 ^E	1.1 ^E	2.6 ^E
Age 60 to 79	43.72	‡	‡	‡	<LOD	<LOD	<LOD	0.31	0.27	0.36	1.3	1.1	1.5	1.9	1.6	2.2
Age 3 to 79	57.04	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.1	0.85	1.3	1.7	1.3	2.1

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‡ if >40% of samples were below the LOD, the percentile distribution is reported but means were not calculated

Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 3.1
Butyl paraben (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	83.37	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	3.1 ^E	<LOD ^E	5.1 ^E
Age 6 to 11	90.08	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.81 ^E	0.30 ^E	1.3 ^E
Age 12 to 19	80.40	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 20 to 39	81.77	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 40 to 59	81.09	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 60 to 79	80.00	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	4.2 ^E	<LOD ^E	6.5 ^E	6.7 ^E	2.1 ^E	11 ^E
Age 3 to 79	83.15	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	4.2^E	1.5^E	6.8^E
Males																
Age 6 to 11	91.02	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.67	<LOD	0.85
Age 12 to 19	90.48	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.53 ^E	<LOD ^E	0.73 ^E
Age 20 to 39	91.23	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD ^E	<LOD	<LOD	<LOD	x	x	x
Age 40 to 59	91.56	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 60 to 79	91.94	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	x	x	x
Age 3 to 79	90.12	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.79^E	<LOD^E	1.2^E
Females																
Age 6 to 11	89.15	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 12 to 19	70.36	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 20 to 39	73.30	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 40 to 59	70.89	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 60 to 79	67.24	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	6.2 ^E	2.2 ^E	10 ^E	x	x	x
Age 3 to 79	76.26	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	9.2^E	<LOD^E	15^E

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Note: Any results less than the LOD are assigned a value equal to half the value of the LOD.

Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 3.2
Ethyl paraben (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	% <LOD [†]	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile		
		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	65.95	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 6 to 11	78.79	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2.0 ^E	1.2 ^E	2.8 ^E	4.6 ^E	2.2 ^E	7.1 ^E
Age 12 to 19	68.91	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 20 to 39	54.42	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 40 to 59	52.56	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	41 ^E	<LOD ^E	70 ^E	F	F	F
Age 60 to 79	58.89	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	44 ^E	26 ^E	62 ^E	70 ^E	29 ^E	110 ^E
Age 3 to 79	64.86	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	25 ^E	8.9 ^E	42 ^E	59 ^E	23 ^E	95 ^E
Males																
Age 6 to 11	83.20	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.7	<LOD	2.3	F	F	F
Age 12 to 19	80.56	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2.5 ^E	<LOD ^E	4.2 ^E	F	F	F
Age 20 to 39	64.91	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	6.9 ^E	2.3 ^E	11 ^E	x	x	x
Age 40 to 59	56.49	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 60 to 79	70.97	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	x	x	x
Age 3 to 79	71.69	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	6.5	4.4	8.6	F	F	F
Females																
Age 6 to 11	74.42	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2.8 ^E	1.1 ^E	4.5 ^E	4.9 ^E	2.5 ^E	7.2 ^E
Age 12 to 19	57.31	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	F	F	F	F	F	F
Age 20 to 39	45.03	‡	‡	‡	<LOD	<LOD	<LOD	1.5 ^E	<LOD ^E	2.2 ^E	F	F	F	x	x	x
Age 40 to 59	48.73	‡	‡	‡	<LOD	<LOD	<LOD	F	F	F	F	F	F	x	x	x
Age 60 to 79	45.98	‡	‡	‡	<LOD	<LOD	<LOD	F	F	F	65 ^E	25 ^E	100 ^E	x	x	x
Age 3 to 79	58.11	‡	‡	‡	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	54 ^E	22 ^E	86 ^E	120 ^E	54 ^E	190 ^E

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Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 3.3
Methyl paraben (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile			
	% <LOD [†]	Confidence interval		Confidence interval		Confidence interval		Confidence interval		Confidence interval		Confidence interval				
		Estimate	From	To	Estimate	From	To	Estimate	From	To	Estimate	From	To	Estimate	From	To
Both Sexes																
Age 3 to 5	6.26	21	16	27	3.7	<LOD	4.6	13 ^E	8.2 ^E	19 ^E	210 ^E	72 ^E	360 ^E	430 ^E	200 ^E	660 ^E
Age 6 to 11	9.73	8.4	7.1	9.8	1.8	<LOD	2.2	7.1	5.3	8.8	41	30	52	F	F	F
Age 12 to 19	8.12	9.9 ^E	6.7 ^E	15 ^E	<LOD	<LOD	<LOD	7.2	4.9	9.5	180 ^E	66 ^E	290 ^E	370 ^E	100 ^E	640 ^E
Age 20 to 39	7.18	13 ^E	6.9 ^E	25 ^E	0.90 ^E	<LOD ^E	1.4 ^E	F	F	F	230	150	310	280 ^E	94 ^E	460 ^E
Age 40 to 59	11.22	19 ^E	10 ^E	35 ^E	<LOD	<LOD	<LOD	F	F	F	250 ^E	140 ^E	370 ^E	310 ^E	130 ^E	490 ^E
Age 60 to 79	8.61	20	16	23	1.2 ^E	<LOD ^E	1.7 ^E	22 ^E	13 ^E	31 ^E	320 ^E	<LOD ^E	510 ^E	620 ^E	340 ^E	890 ^E
Age 3 to 79	8.39	15	11	21	<LOD	<LOD	<LOD	13 ^E	6.5 ^E	19 ^E	230	180	290	340	230	440
Males																
Age 6 to 11	10.55	6.9	5.6	8.5	<LOD	<LOD	<LOD	6.2	4.5	7.8	F	F	F	F	F	F
Age 12 to 19	10.32	5.4 ^E	3.6 ^E	8.1 ^E	<LOD	<LOD	<LOD	3.1 ^E	1.5 ^E	4.7 ^E	F	F	F	F	F	F
Age 20 to 39	9.36	6.3 ^E	3.7 ^E	11 ^E	<LOD	<LOD	<LOD	F	F	F	F	F	F	x	x	x
Age 40 to 59	16.88	10 ^E	5.4 ^E	20 ^E	<LOD	<LOD	<LOD	F	F	F	F	F	F	x	x	x
Age 60 to 79	12.90	5.7	4.0	7.9	<LOD	<LOD	<LOD	3.2 ^E	1.4 ^E	5.0 ^E	79	54	100	x	x	x
Age 3 to 79	10.51	7.4	5.4	10	<LOD	<LOD	<LOD	5.3 ^E	3.3 ^E	7.2 ^E	99 ^E	<LOD ^E	150 ^E	230 ^E	130 ^E	340 ^E
Females																
Age 6 to 11	8.91	10	7.6	14	2.0	<LOD	2.6	9.6	6.1	13	F	F	F	F	F	F
Age 12 to 19	5.93	19 ^E	12 ^E	31 ^E	1.6 ^E	<LOD ^E	2.5 ^E	F	F	F	270 ^E	85 ^E	450 ^E	380 ^E	170 ^E	580 ^E
Age 20 to 39	5.24	F	F	F	F	F	F	F	F	F	F	F	F	x	x	x
Age 40 to 59	5.70	35 ^E	17 ^E	71 ^E	F	F	F	43 ^E	<LOD ^E	71 ^E	280 ^E	82 ^E	480 ^E	x	x	x
Age 60 to 79	4.02	64 ^E	41 ^E	100 ^E	F	F	F	94 ^E	58 ^E	130 ^E	620 ^E	280 ^E	950 ^E	x	x	x
Age 3 to 79	6.28	31 ^E	21 ^E	46 ^E	2.1	1.5	2.7	37 ^E	17 ^E	56 ^E	290 ^E	180 ^E	400 ^E	480 ^E	250 ^E	700 ^E

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Source: Statistics Canada, Canadian Health Measures Survey, Cycle 4, 2014 and 2015.

Table 3.4
Propyl paraben (creatinine adjusted) — Urine concentrations (µg/g creatinine) for the Canadian population, by sex and age group, 2014 and 2015

	Geometric Mean			10th Percentile			50th Percentile			90th Percentile			95th Percentile			
	% <LOD [†]	Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval		Estimate	Confidence interval	
			From	To		From	To		From	To		From	To		From	To
Both Sexes																
Age 3 to 5	20.16	2.6	2.0	3.4	<LOD	<LOD	<LOD	1.8 ^E	1.0 ^E	2.6 ^E	30 ^E	17 ^E	43 ^E	68 ^E	20 ^E	120 ^E
Age 6 to 11	22.76	1.4	1.1	1.7	<LOD	<LOD	<LOD	1.1	0.74	1.4	9.1	6.4	12	F	F	F
Age 12 to 19	18.42	1.7	1.2	2.4	<LOD	<LOD	<LOD	1.1 ^E	0.64 ^E	1.6 ^E	F	F	F	85 ^E	42 ^E	130 ^E
Age 20 to 39	17.68	F	F	F	<LOD	<LOD	<LOD	F	F	F	F	F	F	F	F	F
Age 40 to 59	19.87	F	F	F	<LOD	<LOD	<LOD	F	F	F	F	F	F	96 ^E	29 ^E	160 ^E
Age 60 to 79	26.39	2.9 ^E	2.0 ^E	4.2 ^E	<LOD	<LOD	<LOD	2.6 ^E	0.95 ^E	4.2 ^E	F	F	F	190 ^E	110 ^E	280 ^E
Age 3 to 79	20.83	2.3 ^E	1.6 ^E	3.3 ^E	<LOD	<LOD	<LOD	1.5 ^E	0.85 ^E	2.1 ^E	63 ^E	30 ^E	96 ^E	110	73	140
Males																
Age 6 to 11	23.44	1.1	0.84	1.4	<LOD	<LOD	<LOD	0.96 ^E	0.54 ^E	1.4 ^E	F	F	F	F	F	F
Age 12 to 19	26.98	0.82	0.59	1.1	<LOD	<LOD	<LOD	0.54	0.36	0.73	F	F	F	F	F	F
Age 20 to 39	24.56	0.88 ^E	0.44 ^E	1.8 ^E	<LOD	<LOD	<LOD	0.58 ^E	<LOD ^E	0.99 ^E	F	F	F	x	x	x
Age 40 to 59	26.62	F	F	F	<LOD	<LOD	<LOD	1.0 ^E	<LOD ^E	1.7 ^E	F	F	F	x	x	x
Age 60 to 79	38.17	0.65 ^E	0.39 ^E	1.1 ^E	<LOD	<LOD	<LOD	0.35 ^E	<LOD ^E	0.58 ^E	F	F	F	x	x	x
Age 3 to 79	26.51	1.0	0.74	1.4	<LOD	<LOD	<LOD	0.70	0.46	0.93	F	F	F	F	F	F
Females																
Age 6 to 11	22.09	1.7	1.4	2.1	<LOD	<LOD	<LOD	1.3	0.86	1.7	14 ^E	6.0 ^E	23 ^E	F	F	F
Age 12 to 19	9.88	3.5 ^E	2.1 ^E	5.7 ^E	<LOD	<LOD	<LOD	3.0 ^E	1.4 ^E	4.7 ^E	60 ^E	27 ^E	93 ^E	100 ^E	62 ^E	140 ^E
Age 20 to 39	11.52	F	F	F	<LOD	<LOD	<LOD	F	F	F	86 ^E	28 ^E	140 ^E	x	x	x
Age 40 to 59	13.29	F	F	F	<LOD	<LOD	<LOD	F	F	F	F	F	F	x	x	x
Age 60 to 79	13.79	12 ^E	7.3 ^E	19 ^E	<LOD	<LOD	<LOD	F	F	F	190 ^E	99 ^E	280 ^E	x	x	x
Age 3 to 79	15.21	5.1 ^E	3.0 ^E	8.5 ^E	<LOD	<LOD	<LOD	F	F	F	87 ^E	51 ^E	120 ^E	160 ^E	91 ^E	230 ^E

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