

Appendix 1 (as supplied by the authors): Supplementary tables

Table S1. General characteristics of study population by year.

	2004	2005	2006	2007	2008	2009	2010
Population (#)	95	234	227	137	203	201	197
Age (yrs)	22.62±2.54 ^{ab}	22.61±2.31 ^{ab}	22.88±2.37 ^{ab}	22.67±2.62 ^{ab}	22.43±2.56 ^b	22.62±2.53 ^{ab}	23.21±2.68 ^a
BMI (kg/m ²)	22.26±3.03 ^{bc}	22.27±3.27 ^c	22.83±3.62 ^{abc}	22.91±3.41 ^{abc}	22.72±3.10 ^{abc}	23.35±3.93 ^{ab}	23.55±3.72 ^a
HOMA-IR	1.99±2.63 ^a	1.62±1.08 ^{ab}	1.33±0.89 ^b	1.45±0.76 ^b	1.29±1.00 ^b	1.33±0.88 ^b	1.42±2.07 ^b
Glucose (mmol/L)	4.83±0.39 ^{ab}	4.80±0.60 ^{ab}	4.69±0.36 ^b	4.75±0.39 ^{ab}	4.84±0.39 ^a	4.89±0.34 ^a	4.85±0.42 ^a
Insulin (pmol/L)	64.03±72.43 ^a	53.46±32.68 ^{ab}	44.97±28.12 ^b	48.64±24.21 ^{ab}	42.32±30.65 ^b	43.52±27.65 ^b	45.32±60.29 ^b
Total cholesterol (mmol/L)	4.29±0.80 ^{ab}	4.13±0.74 ^b	4.19±0.75 ^{ab}	4.39±0.86 ^a	4.24±0.73 ^{ab}	4.32±0.75 ^{ab}	4.30±0.79 ^{ab}
HDL-cholesterol (mmol/L)	1.52±0.35 ^{bcd}	1.56±0.38 ^{bc}	1.65±0.37 ^{ab}	1.69±0.46 ^a	1.50±0.36 ^{cd}	1.45±0.36 ^d	1.43±0.34 ^d
LDL-cholesterol (mmol/L)	2.29±0.67 ^{ab}	2.14±0.63 ^b	2.11±0.64 ^b	2.29±0.69 ^{ab}	2.34±0.56 ^a	2.45±0.59 ^a	2.43±0.64 ^a

Appendix to: Abdelmagid SA, Nielsen DE, Badawi A, et al. Circulating concentrations and relative percent composition of trans fatty acids in healthy Canadian young adults between 2004 and 2010: a cross-sectional study. *CMAJ Open* 2017. DOI:10.9778/cmajo.20160048. Copyright © 2017 The Author(s) or their employer(s). To receive this resource in an accessible format, please contact us at cmajgroup@cmaj.ca.

Triglycerides (mmol/L)	1.07±0.50	0.96±0.40	0.96±0.46	0.92±0.42	0.89±0.40	0.92±0.49	1.56±7.54
Free fatty acids (μmol/L)	516.30±220.60 ab	462.12±237.67 ab	443.00±209.23 b	485.70±247.83 ab	519.58±258.64 a	516.93±278.49 a	427.91±258.98 b
% Energy from dietary fat	26.41±5.84	26.90±6.00	26.78±5.50	26.87±6.12	27.40±6.34	27.59±5.96	27.83±6.21

Values are expressed as mean ± SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different (p<0.05).

Table S2. General characteristics of study population by year (males).

	2004	2005	2006	2007	2008	2009	2010
Population (#)	25	80	69	34	52	65	71
Age (yrs)	24.16±3.06	22.70±2.13	22.55±2.30	22.62±2.79	22.37±2.28	23.06±2.77	23.44±2.70
BMI (kg/m ²)	23.01±2.69 ^{ab}	23.02±3.05 ^b	23.06±3.06 ^b	23.69±3.58 ^{ab}	24.63±3.26 ^{ab}	24.25±3.63 ^{ab}	25.15±3.76 ^a
HOMA-IR	1.67±0.75	1.58±1.11	1.39±0.93	1.38±0.85	1.18±0.76	1.26±0.86	1.55±2.07
Glucose (mmol/L)	4.97±0.43	4.95±0.91	4.84±0.37	5.03±0.39	4.96±0.42	5.03±0.34	5.02±0.50

Insulin (pmol/L)	53.44±20.66	49.85±27.09	45.58±27.90	43.26±23.35	37.88±23.17	40.00±26.53	46.62±53.78
Total cholesterol (mmol/L)	4.15±0.67	3.96±0.69	3.94±0.75	4.13±0.82	4.01±0.68	4.24±0.87	4.23±0.76
HDL- cholesterol (mmol/L)	1.27±0.25 ^{abc}	1.34±0.26 ^{abc}	1.44±0.29 ^a	1.43±0.38 ^{ab}	1.20±0.25 ^c	1.26±0.27 ^{bc}	1.22±0.28 ^c
LDL- cholesterol (mmol/L)	2.36±0.51 ^{ab}	2.15±0.60 ^b	2.06±0.69 ^b	2.28±0.73 ^{ab}	2.38±0.57 ^{ab}	2.53±0.73 ^a	2.48±0.61 ^a
Triglycerides (mmol/L)	1.14±0.59	1.02±0.46	0.97±0.55	0.91±0.43	0.92±0.50	0.98±0.56	2.67±12.37
Free fatty acids (μmol/L)	490.32±223.43 ^{ab}	427.56±224.35 ^b	419.61±200.34 ^b	400.94±147.09 ^{ab}	559.31±335.91 ^a	494.83±256.44 ^{ab}	416.04±283.81 ^b
% Energy from dietary fat	26.75±4.19	26.47±6.38	27.04±6.28	26.49±4.67	26.61±6.00	27.75±5.25	27.10±6.73

Values are expressed as mean ± SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different (p<0.05).

Table S3. General characteristics of study population by year (females).

	2004	2005	2006	2007	2008	2009	2010
Population (#)	70	154	158	103	151	136	126
Age (yrs)	22.07±2.08	22.56±2.40	23.03±3.89	22.67±2.58	22.45±2.65	22.40±2.38	23.08±2.66
BMI (kg/m ²)	22.0±3.12	21.87±3.32	22.73±3.84	22.65±3.32	22.06±2.76	22.93±4.01	22.65±3.39
HOMA-IR	2.10±3.03 ^a	1.64±1.07 ^{ab}	1.30±0.88 ^b	1.47±0.74 ^{ab}	1.33±1.08 ^b	1.37±0.89 ^b	1.34±2.07 ^b
Glucose (mmol/L)	4.78±0.36 ^{ab}	4.72±0.32 ^{abc}	4.62±0.34 ^c	4.66±0.34 ^{bc}	4.80±0.37 ^a	4.82±0.31 ^a	4.75±0.32 ^{ab}
Insulin (pmol/L)	67.81±83.32 ^a	55.34±35.18 ^{ab}	44.71±28.30 ^b	50.42±24.33 ^{ab}	43.85±32.77 ^b	45.21±28.12 ^b	44.59±63.86 ^b
Total cholesterol (mmol/L)	4.34±0.84	4.21±0.75	4.29±0.72	4.47±0.86	4.31±0.73	4.36±0.68	4.36±0.80
HDL-cholesterol (mmol/L)	1.61±0.34 ^{ab}	1.67±0.39 ^{ab}	1.74±0.36 ^a	1.77±0.46 ^a	1.61±0.34 ^b	1.54±0.36 ^b	1.55±0.32 ^b
LDL-cholesterol (mmol/L)	2.26±0.72 ^{ab}	2.13±0.64 ^b	2.12±0.62 ^b	2.30±0.69 ^{ab}	2.32±0.56 ^{ab}	2.41±0.51 ^a	2.40±0.66 ^a

Triglycerides (mmol/L)	1.05±0.46	0.93±0.36	0.96±0.42	0.92±0.41	0.88±0.36	0.88±0.45	0.91±0.40
Free fatty acids (μmol/L)	525.57±220.46 ab	480.20±243.11 ab	453.34±212.85 ab	513.95±267.95 ab	505.71±225.32 ab	527.56±288.82 a	434.50±245.03 b
% Energy from dietary fat	26.29±6.34	27.12±5.80	26.65±5.14	27.01±6.55	27.67±6.45	27.52±6.28	28.28±5.86

Values are expressed as mean ± SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different (p<0.05).

Table S4. Trans fatty acids levels (% composition) in males by year.

Fatty Acid	2004	2005	2006	2007	2008	2009	2010
Subjects	25	80	69	34	52	65	71
16:1t9	0.31±0.09 ^a	0.29±0.09 ^a	0.17±0.15 ^b	0.12±0.13 ^{cd}	0.20±0.07 ^d	0.23±0.08 ^{bc}	0.21±0.04 ^{bc}
18:1t4	0.06±0.07 ^{abc}	0.03±0.04 ^c	0.10±0.10 ^{ab}	0.14±0.20 ^a	0.10±0.10 ^{ab}	0.09±0.09 ^{ab}	0.07±0.06 ^{bc}
18:1t5	0.04±0.04 ^b	0.02±0.04 ^{bc}	0.01±0.01 ^c	0.01±0.03 ^{bc}	0.01±0.02 ^c	0.03±0.06 ^{bc}	0.08±0.06 ^a
18:1t6-8	0.21±0.11 ^a	0.16±0.07 ^{ab}	0.09±0.04 ^d	0.07±0.03 ^d	0.09±0.15 ^{cd}	0.08±0.08 ^d	0.14±0.08 ^{bc}
18:1t9	0.42±0.18 ^a	0.25±0.10 ^b	0.20±0.07 ^{bc}	0.17±0.05 ^{bc}	0.18±0.23 ^c	0.16±0.09 ^c	0.38±0.15 ^a

18:1t10	0.45±0.21 ^a	0.31±0.11 ^b	0.20±0.10 ^c	0.15±0.05 ^c	0.16±0.16 ^c	0.22±0.12 ^c	0.38±0.17 ^a
18:1t11	0.32±0.20 ^a	0.30±0.12 ^{ab}	0.24±0.11 ^{abc}	0.23±0.08 ^{bcd}	0.19±0.16 ^{cd}	0.16±0.05 ^{de}	0.11±0.06 ^e
18:1t12	0.22±0.10 ^a	0.19±0.08 ^a	0.14±0.07 ^b	0.13±0.07 ^b	0.10±0.12 ^b	0.13±0.08 ^b	0.14±0.08 ^a
18:1t13 or c6	0.18±0.09 ^a	0.04±0.07 ^a	0.15±0.09 ^a	0.18±0.09 ^a	0.51±2.69 ^a	0.30±0.45 ^a	0.43±0.67 ^a
18:2c9t12	0.25±0.06 ^{ab}	0.17±0.05 ^c	0.27±0.09 ^a	0.23±0.10 ^{ab}	0.20±0.03 ^{bc}	0.24±0.09 ^{ab}	0.25±0.08 ^a
18:2c9t13	0.19±0.06 ^a	0.17±0.06 ^a	0.17±0.08 ^a	0.13±0.05 ^{ab}	0.01±0.02 ^c	0.09±0.16 ^b	0.09±0.07 ^a
18:2t9c12	0.15±0.05 ^a	0.11±0.05 ^c	0.15±0.05 ^a	0.15±0.05 ^{ab}	0.12±0.02 ^b	0.16±0.06 ^a	0.17±0.06 ^a
18:2t9t12	0.02±0.01 ^{bc}	0.01±0.01 ^c	0.03±0.03 ^b	0.03±0.04 ^{bc}	0.02±0.02 ^{bc}	0.04±0.06 ^b	0.09±0.07 ^a
18:2tt	0.02±0.01 ^b	0.03±0.02 ^b	0.04±0.06 ^b	0.13±0.38 ^a	0.05±0.03 ^{ab}	0.05±0.05 ^b	0.12±0.09 ^a
18:2c9t11 CLA	0.27±0.06 ^a	0.26±0.07 ^a	0.22±0.06 ^b	0.23±0.08 ^{ab}	0.17±0.04 ^c	0.17±0.06 ^c	0.20±0.06 ^{bc}
18:2c10t12 CLA	0.09±0.03 ^a	0.07±0.02 ^{ab}	0.06±0.02 ^{bc}	0.07±0.03 ^{abc}	0.04±0.02 ^d	0.05±0.03 ^{cd}	0.07±0.04 ^{ab}
Total trans	2.84±1.00 ^{ab}	2.06±0.16 ^{ab}	1.95±0.63 ^b	1.86±0.71 ^{ab}	1.96±2.86 ^{ab}	1.98±0.95 ^b	2.65±1.02 ^a

Changes in circulating concentrations of trans from 2004-2010. Values are expressed as mean ± SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different ($p<0.05$).

Table S5. Trans fatty acids concentrations ($\mu\text{mol/L}$) in males by year.

Fatty Acid	2004	2005	2006	2007	2008	2009	2010
Subjects	25	80	69	34	52	65	71
16:1t9	25.86 \pm 8.76 ^a	20.22 \pm 7.76 ^{ab}	12.47 \pm 11.13 ^{de}	9.06 \pm 9.95 ^e	15.56 \pm 6.40 ^{cd}	19.01 \pm 7.88 ^{bc}	19.92 \pm 7.71 ^{bc}
18:1t4	4.86 \pm 4.95 ^{ab}	2.06 \pm 2.33 ^b	6.18 \pm 5.95 ^a	8.92 \pm 14.28 ^a	7.23 \pm 7.02 ^a	6.53 \pm 7.62 ^a	5.58 \pm 4.66 ^a
18:1t5	3.03 \pm 3.12 ^b	1.19 \pm 2.27 ^{bcd}	0.58 \pm 0.78 ^d	0.75 \pm 1.72 ^{bcd}	0.58 \pm 1.18 ^{cd}	2.19 \pm 4.81 ^{bc}	6.48 \pm 4.60 ^a
18:1t6-8	15.60 \pm 7.47 ^a	9.81 \pm 5.06 ^b	5.32 \pm 2.70 ^c	4.25 \pm 1.46 ^c	6.06 \pm 7.49 ^c	6.51 \pm 6.79 ^c	11.89 \pm 8.66 ^{ab}
18:1t9	32.29 \pm 15.50 ^a	15.86 \pm 7.57 ^b	12.82 \pm 5.82 ^b	11.21 \pm 4.28 ^b	11.99 \pm 11.72 ^b	13.01 \pm 9.80 ^b	34.94 \pm 30.70 ^a
18:1t10	33.79 \pm 16.84 ^a	19.36 \pm 8.36 ^b	12.49 \pm 7.41 ^b	9.57 \pm 3.22 ^b	10.66 \pm 8.41 ^b	16.01 \pm 9.58 ^b	36.01 \pm 40.69 ^a
18:1t11	23.06 \pm 12.40 ^a	18.53 \pm 8.06 ^{ab}	15.43 \pm 8.39 ^{bc}	14.31 \pm 5.02 ^{bcd}	13.18 \pm 9.04 ^{cd}	12.62 \pm 8.22 ^{cd}	9.58 \pm 7.80 ^d
18:1t12	16.74 \pm 8.05 ^a	11.40 \pm 5.04 ^{bc}	8.35 \pm 4.21 ^{cd}	7.92 \pm 4.67 ^{bcd}	6.67 \pm 5.80 ^d	9.78 \pm 7.04 ^{bcd}	12.16 \pm 11.52 ^{ab}
18:1t13 or c6	13.19 \pm 6.12 ^{ab}	2.53 \pm 4.41 ^b	9.69 \pm 4.41 ^{ab}	11.58 \pm 6.52 ^{ab}	33.28 \pm 171.15 ^{ab}	25.73 \pm 44.66 ^{ab}	35.79 \pm 48.21 ^a
18:2c9t12	19.24 \pm 6.14 ^{ab}	10.97 \pm 4.41 ^c	16.69 \pm 6.19 ^b	14.73 \pm 6.53 ^{bc}	13.81 \pm 3.98 ^{bc}	17.81 \pm 8.89 ^b	22.81 \pm 13.14 ^a
18:2c9t13	14.72 \pm 5.26 ^a	10.65 \pm 4.98 ^{ab}	10.72 \pm 5.12 ^{ab}	8.69 \pm 4.32 ^{bc}	1.11 \pm 1.73 ^d	6.74 \pm 12.02 ^c	7.64 \pm 5.64 ^{bc}
18:2t9c12	11.47 \pm 3.77 ^{bc}	7.03 \pm 3.59 ^d	9.50 \pm 3.35 ^{bcd}	9.46 \pm 3.47 ^{bcd}	8.42 \pm 2.40 ^{cd}	12.07 \pm 6.81 ^b	15.52 \pm 8.84 ^a

18:2t9t12	$1.57 \pm 0.75^{\text{bc}}$	$0.35 \pm 0.71^{\text{c}}$	$1.80 \pm 1.94^{\text{bc}}$	$1.70 \pm 2.95^{\text{bc}}$	$1.44 \pm 1.39^{\text{bc}}$	$2.97 \pm 4.35^{\text{b}}$	$7.76 \pm 6.08^{\text{a}}$
18:2tt	$1.87 \pm 1.14^{\text{c}}$	$1.60 \pm 1.16^{\text{c}}$	$2.17 \pm 3.45^{\text{c}}$	$7.40 \pm 19.65^{\text{ab}}$	$3.78 \pm 2.14^{\text{bc}}$	$3.79 \pm 4.09^{\text{bc}}$	$10.29 \pm 7.71^{\text{a}}$
18:2c9t11 CLA	$21.13 \pm 6.76^{\text{a}}$	$16.28 \pm 6.44^{\text{bc}}$	$13.53 \pm 4.70^{\text{cd}}$	$14.70 \pm 7.05^{\text{bcd}}$	$11.81 \pm 4.95^{\text{d}}$	$13.21 \pm 7.20^{\text{cd}}$	$17.57 \pm 10.37^{\text{ab}}$
18:2c10t12 CLA	$6.34 \pm 2.05^{\text{a}}$	$4.25 \pm 1.70^{\text{b}}$	$3.65 \pm 1.16^{\text{bc}}$	$4.43 \pm 1.88^{\text{bc}}$	$2.89 \pm 1.55^{\text{c}}$	$4.12 \pm 2.84^{\text{bc}}$	$6.10 \pm 3.91^{\text{a}}$
Total trans	$217.29 \pm 80.17_{\text{ab}}$	$131.56 \pm 51.04_{\text{c}}$	$124.22 \pm 50.07^{\text{c}}$	$119.55 \pm 50.66^{\text{c}}$	$133.77 \pm 178.06_{\text{c}}$	$154.76 \pm 99.92_{\text{bc}}$	$236.37 \pm 151.77^{\text{a}}$

Changes in circulating concentrations of trans from 2004-2010. Values are expressed as mean \pm SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different ($p < 0.05$).

Table S6. Trans fatty acids levels (% composition) in females by year.

Fatty Acid	2004	2005	2006	2007	2008	2009	2010
Subjects	70	154	158	103	151	136	126
16:1t9	0.34±0.08 ^a	0.30±0.08 ^a	0.19±0.15 ^c	0.21±0.13 ^{bc}	0.21±0.06 ^{bc}	0.24±0.09 ^b	0.21±0.07 ^{bc}
18:1t4	0.05±0.05 ^{cd}	0.03±0.03 ^d	0.07±0.08 ^{bc}	0.09±0.08 ^{abc}	0.09±0.08 ^{bc}	0.08±0.10 ^{abc}	0.10±0.14 ^a
18:1t5	0.03±0.03 ^{bc}	0.02±0.03 ^{bc}	0.01±0.02 ^c	0.01±0.01 ^c	0.01±0.01 ^c	0.03±0.08 ^b	0.09±0.10 ^a
18:1t6-8	0.22±0.11 ^a	0.15±0.07 ^b	0.08±0.04 ^c	0.09±0.05 ^c	0.07±0.03 ^c	0.08±0.08 ^c	0.15±0.14 ^b
18:1t9	0.41±0.12 ^a	0.25±0.12 ^b	0.21±0.09 ^b	0.22±0.07 ^{bc}	0.15±0.06 ^d	0.17±0.10 ^{cd}	0.38±0.15 ^a
18:1t10	0.44±0.16 ^a	0.31±0.14 ^c	0.19±0.08 ^d	0.20±0.08 ^d	0.13±0.08 ^e	0.23±0.13 ^d	0.37±0.14 ^b
18:1t11	0.31±0.12 ^a	0.29±0.15 ^a	0.24±0.09 ^b	0.23±0.08 ^b	0.16±0.08 ^{cd}	0.17±0.11 ^c	0.12±0.08 ^d
18:1t12	0.24±0.09 ^a	0.19±0.10 ^b	0.13±0.07 ^c	0.15±0.08 ^{bc}	0.09±0.04 ^d	0.15±0.20 ^{bc}	0.14±0.11 ^c
18:1t13 or c6	0.17±0.07 ^{bc}	0.07±0.19 ^c	0.16±0.08 ^{bc}	0.20±0.08 ^{bc}	0.12±0.06 ^{bc}	0.51±1.39 ^a	0.32±0.32 ^{ab}
18:2c9t12	0.26±0.07 ^{abc}	0.17±0.04 ^d	0.31±0.40 ^a	0.25±0.09 ^{abc}	0.19±0.04 ^{cd}	0.23±0.11 ^{bc}	0.27±0.11 ^{ab}
18:2c9t13	0.21±0.06 ^a	0.17±0.07 ^a	0.20±0.09 ^a	0.17±0.07 ^{ab}	0.05±0.15 ^c	0.06±0.13 ^c	0.13±0.16 ^b
18:2t9c12	0.17±0.04 ^{ab}	0.11±0.05 ^c	0.16±0.04 ^b	0.16±0.06 ^b	0.12±0.03 ^c	0.16±0.09 ^b	0.18±0.08 ^a

18:2t9t12	0.02±0.01 ^{bcd}	0.01±0.01 ^d	0.04±0.05 ^b	0.03±0.04 ^{bc}	0.02±0.02 ^{cd}	0.04±0.07 ^b	0.10±0.10 ^a
18:2tt	0.02±0.01 ^c	0.03±0.02 ^c	0.04±0.06 ^c	0.05±0.04 ^{bc}	0.06±0.04 ^b	0.04±0.05 ^{bc}	0.14±0.15 ^a
18:2c9t11 CLA	0.30±0.08 ^a	0.26±0.08 ^b	0.25±0.06 ^{bc}	0.23±0.06 ^{cd}	0.17±0.06 ^e	0.17±0.07 ^e	0.22±0.12 ^d
18:2c10t12 CLA	0.08±0.02 ^a	0.07±0.02 ^{ab}	0.06±0.02 ^{bc}	0.08±0.04 ^a	0.04±0.02 ^d	0.05±0.05 ^c	0.07±0.05 ^a
Total trans	2.89±0.84 ^a	2.08±0.74 ^b	2.02±0.71 ^b	2.03±0.60 ^b	1.46±0.40 ^c	2.19±2.00 ^b	2.72±1.34 ^a

Changes in circulating concentrations of trans from 2004-2010. Values are expressed as mean ± SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different (p<0.05).

Table S7. Trans fatty acids concentrations ($\mu\text{mol/L}$) in females by year.

Fatty Acid	2004	2005	2006	2007	2008	2009	2010
Subjects	70	154	158	103	151	136	126
16:1t9	25.54 \pm 10.42 ^a	22.33 \pm 8.40 ^b	15.63 \pm 13.17 ^c	17.17 \pm 11.22 ^{cde}	12.25 \pm 7.23 ^{de}	19.64 \pm 8.69 ^{bcd}	20.92 \pm 11.17 ^{bc}
18:1t4	4.07 \pm 4.02 ^b	1.81 \pm 2.18 ^c	4.58 \pm 5.15 ^b	6.06 \pm 5.57 ^{ab}	6.33 \pm 5.16 ^a	5.83 \pm 6.06 ^{ab}	5.90 \pm 4.27 ^{ab}
18:1t5	2.09 \pm 2.50 ^b	1.06 \pm 1.73 ^{cd}	0.57 \pm 1.40 ^d	0.49 \pm 0.85 ^d	0.39 \pm 0.67 ^d	1.72 \pm 3.54 ^{bc}	6.40 \pm 4.01 ^a
18:1t6-8	17.29 \pm 9.38 ^a	9.65 \pm 5.49 ^b	5.62 \pm 3.26 ^c	6.25 \pm 3.22 ^c	5.04 \pm 2.58 ^c	5.62 \pm 4.87 ^c	11.11 \pm 7.91 ^b
18:1t9	33.00 \pm 16.22 ^a	16.46 \pm 8.71 ^b	14.91 \pm 7.16 ^b	15.45 \pm 6.69 ^b	11.42 \pm 5.46 ^c	13.19 \pm 9.28 ^{bc}	31.19 \pm 15.19 ^a
18:1t10	34.70 \pm 14.33 ^a	20.62 \pm 10.08 ^c	13.53 \pm 7.19 ^d	14.25 \pm 6.71 ^d	9.55 \pm 5.70 ^e	16.52 \pm 9.99 ^d	29.42 \pm 14.22 ^b
18:1t11	24.80 \pm 10.99 ^a	19.27 \pm 10.87 ^b	16.61 \pm 7.69 ^{bc}	15.93 \pm 5.99 ^c	11.53 \pm 6.63 ^{de}	12.48 \pm 9.52 ^d	9.31 \pm 5.01 ^e
18:1t12	18.99 \pm 8.12 ^a	12.16 \pm 6.32 ^b	9.21 \pm 4.83 ^c	10.68 \pm 5.08 ^{bc}	6.72 \pm 3.73 ^d	10.28 \pm 8.52 ^{bc}	10.41 \pm 6.50 ^{bc}
18:1t13 or c6	13.79 \pm 6.03 ^{bc}	4.35 \pm 8.10 ^c	11.42 \pm 6.13 ^c	14.29 \pm 6.67 ^{bc}	8.71 \pm 4.79 ^c	33.49 \pm 64.70 ^a	22.76 \pm 22.02 ^b
18:2c9t12	21.04 \pm 6.38 ^a	11.16 \pm 4.00 ^b	21.44 \pm 29.03 ^a	17.88 \pm 7.82 ^{ab}	14.29 \pm 5.04 ^{bc}	16.80 \pm 6.99 ^{ab}	21.56 \pm 9.51 ^a
18:2c9t13	16.91 \pm 5.89 ^a	11.48 \pm 5.71 ^b	13.85 \pm 6.97 ^{ab}	12.15 \pm 6.11 ^b	3.53 \pm 11.58 ^d	4.07 \pm 7.79 ^d	7.93 \pm 4.55 ^c
18:2t9c12	13.30 \pm 3.73 ^{ab}	7.15 \pm 3.45 ^e	10.90 \pm 4.09 ^c	11.33 \pm 5.01 ^{bc}	9.07 \pm 3.25 ^d	11.43 \pm 5.97 ^{bc}	14.79 \pm 6.55 ^a

18:2t9t12	$1.70 \pm 0.81^{\text{bc}}$	$0.33 \pm 0.64^{\text{d}}$	$2.41 \pm 3.42^{\text{b}}$	$2.10 \pm 2.86^{\text{bc}}$	$1.20 \pm 1.32^{\text{cd}}$	$2.38 \pm 3.44^{\text{b}}$	$7.08 \pm 4.49^{\text{a}}$
18:2tt	$1.95 \pm 1.32^{\text{cd}}$	$1.73 \pm 1.30^{\text{d}}$	$2.49 \pm 3.53^{\text{cd}}$	$3.27 \pm 2.70^{\text{bc}}$	$4.32 \pm 2.47^{\text{b}}$	$3.26 \pm 3.28^{\text{bc}}$	$10.25 \pm 8.20^{\text{a}}$
18:2c9t11 CLA	$24.50 \pm 9.48^{\text{a}}$	$17.77 \pm 7.57^{\text{b}}$	$17.55 \pm 6.59^{\text{b}}$	$16.80 \pm 6.81^{\text{b}}$	$12.90 \pm 6.04^{\text{c}}$	$12.82 \pm 7.53^{\text{c}}$	$17.45 \pm 9.64^{\text{b}}$
18:2c10t12 CLA	$6.22 \pm 1.80^{\text{ab}}$	$4.29 \pm 1.58^{\text{c}}$	$3.93 \pm 1.36^{\text{c}}$	$5.31 \pm 2.48^{\text{b}}$	$3.06 \pm 1.36^{\text{d}}$	$3.85 \pm 3.27^{\text{cd}}$	$6.40 \pm 4.51^{\text{a}}$
Total trans	$233.16 \pm 82.20^{\text{a}}$	$139.56 \pm 58.49^{\text{b}}$	$143.18 \pm 60.96^{\text{b}}$	$147.31 \pm 54.22^{\text{b}}$	$109.34 \pm 41.38^{\text{c}}$	$156.71 \pm 97.11^{\text{b}}$	$209.04 \pm 81.90^{\text{a}}$

Changes in circulating concentrations of trans from 2004-2010. Values are expressed as mean \pm SD. Differences in years were analyzed by analysis of variance (ANOVA) and the Tukey's post-hoc test was used to determine differences between means. Values within a row with different letters are significantly different ($p < 0.05$).