

**Supplemental Table 1. Serum biomarkers of polyunsaturated fatty acids<sup>a</sup> at 5 y by categories of sociodemographic characteristics in infancy and other fatty acids at 5 y among children from Santiago, Chile**

Characteristics	N	N-3			N-6			Desaturase indices	
		ALA 18:3(n-3)	EPA 20:5(n-3)	DHA 22:6(n-3)	LA 18:2(n-6)	DGLA 20:3(n-6)	AA 20:4(n-6)	Δ6-desaturase activity index (GLA/LA)	Δ5-desaturase activity index (AA/DGLA)
Overall	239	0.30 ± 0.16	0.27 ± 0.12	0.62 ± 0.54	27.14 ± 4.44	0.77 ± 0.36	1.78 ± 0.50	0.008 ± 0.008	4.23 ± 6.80
<b>Infancy sociodemographic characteristics</b>									
Sex									
Female	113	0.30 ± 0.15	0.27 ± 0.13	0.63 ± 0.74	27.51 ± 4.05	0.74 ± 0.31	1.74 ± 0.49	0.007 ± 0.006	4.09 ± 5.82
Male	126	0.30 ± 0.17	0.27 ± 0.12	0.61 ± 0.25	26.81 ± 4.75	0.80 ± 0.39	1.81 ± 0.50	0.009 ± 0.010	4.36 ± 7.59
P <sup>b</sup>		0.89	0.69	0.80	0.22	0.17	0.30	0.07	0.76
Birth length									
Average for gestational age <sup>c</sup>	157	0.30 ± 0.16	0.27 ± 0.12	0.62 ± 0.64	26.98 ± 4.57	0.78 ± 0.37	1.73 ± 0.48	0.008 ± 0.008	3.79 ± 5.98
Large for gestational age	82	0.29 ± 0.15	0.27 ± 0.13	0.63 ± 0.26	27.45 ± 4.19	0.75 ± 0.32	1.87 ± 0.52	0.008 ± 0.008	5.07 ± 8.12
P <sup>b</sup>		0.77	0.75	0.86	0.42	0.64	0.04	0.90	0.21
Birth weight									
Average for gestational age	168	0.30 ± 0.15	0.27 ± 0.12	0.62 ± 0.62	27.08 ± 4.48	0.77 ± 0.37	1.75 ± 0.47	0.008 ± 0.008	4.05 ± 6.65
Large for gestational age	71	0.28 ± 0.19	0.27 ± 0.14	0.61 ± 0.24	27.29 ± 4.37	0.76 ± 0.32	1.84 ± 0.56	0.008 ± 0.008	4.65 ± 7.18
P <sup>b</sup>		0.48	0.98	0.79	0.73	0.72	0.22	0.81	0.55
Breastfeeding									
Breastfeeding <6 mo	57	0.35 ± 0.19	0.26 ± 0.12	0.74 ± 1.01	26.86 ± 4.34	0.80 ± 0.50	1.78 ± 0.50	0.009 ± 0.007	3.80 ± 4.48
Mixed bottle/breastfeeding, ≥6 mo	95	0.28 ± 0.15	0.27 ± 0.13	0.56 ± 0.24	27.01 ± 4.69	0.74 ± 0.30	1.76 ± 0.51	0.008 ± 0.009	4.67 ± 7.80
Exclusive breastfeeding, ≥6 mo	84	0.29 ± 0.14	0.27 ± 0.12	0.60 ± 0.23	27.20 ± 4.03	0.77 ± 0.30	1.79 ± 0.49	0.008 ± 0.008	4.10 ± 7.04
P <sup>d</sup>		0.05	0.70	0.26	0.89	0.57	0.91	0.91	0.68
Iron supplementation									
None	155	0.31 ± 0.17	0.28 ± 0.13	0.59 ± 0.25	27.38 ± 4.09	0.80 ± 0.38	1.78 ± 0.51	0.008 ± 0.007	3.91 ± 6.32
Any	84	0.27 ± 0.14	0.26 ± 0.11	0.68 ± 0.84	26.69 ± 5.01	0.71 ± 0.30	1.78 ± 0.48	0.009 ± 0.010	4.82 ± 7.61
P <sup>b</sup>		0.07	0.22	0.35	0.28	0.05	0.93	0.19	0.35

Characteristics	N	N-3			N-6			Desaturase indices	
		ALA 18:3(n-3)	EPA 20:5(n-3)	DHA 22:6(n-3)	LA 18:2(n-6)	DGLA 20:3(n-6)	AA 20:4(n-6)	$\Delta 6$ -desaturase activity index (GLA/LA)	$\Delta 5$ -desaturase activity index (AA/DGLA)
<b>Graffar index<sup>e</sup></b>									
Q1 (high SES)	50	0.29 ± 0.11	0.31 ± 0.14	0.60 ± 0.25	27.85 ± 4.02	0.90 ± 0.49	1.85 ± 0.56	0.009 ± 0.008	2.90 ± 3.58
Q2	45	0.28 ± 0.14	0.26 ± 0.12	0.65 ± 0.27	27.53 ± 3.79	0.81 ± 0.30	1.83 ± 0.53	0.008 ± 0.006	3.35 ± 4.17
Q3	57	0.31 ± 0.21	0.26 ± 0.12	0.56 ± 0.22	26.50 ± 4.41	0.70 ± 0.33	1.73 ± 0.42	0.007 ± 0.008	5.27 ± 8.32
Q4	46	0.29 ± 0.15	0.26 ± 0.12	0.74 ± 1.12	27.75 ± 4.78	0.74 ± 0.30	1.81 ± 0.58	0.007 ± 0.006	4.32 ± 7.02
Q5 (low SES)	41	0.31 ± 0.15	0.24 ± 0.10	0.56 ± 0.25	26.04 ± 5.05	0.70 ± 0.30	1.65 ± 0.37	0.010 ± 0.011	5.27 ± 9.05
P, trend <sup>f</sup>		0.44	0.007	0.86	0.13	0.01	0.06	0.56	0.12
<b>5 y serum fatty acids (median, weight % of total fatty acids)</b>									
<b>Total trans fatty acids</b>									
Q1 (1.58)	59	0.30 ± 0.14	0.28 ± 0.13	0.75 ± 0.27	29.04 ± 4.40	0.79 ± 0.31	1.95 ± 0.48	0.010 ± 0.010	4.13 ± 6.87
Q2 (2.24)	60	0.31 ± 0.17	0.30 ± 0.14	0.71 ± 0.98	28.02 ± 3.78	0.83 ± 0.48	1.87 ± 0.56	0.008 ± 0.008	4.70 ± 7.62
Q3 (2.88)	60	0.29 ± 0.15	0.25 ± 0.12	0.56 ± 0.21	26.67 ± 4.06	0.72 ± 0.34	1.70 ± 0.43	0.007 ± 0.005	5.01 ± 7.74
Q4 (4.06)	60	0.29 ± 0.17	0.24 ± 0.10	0.46 ± 0.18	24.86 ± 4.45	0.74 ± 0.26	1.59 ± 0.45	0.008 ± 0.008	3.08 ± 4.47
P, trend <sup>f</sup>		0.53	0.008	<0.0001	<0.0001	0.13	<0.0001	0.33	0.25
<b>Palmitoleic acid 16:1(n-7)</b>									
Q1 (1.07)	59	0.27 ± 0.15	0.29 ± 0.13	0.79 ± 0.99	28.55 ± 4.97	0.76 ± 0.47	1.89 ± 0.52	0.009 ± 0.011	4.51 ± 7.15
Q2 (1.38)	60	0.29 ± 0.15	0.29 ± 0.14	0.59 ± 0.23	28.31 ± 3.58	0.77 ± 0.33	1.80 ± 0.49	0.007 ± 0.006	4.65 ± 7.39
Q3 (1.64)	60	0.29 ± 0.18	0.24 ± 0.10	0.57 ± 0.22	27.46 ± 4.12	0.73 ± 0.32	1.81 ± 0.49	0.008 ± 0.008	4.51 ± 6.37
Q4 (2.12)	60	0.33 ± 0.16	0.26 ± 0.12	0.54 ± 0.22	24.26 ± 3.67	0.82 ± 0.28	1.61 ± 0.46	0.009 ± 0.006	3.25 ± 6.30
P, trend <sup>f</sup>		0.05	0.07	0.05	<0.0001	0.44	0.001	0.60	0.26

**Footnotes to Supplemental Table 1**

<sup>a</sup>Expressed as percentage of total fatty acids by weight.

<sup>b</sup>Wald test from linear regression models with each fatty acid as the outcome and an indicator variable for the characteristic as a predictor.

<sup>c</sup>Includes 7 children who were small for gestational age according to birth length.

<sup>d</sup> $\chi^2$  score statistic from linear regression models with each fatty acid as the outcome and indicator variables for levels of the characteristic as predictors.

<sup>e</sup>Index of socioeconomic status that includes information on family structure, education and employment of the head of household, crowding and physical condition of the home, and ownership of the home, car, and household appliances [23]. Higher values indicate lower socioeconomic status.

<sup>f</sup>Wald test from linear regression models with each fatty acid as the outcome and a variable representing category-specific medians of an ordinal characteristic introduced as a continuous predictor.

**Supplemental Table 2. Changes in BMI-for-age Z scores<sup>a</sup> by desaturase enzyme activity indices in serum at 5 years of age among children from Santiago, Chile**

Desaturase index quartile (median, weight % of total FA)	N	5 y BMI-for-age Z score (mean $\pm$ SE) <sup>b</sup>	16 y BMI-for-age Z score (mean $\pm$ SE)	Change in BMI-for-age Z score 5 – 16 y (mean $\pm$ SE) <sup>b</sup>	Adjusted difference in change (95% CI) <sup>c</sup>
<b><math>\Delta</math>6-Desaturase index (GLA/LA)</b>					
Q1 (0.002)	59	0.74 $\pm$ 0.16	0.60 $\pm$ 0.14	-0.13 $\pm$ 0.14	Reference
Q2 (0.004)	60	0.85 $\pm$ 0.14	0.66 $\pm$ 0.14	-0.20 $\pm$ 0.13	0.01 (-0.37, 0.40)
Q3 (0.008)	60	0.84 $\pm$ 0.15	0.55 $\pm$ 0.16	-0.29 $\pm$ 0.11	-0.02 (-0.39, 0.34)
Q4 (0.016)	60	1.30 $\pm$ 0.16	0.99 $\pm$ 0.14	-0.31 $\pm$ 0.11	-0.02 (-0.38, 0.35)
P, trend <sup>d</sup>		0.009	0.04	0.32	0.87
<b><math>\Delta</math>5-Desaturase index (AA/DGLA)</b>					
Q1 (1.54)	59	0.95 $\pm$ 0.16	0.66 $\pm$ 0.15	-0.29 $\pm$ 0.11	Reference
Q2 (1.96)	60	1.02 $\pm$ 0.16	0.80 $\pm$ 0.14	-0.22 $\pm$ 0.14	0.08 (-0.27, 0.43)
Q3 (2.43)	60	0.82 $\pm$ 0.15	0.67 $\pm$ 0.15	-0.15 $\pm$ 0.12	0.08 (-0.27, 0.43)
Q4 (4.64)	60	0.94 $\pm$ 0.16	0.68 $\pm$ 0.16	-0.26 $\pm$ 0.12	-0.01 (-0.34, 0.32)
P, trend		0.94	0.86	0.91	0.72

**Footnotes to Supplemental Table 2**

<sup>a</sup>According the World Health Organization Growth Reference 2007 [21] for children ages 5-19 y.

<sup>b</sup>From growth curves estimated using mixed effects linear regression models with BMI-for-age Z score as the outcome, and predictors that included indicator variables for each PUFA quartile, linear and cubic spline terms for age, and interaction terms between the quartiles and age terms. All models included random intercepts and age slopes to account for within-child correlations of repeated BMI measurements.

<sup>c</sup>Adjusted for sex, birth weight (large vs. average for gestational age), breastfeeding (<6 mo, ≥6 mo w/ bottle feeding, ≥6 mo exclusive), Graffar index (indicator variables for quintiles), total serum trans fatty acids, palmitoleic acid, ALA, total long-chain n-3 PUFA, and the main exposure desaturase index measured in infancy. Covariate fatty acids are represented with linear and restricted cubic spline terms.

<sup>d</sup>From mixed effects linear regression models with Z score as the outcome and a variable representing medians of PUFA quartiles introduced as a continuous predictor.

**Supplemental Table 3. Serum biomarkers of polyunsaturated fatty acids<sup>a</sup> at 10 y by categories of sociodemographic characteristics in infancy and other fatty acids at 10 y among children from Santiago, Chile**

Characteristics	N	N-3			N-6			Desaturase indices	
		ALA 18:3(n-3)	EPA 20:5(n-3)	DHA 22:6(n-3)	LA 18:2(n-6)	DGLA 20:3(n-6)	AA 20:4(n-6)	Δ6-desaturase activity index (GLA/LA)	Δ5-desaturase activity index (AA/DGLA)
Overall	418	0.42 ± 0.17	0.26 ± 0.14	0.65 ± 0.22	30.99 ± 4.26	1.18 ± 0.30	3.18 ± 0.88	0.007 ± 0.006	2.92 ± 1.87
<b>Infancy sociodemographic characteristics</b>									
Sex									
Female	198	0.44 ± 0.18	0.25 ± 0.15	0.66 ± 0.22	31.46 ± 4.50	1.15 ± 0.27	3.10 ± 0.87	0.007 ± 0.006	2.81 ± 0.96
Male	220	0.40 ± 0.16	0.27 ± 0.13	0.64 ± 0.22	30.57 ± 4.00	1.20 ± 0.32	3.24 ± 0.89	0.006 ± 0.006	3.02 ± 2.41
P <sup>b</sup>		0.05	0.37	0.48	0.03	0.08	0.10	0.59	0.23
Birth length									
Average for gestational age <sup>c</sup>	279	0.42 ± 0.17	0.27 ± 0.14	0.65 ± 0.21	30.87 ± 4.31	1.18 ± 0.30	3.14 ± 0.83	0.006 ± 0.005	2.91 ± 2.15
Large for gestational age	139	0.42 ± 0.17	0.25 ± 0.13	0.66 ± 0.24	31.22 ± 4.17	1.18 ± 0.31	3.26 ± 0.96	0.008 ± 0.008	2.94 ± 1.14
P <sup>b</sup>		0.78	0.11	0.61	0.42	0.99	0.21	0.005	0.87
Birth weight									
Average for gestational age	305	0.42 ± 0.16	0.27 ± 0.14	0.65 ± 0.21	31.02 ± 4.17	1.17 ± 0.29	3.19 ± 0.86	0.006 ± 0.005	2.97 ± 2.09
Large for gestational age	113	0.43 ± 0.20	0.23 ± 0.11	0.64 ± 0.24	30.90 ± 4.52	1.21 ± 0.33	3.15 ± 0.92	0.008 ± 0.008	2.78 ± 1.07
P <sup>b</sup>		0.75	0.002	0.62	0.81	0.32	0.74	0.001	0.23
Breastfeeding									
Breastfeeding <6 mo	148	0.43 ± 0.17	0.25 ± 0.14	0.66 ± 0.22	30.72 ± 4.10	1.17 ± 0.31	3.21 ± 0.86	0.007 ± 0.005	3.16 ± 2.87
Mixed bottle/breastfeeding, ≥6 mo	147	0.41 ± 0.15	0.27 ± 0.14	0.65 ± 0.20	31.08 ± 4.41	1.17 ± 0.30	3.19 ± 0.87	0.006 ± 0.006	2.88 ± 0.97
Exclusive breastfeeding, ≥6 mo	116	0.42 ± 0.19	0.27 ± 0.13	0.64 ± 0.23	31.12 ± 4.26	1.22 ± 0.30	3.11 ± 0.93	0.006 ± 0.006	2.66 ± 0.90
P <sup>d</sup>		0.69	0.71	0.78	0.67	0.30	0.68	0.26	0.05

Characteristics	N	N-3			N-6			Desaturase indices	
		ALA 18:3(n-3)	EPA 20:5(n-3)	DHA 22:6(n-3)	LA 18:2(n-6)	DGLA 20:3(n-6)	AA 20:4(n-6)	Δ6-desaturase activity index (GLA/LA)	Δ5-desaturase activity index (AA/DGLA)
<b>Iron supplementation</b>									
None	205	0.42 ± 0.18	0.25 ± 0.12	0.63 ± 0.22	30.97 ± 4.38	1.17 ± 0.29	3.11 ± 0.87	0.006 ± 0.006	2.78 ± 0.98
Any	213	0.42 ± 0.17	0.27 ± 0.15	0.67 ± 0.22	31.01 ± 4.16	1.19 ± 0.31	3.24 ± 0.89	0.007 ± 0.006	3.05 ± 2.44
P <sup>b</sup>		0.91	0.14	0.11	0.93	0.68	0.14	0.25	0.13
<b>Graffar index<sup>e</sup></b>									
Q1 (high SES)	71	0.42 ± 0.16	0.26 ± 0.13	0.62 ± 0.21	30.81 ± 3.98	1.16 ± 0.33	3.15 ± 0.93	0.008 ± 0.008	3.07 ± 2.07
Q2	82	0.44 ± 0.23	0.28 ± 0.15	0.64 ± 0.20	31.27 ± 3.84	1.17 ± 0.28	3.16 ± 0.76	0.005 ± 0.004	2.86 ± 1.00
Q3	99	0.44 ± 0.15	0.25 ± 0.13	0.70 ± 0.23	31.35 ± 4.05	1.22 ± 0.27	3.24 ± 0.93	0.007 ± 0.007	2.74 ± 0.80
Q4	83	0.39 ± 0.13	0.26 ± 0.13	0.63 ± 0.20	30.89 ± 4.55	1.19 ± 0.32	3.10 ± 0.86	0.007 ± 0.005	2.72 ± 0.83
Q5 (low SES)	83	0.41 ± 0.17	0.25 ± 0.14	0.64 ± 0.24	30.52 ± 4.85	1.16 ± 0.30	3.22 ± 0.90	0.006 ± 0.005	3.26 ± 3.40
P, trend <sup>f</sup>		0.22	0.41	0.95	0.42	0.95	0.78	0.70	0.62
<b>10 y serum fatty acids (median, weight % of total fatty acids)</b>									
<b>Total trans fatty acids</b>									
Q1 (1.11)	104	0.46 ± 0.20	0.27 ± 0.14	0.72 ± 0.25	32.47 ± 4.08	1.22 ± 0.29	3.44 ± 0.95	0.007 ± 0.006	2.93 ± 0.98
Q2 (1.45)	105	0.42 ± 0.16	0.26 ± 0.14	0.69 ± 0.22	31.38 ± 4.23	1.23 ± 0.33	3.23 ± 0.83	0.006 ± 0.006	3.01 ± 3.01
Q3 (1.82)	105	0.43 ± 0.19	0.26 ± 0.12	0.62 ± 0.18	31.26 ± 4.12	1.19 ± 0.26	3.09 ± 0.88	0.006 ± 0.006	2.70 ± 0.91
Q4 (2.46)	104	0.37 ± 0.12	0.25 ± 0.14	0.57 ± 0.18	28.84 ± 3.85	1.08 ± 0.30	2.95 ± 0.79	0.007 ± 0.005	3.04 ± 1.78
P, trend <sup>f</sup>		0.0002	0.48	<0.0001	<0.0001	0.0001	<0.0001	0.44	0.80
<b>Palmitoleic acid 16:1(n-7)</b>									
Q1 (0.97)	104	0.39 ± 0.18	0.29 ± 0.14	0.67 ± 0.22	33.33 ± 4.38	1.09 ± 0.30	3.49 ± 0.99	0.007 ± 0.006	3.35 ± 0.97
Q2 (1.29)	105	0.41 ± 0.20	0.26 ± 0.13	0.70 ± 0.24	32.09 ± 3.62	1.10 ± 0.28	3.23 ± 0.88	0.006 ± 0.005	3.27 ± 3.01
Q3 (1.67)	105	0.42 ± 0.14	0.28 ± 0.16	0.65 ± 0.20	30.82 ± 3.24	1.23 ± 0.31	3.18 ± 0.81	0.006 ± 0.006	2.83 ± 1.69
Q4 (2.29)	104	0.46 ± 0.16	0.22 ± 0.10	0.57 ± 0.20	27.70 ± 3.60	1.31 ± 0.26	2.81 ± 0.69	0.008 ± 0.007	2.22 ± 0.65
P, trend <sup>f</sup>		0.002	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.05	<0.0001

**Footnotes to Supplemental Table 3**

<sup>a</sup>Expressed as percentage of total fatty acids by weight.

<sup>b</sup>Wald test from linear regression models with each fatty acid as the outcome and an indicator variable for the characteristic as a predictor.

<sup>c</sup>Includes 7 children who were small for gestational age according to birth length.

<sup>d</sup> $\chi^2$  score statistic from linear regression models with each fatty acid as the outcome and indicator variables for levels of the characteristic as predictors.

<sup>e</sup>Index of socioeconomic status that includes information on family structure, education and employment of the head of household, crowding and physical condition of the home, and ownership of the home, car, and household appliances [23]. Higher values indicate lower socioeconomic status.

<sup>f</sup>Wald test from linear regression models with each fatty acid as the outcome and a variable representing category-specific medians of an ordinal characteristic introduced as a continuous predictor.

**Supplemental Table 4. Changes in BMI-for-age Z scores<sup>a</sup> by desaturase enzyme activity indices in serum at 10 years of age among children from Santiago, Chile**

Desaturase index quartile (median, weight % of total FA)	N	10 y BMI-for- age Z score (mean ± SE) <sup>b</sup>	16 y BMI-for- age Z score (mean ± SE)	Change in BMI-for- age Z score 10 – 16 y (mean ± SE) <sup>b</sup>	Adjusted difference in change (95% CI) <sup>c</sup>
<b>Δ6-Desaturase index (GLA/LA)</b>					
Q1 (0.002)	104	1.00 ± 0.10	0.79 ± 0.10	-0.22 ± 0.07	Reference
Q2 (0.004)	105	0.88 ± 0.12	0.54 ± 0.10	-0.34 ± 0.07	-0.13 (-0.32, 0.06)
Q3 (0.006)	105	1.10 ± 0.12	0.75 ± 0.11	-0.35 ± 0.07	-0.14 (-0.32, 0.05)
Q4 (0.012)	104	1.16 ± 0.11	0.84 ± 0.11	-0.32 ± 0.07	-0.11 (-0.30, 0.08)
P, trend <sup>d</sup>		0.11	0.27	0.44	0.44
<b>Δ5-Desaturase index (AA/DGLA)</b>					
Q1 (1.79)	104	1.52 ± 0.11	1.14 ± 0.11	-0.39 ± 0.07	Reference
Q2 (2.42)	105	1.13 ± 0.10	0.76 ± 0.10	-0.37 ± 0.07	0.00 (-0.20, 0.20)
Q3 (3.00)	105	0.86 ± 0.11	0.57 ± 0.11	-0.29 ± 0.06	0.04 (-0.15, 0.22)
Q4 (3.80)	104	0.63 ± 0.11	0.44 ± 0.10	-0.19 ± 0.07	0.05 (-0.16, 0.26)
P, trend		<0.0001	<0.0001	0.03	0.56

**Footnotes to Supplemental Table 4**

<sup>a</sup>According the World Health Organization Growth Reference 2007 [21] for children ages 5-19 y

<sup>b</sup>From growth curves estimated using mixed effects linear regression models with BMI-for-age Z score as the outcome, and predictors that included indicator variables for each PUFA quartile, a linear term for age, and interaction terms between the quartiles and age. All models included random intercepts to account for within-child correlations of repeated BMI measurements.

<sup>c</sup>Adjusted for sex, birth weight (large vs. average for gestational age), breastfeeding (<6 mo, ≥6 mo w/ bottle feeding, ≥6 mo exclusive), Graffar index (indicator variables for quintiles), total serum trans fatty acids, palmitoleic acid, ALA, total long-chain n-3 PUFA, and the main exposure desaturase index measured in infancy. Covariate fatty acids are represented with linear and restricted cubic spline terms.

<sup>d</sup>From mixed effects linear regression models with Z score as the outcome and a variable representing medians of PUFA quartiles introduced as a continuous predictor.

**Supplemental Table 5. Changes in BMI-for-age Z scores<sup>a</sup> according to changes in desaturase enzyme activity indices in serum at 5 and 10 years of age among children from Santiago, Chile**

Quartile of desaturase index change (median, weight % of total FA)	N	10 y BMI-for- age Z score (mean ± SE) <sup>b</sup>	16 y BMI-for- age Z score (mean ± SE)	Change in BMI-for- age Z score 10 – 16 y (mean ± SE) <sup>b</sup>	Adjusted difference in change (95% CI) <sup>c</sup>
<b>Δ6-Desaturase index (GLA/LA)</b>					
Q1 (-0.009)	35	1.11 ± 0.18	0.76 ± 0.21	-0.35 ± 0.12	Reference
Q2 (-0.002)	35	1.44 ± 0.22	1.06 ± 0.23	-0.38 ± 0.10	-0.16 (-0.48, 0.15)
Q3 (0.000)	36	0.47 ± 0.16	0.37 ± 0.17	-0.10 ± 0.12	0.05 (-0.28, 0.38)
Q4 (0.005)	35	0.88 ± 0.17	0.51 ± 0.16	-0.38 ± 0.12	-0.16 (-0.47, 0.15)
P, trend		0.14	0.21	0.86	0.39
<b>Δ5-Desaturase index (AA/DGLA)</b>					
Q1 (-2.08)	35	1.30 ± 0.20	0.76 ± 0.23	-0.54 ± 0.13	Reference
Q2 (0.23)	35	1.24 ± 0.17	0.86 ± 0.19	-0.37 ± 0.13	0.17 (-0.21, 0.54)
Q3 (0.81)	36	0.95 ± 0.18	0.73 ± 0.17	-0.22 ± 0.09	0.33 (0.01, 0.65)
Q4 (1.62)	35	0.40 ± 0.19	0.33 ± 0.19	-0.06 ± 0.11	0.64 (0.27, 1.02)
P, trend		0.005	0.28	0.008	0.003

**Footnotes to Supplemental Table 5**

<sup>a</sup>According the World Health Organization Growth Reference 2007 [21] for children ages 5-19 y.

<sup>b</sup>From growth curves estimated using mixed effects linear regression models with BMI-for-age Z score as the outcome, and predictors that included indicator variables for each PUFA change quartile, a linear term for age, and interaction terms between the quartiles and age. All models included random intercepts to account for within-child correlations of repeated BMI measurements.

<sup>c</sup>Adjusted for sex, birth weight (large vs. average for gestational age), breastfeeding (<6 mo, ≥6 mo w/ bottle feeding, ≥6 mo exclusive), Graffar index (indicator variables for quintiles), change in total serum trans fatty acids, change in palmitoleic acid, change in ALA, change in total long-chain n-3 PUFA, and serum concentrations of the main exposure desaturase index measured in infancy. Covariate fatty acids are represented with linear and restricted cubic spline terms.

<sup>d</sup>From mixed effects linear regression models with Z score as the outcome and a variable representing medians of PUFA change quartiles introduced as a continuous predictor.