

Supplemental Table 1. Odds ratios (OR) for progression to dengue hemorrhagic fever/dengue shock syndrome by quintile (Q) of serum fatty acids (FA) %

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|-------------------------------------|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| SFAs (%) | | | | | | |
| 14:0 myristic acid | | | | | | |
| Median | 0.13 | 0.22 | 0.31 | 0.40 | 0.60 | |
| Controls:Cases | 47:24 | 47:33 | 47:16 | 47:20 | 47:16 | |
| Unadjusted OR (95% CI) ² | 1.00 | 1.38 (0.71, 2.67) | 0.67 (0.31, 1.41) | 0.83 (0.41, 1.71) | 0.67 (0.31, 1.41) | 0.11 |
| Adjusted OR (95% CI) ³ | 1.00 | 1.17 (0.58, 2.34) | 0.60 (0.28, 1.31) | 0.68 (0.32, 1.44) | 0.53 (0.24, 1.17) | 0.04 |
| 15:0 pentadecanoic acid | | | | | | |
| Median | 0.11 | 0.14 | 0.16 | 0.19 | 0.24 | |
| Controls:Cases | 46:27 | 47:27 | 47:23 | 47:22 | 47:9 | |
| Unadjusted OR (95% CI) | 1.00 | 0.98 (0.50, 1.91) | 0.83 (0.42, 1.66) | 0.80 (0.40, 1.60) | 0.33 (0.14, 0.77) | 0.01 |
| Adjusted OR (95% CI) | 1.00 | 0.79 (0.39, 1.61) | 0.62 (0.30, 1.29) | 0.61 (0.29, 1.27) | 0.27 (0.11, 0.66) | 0.003 |
| 16:0 palmitic acid | | | | | | |
| Median | 20.66 | 22.36 | 23.36 | 24.47 | 26.11 | |
| Controls:Cases | 47:23 | 47:28 | 47:31 | 47:9 | 47:18 | |
| Unadjusted OR (95% CI) | 1.00 | 1.22 (0.61, 2.41) | 1.35 (0.69, 2.64) | 0.39 (0.16, 0.93) | 0.78 (0.37, 1.64) | 0.14 |
| Adjusted OR (95% CI) | 1.00 | 1.06 (0.52, 2.16) | 1.23 (0.61, 2.48) | 0.36 (0.15, 0.89) | 0.68 (0.31, 1.49) | 0.08 |
| 17:0 margaric acid | | | | | | |
| Median | 0.28 | 0.33 | 0.36 | 0.39 | 0.47 | |
| Controls:Cases | 46:29 | 47:21 | 47:23 | 47:21 | 47:14 | |
| Unadjusted OR (95% CI) | 1.00 | 0.71 (0.35, 1.42) | 0.78 (0.39, 1.53) | 0.71 (0.35, 1.42) | 0.47 (0.22, 1.01) | 0.07 |
| Adjusted OR (95% CI) | 1.00 | 0.65 (0.32, 1.35) | 0.77 (0.38, 1.57) | 0.69 (0.34, 1.44) | 0.48 (0.22, 1.05) | 0.09 |
| 18:0 stearic acid | | | | | | |
| Median | 6.83 | 7.52 | 7.93 | 8.49 | 9.49 | |
| Controls:Cases | 47:30 | 47:26 | 47:16 | 47:27 | 47:10 | |
| Unadjusted OR (95% CI) | 1.00 | 0.87 (0.45, 1.68) | 0.53 (0.26, 1.11) | 0.90 (0.47, 1.74) | 0.33 (0.15, 0.76) | 0.02 |
| Adjusted OR (95% CI) | 1.00 | 0.92 (0.46, 1.85) | 0.61 (0.28, 1.30) | 1.06 (0.54, 2.12) | 0.40 (0.17, 0.95) | 0.09 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|--------------------------|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| 20:0 arachidic acid | | | | | | |
| Median | 0.11 | 0.13 | 0.15 | 0.17 | 0.21 | |
| Controls:Cases | 47:15 | 47:16 | 47:31 | 47:25 | 47:22 | |
| Unadjusted OR (95% CI) | 1.00 | 1.07 (0.47, 2.40) | 2.07 (0.99, 4.32) | 1.67 (0.78, 3.55) | 1.47 (0.68, 3.17) | 0.29 |
| Adjusted OR (95% CI) | 1.00 | 1.02 (0.44, 2.38) | 2.07 (0.96, 4.45) | 1.84 (0.83, 4.07) | 1.42 (0.63, 3.18) | 0.30 |
| 22:0 behenic acid | | | | | | |
| Median | 0.19 | 0.28 | 0.33 | 0.39 | 0.46 | |
| Controls:Cases | 47:20 | 47:17 | 47:15 | 47:21 | 47:36 | |
| Unadjusted OR (95% CI) | 1.00 | 0.85 (0.40, 1.82) | 0.75 (0.34, 1.64) | 1.05 (0.50, 2.19) | 1.80 (0.91, 3.55) | 0.06 |
| Adjusted OR (95% CI) | 1.00 | 0.78 (0.36, 1.72) | 0.68 (0.30, 1.54) | 1.07 (0.50, 2.28) | 1.71 (0.84, 3.48) | 0.08 |
| 24:0 lignoceric acid | | | | | | |
| Median | 0.05 | 0.24 | 0.30 | 0.34 | 0.43 | |
| Controls:Cases | 47:18 | 47:22 | 47:20 | 47:10 | 47:39 | |
| Unadjusted OR (95% CI) | 1.00 | 1.22 (0.58, 2.57) | 1.11 (0.52, 2.36) | 0.56 (0.23, 1.33) | 2.17 (1.09, 4.32) | 0.11 |
| Adjusted OR (95% CI) | 1.00 | 0.75 (0.34, 1.67) | 0.82 (0.37, 1.82) | 0.40 (0.16, 1.00) | 1.68 (0.80, 3.52) | 0.34 |
| Total SFAs | | | | | | |
| Median | 30.01 | 31.71 | 33.07 | 34.32 | 36.09 | |
| Controls:Cases | 47:17 | 47:43 | 47:20 | 47:17 | 47:12 | |
| Unadjusted OR (95% CI) | 1.00 | 2.53 (1.27, 5.05) | 1.18 (0.55, 2.52) | 1.00 (0.46, 2.19) | 0.71 (0.30, 1.64) | 0.05 |
| Adjusted OR (95% CI) | 1.00 | 2.52 (1.23, 5.17) | 1.04 (0.47, 2.28) | 1.00 (0.44, 2.27) | 0.66 (0.27, 1.58) | 0.04 |
| MUFAs (%) | | | | | | |
| 16:1n-7 palmitoleic acid | | | | | | |
| Median | 1.21 | 1.49 | 1.69 | 2.04 | 2.53 | |
| Controls:Cases | 47:23 | 47:17 | 47:24 | 47:30 | 47:15 | |
| Unadjusted OR (95% CI) | 1.00 | 0.74 (0.35, 1.56) | 1.04 (0.52, 2.10) | 1.30 (0.66, 2.57) | 0.65 (0.30, 1.40) | 0.66 |
| Adjusted OR (95% CI) | 1.00 | 0.71 (0.33, 1.54) | 0.87 (0.42, 1.81) | 1.16 (0.57, 2.40) | 0.49 (0.21, 1.14) | 0.29 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|-----------------------------------|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| 18:1n-9 oleic acid | | | | | | |
| Median | 19.88 | 21.85 | 23.17 | 24.69 | 27.13 | |
| Controls:Cases | 47:21 | 47:20 | 47:23 | 47:19 | 47:26 | |
| Unadjusted OR (95% CI) | 1.00 | 0.95 (0.46, 1.98) | 1.10 (0.53, 2.24) | 0.90 (0.43, 1.90) | 1.24 (0.61, 2.50) | 0.58 |
| Adjusted OR (95% CI) | 1.00 | 1.03 (0.48, 2.20) | 1.30 (0.61, 2.75) | 0.96 (0.44, 2.12) | 1.52 (0.69, 3.36) | 0.37 |
| 18:1n-7 <i>cis</i> -vaccenic acid | | | | | | |
| Median | 1.61 | 1.92 | 2.25 | 2.56 | 3.06 | |
| Controls:Cases | 47:13 | 47:19 | 47:27 | 47:24 | 47:26 | |
| Unadjusted OR (95% CI) | 1.00 | 1.46 (0.65, 3.30) | 2.08 (0.96, 4.51) | 1.85 (0.84, 4.05) | 2.00 (0.92, 4.36) | 0.09 |
| Adjusted OR (95% CI) | 1.00 | 1.31 (0.57, 3.05) | 1.60 (0.71, 3.61) | 1.28 (0.56, 2.94) | 1.42 (0.62, 3.24) | 0.55 |
| 20:1n-9 gondoic acid | | | | | | |
| Median | 0.14 | 0.16 | 0.18 | 0.21 | 0.26 | |
| Controls:Cases | 47:25 | 47:12 | 47:19 | 47:29 | 47:24 | |
| Unadjusted OR (95% CI) | 1.00 | 0.48 (0.22, 1.07) | 0.76 (0.37, 1.56) | 1.16 (0.59, 2.27) | 0.96 (0.48, 1.92) | 0.40 |
| Adjusted OR (95% CI) | 1.00 | 0.48 (0.21, 1.09) | 0.79 (0.37, 1.68) | 1.16 (0.56, 2.41) | 0.95 (0.45, 2.02) | 0.47 |
| 24:1n-9 nervonic acid | | | | | | |
| Median | 0.12 | 0.32 | 0.42 | 0.52 | 0.70 | |
| Controls:Cases | 47:20 | 47:15 | 47:21 | 47:26 | 47:27 | |
| Unadjusted OR (95% CI) | 1.00 | 0.75 (0.34, 1.64) | 1.05 (0.50, 2.19) | 1.30 (0.64, 2.64) | 1.35 (0.67, 2.73) | 0.21 |
| Adjusted OR (95% CI) | 1.00 | 0.60 (0.27, 1.37) | 0.81 (0.37, 1.76) | 1.02 (0.48, 2.16) | 1.12 (0.53, 2.38) | 0.45 |
| Total MUFAs | | | | | | |
| Median | 23.80 | 26.42 | 28.05 | 29.70 | 32.32 | |
| Controls:Cases | 47:20 | 47:25 | 47:21 | 47:14 | 47:29 | |
| Unadjusted OR (95% CI) | 1.00 | 1.25 (0.61, 2.55) | 1.05 (0.50, 2.19) | 0.70 (0.32, 1.55) | 1.45 (0.72, 2.92) | 0.58 |
| Adjusted OR (95% CI) | 1.00 | 1.16 (0.56, 2.41) | 1.06 (0.50, 2.27) | 0.63 (0.27, 1.44) | 1.50 (0.69, 3.25) | 0.61 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|---|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| n-3 PUFAs (%) | | | | | | |
| 18:3n-3 α-linolenic acid | | | | | | |
| Median | 0.12 | 0.20 | 0.28 | 0.36 | 0.44 | |
| Controls:Cases | 47:30 | 47:25 | 47:15 | 47:21 | 47:18 | |
| Unadjusted OR (95% CI) | 1.00 | 0.83 (0.43, 1.62) | 0.50 (0.24, 1.05) | 0.70 (0.35, 1.39) | 0.60 (0.29, 1.22) | 0.12 |
| Adjusted OR (95% CI) | 1.00 | 0.68 (0.34, 1.37) | 0.44 (0.20, 0.94) | 0.64 (0.31, 1.31) | 0.73 (0.35, 1.54) | 0.33 |
| 20:5n-3 EPA | | | | | | |
| Median | 0.16 | 0.21 | 0.25 | 0.31 | 0.42 | |
| Controls:Cases | 47:22 | 47:17 | 47:13 | 47:27 | 47:30 | |
| Unadjusted OR (95% CI) | 1.00 | 0.77 (0.36, 1.64) | 0.59 (0.27, 1.31) | 1.23 (0.61, 2.45) | 1.36 (0.69, 2.70) | 0.11 |
| Adjusted OR (95% CI) | 1.00 | 0.63 (0.29, 1.41) | 0.53 (0.23, 1.21) | 0.97 (0.45, 2.07) | 1.21 (0.57, 2.54) | 0.20 |
| 22:5n-3 DPA | | | | | | |
| Median | 0.23 | 0.32 | 0.39 | 0.45 | 0.56 | |
| Controls:Cases | 47:20 | 47:14 | 47:20 | 47:23 | 47:32 | |
| Unadjusted OR (95% CI) | 1.00 | 0.70 (0.32, 1.55) | 1.00 (0.48, 2.10) | 1.15 (0.56, 2.37) | 1.60 (0.80, 3.19) | 0.07 |
| Adjusted OR (95% CI) | 1.00 | 0.70 (0.31, 1.58) | 1.04 (0.47, 2.27) | 1.16 (0.55, 2.46) | 1.75 (0.85, 3.61) | 0.05 |
| 22:6n-3 DHA | | | | | | |
| Median | 0.81 | 1.11 | 1.37 | 1.68 | 2.26 | |
| Controls:Cases | 47:7 | 47:26 | 47:20 | 47:24 | 47:32 | |
| Unadjusted OR (95% CI) | 1.00 | 3.71 (1.47, 9.39) | 2.86 (1.10, 7.39) | 3.43 (1.35, 8.72) | 4.57 (1.84, 11.4) | 0.008 |
| Adjusted OR (95% CI) | 1.00 | 3.60 (1.40, 9.28) | 3.26 (1.23, 8.63) | 4.00 (1.53, 10.5) | 4.67 (1.84, 11.9) | 0.007 |
| Total long chain n-3 PUFAs ⁵ | | | | | | |
| Median | 1.33 | 1.74 | 2.04 | 2.39 | 3.03 | |
| Controls:Cases | 47:10 | 47:24 | 47:16 | 47:24 | 47:35 | |
| Unadjusted OR (95% CI) | 1.00 | 2.40 (1.03, 5.57) | 1.60 (0.66, 3.89) | 2.40 (1.03, 5.57) | 3.50 (1.56, 7.87) | 0.004 |
| Adjusted OR (95% CI) | 1.00 | 2.32 (0.97, 5.52) | 1.78 (0.71, 4.46) | 2.58 (1.08, 6.19) | 3.66 (1.58, 8.49) | 0.003 |
| Total n-3 PUFAs | | | | | | |
| Median | 1.54 | 2.06 | 2.40 | 2.85 | 3.60 | |
| Controls:Cases | 47:13 | 47:23 | 47:17 | 47:26 | 47:30 | |
| Unadjusted OR (95% CI) | 1.00 | 1.77 (0.80, 3.90) | 1.31 (0.57, 2.99) | 2.00 (0.92, 4.36) | 2.31 (1.07, 4.97) | 0.04 |
| Adjusted OR (95% CI) | 1.00 | 1.78 (0.79, 4.04) | 1.46 (0.62, 3.43) | 2.25 (1.00, 5.05) | 2.52 (1.13, 5.61) | 0.02 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|---------------------------------|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| n-6 PUFAs (%) | | | | | | |
| 18:2n-6 linoleic acid | | | | | | |
| Median | 21.90 | 24.63 | 26.5 | 28.16 | 31.12 | |
| Controls:Cases | 47:21 | 47:25 | 47:23 | 47:24 | 47:16 | |
| Unadjusted OR (95% CI) | 1.00 | 1.19 (0.59, 2.41) | 1.10 (0.53, 2.24) | 1.14 (0.56, 2.33) | 0.76 (0.35, 1.64) | 0.51 |
| Adjusted OR (95% CI) | 1.00 | 1.33 (0.64, 2.78) | 1.10 (0.52, 2.31) | 1.28 (0.61, 2.72) | 0.83 (0.37, 1.86) | 0.66 |
| 18:3n-6 γ-linolenic acid | | | | | | |
| Median | 0.07 | 0.14 | 0.24 | 0.32 | 0.40 | |
| Controls:Cases | 47:20 | 47:11 | 47:29 | 47:22 | 47:27 | |
| Unadjusted OR (95% CI) | 1.00 | 0.55 (0.24, 1.27) | 1.45 (0.72, 2.92) | 1.10 (0.53, 2.28) | 1.35 (0.67, 2.73) | 0.14 |
| Adjusted OR (95% CI) | 1.00 | 0.57 (0.24, 1.36) | 1.33 (0.64, 2.79) | 0.94 (0.43, 2.03) | 1.07 (0.50, 2.26) | 0.56 |
| 20:2n-6 EDA | | | | | | |
| Median | 0.15 | 0.20 | 0.23 | 0.25 | 0.31 | |
| Controls:Cases | 47:14 | 47:35 | 47:14 | 47:18 | 47:28 | |
| Unadjusted OR (95% CI) | 1.00 | 2.50 (1.19, 5.24) | 1.00 (0.43, 2.33) | 1.29 (0.57, 2.88) | 2.00 (0.94, 4.27) | 0.34 |
| Adjusted OR (95% CI) | 1.00 | 1.96 (0.91, 4.21) | 0.71 (0.29, 1.72) | 1.00 (0.43, 2.33) | 1.52 (0.69, 3.34) | 0.74 |
| 20:3n-6 dihomo-γ-linolenic acid | | | | | | |
| Median | 0.91 | 1.14 | 1.34 | 1.55 | 1.98 | |
| Controls:Cases | 47:31 | 47:22 | 47:23 | 47:17 | 47:16 | |
| Unadjusted OR (95% CI) | 1.00 | 0.71 (0.36, 1.40) | 0.74 (0.38, 1.46) | 0.55 (0.27, 1.12) | 0.52 (0.25, 1.07) | 0.06 |
| Adjusted OR (95% CI) | 1.00 | 0.65 (0.32, 1.33) | 0.66 (0.32, 1.34) | 0.52 (0.25, 1.10) | 0.39 (0.18, 0.87) | 0.02 |
| 20:4n-6 arachidonic acid | | | | | | |
| Median | 4.23 | 5.32 | 6.09 | 6.87 | 8.16 | |
| Controls:Cases | 47:10 | 47:24 | 47:20 | 47:25 | 47:30 | |
| Unadjusted OR (95% CI) | 1.00 | 2.40 (1.03, 5.57) | 2.00 (0.85, 4.73) | 2.50 (1.08, 5.78) | 3.00 (1.32, 6.82) | 0.02 |
| Adjusted OR (95% CI) | 1.00 | 2.17 (0.90, 5.24) | 2.25 (0.91, 5.55) | 2.64 (1.09, 6.40) | 3.07 (1.28, 7.36) | 0.02 |
| 22:4n-6 adrenic acid | | | | | | |
| Median | 0.22 | 0.28 | 0.35 | 0.50 | 0.97 | |
| Controls:Cases | 47:16 | 47:14 | 47:24 | 47:20 | 47:35 | |
| Unadjusted OR (95% CI) | 1.00 | 0.88 (0.38, 1.99) | 1.50 (0.71, 3.18) | 1.25 (0.58, 2.70) | 2.19 (1.07, 4.48) | 0.01 |
| Adjusted OR (95% CI) | 1.00 | 0.82 (0.36, 1.91) | 1.49 (0.68, 3.23) | 1.13 (0.51, 2.49) | 1.77 (0.84, 3.74) | 0.08 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|---|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| Total long chain n-6 PUFAs ⁶ | | | | | | |
| Median | 6.24 | 7.29 | 8.08 | 9.02 | 10.47 | |
| Controls:Cases | 47:8 | 47:20 | 47:26 | 47:23 | 47:32 | |
| Unadjusted OR (95% CI) | 1.00 | 2.50 (1.00, 6.24) | 3.25 (1.34, 7.91) | 2.87 (1.17, 7.07) | 4.00 (1.67, 9.58) | 0.004 |
| Adjusted OR (95% CI) | 1.00 | 2.12 (0.82, 5.45) | 2.94 (1.17, 7.35) | 2.62 (1.03, 6.66) | 3.75 (1.52, 9.29) | 0.006 |
| Total n-6 PUFAs | | | | | | |
| Median | 29.55 | 32.56 | 34.83 | 37.21 | 40.48 | |
| Controls:Cases | 47:17 | 47:24 | 47:17 | 47:30 | 47:21 | |
| Unadjusted OR (95% CI) | 1.00 | 1.41 (0.67, 2.96) | 1.00 (0.46, 2.19) | 1.76 (0.86, 3.62) | 1.24 (0.58, 2.63) | 0.45 |
| Adjusted OR (95% CI) | 1.00 | 1.31 (0.61, 2.83) | 0.97 (0.43, 2.21) | 1.68 (0.79, 3.61) | 1.26 (0.56, 2.84) | 0.44 |
| 18:2n-7ct CLA (%) | | | | | | |
| Median | | 0.00 | | 0.08 | 0.13 | |
| Controls:Cases | | 141:71 | | 47:23 | 47:15 | |
| Unadjusted OR (95% CI) | | 1.00 | | 0.97 (0.55, 1.73) | 0.63 (0.33, 1.21) | 0.23 |
| Adjusted OR (95% CI) | | 1.00 | | 1.01 (0.55, 1.86) | 0.68 (0.35, 1.35) | 0.37 |
| trans-fatty acids (%) | | | | | | |
| 16:1n-7 trans | | | | | | |
| Median | 0.12 | 0.17 | 0.21 | 0.25 | 0.34 | |
| Controls:Cases | 47:27 | 47:18 | 47:21 | 47:17 | 47:26 | |
| Unadjusted OR (95% CI) | 1.00 | 0.67 (0.32, 1.37) | 0.78 (0.39, 1.56) | 0.63 (0.30, 1.31) | 0.96 (0.49, 1.89) | 0.97 |
| Adjusted OR (95% CI) | 1.00 | 0.65 (0.31, 1.38) | 0.69 (0.33, 1.45) | 0.50 (0.23, 1.08) | 0.73 (0.35, 1.51) | 0.44 |
| 18:1 trans | | | | | | |
| Median | 0.32 | 0.43 | 0.50 | 0.62 | 0.91 | |
| Controls:Cases | 47:32 | 47:22 | 47:16 | 47:22 | 47:17 | |
| Unadjusted OR (95% CI) | 1.00 | 0.69 (0.35, 1.35) | 0.50 (0.24, 1.03) | 0.69 (0.35, 1.35) | 0.53 (0.26, 1.08) | 0.14 |
| Adjusted OR (95% CI) | 1.00 | 0.58 (0.28, 1.18) | 0.50 (0.24, 1.05) | 0.66 (0.33, 1.34) | 0.55 (0.26, 1.16) | 0.23 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|--------------------------------------|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| 18:2 trans | | | | | | |
| Median | 0.16 | 0.30 | 0.35 | 0.41 | 0.55 | |
| Controls:Cases | 47:24 | 47:19 | 47:30 | 47:24 | 47:12 | |
| Unadjusted OR (95% CI) | 1.00 | 0.79 (0.38, 1.63) | 1.25 (0.64, 2.45) | 1.00 (0.50, 2.00) | 0.50 (0.22, 1.12) | 0.17 |
| Adjusted OR (95% CI) | 1.00 | 0.73 (0.34, 1.55) | 1.20 (0.59, 2.44) | 1.01 (0.49, 2.09) | 0.44 (0.19, 1.00) | 0.12 |
| Total trans-fatty acids | | | | | | |
| Median | 0.75 | 0.94 | 1.10 | 1.25 | 1.59 | |
| Controls:Cases | 47:27 | 47:21 | 47:29 | 47:13 | 47:19 | |
| Unadjusted OR (95% CI) | 1.00 | 0.78 (0.39, 1.56) | 1.07 (0.55, 2.08) | 0.48 (0.22, 1.05) | 0.70 (0.35, 1.44) | 0.23 |
| Adjusted OR (95% CI) | 1.00 | 0.73 (0.35, 1.51) | 1.04 (0.52, 2.06) | 0.45 (0.20, 1.00) | 0.68 (0.33, 1.43) | 0.23 |
| Enzyme activity indices | | | | | | |
| Stearoyl-coA-desaturase 18:1n-9/18:0 | | | | | | |
| Median | 2.28 | 2.68 | 2.91 | 3.15 | 3.55 | |
| Controls:Cases | 47:15 | 47:21 | 47:16 | 47:22 | 47:35 | |
| Unadjusted OR (95% CI) | 1.00 | 1.40 (0.64, 3.04) | 1.07 (0.47, 2.40) | 1.47 (0.68, 3.17) | 2.33 (1.13, 4.83) | 0.02 |
| Adjusted OR (95% CI) | 1.00 | 1.39 (0.63, 3.08) | 1.03 (0.44, 2.37) | 1.39 (0.63, 3.08) | 2.38 (1.10, 5.18) | 0.03 |
| Elongase 18:1n-7/16:1n-7 | | | | | | |
| Median | 0.85 | 1.08 | 1.29 | 1.51 | 1.87 | |
| Controls:Cases | 47:16 | 47:20 | 47:21 | 47:20 | 47:32 | |
| Unadjusted OR (95% CI) | 1.00 | 1.25 (0.58, 2.70) | 1.31 (0.61, 2.82) | 1.25 (0.58, 2.70) | 2.00 (0.97, 4.12) | 0.06 |
| Adjusted OR (95% CI) | 1.00 | 1.10 (0.49, 2.44) | 1.16 (0.53, 2.57) | 1.06 (0.47, 2.39) | 1.77 (0.82, 3.84) | 0.14 |
| Δ6-desaturase 18:3n-6/18:2n-6 | | | | | | |
| Median | 0.002 | 0.006 | 0.009 | 0.012 | 0.016 | |
| Controls:Cases | 47:17 | 47:16 | 47:27 | 47:25 | 47:24 | |
| Unadjusted OR (95% CI) | 1.00 | 0.94 (0.43, 2.08) | 1.59 (0.77, 3.29) | 1.47 (0.70, 3.07) | 1.41 (0.67, 2.96) | 0.21 |
| Adjusted OR (95% CI) | 1.00 | 0.94 (0.41, 2.14) | 1.31 (0.61, 2.82) | 1.22 (0.56, 2.68) | 1.09 (0.50, 2.41) | 0.70 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ⁴ |
|-------------------------------|-------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| Δ5-desaturase 20:4n-6/20:3n-6 | | | | | | |
| Median | 2.89 | 3.80 | 4.50 | 5.16 | 6.77 | |
| Controls:Cases | 47:15 | 47:12 | 47:14 | 47:22 | 47:46 | |
| Unadjusted OR (95% CI) | 1.00 | 0.80 (0.34, 1.89) | 0.93 (0.41, 2.15) | 1.47 (0.68, 3.17) | 3.07 (1.51, 6.23) | <0.0001 |
| Adjusted OR (95% CI) | 1.00 | 1.01 (0.41, 2.49) | 1.06 (0.44, 2.52) | 1.70 (0.76, 3.82) | 4.11 (1.90, 8.88) | <0.0001 |

Footnotes to Supplemental Table 1

¹ SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; EPA, eicosapentaenoic acid; DPA, docosapentaenoic acid; DHA, docosahexaenoic acid; EDA, eicosadienoic acid; CLA, conjugated linoleic acid.

² From unconditional logistic regression models with case status (dengue hemorrhagic fever/dengue shock syndrome) as the outcome and indicator variables for quintiles 2 to 5 of the FA as predictors.

³ From unconditional logistic regression models with case status as the outcome and predictors that included sex (1 indicator for male), age (1 indicator for <15 y), hours with fever before consultation (1 indicator for ≥72 h), interleukin-10 (continuous), tumor necrosis factor- α (continuous), and indicator variables for quintiles 2 to 5 of the FA as predictors.

⁴ Wald test for a variable representing the median of each FA quartile that was introduced into the logistic regression model as a continuous predictor.

⁵ Sum of 20:5n-3 EPA, 22:5n-3 DPA, and 22:6n-3 DHA.

⁶ Sum of 20:2n-6 EDA, 20:3n-6 dihomo- γ -linolenic acid, 20:4n-6 arachidonic acid, and 22:4n-6 adrenic acid.

Supplemental Table 2. Spearman correlations of serum fatty acids (FA) % with cytokine concentrations at the time of dengue fever diagnosis and >1 y post-convalescence.

| Fatty acid ¹ | At the time of dengue fever diagnosis | | | | | | | | >1 y post-convalescence (n=44) | | | |
|---|---------------------------------------|--------|-------|--------|---------------|--------|-------|-------|-----------------------------------|-------|-------|-------|
| | Controls (n=245) | | | | Cases (n=109) | | | | IFN-γ | IL-10 | IL-6 | TNF-α |
| | IFN-γ | IL-10 | IL-6 | TNF-α | IFN-γ | IL-10 | IL-6 | TNF-α | | | | |
| SFAs | | | | | | | | | | | | |
| 14:0 myristic acid | -0.02 | 0.05 | 0.00 | 0.00 | 0.06 | 0.11 | 0.00 | 0.26* | 0.06 | 0.21 | 0.08 | -0.01 |
| 15:0 pentadecanoic acid | 0.04 | 0.03 | 0.08 | 0.05 | -0.03 | 0.09 | -0.10 | 0.09 | 0.01 | 0.04 | 0.02 | 0.19 |
| 16:0 palmitic acid | -0.02 | 0.20* | -0.03 | 0.12 | 0.07 | 0.26* | -0.16 | 0.17 | 0.08 | 0.16 | -0.08 | -0.24 |
| 17:0 margaric acid | -0.06 | -0.09 | -0.01 | 0.06 | -0.30* | 0.04 | -0.03 | -0.17 | 0.11 | 0.13 | 0.16 | 0.41* |
| 18:0 stearic acid | -0.09 | -0.07 | -0.07 | -0.02 | -0.16 | -0.14 | 0.01 | 0.05 | -0.06 | -0.03 | -0.10 | 0.20 |
| 20:0 arachidic acid | 0.04 | 0.01 | 0.04 | -0.14* | 0.03 | -0.20* | 0.01 | 0.13 | -0.08 | 0.01 | -0.15 | 0.01 |
| 22:0 behenic acid | 0.07 | -0.02 | -0.03 | -0.02 | -0.02 | -0.14 | -0.15 | 0.08 | -0.25 | -0.04 | -0.15 | -0.18 |
| 24:0 lignoceric acid | 0.07 | -0.03 | -0.03 | 0.00 | 0.17 | -0.04 | 0.01 | 0.02 | -0.25 | -0.11 | -0.18 | -0.05 |
| Total SFAs | -0.06 | 0.12 | -0.06 | 0.09 | -0.03 | 0.12 | -0.10 | 0.16 | 0.06 | 0.15 | -0.13 | -0.16 |
| MUFAs (%) | | | | | | | | | | | | |
| 16:1n-7 palmitoleic acid | 0.05 | 0.02 | 0.09 | 0.08 | -0.07 | 0.12 | 0.12 | 0.22* | 0.06 | 0.13 | 0.02 | 0.12 |
| 18:1n-9 oleic acid | 0.06 | 0.34* | 0.13 | 0.25* | 0.04 | 0.44* | 0.05 | -0.07 | -0.08 | 0.00 | 0.05 | 0.15 |
| 18:1n-7 <i>cis</i> -vaccenic acid | 0.06 | 0.07 | 0.07 | 0.19* | 0.07 | 0.24* | -0.14 | 0.07 | -0.14 | 0.02 | 0.15 | 0.06 |
| 20:1n-9 gondoic acid | 0.06 | 0.26* | 0.17* | 0.07 | -0.03 | 0.23* | -0.05 | 0.07 | -0.11 | 0.20 | 0.00 | 0.12 |
| 24:1n-9 nervonic acid | 0.05 | -0.01 | 0.04 | 0.02 | 0.13 | -0.03 | 0.02 | 0.08 | -0.17 | -0.07 | -0.25 | 0.10 |
| Total MUFAs | 0.06 | 0.30* | 0.13* | 0.25* | 0.06 | 0.46* | 0.05 | 0.00 | -0.05 | 0.05 | 0.08 | 0.15 |
| n-3 PUFAs (%) | | | | | | | | | | | | |
| 18:3n-3 α-linolenic acid | -0.16* | -0.02 | -0.09 | -0.13 | -0.10 | -0.09 | 0.18 | 0.04 | 0.02 | -0.13 | 0.09 | 0.19 |
| 20:5n-3 EPA | -0.05 | -0.19* | 0.06 | 0.01 | -0.24* | -0.41* | -0.04 | -0.01 | 0.01 | 0.17 | -0.22 | 0.16 |
| 22:5n-3 DPA | -0.04 | -0.14* | -0.05 | -0.05 | -0.15 | -0.18 | -0.10 | -0.05 | -0.03 | -0.04 | 0.01 | 0.37* |
| 22:6n-3 DHA | -0.01 | 0.02 | -0.02 | -0.04 | -0.02 | -0.15 | 0.07 | -0.03 | 0.06 | 0.09 | -0.22 | 0.04 |
| Total long chain n-3 PUFAs ² | -0.02 | -0.04 | -0.02 | -0.05 | -0.10 | -0.21* | 0.03 | -0.06 | 0.06 | 0.13 | -0.24 | 0.14 |
| Total n-3 PUFAs | -0.06 | -0.04 | -0.04 | -0.08 | -0.12 | -0.21* | 0.10 | -0.09 | 0.10 | 0.15 | -0.22 | 0.24 |

| Fatty acid ¹ | At the time of dengue fever diagnosis | | | | | | | | >1 y post-convalescence (n=44) | | | |
|---|---------------------------------------|--------|-------|--------|---------------|--------|--------|-------|-----------------------------------|-------|-------|-------|
| | Controls (n=245) | | | | Cases (n=109) | | | | IFN-γ | IL-10 | IL-6 | TNF-α |
| | IFN-γ | IL-10 | IL-6 | TNF-α | IFN-γ | IL-10 | IL-6 | TNF-α | | | | |
| n-6 PUFAs (%) | | | | | | | | | | | | |
| 18:2n-6 linoleic acid | -0.04 | -0.24* | -0.08 | -0.21* | 0.02 | -0.30* | -0.02 | -0.03 | 0.03 | -0.20 | 0.16 | -0.08 |
| 18:3n-6 γ-linolenic acid | 0.19* | -0.06 | 0.12 | 0.17 | 0.10 | -0.02 | -0.25* | 0.15 | -0.04 | 0.39* | -0.01 | 0.04 |
| 20:2n-6 EDA | 0.08 | 0.03 | 0.06 | 0.09 | 0.09 | 0.16 | 0.00 | 0.13 | -0.18 | -0.06 | -0.01 | 0.03 |
| 20:3n-6 dihomoo-γ-linolenic acid | -0.05 | -0.17* | 0.01 | -0.03 | -0.08 | -0.23* | 0.13 | 0.16 | -0.05 | 0.04 | -0.10 | 0.22 |
| 20:4n-6 arachidonic acid | -0.03 | -0.17* | -0.02 | -0.13 | -0.05 | -0.34* | 0.04 | -0.04 | 0.01 | 0.12 | -0.22 | 0.05 |
| 22:4n-6 adrenic acid | 0.14* | 0.02 | 0.07 | 0.14* | 0.04 | -0.09 | -0.07 | 0.07 | -0.13 | 0.03 | -0.04 | 0.10 |
| Total long chain n-6 PUFAs ³ | -0.03 | -0.21* | 0.00 | -0.08 | -0.10 | -0.37* | 0.04 | -0.03 | -0.09 | 0.07 | -0.18 | 0.09 |
| Total n-6 PUFAs | -0.03 | -0.28* | -0.05 | -0.21* | -0.06 | -0.41* | 0.00 | -0.09 | -0.01 | -0.17 | 0.09 | -0.05 |
| 18:2n-7ct CLA (%) | -0.11 | -0.09 | -0.11 | -0.12 | -0.15 | -0.03 | -0.04 | -0.16 | -0.08 | 0.03 | -0.07 | 0.22 |
| trans-FA (%) | | | | | | | | | | | | |
| 16:1n-7 trans | 0.02 | 0.03 | 0.01 | 0.09 | 0.02 | 0.03 | 0.00 | 0.25* | 0.01 | 0.37* | 0.00 | 0.20 |
| 18:1 trans | 0.06 | -0.03 | 0.08 | 0.02 | 0.12 | 0.02 | 0.02 | 0.05 | -0.07 | 0.19 | -0.04 | 0.17 |
| 18:2 trans | 0.05 | 0.01 | 0.07 | -0.03 | -0.10 | -0.20* | 0.02 | -0.05 | 0.08 | 0.14 | 0.10 | -0.11 |
| Total trans-FA | 0.01 | -0.05 | 0.09 | 0.02 | 0.04 | -0.08 | 0.00 | 0.05 | -0.02 | 0.21 | 0.01 | 0.10 |
| Enzyme activity indices | | | | | | | | | | | | |
| Stearoyl-coA-desaturase 18:0/18:1n-9 | 0.09 | 0.28* | 0.13* | 0.16* | 0.12 | 0.39* | 0.02 | -0.05 | -0.03 | 0.08 | 0.09 | 0.00 |
| Elongase 18:1n-7/16:1n-7 | 0.02 | 0.05 | -0.01 | 0.08 | 0.07 | 0.01 | -0.27* | -0.12 | -0.18 | -0.10 | 0.11 | -0.10 |
| Δ6-desaturase 18:3n-6/18:2n-6 | 0.20* | 0.00 | 0.13 | 0.21* | 0.10 | 0.04 | -0.25* | 0.16 | -0.07 | 0.41* | -0.05 | 0.05 |
| Δ5-desaturase 20:4n-6/20:3n-6 | 0.00 | 0.02 | -0.02 | -0.09 | 0.03 | -0.04 | -0.07 | -0.18 | 0.07 | 0.07 | -0.07 | -0.21 |

Footnotes to Supplemental Table 2

¹ SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; EPA, eicosapentaenoic acid; DPA, docosapentaenoic acid; DHA, docosahexaenoic acid; EDA, eicosadienoic acid; CLA, conjugated linoleic acid.

² Sum of 20:5n-3 EPA, 22:5n-3 DPA, and 22:6n-3 DHA.

³ Sum of 20:2n-6 EDA, 20:3n-6 dihomo- γ -linolenic acid, 20:4n-6 arachidonic acid, and 22:4n-6 adrenic acid.

* $P<0.05$.

Supplemental Table 3. Prevalence (%) of thrombocytopenia (platelet count < 100,000/mm³) at baseline by quintile (Q) of serum fatty acids (FA) %

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | P, trend ² |
|--|------|------|------|------|------|-----------------------|
| SFAs (%) | | | | | | |
| 14:0 myristic acid | 19.4 | 38.1 | 20.4 | 27.8 | 26.3 | 0.85 |
| 15:0 pentadecanoic acid | 25.0 | 23.2 | 30.0 | 28.0 | 25.0 | 0.81 |
| 16:0 palmitic acid | 24.1 | 22.4 | 31.8 | 20.0 | 34.1 | 0.35 |
| 17:0 margaric acid | 25.4 | 17.9 | 37.5 | 31.5 | 17.1 | 0.71 |
| 18:0 stearic acid | 41.3 | 27.1 | 19.1 | 31.6 | 6.7 | 0.0004 |
| 20:0 arachidic acid | 35.7 | 30.2 | 28.6 | 26.3 | 14.3 | 0.01 |
| 22:0 behenic acid | 25.0 | 33.3 | 20.0 | 25.9 | 27.8 | 0.96 |
| 24:0 lignoceric acid | 28.3 | 23.6 | 25.5 | 23.9 | 29.9 | 0.85 |
| Total SFAs | 22.0 | 28.9 | 36.4 | 22.4 | 19.5 | 0.64 |
| MUFAs (%) | | | | | | |
| 16:1n-7 palmitoleic acid | 21.8 | 28.8 | 19.3 | 36.1 | 26.1 | 0.38 |
| 18:1n-9 oleic acid | 18.9 | 15.3 | 25.5 | 32.0 | 42.6 | 0.0007 |
| 18:1n-7 <i>cis</i> -vaccenic acid | 15.6 | 29.8 | 35.0 | 24.1 | 26.2 | 0.57 |
| 20:1n-9 gondoic acid | 19.7 | 23.5 | 21.2 | 34.4 | 34.8 | 0.03 |
| 24:1n-9 nervonic acid | 28.6 | 26.9 | 26.1 | 22.7 | 29.2 | 0.97 |
| Total MUFAs | 12.8 | 22.4 | 24.5 | 28.9 | 42.4 | 0.0004 |
| n-3 PUFA (%) | | | | | | |
| 18:3n-3 α -linolenic acid | 27.0 | 23.7 | 19.2 | 37.3 | 26.1 | 0.56 |
| 20:5n-3 EPA | 25.5 | 30.4 | 26.0 | 26.2 | 25.4 | 0.81 |
| 22:5n-3 DPA | 16.1 | 21.6 | 21.7 | 26.3 | 44.3 | 0.0005 |
| 22:6n-3 DHA | 11.1 | 28.8 | 22.4 | 28.3 | 39.3 | 0.004 |
| Total long chain n-3 PUFA ⁴ | 14.0 | 30.8 | 16.1 | 30.2 | 40.0 | 0.003 |
| Total n-3 PUFA | 16.3 | 23.7 | 21.2 | 28.1 | 42.6 | 0.002 |
| n-6 PUFA (%) | | | | | | |
| 18:2n-6 linoleic acid | 41.3 | 36.8 | 23.3 | 22.4 | 10.0 | <0.0001 |
| 18:3n-6 γ -linolenic acid | 40.8 | 26.8 | 27.0 | 17.0 | 23.1 | 0.02 |
| 20:2n-6 EDA | 31.1 | 25.0 | 26.7 | 20.8 | 29.7 | 0.88 |
| 20:3n-6 dihomo- γ -linolenic acid | 33.3 | 32.1 | 28.8 | 17.0 | 20.8 | 0.05 |
| 20:4n-6 arachidonic acid | 17.8 | 34.6 | 17.0 | 31.1 | 30.0 | 0.27 |
| 22:4n-6 adrenic acid | 23.5 | 23.9 | 25.4 | 28.3 | 30.4 | 0.33 |
| Total long chain n-6 PUFA ⁵ | 26.8 | 27.1 | 21.0 | 27.3 | 30.8 | 0.53 |
| Total n-6 PUFA | 36.4 | 35.7 | 21.2 | 23.4 | 18.2 | 0.01 |
| 18:2n-7ct CLA (%) | | 26.1 | | 30.8 | 23.3 | 0.97 |

| Fatty acid ¹ | Q1 | Q2 | Q3 | Q4 | Q5 | <i>P</i> , trend ² |
|--------------------------------------|------|------|------|------|------|-------------------------------|
| <i>trans</i> -fatty acids (%) | | | | | | |
| 16:1n-7 <i>trans</i> | 31.0 | 34.0 | 24.6 | 25.5 | 18.2 | 0.07 |
| 18:1 <i>trans</i> | 26.2 | 38.9 | 27.7 | 22.4 | 17.0 | 0.08 |
| 18:2 <i>trans</i> | 23.6 | 31.3 | 36.1 | 27.3 | 13.5 | 0.20 |
| Total <i>trans</i> -fatty acids | 34.5 | 30.4 | 30.5 | 19.6 | 15.4 | 0.01 |
| Enzyme activity indices | | | | | | |
| Stearoyl-coA-desaturase 18:1n-9/18:0 | 9.4 | 25.5 | 20.8 | 18.9 | 51.5 | <0.0001 |
| Elongase 18:1n-7/16:1n-7 | 24.4 | 30.4 | 27.5 | 23.6 | 26.6 | 0.88 |
| Δ6-desaturase 18:3n-6/18:2n-6 | 34.0 | 36.4 | 20.0 | 24.6 | 22.4 | 0.09 |
| Δ5-desaturase 20:4n-6/20:3n-6 | 16.7 | 13.6 | 20.8 | 37.3 | 37.8 | 0.0006 |

Footnotes to Supplemental Table 3

- ¹ SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; EPA, eicosapentaenoic acid; DPA, docosapentaenoic acid; DHA, docosahexaenoic acid; EDA, eicosadienoic acid; CLA, conjugated linoleic acid.
- ² Cochran-Armitage test.

Supplemental Table 4. Changes in serum fatty acids (FA) % from the time of consultation for the acute episode to >1 year post-convalescence in 44 participants¹

| Fatty acid ² | Acute dengue episode | Post-convalescence | P ³ |
|---|----------------------|--------------------|----------------|
| SFAs (%) | | | |
| 14:0 myristic acid | 0.32 ± 0.15 | 0.57 ± 0.28 | <0.0001 |
| 15:0 pentadecanoic acid | 0.16 ± 0.04 | 0.18 ± 0.05 | 0.04 |
| 16:0 palmitic acid | 23.36 ± 2.05 | 22.21 ± 2.14 | 0.009 |
| 17:0 margaric acid | 0.35 ± 0.05 | 0.33 ± 0.07 | 0.38 |
| 18:0 stearic acid | 7.93 ± 0.78 | 8.27 ± 0.98 | 0.06 |
| 20:0 arachidic acid | 0.14 ± 0.04 | 0.18 ± 0.07 | 0.002 |
| 22:0 behenic acid | 0.29 ± 0.11 | 0.36 ± 0.12 | 0.008 |
| 24:0 lignoceric acid | 0.17 ± 0.17 | 0.28 ± 0.17 | 0.01 |
| Total SFAs | 32.69 ± 2.30 | 32.15 ± 2.43 | 0.24 |
| MUFAs (%) | | | |
| 16:1n-7 palmitoleic acid | 1.63 ± 0.53 | 1.84 ± 0.59 | 0.03 |
| 18:1n-9 oleic acid | 23.95 ± 3.01 | 19.49 ± 2.55 | <0.0001 |
| 18:1n-7 <i>cis</i> -vaccenic acid | 1.97 ± 0.49 | 1.80 ± 0.43 | 0.03 |
| 20:1n-9 gondoic acid | 0.21 ± 0.08 | 0.17 ± 0.05 | 0.002 |
| 24:1n-9 nervonic acid | 0.27 ± 0.20 | 0.20 ± 0.19 | 0.06 |
| Total MUFAs | 28.11 ± 3.47 | 23.52 ± 2.87 | <0.0001 |
| n-3 PUFAs (%) | | | |
| 18:3n-3 α-linolenic acid | 0.37 ± 0.12 | 0.49 ± 0.16 | <0.0001 |
| 20:5n-3 EPA | 0.28 ± 0.16 | 0.34 ± 0.15 | 0.03 |
| 22:5n-3 DPA | 0.41 ± 0.18 | 0.49 ± 0.14 | 0.01 |
| 22:6n-3 DHA | 1.93 ± 1.01 | 1.67 ± 0.49 | 0.14 |
| Total long chain n-3 PUFAs ⁴ | 2.61 ± 1.09 | 2.50 ± 0.61 | 0.56 |
| Total n-3 PUFAs | 3.12 ± 1.10 | 3.10 ± 0.62 | 0.92 |
| n-6 PUFAs (%) | | | |
| 18:2n-6 linoleic acid | 26.76 ± 4.04 | 29.40 ± 4.23 | <0.0001 |
| 18:3n-6 γ-linolenic acid | 0.11 ± 0.07 | 0.28 ± 0.25 | <0.0001 |
| 20:2n-6 EDA | 0.21 ± 0.11 | 0.23 ± 0.11 | 0.39 |
| 20:3n-6 dihomo-γ-linolenic acid | 1.24 ± 0.36 | 1.79 ± 0.43 | <0.0001 |
| 20:4n-6 arachidonic acid | 6.08 ± 1.31 | 6.84 ± 1.33 | 0.003 |
| 22:4n-6 adrenic acid | 0.42 ± 0.46 | 1.38 ± 1.23 | <0.0001 |
| Total long chain n-6 PUFAs ⁵ | 7.96 ± 1.47 | 10.25 ± 2.26 | <0.0001 |
| Total n-6 PUFAs | 34.82 ± 4.71 | 39.93 ± 4.19 | <0.0001 |
| 18:2n-7ct CLA (%) | 0.06 ± 0.06 | 0.10 ± 0.16 | 0.14 |

| Fatty acid ² | Acute dengue episode | Post-convalescence | <i>P</i> ³ |
|--------------------------------------|----------------------|--------------------|-----------------------|
| <i>trans</i> -FA (%) | | | |
| 16:1n-7 <i>trans</i> | 0.25 ± 0.30 | 0.21 ± 0.07 | 0.34 |
| 18:1 <i>trans</i> | 0.53 ± 0.58 | 0.53 ± 0.43 | 0.99 |
| 18:2 <i>trans</i> | 0.42 ± 0.36 | 0.47 ± 0.20 | 0.44 |
| Total <i>trans</i> -FA | 1.20 ± 1.01 | 1.21 ± 0.65 | 0.98 |
| Ratios | | | |
| Stearoyl-coA-desaturase 18:1n-9/18:0 | 3.05 ± 0.49 | 2.40 ± 0.46 | <0.0001 |
| Elongase 18:1n-7/16:1n-7 | 1.44 ± 1.04 | 1.05 ± 0.37 | 0.009 |
| Δ6-desaturase 18:3n-6/18:2n-6 | 0.004 ± 0.003 | 0.010 ± 0.010 | 0.0002 |
| Δ5-desaturase 20:4n-6/20:3n-6 | 5.20 ± 2.06 | 3.99 ± 1.05 | 0.0002 |

Footnotes to Supplemental Table 4

¹ Mean ± SD.

² SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; EPA, eicosapentaenoic acid; DPA, docosapentaenoic acid; DHA, docosahexaenoic acid; EDA, eicosadienoic acid; CLA, conjugated linoleic acid.

³ Test for the mean change in FA percentage weight concentrations from the acute episode to post-convalescence, from a repeated measurements linear regression model with an independent covariance matrix to account for the intra-subject correlation of measurements.

⁴ Sum of 20:5n-3 EPA, 22:5n-3 DPA, and 22:6n-3 DHA.

⁵ Sum of 20:2n-6 EDA, 20:3n-6 dihomo- γ -linolenic acid, 20:4n-6 arachidonic acid, and 22:4n-6 adrenic acid.

Supplemental Table 5. Changes in serum fatty acids (FA) % from the time of consultation for the acute episode to >1 year post-convalescence in 44 participants by case status¹

| Fatty acid ² | Controls (n=29) | | | Cases (n=15) | | | <i>P</i> ⁴ |
|---|----------------------|--------------------|-----------------------|----------------------|--------------------|-----------------------|-----------------------|
| | Acute dengue episode | Post-convalescence | <i>P</i> ³ | Acute dengue episode | Post-convalescence | <i>P</i> ³ | |
| SFAs (%) | | | | | | | |
| 14:0 myristic acid | 0.32 ± 0.15 | 0.56 ± 0.29 | 0.0001 | 0.32 ± 0.16 | 0.60 ± 0.27 | <0.0001 | 0.71 |
| 15:0 pentadecanoic acid | 0.15 ± 0.03 | 0.18 ± 0.06 | 0.06 | 0.16 ± 0.06 | 0.17 ± 0.04 | 0.22 | 0.54 |
| 16:0 palmitic acid | 23.26 ± 1.97 | 22.31 ± 2.26 | 0.07 | 23.53 ± 2.25 | 22.03 ± 1.93 | 0.04 | 0.53 |
| 17:0 margaric acid | 0.34 ± 0.04 | 0.33 ± 0.07 | 0.93 | 0.36 ± 0.06 | 0.33 ± 0.07 | 0.04 | 0.10 |
| 18:0 stearic acid | 7.82 ± 0.81 | 8.15 ± 0.96 | 0.13 | 8.12 ± 0.72 | 8.50 ± 1.02 | 0.25 | 0.91 |
| 20:0 arachidic acid | 0.13 ± 0.04 | 0.16 ± 0.06 | 0.03 | 0.15 ± 0.03 | 0.21 ± 0.09 | 0.01 | 0.33 |
| 22:0 behenic acid | 0.27 ± 0.10 | 0.35 ± 0.14 | 0.01 | 0.32 ± 0.12 | 0.36 ± 0.10 | 0.29 | 0.40 |
| 24:0 lignoceric acid | 0.19 ± 0.15 | 0.25 ± 0.18 | 0.22 | 0.14 ± 0.19 | 0.33 ± 0.13 | 0.005 | 0.11 |
| Total SFAs | 32.49 ± 2.32 | 32.12 ± 2.49 | 0.53 | 33.07 ± 2.31 | 32.19 ± 2.41 | 0.25 | 0.59 |
| MUFAs (%) | | | | | | | |
| 16:1n-7 palmitoleic acid | 1.56 ± 0.59 | 1.82 ± 0.59 | 0.04 | 1.77 ± 0.38 | 1.88 ± 0.60 | 0.42 | 0.43 |
| 18:1n-9 oleic acid | 23.61 ± 2.73 | 19.80 ± 2.58 | <0.0001 | 24.62 ± 3.48 | 18.89 ± 2.46 | <0.0001 | 0.08 |
| 18:1n-7 <i>cis</i> -vaccenic acid | 1.91 ± 0.49 | 1.70 ± 0.40 | 0.03 | 2.08 ± 0.49 | 1.99 ± 0.43 | 0.52 | 0.45 |
| 20:1n-9 gondoic acid | 0.20 ± 0.09 | 0.17 ± 0.05 | 0.04 | 0.23 ± 0.06 | 0.18 ± 0.04 | 0.005 | 0.39 |
| 24:1n-9 nervonic acid | 0.30 ± 0.19 | 0.23 ± 0.22 | 0.14 | 0.20 ± 0.21 | 0.13 ± 0.09 | 0.20 | 0.97 |
| Total MUFAs | 27.67 ± 3.23 | 23.75 ± 2.99 | <0.0001 | 28.95 ± 3.86 | 23.08 ± 2.65 | <0.0001 | 0.12 |
| n-3 PUFAs (%) | | | | | | | |
| 18:3n-3 α-linolenic acid | 0.37 ± 0.13 | 0.47 ± 0.17 | 0.005 | 0.37 ± 0.10 | 0.54 ± 0.14 | 0.0003 | 0.27 |
| 20:5n-3 EPA | 0.24 ± 0.12 | 0.34 ± 0.15 | 0.02 | 0.34 ± 0.21 | 0.35 ± 0.15 | 0.76 | 0.16 |
| 22:5n-3 DPA | 0.37 ± 0.13 | 0.46 ± 0.12 | 0.01 | 0.49 ± 0.22 | 0.55 ± 0.15 | 0.35 | 0.61 |
| 22:6n-3 DHA | 1.95 ± 1.16 | 1.66 ± 0.52 | 0.22 | 1.87 ± 0.66 | 1.67 ± 0.44 | 0.37 | 0.79 |
| Total long chain n-3 PUFAs ⁵ | 2.56 ± 1.23 | 2.46 ± 0.64 | 0.69 | 2.71 ± 0.79 | 2.57 ± 0.56 | 0.61 | 0.93 |
| Total n-3 PUFAs | 3.09 ± 1.25 | 3.05 ± 0.65 | 0.88 | 3.18 ± 0.77 | 3.20 ± 0.57 | 0.94 | 0.88 |

| Fatty acid ² | Controls (n=29) | | | Cases (n=15) | | | <i>P</i> ⁴ |
|---|----------------------|--------------------|-----------------------|----------------------|--------------------|-----------------------|-----------------------|
| | Acute dengue episode | Post-convalescence | <i>P</i> ³ | Acute dengue episode | Post-convalescence | <i>P</i> ³ | |
| n-6 PUFAs (%) | | | | | | | |
| 18:2n-6 linoleic acid | 27.33 ± 4.01 | 29.68 ± 4.18 | 0.0004 | 25.65 ± 4.00 | 28.85 ± 4.42 | 0.02 | 0.56 |
| 18:3n-6 γ-linolenic acid | 0.10 ± 0.06 | 0.26 ± 0.23 | 0.0006 | 0.12 ± 0.09 | 0.32 ± 0.30 | 0.005 | 0.65 |
| 20:2n-6 EDA | 0.21 ± 0.13 | 0.22 ± 0.12 | 0.78 | 0.20 ± 0.07 | 0.25 ± 0.09 | 0.18 | 0.44 |
| 20:3n-6 dihomo-γ-linolenic acid | 1.24 ± 0.38 | 1.80 ± 0.41 | <0.0001 | 1.24 ± 0.34 | 1.78 ± 0.48 | <0.0001 | 0.90 |
| 20:4n-6 arachidonic acid | 6.11 ± 1.32 | 6.77 ± 1.47 | 0.04 | 6.04 ± 1.34 | 6.99 ± 1.06 | 0.01 | 0.53 |
| 22:4n-6 adrenic acid | 0.35 ± 0.23 | 1.15 ± 1.18 | 0.0007 | 0.56 ± 0.71 | 1.84 ± 1.24 | 0.0005 | 0.23 |
| Total long chain n-6 PUFAs ⁶ | 7.92 ± 1.42 | 9.93 ± 2.29 | 0.0002 | 8.03 ± 1.61 | 10.86 ± 2.15 | <0.0001 | 0.22 |
| Total n-6 PUFAs | 35.35 ± 4.65 | 39.88 ± 4.48 | <0.0001 | 33.8 ± 4.83 | 40.03 ± 3.72 | 0.0001 | 0.32 |
| 18:2n-7ct CLA (%) | 0.07 ± 0.07 | 0.07 ± 0.07 | 0.68 | 0.05 ± 0.03 | 0.14 ± 0.25 | 0.14 | 0.18 |
| <i>trans</i> -FA (%) | | | | | | | |
| 16:1n-7 <i>trans</i> | 0.29 ± 0.36 | 0.20 ± 0.06 | 0.21 | 0.19 ± 0.11 | 0.22 ± 0.09 | 0.36 | 0.12 |
| 18:1 <i>trans</i> | 0.59 ± 0.70 | 0.48 ± 0.19 | 0.40 | 0.41 ± 0.18 | 0.62 ± 0.70 | 0.26 | 0.16 |
| 18:2 <i>trans</i> | 0.46 ± 0.44 | 0.44 ± 0.12 | 0.87 | 0.34 ± 0.13 | 0.52 ± 0.30 | 0.05 | 0.13 |
| Total <i>trans</i> -FA | 1.34 ± 1.20 | 1.13 ± 0.28 | 0.34 | 0.94 ± 0.33 | 1.36 ± 1.05 | 0.15 | 0.09 |
| Enzyme activity indices | | | | | | | |
| Stearoyl-coA-desaturase 18:1n-9/18:0 | 3.05 ± 0.47 | 2.47 ± 0.48 | <0.0001 | 3.06 ± 0.54 | 2.26 ± 0.40 | <0.0001 | 0.25 |
| Elongase 18:1n-7/16:1n-7 | 1.57 ± 1.25 | 1.01 ± 0.38 | 0.01 | 1.21 ± 0.30 | 1.13 ± 0.32 | 0.37 | 0.04 |
| Δ6-desaturase 18:3n-6/18:2n-6 | 0.004 ± 0.002 | 0.009 ± 0.009 | 0.003 | 0.005 ± 0.003 | 0.012 ± 0.012 | 0.01 | 0.59 |
| Δ5-desaturase 20:4n-6/20:3n-6 | 5.27 ± 2.39 | 3.90 ± 1.05 | 0.003 | 5.08 ± 1.24 | 4.16 ± 1.06 | 0.0002 | 0.36 |

Footnotes to Supplemental Table 5

¹ Mean ± SD.

² SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; EPA, eicosapentaenoic acid; DPA, docosapentaenoic acid; DHA, docosahexaenoic acid; EDA, eicosadienoic acid; CLA, conjugated linoleic acid.

³ Wald test for the mean change in FA percentage weight concentrations from the acute episode to post-convalescence, from a repeated measurements linear regression model with an independent covariance matrix to account for the intra-subject correlation of measurements.

⁴ Wald test for case-control differences in mean change in FA percentage weight concentrations from the acute episode to post-convalescence.

⁵ Sum of 20:5n-3 EPA, 22:5n-3 DPA, and 22:6n-3 DHA.

⁶ Sum of 20:2n-6 EDA, 20:3n-6 dihomo- γ -linolenic acid, 20:4n-6 arachidonic acid, and 22:4n-6 adrenic acid.

Supplemental Table 6. Distribution of serum fatty acids (FA) % according to dengue virus (DENV) serotype¹

| Fatty acid ² | DENV Serotype | | | | <i>P</i> ³ |
|---|---------------|-------------|-------------|-------------|-----------------------|
| | 1 n = 20 | 2 n = 13 | 3 n = 29 | 4 n = 15 | |
| SFAs (%) | | | | | |
| 14:0 myristic acid | 0.29±0.10 | 0.32±0.23 | 0.32±0.17 | 0.30±0.17 | 0.92 |
| 15:0 pentadecanoic acid | 0.16±0.06 | 0.16±0.06 | 0.16±0.05 | 0.15±0.06 | 0.84 |
| 16:0 palmitic acid | 22.70±1.82 | 23.44±1.64 | 23.26±2.18 | 23.16±1.20 | 0.52 |
| 17:0 margaric acid | 0.35±0.07 | 0.36±0.05 | 0.36±0.07 | 0.34±0.05 | 0.64 |
| 18:0 stearic acid | 7.68±0.63 | 8.02±0.83 | 8.02±1.26 | 8.15±1.12 | 0.39 |
| 20:0 arachidic acid | 0.15±0.05 | 0.17±0.03 | 0.17±0.08 | 0.15±0.05 | 0.44 |
| 22:0 behenic acid | 0.31±0.14 | 0.40±0.11 | 0.40±0.12 | 0.29±0.10 | 0.001 |
| 24:0 lignoceric acid | 0.25±0.17 | 0.39±0.09 | 0.37±0.14 | 0.20±0.17 | 0.001 |
| Total SFAs | 31.87±2.07 | 33.26±2.15 | 33.04±2.65 | 32.73±1.49 | 0.25 |
| MUFAs (%) | | | | | |
| 16:1n-7 palmitoleic acid | 1.63±0.59 | 1.77±0.43 | 1.82±0.53 | 1.83±0.83 | 0.24 |
| 18:1n-9 oleic acid | 22.56±3.64 | 22.05±2.48 | 23.33±2.79 | 23.18±2.36 | 0.40 |
| 18:1n-7 cis-vaccenic acid | 1.91±0.44 | 2.59±0.41 | 2.41±0.53 | 2.00±0.58 | 0.0002 |
| 20:1n-9 gondoic acid | 0.21±0.15 | 0.17±0.08 | 0.20±0.05 | 0.20±0.07 | 0.58 |
| 24:1n-9 nervonic acid | 0.38±0.17 | 0.60±0.15 | 0.48±0.30 | 0.32±0.24 | 0.008 |
| Total MUFAs | 26.76±4.07 | 27.42±2.89 | 28.34±3.10 | 27.68±2.67 | 0.31 |
| n-3 PUFAs (%) | | | | | |
| 18:3n-3 α-linolenic acid | 0.35±0.10 | 0.19±0.10 | 0.22±0.14 | 0.31±0.09 | 0.0002 |
| 20:5n-3 EPA | 0.31±0.11 | 0.33±0.10 | 0.28±0.19 | 0.30±0.09 | 0.08 |
| 22:5n-3 DPA | 0.47±0.14 | 0.42±0.10 | 0.41±0.18 | 0.40±0.13 | 0.15 |
| 22:6n-3 DHA | 1.73±0.51 | 1.48±0.52 | 1.45±0.64 | 2.00±0.89 | 0.02 |
| Total long chain n-3 PUFAs ⁴ | 2.51±0.60 | 2.24±0.60 | 2.15±0.78 | 2.70±0.91 | 0.04 |
| Total n-3 PUFAs | 3.01±0.66 | 2.42±0.63 | 2.42±0.89 | 3.14±0.94 | 0.006 |

| | | | | | |
|---|-------------|-------------|-------------|-------------|---------|
| n-6 PUFAs (%) | | | | | |
| 18:2n-6 linoleic acid | 28.34±4.87 | 25.95±2.22 | 26.82±3.76 | 26.25±2.35 | 0.06 |
| 18:3n-6 γ-linolenic acid | 0.16±0.10 | 0.33±0.10 | 0.24±0.09 | 0.15±0.12 | <0.0001 |
| 20:2n-6 EDA | 0.17±0.07 | 0.25±0.06 | 0.24±0.05 | 0.20±0.12 | 0.001 |
| 20:3n-6 dihomoo-γ-linolenic acid | 1.21±0.41 | 1.44±0.54 | 1.27±0.49 | 1.38±0.48 | 0.43 |
| 20:4n-6 arachidonic acid | 6.86±1.43 | 6.93±1.57 | 6.06±1.25 | 6.91±1.29 | 0.08 |
| 22:4n-6 adrenic acid | 0.51±0.63 | 0.96±0.92 | 0.52±0.36 | 0.42±0.20 | 0.009 |
| Total long chain n-6 PUFAs ⁵ | 8.75±1.87 | 9.58±2.44 | 8.08±1.48 | 8.91±1.47 | 0.11 |
| Total n-6 PUFAs | 37.25±5.48 | 35.86±3.23 | 35.14±4.23 | 35.31±2.86 | 0.14 |
| 18:2n-7ct CLA (%) | 0.07±0.11 | 0.01±0.02 | 0.05±0.12 | 0.07±0.07 | 0.003 |
| trans-FA (%) | | | | | |
| 16:1n-7 trans | 0.19±0.07 | 0.24±0.05 | 0.24±0.11 | 0.28±0.34 | 0.06 |
| 18:1 trans | 0.46±0.26 | 0.49±0.15 | 0.49±0.18 | 0.43±0.17 | 0.56 |
| 18:2 trans | 0.38±0.17 | 0.30±0.15 | 0.28±0.13 | 0.36±0.08 | 0.32 |
| Total trans-FA | 1.04±0.43 | 1.03±0.30 | 1.00±0.29 | 1.06±0.31 | 0.93 |
| Enzyme activity indices | | | | | |
| Stearoyl-coA-desaturase 18:1n-9/18:0 | 2.95±0.50 | 2.78±0.46 | 2.97±0.54 | 2.88±0.37 | 0.48 |
| Elongase 18:1n-7/16:1n-7 | 1.41±1.07 | 1.53±0.36 | 1.50±0.90 | 1.51±1.30 | 0.03 |
| Δ6-desaturase 18:3n-6/18:2n-6 | 0.006±0.005 | 0.013±0.004 | 0.009±0.004 | 0.006±0.005 | 0.0001 |
| Δ5-desaturase 20:4n-6/20:3n-6 | 6.06±2.53 | 5.19±1.62 | 5.40±2.66 | 5.48±2.80 | 0.40 |

Footnotes to Supplemental Table 6

¹ Mean ± SD.

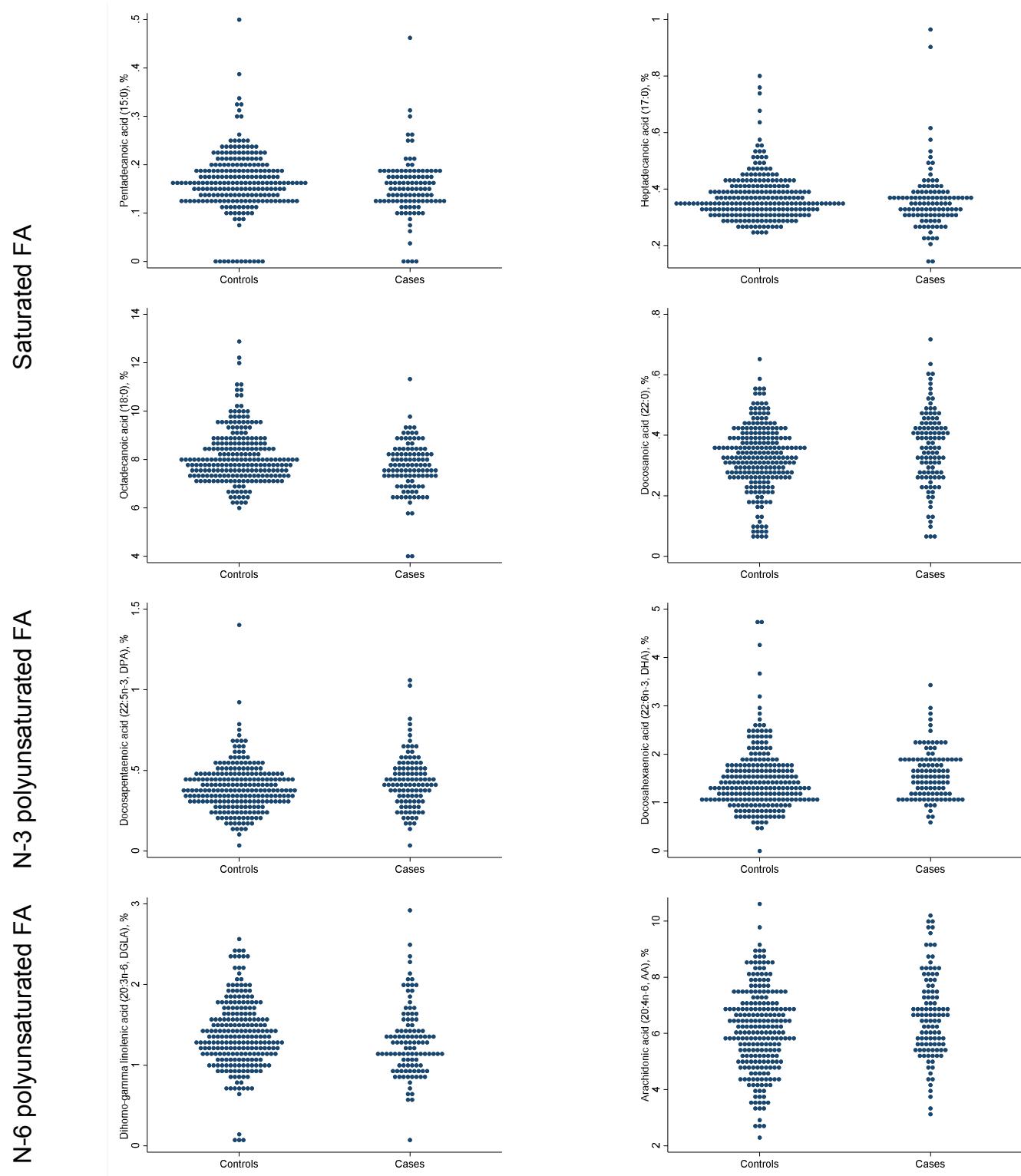
² SFA, saturated fatty acid; MUFA, monounsaturated fatty acid; PUFA, polyunsaturated fatty acid; EPA, eicosapentaenoic acid; DPA, docosapentaenoic acid; DHA, docosahexaenoic acid; EDA, eicosadienoic acid; CLA, conjugated linoleic acid.

³ Wilcoxon rank-sum test.

⁴ Sum of 20:5n-3 EPA, 22:5n-3 DPA, and 22:6n-3 DHA.

⁵ Sum of 20:2n-6 EDA, 20:3n-6 dihomo- γ -linolenic acid, 20:4n-6 arachidonic acid, and 22:4n-6 adrenic acid.

Supplemental Figure 1. Distribution of serum fatty acids (FA) % in dengue fever controls and dengue hemorrhagic fever/dengue shock syndrome cases



Enzyme activity indices

Supplemental Figure 1 (continued).

