

Supplementary Materials

Table S1. Daily intake of the food groups considered for the MDS among adherence to the Mediterranean Diet groups by seasons.

| Source | Low MDS | Medium MDS | High MDS | p^1 | Low MDS | Medium MDS | High MDS | p^1 |
|---------------------------------------------|-----------------------------|------------------------------|-------------------------------|--------|-------------------------------|--------------------------------|---------------------------------|--------|
| | (<i>n</i> = 46) | (<i>n</i> = 80) | (<i>n</i> = 46) | | (<i>n</i> = 39) | (<i>n</i> = 76) | (<i>n</i> = 57) | |
| | Winter | | | | Spring | | | |
| Vegetable (g/day) | 50 (22–83) ^a | 88 (50–133) ^b | 140 (109–169) ^c | <0.001 | 56 (29–73) ^a | 68 (40–115) ^b | 112 (91–140) ^c | <0.001 |
| Legumes (g/day) | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–10.8) ^b | 0.021 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–10.0) ^{ab} | 1.7 (0.0–16.7) ^b | 0.006 |
| Fruits and nuts (g/day) | 65 (30–105) ^a | 105 (63–183) ^b | 183 (148–233) ^c | <0.001 | 48.2 (1.9–103.0) ^a | 68.2 (21.3–116.8) ^a | 131.9 (88.7–184.7) ^b | <0.001 |
| Cereals (g/day) | 225 (163–274) | 241 (181–287) | 253 (177–299) | 0.239 | 163 (151–186) ^a | 206 (171–255) ^b | 228 (175–275) ^b | <0.001 |
| Fish and seafood (g/day) | 6.7 (0.0–30.0) ^a | 30.0 (0.0–39.0) ^a | 48.8 (30.0–70.4) ^b | <0.001 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–30.0) ^a | 30.0 (13.1–39.0) ^b | <0.001 |
| Milk and dairies (g/day) | 128 (67–149) ^a | 1459 (99–188) ^{ab} | 167 (145–211) ^b | 0.002 | 129 (77–148) ^a | 129 (79–168) ^{ab} | 146 (121–189) ^b | 0.009 |
| Meat and poultry (g/day) | 66 (32–95) | 54 (27–79) | 45 (27–65) | 0.057 | 77 (41–100) | 60 (34–88) | 61 (42–88) | 0.295 |
| Wine (g/day) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 |
| Monounsaturated fat: saturated fat ratio | 1.2 (1.1–1.3) ^a | 1.3 (1.1–1.4) ^b | 1.4 (1.3–1.5) ^b | <0.001 | 1.2 (1.0–1.3) ^a | 1.3 (1.1–1.5) ^b | 1.4 (1.3–1.5) ^b | <0.001 |

¹ Differences among adherence to the MD groups within each season (Kruskal-Wallis non-parametric one-way ANOVA for independent samples with multiple pairwise comparisons, $p < 0.05$). Different letters in the same row indicate significant differences among MD groups ($a < b < c$). Values are median (25th–75th percentile).

Table S2. Carbon footprint (CF) and ecological footprint (EF) by seasons for each food groups.

| Food Group | CF Winter g CO ₂ eq/day | CF Spring g CO ₂ eq/day | <i>p</i> ¹ | EF Winter m ² /day | EF Spring m ² /day | <i>p</i> ¹ |
|-------------------------------|---------------------------------------|---------------------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|
| Meat & cured meat | 517 (114–910) | 547 (194–983) | 0.057 | 2.42(0.3–4.9) | 2.9 (0.8–5.4) | 0.027 |
| Poultry | 0.0 (0.0–121.9) | 93.8 (0.0–121.9) | 0.008 | 0.0 (0.0–1.3) | 1.0 (0.0–1.3) | 0.008 |
| Fish & shellfish | 109.2 (0.0–193.2) | 0.0 (0.0–109.2) | <0.001 | 2.4 (0.0–3.6) | 0.0 (0.0–2.4) | <0.001 |
| Eggs | 12.4 (4.5–60.9) | 8.7 (0.0–68.2) | 0.791 | 0.1 (0.0–0.3) | 0.0 (0.0–0.3) | 0.796 |
| Milk & dairies | 327 (213–489) | 296 (205–460) | 0.534 | 1.9 (1.4–2.8) | 1.8 (1.2–2.7) | 0.764 |
| Animal fats | 0.0 (0.0–8.3) | 0.0 (0.0–8.3) | 0.093 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.064 |
| Vegetable oils | 40 (30–51) | 40 (30–49) | 0.428 | 0.6 (0.4–0.8) | 0.6 (0.4–0.7) | 0.430 |
| Legumes | 0.0 (0.0–0.0) | 0.0 (0.0–16.6) | 0.001 | 0.0 (0.0–0.0) | 0.0 (0.0–0.2) | 0.001 |
| Potatoes | 32.1 (0.0–52.2) | 12.1 (0.0–67.1) | 0.954 | 0.1 (0.0–0.2) | 0.1 (0.0–0.3) | 0.936 |
| Cereals | 173 (137–222) | 175 (130–230) | 0.612 | 1.0 (0.7–1.2) | 0.9 (0.6–1.1) | 0.031 |
| Breakfast cereals | 0.0 (0.0–34.2) | 0.0 (0.0–34.2) | 0.732 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.729 |
| Bread & substitutes | 44 (23–68) | 32 (16–56) | 0.010 | 0.3 (0.1–0.4) | 0.2 (0.1–0.3) | 0.005 |
| Vegetables | 57 (30–90) | 51 (28–76) | 0.005 | 0.2 (0.1–0.3) | 0.2 (0.1–0.3) | 0.007 |
| Fruit | 55 (31–95) | 41 (18–70) | <0.001 | 0.3 (0.2–0.6) | 0.3 (0.1–0.4) | <0.001 |
| Nuts | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.180 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.180 |
| Juices | 44.7 (0.0–89.3) | 0.0 (0.0–44.7) | 0.008 | 0.7 (0.0–1.5) | 0.0 (0.0–0.7) | 0.014 |
| Sweets & desserts | 114 (72–201) | 103 (58–160) | 0.012 | 0.7 (0.5–1.3) | 0.7 (0.4–1.0) | 0.010 |
| Pizza | 326.1 (0.0–652.2) | 217.4 (0.0–652.2) | 0.008 | 1.2 (0.0–2.5) | 0.8 (0.0–2.5) | 0.008 |
| Others | 20.5 (0.0–88.9) | 16.6 (0.0–75.2) | 0.135 | 0.1 (0.0–0.6) | 0.1 (0.0–0.4) | 0.217 |
| Tea & coffee decaffeinated | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.002 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.002 |
| Soft drinks | 0.0 (0.0–0.0) | 0.0 (0.0–36.1) | 0.102 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 |

¹ Between-season differences (non-parametric Wilcoxon Signed Ranks Test for paired samples, *p* < 0.05). Values are median (25th–75th percentile).

Table S3. Energy-adjusted carbon footprint (CF) and ecological footprint (EF) by seasons for each food groups.

| Food Group | CF Winter g CO ₂ eq/1000 kcal | CF Spring g CO ₂ eq/1000 kcal | <i>p</i> ¹ | EF Winter m ² /1000 kcal | EF Spring m ² /1000 kcal | <i>p</i> ¹ |
|-------------------------------|---------------------------------------------|---------------------------------------------|-----------------------|----------------------------------------|----------------------------------------|-----------------------|
| Meat & cured meat | 315 (80–573) | 377 (141–683) | 0.005 | 1.5 (0.2–3.1) | 2.0 (0.5–3.9) | 0.003 |
| Poultry | 0.0 (0.0–75.9) | 56.8 (0.0–98.9) | 0.001 | 0.0 (0.0–0.8) | 0.6 (0.0–1.1) | 0.001 |
| Fish & shellfish | 67.3 (0.0–119.9) | 0.0 (0.0–73.1) | <0.001 | 1.5 (0.0–2.5) | 0.0 (0.0–1.6) | <0.001 |
| Eggs | 8.2 (2.9–35.9) | 6.8 (0.0–42.7) | 0.774 | 0.0 (0.0–0.2) | 0.0 (0.0–0.2) | 0.774 |
| Milk & dairies | 215 (141–304) | 213 (157–323) | 0.117 | 1.2 (0.8–1.8) | 1.3 (0.9–1.9) | 0.058 |
| Animal fats | 0.0 (0.0–5.7) | 0.0 (0.0–5.4) | 0.370 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.263 |
| Vegetable oils | 27 (19–34) | 28 (22–34) | 0.208 | 0.4 (0.3–0.5) | 0.4 (0.3–0.5) | 0.208 |
| Legumes | 0.0 (0.0–0.0) | 0.0 (0.0–10.8) | 0.001 | 0.0 (0.0–0.0) | 0.0 (0.0–0.1) | <0.001 |
| Potatoes | 20.6 (0.0–31.4) | 9.9 (0.0–47.4) | 0.378 | 0.1 (0.0–0.1) | 0.0 (0.0–0.2) | 0.369 |
| Cereals | 113 (89–144) | 126 (91–153) | 0.009 | 0.6 (0.5–0.8) | 0.6 (0.5–0.8) | 0.811 |
| Breakfast cereals | 0.0 (0.0–26.1) | 0.0 (0.0–24.3) | 0.163 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.163 |
| Bread & substitutes | 27 (15–40) | 23 (11–39) | 0.076 | 0.2 (0.1–0.3) | 0.1 (0.1–0.2) | 0.074 |
| Vegetables | 37 (20–56) | 35 (20–53) | 0.110 | 0.1 (0.1–0.2) | 0.1 (0.1–0.2) | 0.136 |
| Fruit | 37 (20–62) | 29 (14–50) | 0.002 | 0.2 (0.1–0.4) | 0.2 (0.1–0.3) | 0.002 |
| Nuts | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.040 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.040 |
| Juices | 28.5 (0.0–50.4) | 0.0 (0.0–42.0) | 0.090 | 0.5 (0.0–0.8) | 0.0 (0.0–0.7) | 0.090 |
| Sweets & desserts | 74 (48–123) | 70 (46–111) | 0.113 | 0.5 (0.3–0.8) | 0.5 (0.3–0.7) | 0.136 |
| Pizza | 191.7 (0.0–407.6) | 144.8 (0.0–403.1) | 0.065 | 0.7 (0.0–1.5) | 0.5 (0.0–1.5) | 0.065 |
| Others | 12.8 (0.0–51.4) | 14.2 (0.0–51.3) | 0.420 | 0.0 (0.0–0.4) | 0.0 (0.0–0.4) | 0.515 |
| Tea & coffee decaffeinated | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.003 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.492 |
| Soft drinks | 0.0 (0.0–19.5) | 0.0 (0.0–9.9) | 0.206 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 |

¹ Between-season differences (non-parametric Wilcoxon Signed Ranks Test for paired samples, *p* < 0.05). Values are median (25th–75th percentile).

Table S4. Total and food-source carbon footprint (CF) and ecological footprint (EF) for each food groups among adherence to the Mediterranean Diet groups by seasons.

| Source | Low MDS | Medium MDS | High MDS | p^1 | Low MDS | Medium MDS | High MDS | p^1 |
|-------------------------------|------------------------------------|--------------------------------|----------------------------------|--------|------------------------------------|-------------------------------|---------------------------------|--------|
| | (<i>n</i> = 46) | (<i>n</i> = 80) | (<i>n</i> = 46) | | (<i>n</i> = 39) | (<i>n</i> = 76) | (<i>n</i> = 55) | |
| | CF Winter g CO ₂ eq/day | | | | CF Spring g CO ₂ eq/day | | | |
| Meat & cured meat | 573 (160–931) | 474 (114–900) | 540 (77–877) | 0.784 | 535 (252–1131) | 604 (161–990) | 545 (177–905) | 0.690 |
| Poultry | 69.7 (0.0–121.9) | 0.0 (0.0–121.9) | 0.0 (0.0–97.2) | 0.327 | 93.8 (0.0–215.7) | 93.8 (0.0–121.9) | 93.8 (0.0–121.9) | 0.701 |
| Fish & shellfish | 22.8 (0.0–109.2) ^a | 109.2 (0.0–141.9) ^a | 188.0 (109.2–254.2) ^b | <0.001 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–109.2) ^a | 109.2 (65.6–142.6) ^b | <0.001 |
| Eggs | 6.2 (0.0–28.8) ^a | 12.4 (6.2–68.2) ^{ab} | 18.6 (6.2–74.4) ^b | 0.004 | 7.4 (0.0–21.7) ^a | 8.1 (0.0–28.8) ^a | 21.1 (6.2–76.9) ^b | 0.003 |
| Milk & dairies | 265 (187–339) ^a | 341 (212–449) ^a | 468 (312–618) ^b | <0.001 | 234 (190–329) ^a | 340 (197–487) ^b | 330 (250–474) ^a | 0.026 |
| Animal fats | 1.7 (0.0–13.8) | 0.0 (0.0–8.3) | 0.0 (0.0–6.1) | 0.192 | 0.0 (0.0–7.2) | 0.0 (0.0–8.3) | 0.0 (0.0–6.2) | 0.587 |
| Vegetable oils | 31 (20–40) ^a | 41 (30–51) ^b | 49 (38–63) ^c | <0.001 | 30 (21–43) ^a | 41 (28–51) ^b | 42 (38–51) ^b | <0.001 |
| Legumes | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–18.0) ^b | 0.021 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–16.6) ^{ab} | 5.5 (0.0–27.7) ^b | 0.002 |
| Potatoes | 1.9 (0.0–40.2) ^a | 37.2 (2.0–63.3) ^b | 32.1 (1.5–55.7) ^{ab} | 0.008 | 8.0 (0.0–66.1) | 10.5 (0.0–67.1) | 28.1 (4.9–67.1) | 0.139 |
| Cereals | 160 (109–205) | 174 (144–219) | 187 (144–229) | 0.147 | 155 (106–221) | 160 (124–224) | 193 (145–236) | 0.070 |
| Breakfast cereals | 0.0 (0.0–45.6) | 0.0 (0.0–34.2) | 0.0 (0.0–37.1) | 0.612 | 0.0 (0.0–34.2) | 0.0 (0.0–34.2) | 0.0 (0.0–34.2) | 0.739 |
| Bread & substitutes | 45 (23–79) | 35 (18–64) | 47 (31–68) | 0.186 | 22 (14–35) ^a | 37 (16–59) ^b | 35 (17–71) ^b | 0.008 |
| Vegetables | 30 (13–52) ^a | 55 (31–87) ^b | 94 (69–109) ^c | <0.001 | 35 (17–49) ^a | 48 (26–76) ^b | 70 (52–84) ^c | <0.001 |
| Fruit | 32 (12–51) ^a | 53 (33–93) ^b | 90 (72–114) ^c | <0.001 | 24.3 (0.8–53.3) ^a | 32.2 (10.1–57.2) ^a | 63.4 (41.1–90.0) ^b | <0.001 |
| Nuts | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.064 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.064 |
| Juices | 44.7 (0.0–89.3) | 44.7 (0.0–89.3) | 44.7 (0.0–81.0) | 0.754 | 0.0 (0.0–58.1) | 0.0 (0.0–44.7) | 0.0 (0.0–78.2) | 0.680 |
| Sweets & desserts | 97 (65–178) | 113 (72–213) | 137 (82–201) | 0.433 | 112 (69–164) | 78 (55–155) | 112 (72–186) | 0.163 |
| Pizza | 326.1 (0.0–652.2) | 326.1 (0.0–652.2) | 326.1 (0.0–652.2) | 0.963 | 217.4 (0.0–326.1) | 163.0 (0.0–652.2) | 326.1 (0.0–652.2) | 0.367 |
| Others | 16.6 (0.0–124.3) | 24.1 (0.0–79.1) | 18.1 (0.0–80.9) | 0.775 | 16.6 (0.0–51.3) | 16.6 (0.0–107.4) | 20.5 (0.0–52.4) | 0.909 |
| Tea & coffee decaffeinated | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.676 | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^b | 0.016 |
| Soft drinks | 0.0 (0.0–36.1) | 0.0 (0.0–36.1) | 0.0 (0.0–36.1) | 0.545 | 0.0 (0.0–27.3) | 0.0 (0.0–0.0) | 0.0 (0.0–27.6) | 0.563 |
| | EF Winter m ² /day | | | | EF Spring m ² /day | | | |
| Meat & cured meat | 2.9 (0.4–5.0) | 2.3 (0.3–4.9) | 2.7 (0.2–4.6) | 0.809 | 2.9 (1.2–6.9) | 3.1 (0.5–5.3) | 2.8 (0.7–4.8) | 0.616 |
| Poultry | 0.8 (0.0–1.3) | 0.0 (0.0–1.3) | 0.0 (0.0–1.1) | 0.327 | 1.0 (0.0–2.3) | 1.0 (0.0–1.3) | 1.0 (0.0–1.3) | 0.701 |
| Fish & shellfish | 0.5 (0.0–2.4) ^a | 2.4 (0.0–3.1) ^a | 3.9 (2.4–5.5) ^b | <0.001 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–2.4) ^a | 2.4 (1.0–3.1) ^b | <0.001 |
| Eggs | 0.0 (0.0–0.1) ^a | 0.1 (0.0–0.3) ^{ab} | 0.1 (0.0–0.3) ^b | 0.004 | 0.0 (0.0–0.1) ^a | 0.0 (0.0–0.1) ^a | 0.1 (0.0–0.3) ^b | 0.003 |
| Milk & dairies | 1.5 (1.1–2.0) ^a | 1.9 (1.2–2.7) ^a | 2.5 (1.6–3.6) ^b | <0.001 | 1.4 (1.1–1.9) ^a | 1.9 (1.1–3.0) ^{ab} | 1.9 (1.5–2.6) ^b | 0.038 |
| Animal fats | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.225 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.665 |
| Vegetable oils | 0.4 (0.3–0.6) ^a | 0.6 (0.4–0.8) ^b | 0.7 (0.5–0.9) ^c | <0.001 | 0.4 (0.3–0.6) ^a | 0.6 (0.4–0.8) ^b | 0.6 (0.5–0.8) ^b | <0.001 |

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| Legumes | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–0.2) ^b | 0.021 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.2) ^{ab} | 0.1 (0.0–0.3) ^b | 0.002 |
| Potatoes | 0.0 (0.0–0.2) ^a | 0.2 (0.0–0.2) ^b | 0.1 (0.0–0.2) ^{ab} | 0.008 | 0.0 (0.0–0.3) | 0.0 (0.0–0.3) | 0.1 (0.0–0.3) | 0.150 |
| Cereals | 0.9 (0.6–1.1) | 0.9 (0.7–1.2) | 1.0 (0.8–1.2) | 0.174 | 0.8 (0.6–1.2) ^a | 0.8 (0.6–1.1) ^{ab} | 0.9 (0.7–1.2) ^b | 0.049 |
| Breakfast cereals | 0.0 (0.0–0.2) | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.612 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.739 |
| Bread & substitutes | 0.3 (0.2–0.4) | 0.2 (0.1–0.4) | 0.3 (0.2–0.4) | 0.154 | 0.1 (0.1–0.2) ^a | 0.2 (0.1–0.4) ^b | 0.2 (0.1–0.4) ^b | 0.010 |
| Vegetables | 0.1 (0.0–0.2) ^a | 0.2 (0.1–0.3) ^b | 0.3 (0.2–0.4) ^c | <0.001 | 0.1 (0.1–0.2) ^a | 0.2 (0.1–0.3) ^b | 0.2 (0.2–0.3) ^b | <0.001 |
| Fruit | 0.2 (0.1–0.3) ^a | 0.3 (0.2–0.6) ^b | 0.6 (0.4–0.7) ^c | <0.001 | 0.1 (0.0–0.3) ^a | 0.2 (0.1–0.4) ^a | 0.4 (0.3–0.6) ^b | <0.001 |
| Nuts | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.064 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.064 |
| Juices | 0.7 (0.0–1.5) | 0.7 (0.0–1.5) | 0.7 (0.0–1.3) | 0.754 | 0.0 (0.0–1) | 0.0 (0.0–0.7) | 0.0 (0.0–1.3) | 0.680 |
| Sweets & desserts | 0.6 (0.4–1.1) | 0.7 (0.5–1.3) | 0.9 (0.5–1.3) | 0.429 | 0.8 (0.4–1.1) | 0.5 (0.4–1.0) | 0.8 (0.5–1.3) | 0.076 |
| Pizza | 1.2 (0.0–2.5) | 1.2 (0.0–2.5) | 1.2 (0.0–2.5) | 0.963 | 0.8 (0.0–1.2) | 0.6 (0.0–2.5) | 1.2 (0.0–2.5) | 0.367 |
| Others | 0.1 (0.0–1.0) | 0.1 (0.0–0.2) | 0.1 (0.0–0.4) | 0.473 | 0.1 (0.0–0.3) | 0.1 (0.0–0.9) | 0.1 (0.0–0.2) | 0.843 |
| Tea & coffee decaffeinated | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.685 | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^b | 0.016 |
| Soft drinks | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 |

¹ Differences among adherence to the MD groups within each season (Kruskal-Wallis non-parametric one-way ANOVA for independent samples with multiple pairwise comparisons, $p < 0.05$). Different letters in the same row indicate significant differences among MD groups (a < b < c). Values are median (25th–75th percentile).

Table S5. Energy-adjusted (per 1000 kcal) total and food-source carbon footprint (CF) and ecological footprint (EF) for each food groups among adherence to the Mediterranean Diet groups by seasons.

| Source | Low MDS | Medium MDS | High MDS | p^1 | Low MDS | Medium MDS | High MDS | p^1 |
|----------------------------|-----------------------------------------------|-------------------------------|---------------------------------|--------|-----------------------------------------------|------------------------------|-------------------------------|--------|
| | (<i>n</i> = 44) | (<i>n</i> = 80) | (<i>n</i> = 46) | | (<i>n</i> = 39) | (<i>n</i> = 76) | (<i>n</i> = 55) | |
| | CF Winter g CO₂eq/1000 kcal | | | | CF Spring g CO₂eq/1000 kcal | | | |
| Meat & cured meat | 394 (116–627) | 315 (80–562) | 296 (42–530) | 0.367 | 467 (178–912) | 402 (120–651) | 320 (133–624) | 0.155 |
| Poultry | 48.1 (0.0–88.8) | 0.0 (0.0–76.8) | 0.0 (0.0–60.7) | 0.183 | 69.2 (0.0–149.9) | 56.8 (0.0–96.1) | 55.1 (0.0–95.3) | 0.779 |
| Fish & shellfish | 15.3 (0.0–75.6) ^a | 62.6 (0.0–117.8) ^a | 103.5 (61.3–175.0) ^b | <0.001 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–65.4) ^a | 68.4 (45.3–97.6) ^b | <0.001 |
| Eggs | 3.9 (0.0–21.6) ^a | 8.3 (3.7–37.1) ^{ab} | 10.4 (4.1–40.8) ^b | 0.026 | 5.5 (0.0–20.0) ^a | 6.3 (0.0–18.8) ^a | 11.5 (4.2–48.8) ^b | 0.033 |
| Milk & dairies | 188 (117–251) ^a | 215 (144–293) ^{ab} | 274 (168–372) ^b | 0.008 | 197 (155–304) | 223 (141–357) | 214 (165–296) | 0.699 |
| Animal fats | 1.3 (0.0–9.3) | 0.0 (0.0–6.0) | 0.0 (0.0–3.8) | 0.122 | 0.0 (0.0–5.0) | 0.0 (0.0–5.9) | 0.0 (0.0–3.9) | 0.450 |
| Vegetable oils | 22 (14–30) ^a | 29 (19–34) ^b | 32 (22–38) ^b | <0.001 | 25 (19–30) | 29 (20–35) | 29 (22–34) | 0.106 |
| Legumes | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–9.8) ^b | 0.022 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–13.8) ^{ab} | 3.4 (0.0–17) ^b | 0.003 |
| Potatoes | 1.3 (0.0–27.2) ^a | 25.3 (1.1–42.8) ^b | 18.5 (0.8–31.2) ^{ab} | 0.009 | 4.5 (0.0–45.3) | 8.0 (0.0–48.8) | 18.8 (3.1–49.6) | 0.319 |
| Cereals | 108 (79–141) | 112 (92–150) | 113 (92–141) | 0.560 | 138 (87–190) | 125 (88–152) | 124 (94–151) | 0.751 |
| Breakfast cereals | 0.0 (0.0–26.8) | 0.0 (0.0–25.9) | 0.0 (0.0–23.5) | 0.646 | 0.0 (0.0–34.2) | 0.0 (0.0–22.8) | 0.0 (0.0–23.8) | 0.814 |
| Bread & substitutes | 31 (17–56) | 25 (12–37) | 29 (16–40) | 0.328 | 18 (11–28) | 23 (12–47) | 28 (11–42) | 0.123 |
| Vegetables | 19.9 (8.3–34.2) ^a | 37.2 (20.7–58.2) ^b | 54.0 (40.1–62.3) ^c | <0.001 | 25 (16–35) ^a | 34 (18–54) ^a | 44 (32–55) ^b | <0.001 |
| Fruit | 22.4 (7.6–38.1) ^a | 35.4 (19.4–60.9) ^b | 55.6 (39.6–69.5) ^c | <0.001 | 22.4 (0.5–42.2) ^a | 20.4 (7.7–40.7) ^a | 41.0 (28.0–57.6) ^b | <0.001 |
| Nuts | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.070 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.078 |
| Juices | 29.4 (0.0–58.6) | 28.8 (0.0–54.2) | 27.5 (0.0–45.3) | 0.949 | 0.0 (0.0–47.4) | 0.0 (0.0–35) | 0.0 (0.0–41.9) | 0.863 |
| Sweets & desserts | 78 (40–115) | 72 (49–132) | 69 (51–114) | 0.931 | 89 (57–115) | 60 (34–110) | 71 (50–102) | 0.061 |
| Pizza | 214.2 (0.0–472.6) | 194.4 (0.0–432.4) | 182.5 (0.0–356.5) | 0.778 | 143.0 (0.0–319.3) | 127.5 (0.0–445.4) | 161.3 (0.0–381.4) | 0.752 |
| Others | 12.1 (0.0–82.2) | 15.6 (0.0–45.3) | 10.8 (0.0–42.4) | 0.615 | 16.5 (0.0–36.9) | 13.8 (0.0–71.3) | 12.6 (0.0–33.9) | 0.797 |
| Tea & coffee decaffeinated | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.663 | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^b | 0.016 |
| Soft drinks | 0.0 (0.0–20.4) | 0.0 (0.0–20.6) | 0.0 (0.0–16.9) | 0.692 | 0.0 (0.0–24.7) | 0.0 (0.0–0.0) | 0.0 (0.0–16.4) | 0.375 |
| | EF Winter m²/1000 kcal | | | | EF Spring m²/1000 kcal | | | |
| Meat & cured meat | 1.9 (0.3–3.5) | 1.6 (0.2–3.1) | 1.4 (0.1–2.7) | 0.391 | 2.8 (1.0–5.2) | 2.1 (0.4–3.8) | 1.7 (0.5–3.5) | 0.156 |
| Poultry | 0.5 (0.0–1.0) | 0.0 (0.0–0.8) | 0.0 (0.0–0.7) | 0.183 | 0.7 (0.0–1.6) | 0.6 (0.0–1.0) | 0.6 (0.0–1.0) | 0.779 |
| Fish & shellfish | 0.3 (0.0–1.6) ^a | 1.4 (0.0–2.4) ^a | 2.2 (1.3–3.6) ^b | <0.001 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–1.4) ^a | 1.5 (0.6–2.0) ^b | <0.001 |
| Eggs | 0.0 (0.0–0.1) ^a | 0.0 (0.0–0.2) ^{ab} | 0.0 (0.0–0.2) ^b | 0.026 | 0.0 (0.0–0.1) ^a | 0.0 (0.0–0.1) ^a | 0.0 (0.0–0.2) ^b | 0.033 |
| Milk & dairies | 1.1 (0.7–1.4) ^a | 1.2 (0.9–1.8) ^{ab} | 1.5 (0.9–2.2) ^b | 0.015 | 1.2 (0.9–1.8) | 1.3 (0.8–2.2) | 1.3 (1.0–1.7) | 0.744 |
| Animal fats | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.0 (0.0–0.0) | 0.148 | 0.0 (0.0–0.0) | 0.0 (0.0–0.1) | 0.0 (0.0–0.0) | 0.489 |
| Vegetable oils | 0.3 (0.2–0.4) ^a | 0.4 (0.3–0.5) ^b | 0.5 (0.3–0.5) ^b | <0.001 | 0.4 (0.3–0.4) | 0.4 (0.3–0.5) | 0.4 (0.3–0.5) | 0.106 |

| | | | | | | | | |
|-------------------------------|----------------------------|-----------------------------|-----------------------------|--------|-----------------------------|-----------------------------|-----------------------------|--------|
| Legumes | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–0.1) ^b | 0.022 | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.1) ^{ab} | 0.0 (0.0–0.2) ^b | 0.003 |
| Potatoes | 0.0 (0.0–0.1) ^a | 0.1 (0.0–0.2) ^b | 0.1 (0.0–0.1) ^{ab} | 0.011 | 0.0 (0.0–0.2) | 0.0 (0.0–0.2) | 0.1 (0.0–0.2) | 0.330 |
| Cereals | 0.6 (0.4–0.8) | 0.6 (0.5–0.8) | 0.6 (0.5–0.7) | 0.641 | 0.6 (0.4–0.9) | 0.6 (0.5–0.8) | 0.6 (0.5–0.8) | 0.879 |
| Breakfast cereals | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.646 | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.0 (0.0–0.1) | 0.814 |
| Bread & substitutes | 0.2 (0.1–0.3) | 0.2 (0.1–0.2) | 0.2 (0.1–0.2) | 0.291 | 0.1 (0.1–0.2) | 0.1 (0.1–0.3) | 0.2 (0.1–0.2) | 0.125 |
| Vegetables | 0.1 (0.0–0.1) ^a | 0.1 (0.1–0.2) ^b | 0.2 (0.1–0.2) ^c | <0.001 | 0.1 (0.1–0.1) ^a | 0.1 (0.1–0.2) ^a | 0.2 (0.1–0.2) ^b | <0.001 |
| Fruit | 0.1 (0.0–0.2) ^a | 0.2 (0.1–0.4) ^b | 0.3 (0.2–0.4) ^c | <0.001 | 0.1 (0.0–0.3) ^a | 0.1 (0.0–0.2) ^a | 0.3 (0.2–0.4) ^b | <0.001 |
| Nuts | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.070 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.078 |
| Juices | 0.5 (0.0–1.0) | 0.5 (0.0–0.9) | 0.5 (0.0–0.7) | 0.949 | 0.0 (0.0–0.8) | 0.0 (0.0–0.6) | 0.0 (0.0–0.7) | 0.863 |
| Sweets & desserts | 0.5 (0.3–0.7) | 0.5 (0.3–0.8) | 0.5 (0.3–0.7) | 0.952 | 0.6 (0.4–0.8) ^b | 0.4 (0.2–0.7) ^a | 0.5 (0.3–0.7) ^{ab} | 0.043 |
| Pizza | 0.8 (0.0–1.8) | 0.7 (0.0–1.6) | 0.7 (0.0–1.3) | 0.778 | 0.5 (0.0–1.2) | 0.5 (0.0–1.7) | 0.6 (0.0–1.4) | 0.752 |
| Others | 0.1 (0.0–0.7) | 0.0 (0.0–0.2) | 0.1 (0.0–0.2) | 0.404 | 0.1 (0.0–0.2) | 0 (0.0–0.5) | 0.0 (0.0–0.1) | 0.556 |
| Tea & coffee decaffeinated | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.668 | 0.0 (0.0–0.0) ^{ab} | 0.0 (0.0–0.0) ^a | 0.0 (0.0–0.0) ^b | 0.016 |
| Soft drinks | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 1.000 |

¹ Differences among adherence to the MD groups within each season (Kruskal-Wallis non-parametric one-way ANOVA for independent samples with multiple pairwise comparisons, $p < 0.05$). Different letters in the same row indicate significant differences among MD groups (a < b < c). Values are median (25th–75th percentile).