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**Supplemental Methods 1:** Methodology used to calculate 95% percentile confidence intervals of the component loadings resulting from the Principal Component Analysis.

PCA presents various difficulties when applying bootstrap that were taken into account:

1. On the one hand, since PCA orders the components by percentage of variability explained, even if the same components are identified over the different bootstrap samples, they might appear in different order in each replication. We selected the most similar component from each replication by calculating the relative difference between all pairs of matrices resulting from comparing EpiGEICAM Western, Prudent and Mediterranean patterns with DDM-Spain components 1-10. For each step and EpiGEICAM pattern we selected the DDM-Spain component showing the smallest relative difference in absolute terms with the original Castelló’s et al. ([1](#_ENREF_1))
2. On the other hand, two patterns might be explaining the same but be inversely associated with the items they include. For example, we can obtain the Western pattern in one replication and the anti-Western (very similar to Western but with opposite sing in the pattern loadings) in another replication. Those two patterns would explain the same in essence (high adherence to Western≈low adherence to anti-Western) but the change in the sign of the loadings would result in very wide bootstrap percentile confidence intervals that are not capturing the deviation of one result from the other in absolute terms. We overcame this issue by changing the sign of the DDM-Spain components when the relative difference was negative.

1. Castello A, Pollan M, Buijsse B, Ruiz A, Casas AM, Baena-Canada JM, Lope V, Antolin S, Ramos M, Munoz M, et al. Spanish Mediterranean diet and other dietary patterns and breast cancer risk: case-control EpiGEICAM study. British journal of cancer 2014. doi: 10.1038/bjc.2014.434.**ONLINE SUPPORTING MATERIAL**

**Supplemental Table 1:** Food group intakes (gr/day) and component scores from DDM Spain women using all foods from the current FFQ (99 items) and using same foods used in EpiGEICAM (86 items).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **DDM ALL FOODS**  **99 items** | | **DDM SAME FOODS**  **86 items** | |  |
|  | **Median(IQR)** | | **Median(IQR)** | | **Corra** |
| High fat dairy | 48.72(16.03-146.45) | | 39.69(13.86-132.77) | | 0.95 |
| Low-fat dairy | 332.15(200.00-539.33) | | 256.98(101.60-521.45) | | 0.85 |
| Eggs | 21.62(7.21-21.62) | | 21.62(7.21-21.62) | | 1.00 |
| White meat | 38.61(18.90-45.34) | | 38.61(18.90-45.34) | | 1.00 |
| Red meat | 50.83(26.25-78.20) | | 50.83(26.25-78.20) | | 1.00 |
| Processed meat | 28.15(21.45-42.90) | | 6.70(3.26-13.85) | | 0.64 |
| White fish | 19.14(14.36-43.07) | | 14.36(6.73-43.07) | | 0.89 |
| Oily fish | 30.46(20.14-46.36) | | 24.62(14.36-39.88) | | 0.95 |
| Seafood/Shell | 14.36(8.60-21.53) | | 10.55(3.82-14.35) | | 0.77 |
| Leafy vegetables | 60.82(39.40-73.66) | | 60.82(39.4-73.66) | | 1.00 |
| Fruiting vegetables | 114.21(67.78-156.77) | | 114.21(67.78-156.77) | | 1.00 |
| Root vegetables | 21.45(7.15-21.45) | | 21.45(7.15-21.45) | | 1.00 |
| Other vegetables | 133.45(95.85-188.33) | | 79.89(55.08-111.61) | | 0.77 |
| Legumes | 20.08(20.08-60.23) | | 20.08(20.08-60.23) | | 0.89 |
| Potatoes | 53.80(17.93-53.8) | | 53.80(17.93-53.8) | | 1.00 |
| Fruits | 351.11(249.25-507.05) | | 351.11(249.25-507.05) | | 1.00 |
| Nuts | 2.01(0.00-12.87) | | 2.01(0.00-12.87) | | 1.00 |
| Refined grains | 93.73(70.49-168.73) | | 93.73(70.49-168.73) | | 1.00 |
| Whole grains | 0.00(0.00-50) | | 0.00(0.00-50) | | 0.99 |
| Olives and veg. oil | 30.85(22.87-48.95) | | 30.85(22.87-48.95) | | 1.00 |
| Other edible fats | 0.00(0-0.68) | | 0.00(0.00-0.68) | | 1.00 |
| Sweets | 12.50(4.29-30.00) | | 12.50(4.29-30.00) | | 1.00 |
| Sugary | 10.43(1.79-16.86) | | 10.43(1.79-16.86) | | 1.00 |
| Juices | 17.88(0.00-99.20) | | 13.4(0.00-85.8.00) | | 0.95 |
| Caloric drinks | 0.00(0.00-16.75) | | 0.00(0.00-16.75) | | 1.00 |
| Conv.food & sauces | 24.09(11.50-40.25) | | 24.09(11.5-40.25) | | 1.00 |
| **Principal components** | **Descriptive** | **% Variabilty**  **Explained** | **Descriptive** | **% Variabilty**  **Explained** |  |
| Comp1 Mean(sd) | 0.00(2.31) | 16% | 0.00(2.37) | 15% | 0.96 |
| Comp2 Median(IQR) | 0.34(-2.21-1.92) | 15% | 0.11(-2.10-1.95) | 13% | 0.95 |
| Comp5 Mean(sd) | 0.00(1.50) | 7% | 0.00(1.61) | 7% | 0.85 |
| Comp6 Mean(sd) | 0.00(1.27) | 5% | 0.00(1.42) | 6% | 0.84 |

aAll correlations were significant at a 95% confidence level.

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**Supplemental Figure 1**: Component loadings resulting from the Principal Component Analysis applied over the DDM-Spain food grouping that uses the same foods included in EpiGEICAM (86 items). Congruence coefficients with the homonymous patterns from EpiGEICAM. 

aCongruence coefficient between EpiGEICAM and DDM-Spain pattern loadings.

bCorrelation coefficient between EpiGEICAM and DDM-Spain pattern scores. All correlations were significant at a 95% confidence level.