

Supplementary Materials

Table S1. Sample distribution by categories of perceived health and nutrition concerns

| Category | Health Concern Index | | | Nutrition Concern Index | | |
|------------------------------------|----------------------|-----------------|-----------------------|-------------------------|-----------------|-----------------------|
| | Range (points) | Sample size (n) | Sample percentage (%) | Range (points) | Sample size (n) | Sample percentage (%) |
| total sample | 0–18 | 1107 | 100.0 | 0–42 | 1107 | 100.0 |
| tertile distribution | | | | | | |
| bottom tertile | 0–4 | 355 | 32.1 | 0–12 | 339 | 30.6 |
| middle tertile | 5–8 | 424 | 38.3 | 13–19 | 417 | 37.6 |
| upper tertile | 9–18 | 328 | 29.6 | 20–42 | 351 | 31.8 |
| a priori distribution ^a | | | | | | |
| low concerns | 0–5 | 420 | 37.9 | 0–13 | 386 | 34.9 |
| neutral concerns | 6–12 | 587 | 53.1 | 14–28 | 645 | 58.3 |
| high concerns | 13–18 | 100 | 9.0 | 29–42 | 76 | 6.8 |

All data adjusted for sample weights. ^a cut-offs were calculated as 1/3 and 2/3 of minimum-maximum range. Health Concern Index and Nutrition Concern Index were calculated as a sum of points assigned to each statements based on 7-point Likert scale starting from 'definitely not' (0 point) through 'neither not nor yes' (3 points) to 'definitely yes' (6 points).

Table S2. Components of dietary patterns identified by principal component analysis (factor loadings).

| Foods | | Factor 1: 'Traditional Polish' | Factor 2: 'Fruit & vegetables' | Factor 3: 'Fast food & sweets' | Factor 4: 'Dairy & fats' |
|---|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------|
| Food frequency consumption of ^a : | White bread (including biscuits, muffins) | 0.65 | | | |
| | Potatoes | 0.52 | | | |
| | Red meats | 0.51 | | | |
| | Margarine or butter | 0.45 | | | 0.45 |
| | Fried chicken | 0.42 | | | |
| | Wholegrain bread | -0.48 | | | |
| | Green salad | | 0.57 | | |
| | Fruit (without juices) | | 0.55 | | |
| | Prepared vegetables | | 0.55 | | |
| | Beans | | 0.45 | | |
| | French fries or potato chips or corn chips or popcorn | | | 0.71 | |
| | Hamburgers or cheeseburgers | | | 0.60 | |
| | Ice cream | | | 0.52 | |
| | Doughnuts or pastries or cake or cookies | | | 0.50 | |
| | Salad dressings or mayonnaise (not diet) | | | 0.42 | |
| | Cheese or cheese spread | | | | 0.54 |
| | Whole milk | | | | 0.49 |
| Food intake variety by food groups ^b : | Meats, fish and eggs | 0.60 | | | |
| | Fats | 0.45 | | | 0.43 |
| | Vegetables | | 0.60 | | |
| | Fruit | | 0.54 | | |
| | Sweets and snacks | | | 0.47 | |
| | Cereals and potatoes | | | | 0.56 |
| Dairy products | | | | | 0.54 |
| Eigenvalues | | 4.36 | 2.39 | 1.68 | 1.44 |
| Variance explained (%) ^c | | 14.5 | 9.0 | 5.6 | 4.8 |

Factor loadings of $\leq |0.40|$ are not shown in the table for simplicity. Sorted by loadings from 1st to 4th factor. All data adjusted for sample weights. ^a Food frequency consumption was expressed in points (range 0–4 points). ^b Food intake variety was expressed in foods consumed per week (with

ranges from 0–4 to 0–14 foods/week). ^c Total variance in dietary variables explained by 4 patterns is 33.9%

Table S3. Perceived health and nutrition concerns by socioeconomic status, body weight status and dietary patterns (mean (SD), in points).

| Variable | | Number | Health Concern Index ^c | <i>p</i> -value | Nutrition Concern Index ^d | <i>p</i> -value |
|---------------------------|----------------|--------|-----------------------------------|-----------------|--------------------------------------|-----------------|
| Total sample | | 1107 | 6.9 (3.7) | | 17.1 (6.6) | |
| Age | 13-15 y | 326 | 6.5 (3.4) | 0.0911 | 16.8 (6.1) | 0.6516 |
| | 16-18 y | 367 | 7.2 (3.8) | | 17.2 (7.1) | |
| | 19-21 y | 414 | 7.1 (3.8) | | 17.3 (6.6) | |
| Residence | Rural area | 521 | 7.1 (3.6) | 0.0770 | 17.2 (6.9) | 0.9975 |
| | Town | 348 | 6.6 (3.7) | | 17.1 (6.7) | |
| | City | 238 | 7.1 (3.8) | | 16.9 (5.9) | |
| SES Index ^a | Low | 401 | 6.9 (3.8) | 0.9042 | 17.1 (6.7) | 0.9314 |
| | Medium | 339 | 7.0 (4.0) | | 17.2 (7.0) | |
| | High | 367 | 6.8 (3.3) | | 17.0 (6.2) | |
| BMI category ^b | Underweight | 110 | 4.6 (2.5) | <0.0001 | 13.8 (4.8) | 0.0599 |
| | Normal weight | 849 | 6.8 (3.5) | | 16.9 (6.5) | |
| | Overweight | 115 | 9.4 (3.9) | | 21.3 (7.2) | |
| | Obese | 18 | 9.7 (4.6) | | 20.2 (6.9) | |
| Dietary patterns | | | | | | |
| ‘Traditional Polish’ | Bottom tertile | 367 | 7.6 (3.8) | <0.0001 | 17.4 (6.8) | 0.0599 |
| | Middle tertile | 364 | 6.8 (3.5) | | 17.4 (6.5) | |
| | Upper tertile | 376 | 6.4 (3.7) | | 16.6 (6.6) | |
| ‘Fruit and vegetables’ | Bottom tertile | 364 | 6.7 (3.4) | 0.5826 | 16.5 (6.4) | 0.0550 |
| | Middle tertile | 367 | 6.9 (3.5) | | 17.0 (6.9) | |
| | Upper tertile | 376 | 7.2 (4.1) | | 17.7 (6.6) | |
| ‘Fast foods and sweets’ | Bottom tertile | 365 | 7.4 (3.8) | 0.0009 | 17.3 (6.4) | 0.1821 |
| | Middle tertile | 365 | 6.9 (3.6) | | 17.2 (6.7) | |
| | Upper tertile | 377 | 6.5 (3.6) | | 16.8 (6.8) | |
| ‘Dairy and fats’ | Bottom tertile | 366 | 7.4 (3.7) | 0.0005 | 17.4 (6.7) | 0.5634 |
| | Middle tertile | 365 | 6.8 (3.6) | | 16.9 (6.6) | |
| | Upper tertile | 376 | 6.6 (3.7) | | 17.0 (6.6) | |

SD—standard deviation. Sample size may vary in each variable due to missing data. All data adjusted for sample weights. ^a SES index: calculated from four single variables (mother’s education, father’s education, economic status, description of household); SES index categories based on tertile distribution. ^b BMI: body mass index (n = 1092); weight status categories assigned according to IOTF standards [27]; for girls 13–18 years old according to age-sex-specific BMI cut-offs; for girls > 18 years old according to cut-offs for girls at age 18. ^c Index range: 0–18 points. ^d Index range: 0–42 points, both indices were calculated as a sum of points assigned to each statement based on 7-point Likert scale starting from ‘definitely not’ (0 point) through ‘neither not nor yes’ (3 points) to ‘definitely yes’ (6 points). *p*-value: significance level of Kruskal–Wallis test.