# Supplementary Tables

## Supplementary Table 1

Supplementary Table 1: Dietary References Intakes (DRI) used for the Diet Quality Score (DQS):

|  |  |  |
| --- | --- | --- |
| Nutrient | Men | |
|  | 51–70 y | > 70 y |
| Vitamin C | 75 mg/d | 75 mg/d |
| Vitamin E | 12 mg/d | 12 mg/d |
| Vitamin B1 | 1 mg/d | 1 mg/d |
| Vitamin B2 | 1.1 mg/d | 1.1 mg/d |
| Vitamin B3 | 12 mg/d | 12 mg/d |
| Vitamin B6 | 1.4 mg/d | 1.4 mg/d |
| Vitamin B12 | 2 mcg/d | 2 mcg/d |
| Phosphorus | 580 mg/d | 580 mg/d |
| Magnesium | 350 mg/d | 350 mg/d |
| Selenium | 45 mcg/d | 45 mcg/d |

Supplementary Table 1 legend: DRI modified from (1). Recommended nutrient intakes for macronutrients as well as for vitamin A, iron and zinc were obtained from (2). The following recommended nutrient intakes were used for the DQS scoring (based on (1)(2)): Carbohydrate: 50-60% of total energy; fat: <30% of total energy; saturated fat: <10% of total energy; protein: 0.86 g/kg body weight; vitamin A: ≥625 mcg/d; iron: ≥6 mg/d; zinc: ≥9.4 mg/d in men.

Supplementary Table 1 references:

1. Institute of Medicine (US) Subcommittee on Interpretation and Uses of Dietary Reference Intakes, Institute of Medicine (US) Standing Committee on the Scientific Evaluation of Dietary Reference Intakes. DRI Dietary Reference Intakes: Applications in Dietary Assessment [Internet]. Washington (DC): National Academies Press (US); 2000 [cited 2024 Apr 9]. Available from: http://www.ncbi.nlm.nih.gov/books/NBK222890/
2. Fitzgerald, A.L.; Dewar, R.A.; Veugelers, P.J. Diet Quality and Cancer Incidence in Nova Scotia, Canada. Nutr Cancer 2002, 43, 127–132, doi:10.1207/S15327914NC432\_2.

## Supplementary Table 2

Supplementary Table 2: Recommended Dietary Allowance (RDA) and Adequate Intakes (AI) used for the Food Nutrient Index (FNI) assessment.

|  |  |
| --- | --- |
| Nutrient | Males: 51+ |
|  |  |
| Calcium | 1000 mg/d |
| Magnesium | 420 mg/d |
| Potassium | 3400 mg/d |
| Choline | 550 mg/d |
| Vitamin A | 900 mcg RAE/d |
| Vitamin C | 90 mg/d |
| Vitamin D | 600 IU/d |
| Vitamin E | 15 mg/d |

Supplementary Table 2 legend: RDA and AI found in (1).

Supplementary Table 2 references:

1. Dietary Guidelines for Americans [Internet]. [cited 2024 Apr 9]. Available from: https://www.dietaryguidelines.gov/

## Supplementary Table 3

Supplementary Table 3: Self-reported comorbidities in the examined sample: an overview

|  |  |  |  |
| --- | --- | --- | --- |
| Self-reported comorbidity | General population  *n* = 4664 | Prostate Cancer Survivors  *n* = 362 | *p-value* |
| Asthma |  |  | 0.653\* |
| Yes | *n* = 504  (11.22% [9.67%-12.97%]) | *n* = 38  (9.28% [6.10%-13.86%]) | 0.314\*\* |
| No | *n* = 4156  (88.68% [86.88%-90.26%]) | *n* = 324  (90.72% [86.14%-93.90%]) | 0.289\*\* |
| Arthritis |  |  | **<0.001**\* |
| Yes | *n* = 1619  (34.82% [32.73%-36.96%]) | *n* = 185  (51.39% [43.84%-58.88%]) | **<0.001**\*\* |
| No | *n* = 3035  (65.06% [62.92%-67.14%]) | *n* = 175  (48.39% [40.90%-55.95%]) | **<0.001**\*\* |
| Congestive Heart Failure |  |  | 0.782\* |
| Yes | *n* = 302  (4.94% [4.12%-5.92%]) | *n* = 26  (5.18% [3.10%-8.53%]) | 0.866\*\* |
| No | *n* = 4329  (94.54% [93.47%-95.44%]) | *n* = 334  (93.94% [90.03%-96.38%]) | 0.714\*\* |
| Coronary Heart Disease |  |  | 0.328\* |
| Yes | *n* = 477  (9.42% [8.25%-10.75%]) | *n* = 39  (11.68% [7.96%-16.80%]) | 0.337\*\* |
| No | *n* = 4147  (89.94% [88.54%-91.19%]) | *n* = 320  (87.99% [82.89%-91.72%]) | 0.405\*\* |
| Myocardial Infarction |  |  | 0.122\* |
| Yes | *n* = 457  (8.58% [7.53%-9.77%]) | *n* = 42  (12.57% [8.26%-18.64%]) | 0.150\*\* |
| No | *n* = 4201  (91.32% [90.14%-92.37%]) | *n* = 319  (87.33% [81.24%-91.65%]) | 0.151\*\* |
| Emphysema |  |  | 0.716\* |
| Yes | *n* = 202  (4.08% [3.35%-4.95%]) | *n* = 15  (4.57% [2.51%-8.15%]) | 0.741\*\* |
| No | *n* = 4455  (95.79% [94.89%-96.55%]) | *n* = 346  (95.14% [91.44%-97.28%]) | 0.665\*\* |

Supplementary Table 3 legend: Sample characteristics of prostate cancer survivors aged ≥51 years and the US general population aged ≥51 years. This supplementary table is based on n = 5,026 observations. Categorical data is displayed as: n = x (weighted proportion [95%-confidence interval]). All comorbidities were queried with the following question: “The following questions are about different medical conditions. Has a doctor or other health professional ever told you that you had [medical condition]?” Participants who replied with “don’t know” or who refused an answer to a particular question are not shown in this table - as such column percentages may not equal 100%. \* based on Stata’s Rao-Scott-T-test; \*\* based on post-regression adjusted Wald tests.

## Supplementary Table 4

Supplementary Table 4: Energy-adjusted micronutrient and vitamin intakes (/1000kcal) in prostate cancer survivors in comparison to the general population

|  |  |  |  |
| --- | --- | --- | --- |
| Nutrient | General population  *n* = 4664 | Prostate Cancer Survivors  *n* = 362 | p-value |
| Minerals |  |  |  |
| Calcium  (mg/1000kcal) | 439.19  [430.11-448.26] | 451.33  [427.86-474.81] | 0.300 |
| Iron  (mg/1000kcal) | 7.35  [7.18-7.53] | 8.11  [7.63-8.59] | **0.006** |
| Magnesium  (mg/1000kcal) | 149.60  [146.89-152.30] | 152.36  [146.44-158.29] | 0.416 |
| Phosphorus  (mg/1000kcal) | 657.19  [649.35-665.04] | 668.90  [648.26-689.53] | 0.250 |
| Potassium  (mg/1000kcal) | 1377.28  [1354.16-1400.41] | 1405.48  [1348.72-1462.23] | 0.359 |
| Sodium  (mg/1000kcal) | 1702.52  [1677.46-1727.58] | 1662.46  [1600.96-1723.96] | 0.250 |
| Zinc  (mg/1000kcal) | 5.69  [5.46-5.92] | 6.00  [5.70-6.30] | 0.110 |
| Vitamins |  |  |  |
| Vitamin A  (mcg RAE /1000kcal) | 314.57  [290.43-338.69] | 361.87  [331.21-392.54] | **0.018** |
| Vitamin E  (mg ATd/1000kcal) | 4.02  [3.90-4.13] | 4.19  [3.89-4.49] | 0.288 |
| Vitamin D  (IU/1000kcal) | 94.27  [88.97-99.57] | 96.51  [84.82-108.20] | 0.719 |
| Vitamin C  (mg/1000kcal) | 40.88  [38.56-43.20] | 46.37  [38.17-54.57] | 0.195 |
| Thiamin  (mg/1000kcal) | 0.80  [0.78-0.81] | 0.87  [0.79-0.96] | 0.081 |
| Riboflavin  (mg/1000kcal) | 1.09  [1.07-1.12] | 1.12  [1.06-1.19] | 0.378 |
| Niacin  (mg/1000kcal) | 12.59  [12.34-12.84] | 12.09  [11.54-12.63] | 0.106 |
| Vitamin B6  (mg/1000kcal) | 1.03  [1.00-1.05] | 1.05  [0.98-1.11] | 0.614 |
| Vitamin B12  (mcg/1000kcal) | 2.63  [2.37-2.89] | 2.58  [2.35-2.80] | 0.748 |
| Folate  (mcg/1000kcal) | 259.93  [253.05-266.81] | 274.67  [256.56-292.79] | 0.146 |
| Other |  |  |  |
| Selenium  (mcg/1000kcal) | 55.77  [54.87-56.68] | 54.80  [52.45-57.16] | 0.482 |
| Choline  (mg/1000kcal) | 171.81  [168.88-174.73] | 178.76  [168.55-188.97] | 0.173 |
| Lycopene  (mcg/1000kcal) | 2638.33  [2440.48-2836.18] | 2375.09  [1752.52-2997.67] | 0.431 |
| Caffeine  (mg/1000kcal) | 115.67  [106.95-124.38] | 90.02  [77.51-102.54] | **<0.001** |

Supplementary Table 4 legend: Data shown as means with the corresponding [95%-confidence interval]. The p-values refer to differences in the examined nutrients between the general population and prostate cancer survivors; significant p-values are displayed in bold.

## Supplementary Table 5

Supplementary Table 5: Intake of nutrients of public health concern among prostate cancer survivors

|  |  |  |  |
| --- | --- | --- | --- |
| Nutrient | General population  *n* = 4664 | Prostate Cancer Survivors  *n* = 362 | *p-value* |
| Calcium (mg) |  |  | 0.784\* |
| <1000 | 58.41%  [56.11%-60.67%] | 59.42%  [52.18%-66.27%] | 0.784\*\* |
| ≥1000 | 41.59%  [39.33%-43.89%] | 40.58%  [33.73%-47.82%] | 0.784\*\* |
| Vitamin D (IU) |  |  | **0.004\*** |
| <600 | 94.66%  [93.59%-95.56%] | 98.42%  [96.26%-99.34%] | **<0.001**\*\* |
| ≥600 | 5.34%  [4.44%-6.41%] | 1.58%  [0.66%-3.74%] | **<0.001**\*\* |
| Potassium (mg) |  |  | 0.107\* |
| <3400 | 65.93%  [63.80%-67.98%] | 71.68%  [64.94%-77.58%] | 0.094\*\* |
| ≥3400 | 34.07%  [32.02%-36.20%] | 28.32%  [22.42%-35.06%] | 0.094\*\* |
| Dietary Fiber (g) |  |  | 0.125\* |
| <28 | 83.93%  [82.21%-85.52%] | 87.81%  [83.08%-91.35%] | 0.096\*\* |
| ≥28 | 16.07%  [14.48%-17.79%] | 12.19%  [8.65%-16.92%] | 0.096\*\* |

Supplementary Table 5 legend: Based on n = 5,026 observations. Data shown as means with the corresponding [95%-confidence interval]. The p-values refer to differences in the examined nutrients between the general population and prostate cancer survivors; significant p-values are displayed in bold. \*based on Stata’s Rao-Scott-T-test; \*\*based on adjusted Wald tests. Based on non-energy adjusted intakes.

## Supplementary Table 6

Supplementary Table 6: Intake of other nutrients for which the DNG were not met among prostate cancer survivors

|  |  |  |  |
| --- | --- | --- | --- |
| Nutrient | General population  *n* = 4664 | Prostate Cancer Survivors  *n* = 362 | *p-value* |
| Saturated fat (%/kcal) |  |  | 0.703\* |
| <10 | 58.62%  [56.63%-60.57%] | 60.08%  [52.18%-66.27%] | 0.702\*\* |
| ≥10 | 41.38%  [39.43%-43.37%] | 39.92%  [33.12%-47.13%] | 0.702\*\* |
| Magnesium (mg) |  |  | **0.024\*** |
| <420 | 76.68%  [74.58%-78.66%] | 84.64%  [78.35%-89.34%] | **0.011**\*\* |
| ≥420 | 23.32%  [21.34%-25.42%] | 15.36%  [10.66%-21.65%] | **0.011**\*\* |
| Sodium (mg) |  |  | 0.094\* |
| <2300 | 82.01%  [80.40%-83.51%] | 77.52%  [71.72%-82.42%] | 0.117\*\* |
| ≥2300 | 17.99%  [16.49%-19.60%] | 22.48%  [17.58%-28.28%] | 0.117\*\* |
| Vitamin A (mcg RAE) |  |  | **0.036\*** |
| <900 | 77.28%  [75.27%-79.16%] | 70.44%  [63.56%-76.50%] | **0.049\*\*** |
| ≥900 | 22.72%  [20.84%-24.73%] | 29.56%  [23.50%-36.44%] | **0.049\*\*** |
| Vitamin E (mg ATd) |  |  | 0.309\* |
| <15 | 86.67%  [85.05%-88.14%] | 89.33%  [83.82%-93.12%] | 0.271\*\* |
| ≥15 | 13.33%  [11.86%-14.95%] | 10.67%  [6.88%-16.18%] | 0.271\*\* |
| Vitamin C (mg) |  |  | 0.675\* |
| <90 | 63.65%  [61.14%-66.09%] | 62.04%  [54.12%-69.36%] | 0.677\*\* |
| ≥90 | 36.35%  [33.91%-38.86%] | 37.96%  [30.64%-45.88%] | 0.677\*\* |
| Choline (mg) |  |  | 0.541\* |
| <550 | 82.06%  [80.20%-83.78%] | 83.96%  [77.35%-88.92%] | 0.526\*\* |
| ≥550 | 17.94%  [16.22%-19.80%] | 16.04%  [11.08%-22.65%] | 0.526\*\* |

Supplementary Table 6 legend: Based on n = 5,026 observations. Data shown as means with the corresponding [95%-confidence interval]. The p-values refer to differences in the examined nutrients between the general population and prostate cancer survivors; significant p-values are displayed in bold. \*based on Stata’s Rao-Scott-T-test; \*\*based on adjusted Wald tests. Based on non-energy adjusted intakes.