Supplementary Table 1 Body weight status and metabolic biomarkers among the 920 participants in urban settled Tibetan community

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total *n* 920 | | |  | Male *n* 419 | | |  | Female *n* 501 | | | *P* |
|  | Mean | 95% CI | |  | Mean | 95% CI | |  | Mean | 95% CI | |  |
| Waist circumference (cm) | 85.7 | 85.0 | 86.5 |  | 88.0 | 86.8 | 89.1 |  | 83.9 | 82.9 | 84.9 | <0.001\*\*\* |
| Systolic blood pressure (mmHg) | 124 | 122 | 125 |  | 124 | 122 | 125 |  | 123 | 122 | 125 | 0.715 |
| Diastolic blood pressure (mmHg) | 77 | 76 | 78 |  | 78 | 77 | 79 |  | 76 | 75 | 77 | 0.012\* |
| HDL-cholesterol (mmol/L) | 0.96 | 0.94 | 0.97 |  | 0.90 | 0.88 | 0.92 |  | 1.01 | 0.99 | 1.02 | <0.001\*\*\* |
| Triglyceride (mmol/L) | 0.85 | 0.82 | 0.88 |  | 0.98 | 0.93 | 1.03 |  | 0.75 | 0.72 | 0.78 | <0.001\*\*\* |
| Fasting blood glucose (mmol/L) | 4.85 | 4.79 | 4.91 |  | 4.93 | 4.85 | 5.02 |  | 4.78 | 4.70 | 4.87 | 0.015\* |

\**P* <0.05, \*\* *P* <0.01, \*\*\**P* <0.001.

The calculation of the means and 95% CIs for triglyceride and fasting blood glucose used the values after log transformation first, then converting to the biomarker values.

Supplementary Table 2 Demographic and lifestyle characteristics among participants across the quintiles of each dietary pattern score

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Q1 (Lowest) |  |  | Q3 (Middle) |  |  | Q5 (Highest) |  | *P*-trend |
| Urban dietary pattern | | *n* 184 | |  | *n* 184 | |  | *n* 184 | |  |
| Age (years) (Mean, SD) |  | 45.5 | 15.4 |  | 43.6 | 13.4 |  | 42.6 | 12.7 | 0.145 |
| Female (N, %) |  | 93 | 50.5 |  | 103 | 56.0 |  | 101 | 54.9 | 0.403 |
| Education (N, %) | No schooling | 150 | 81.5 |  | 138 | 75.0 |  | 122 | 66.3 | 0.001\*\* |
|  | <6 years schooling | 17 | 9.2 |  | 18 | 9.8 |  | 24 | 13.0 |  |
|  | ≥6 years schooling | 17 | 9.2 |  | 28 | 15.2 |  | 38 | 20.7 |  |
| Medical insurance (N, %) | Urban insurance | 60 | 32.6 |  | 76 | 41.3 |  | 142 | 77.2 | <0.001\*\*\* |
|  | Rural insurance | 121 | 65.8 |  | 103 | 56.0 |  | 39 | 21.2 |  |
|  | No insurance | 3 | 1.6 |  | 5 | 2.7 |  | 3 | 1.6 |  |
| Smoking status (N, %) | Never | 148 | 80.4 |  | 134 | 72.8 |  | 131 | 71.2 | 0.021\* |
|  | Former smoker | 16 | 8.7 |  | 20 | 10.9 |  | 15 | 8.2 |  |
|  | Current, <5 cigarettes/day | 2 | 1.1 |  | 7 | 3.8 |  | 9 | 4.9 |  |
|  | Current, ≥5 cigarettes/day | 18 | 9.8 |  | 23 | 12.5 |  | 29 | 15.8 |  |
| Alcohol (N, %) | Never | 154 | 83.7 |  | 146 | 79.3 |  | 140 | 76.1 | 0.042\* |
|  | Abstinence | 15 | 8.2 |  | 19 | 10.3 |  | 18 | 9.8 |  |
|  | <40g/week | 15 | 8.2 |  | 15 | 8.2 |  | 24 | 13.0 |  |
|  | ≥40g/week | 0 | 0.0 |  | 4 | 2.2 |  | 2 | 1.1 |  |
| Physical activity (N, %) | Light | 120 | 65.2 |  | 128 | 69.6 |  | 121 | 65.8 | 0.731 |
|  | Moderate | 34 | 18.5 |  | 23 | 12.5 |  | 37 | 20.1 |  |
|  | Heavy | 30 | 16.3 |  | 33 | 17.9 |  | 26 | 14.1 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Western dietary pattern | | *n* 184 | |  | *n* 184 | |  | *n* 184 | |  |
| Age (years) (Mean, SD) |  | 50.1 | 12.3 |  | 44.0 | 13.3 |  | 36.2 | 13.1 | <0.001\*\*\* |
| Female (N, %) |  | 85 | 46.2 |  | 99 | 53.8 |  | 100 | 54.3 | 0.118 |
| Education (N, %) | No schooling | 154 | 83.7 |  | 137 | 74.5 |  | 111 | 60.3 | <0.001\*\*\* |
|  | <6 years schooling | 19 | 10.3 |  | 26 | 14.1 |  | 21 | 11.4 |  |
|  | ≥6 years schooling | 11 | 6.0 |  | 21 | 11.4 |  | 52 | 28.3 |  |
| Medical insurance (N, %) | Urban insurance | 79 | 42.9 |  | 81 | 44.0 |  | 118 | 64.1 | <0.001\*\*\* |
|  | Rural insurance | 101 | 54.9 |  | 100 | 54.3 |  | 62 | 33.7 |  |
|  | No insurance | 4 | 2.2 |  | 3 | 1.6 |  | 4 | 2.2 |  |
| Smoking status (N, %) | Never | 135 | 73.4 |  | 136 | 73.9 |  | 127 | 69.0 | 0.124 |
|  | Former smoker | 21 | 11.4 |  | 17 | 9.2 |  | 17 | 9.2 |  |
|  | Current, <5 cigarettes/day | 5 | 2.7 |  | 10 | 5.4 |  | 5 | 2.7 |  |
|  | Current, ≥5 cigarettes/day | 23 | 12.5 |  | 21 | 11.4 |  | 35 | 19.0 |  |
| Alcohol (N, %) | Never | 151 | 82.1 |  | 143 | 77.7 |  | 141 | 76.6 | 0.053 |
|  | Abstinence | 19 | 10.3 |  | 21 | 11.4 |  | 19 | 10.3 |  |
|  | <40g/week | 14 | 7.6 |  | 18 | 9.8 |  | 18 | 9.8 |  |
|  | ≥40g/week | 0 | 0.0 |  | 2 | 1.1 |  | 6 | 3.3 |  |
| Physical activity (N, %) | Light | 131 | 71.2 |  | 121 | 65.8 |  | 126 | 68.5 | 0.722 |
|  | Moderate | 28 | 15.2 |  | 34 | 18.5 |  | 33 | 17.9 |  |
|  | Heavy | 25 | 13.6 |  | 29 | 15.8 |  | 25 | 13.6 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Pastoral dietary pattern | | *n* 184 | |  | *n* 184 | |  | *n* 184 | |  |
| Age (years) (Mean, SD) |  | 36.3 | 13.0 |  | 45.7 | 13.2 |  | 45.7 | 13.7 | <0.001\*\*\* |
| Female (N, %) |  | 92 | 50.0 |  | 93 | 50.5 |  | 118 | 64.1 | 0.007\*\* |
| Education (N, %) | No schooling | 99 | 53.8 |  | 138 | 75.0 |  | 157 | 85.3 | <0.001\*\*\* |
|  | <6 years schooling | 25 | 13.6 |  | 23 | 12.5 |  | 15 | 8.2 |  |
|  | ≥6 years schooling | 60 | 32.6 |  | 23 | 12.5 |  | 12 | 6.5 |  |
| Medical insurance (N, %) | Urban insurance | 113 | 61.4 |  | 84 | 45.7 |  | 81 | 44.0 | 0.006\*\* |
|  | Rural insurance | 66 | 35.9 |  | 96 | 52.2 |  | 102 | 55.4 |  |
|  | No insurance | 5 | 2.7 |  | 4 | 2.2 |  | 1 | 0.5 |  |
| Smoking status (N, %) | Never | 111 | 60.3 |  | 139 | 75.5 |  | 148 | 80.4 | <0.001\*\*\* |
|  | Former smoker | 14 | 7.6 |  | 16 | 8.7 |  | 15 | 8.2 |  |
|  | Current, <5 cigarettes/day | 11 | 6.0 |  | 4 | 2.2 |  | 5 | 2.7 |  |
|  | Current, ≥5 cigarettes/day | 48 | 26.1 |  | 25 | 13.6 |  | 16 | 8.7 |  |
| Alcohol (N, %) | Never | 123 | 66.8 |  | 154 | 83.7 |  | 160 | 87.0 | <0.001\*\*\* |
|  | Abstinence | 17 | 9.2 |  | 20 | 10.9 |  | 14 | 7.6 |  |
|  | <40g/week | 35 | 19.0 |  | 10 | 5.4 |  | 10 | 5.4 |  |
|  | ≥40g/week | 9 | 4.9 |  | 0 | 0.0 |  | 0 | 0.0 |  |
| Physical activity (N, %) | Light | 121 | 65.8 |  | 123 | 66.8 |  | 132 | 71.7 | 0.363 |
|  | Moderate | 34 | 18.5 |  | 33 | 17.9 |  | 25 | 13.6 |  |
|  | Heavy | 29 | 15.8 |  | 28 | 15.2 |  | 27 | 14.7 |  |

\**P* <0.05, \*\* *P* <0.01, \*\*\**P* <0.001.

Supplementary Table 3 Pearson partial correlation coefficients for dietary pattern scores and metabolic syndrome indicators (*n* 920)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Urban dietary pattern | | | |  | Western dietary pattern | | | |  | Pastoral dietary pattern | | | |
|  | Uncorrected | *P* | Corrected | *P* |  | Uncorrected | *P* | Corrected | *P* |  | Uncorrected | *P* | Corrected | *P* |
| Waist circumference | 0.037 | 0.265 | 0.085 | 0.011\* |  | -0.121 | <0.001 | 0.025 | 0.446 |  | 0.07 | 0.033 | -0.01 | 0.763 |
| Systolic blood pressure | -0.001 | 0.985 | 0.029 | 0.378 |  | -0.126 | <0.001 | 0.032 | 0.328 |  | 0.094 | 0.005 | -0.005 | 0.889 |
| Diastolic blood pressure | 0.033 | 0.322 | 0.062 | 0.062 |  | -0.11 | 0.001 | 0.035 | 0.294 |  | 0.086 | 0.009 | 0.002 | 0.951 |
| HDL-cholesterol | -0.081 | 0.014 | -0.075 | 0.024\* |  | -0.003 | 0.933 | -0.018 | 0.580 |  | 0.038 | 0.248 | 0.018 | 0.586 |
| Triglyceride | 0.038 | 0.252 | 0.05 | 0.131 |  | -0.083 | 0.012 | 0.013 | 0.690 |  | 0.044 | 0.183 | 0.018 | 0.589 |
| Fasting blood glucose | 0.02 | 0.539 | 0.038 | 0.249 |  | -0.096 | 0.004 | -0.016 | 0.624 |  | -0.009 | 0.788 | -0.069 | 0.038\* |
| MetS z-score | 0.064 | 0.054 | 0.099 | 0.003\* |  | -0.130 | <0.001 | 0.024 | 0.466 |  | 0.061 | 0.064 | -0.029 | 0.389 |

\**P* <0.05.

The log-transformed values for triglyceride and fasting blood glucose were used for analysis.

The corrected coefficients were derived after controlling for gender, age (years), education (no schooling, <6 years schooling, ≥6 years schooling), medical insurance (urban, rural, no insurance), smoking (never, former, current <5 cigarettes/day, current ≥5 cigarettes/day), alcohol (never, abstinence, current <40g/week, current ≥40g/week), and physical activity (light, moderate, heavy).