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).