Supplementary table 1 Description of scores for certain indices with respect to risk of stroke.

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| --- | --- | --- | --- | --- |
| Parts | Index | Results | Score | Description |
| Family history | Father with stroke | Yes | 2.5 |  |
|  | No | 0 |  |
| Mother with stroke | Yes | 2.5 |  |
|  | No | 0 |  |
| (paternal) Grandfather with stroke | Yes | 0.5 |  |
|  | No | 0 |  |
| (paternal) Grandmother with stroke | Yes | 0.5 |  |
|  | No | 0 |  |
| (maternal) Grandfather with stroke | Yes | 0.5 |  |
|  | No | 0 |  |
| (maternal) Grandmother with stroke | Yes | 0.5 |  |
|  | No | 0 |  |
| Father with hypertension | Yes | 0.1 |  |
|  | No | 0 |  |
| Mother with hypertension | Yes | 0.1 |  |
|  |  | No | 0 |  |
| History of present illness | Hypertension | Yes | 10 |  |
|  | No | 0 |  |
| Dyslipidemia | Yes | 1 |  |
|  | No | 0 |  |
| Diabetes | Yes | 2 |  |
|  | No | 0 |  |
| Stroke related disease | Yes | 3 | Some diseases correlated with stroke. |
|  | No | 0 |  |
| Stroke | Yes | 15 | Stroke, transient ischemic attack occurred previously. |
|  | No | 0 |  |
| Physiological index | Sex | Male | 0.1 |  |
|  | Female | 0 |  |
| Age | 18-80 | 0 | If age is 18, the score is 0. With increasing age, the score increases by 0.01 every 1 year. |
| Body mass index | 18.5-24.0 | 0.5 | If body mass index is 18.5-24.0, the score is 0.5. When the body mass index is higher than 24, the score increases by 0.5 for every increase of 1 in body mass index. The highest score is less than 5. |
| Systolic pressure (mmHg) | 120-140 | 0.5 | If systolic pressure is 120, the score is 0.5. When the systolic pressure is higher than 120, the score increases by 0.07 for every 1 mmHg increase. When the systolic pressure is higher than 200, the score increases by 0.5 for every 1 mmHg increase. The highest score is less than 15. |
| Diastolic pressure (mmHg) | 80-90 | 0.5 | If diastolic pressure is 80, the score is 0.5. When the diastolic pressure is higher than 80, the score increases by 0.2 for every 1 mmHg increase. When the systolic pressure is higher than 100, the score increases by 0.4 for every 1 mmHg increase. The highest score is less than 15. |
| Total cholesterol (mmol/l) | 5.18-6.19 | 0 | If total cholesterol is 5.18, the score is 0. When total cholesterol is higher than 5.18, the score increases by 0.12 for every 0.1 mmol/l increase. When total cholesterol is higher than 6.19, the score increases by 0.15 for every 0.1 mmol/l increase. The highest score is less than 2. |
| Triglyceride (mmol/l) | 1.70-2.25 | 0 | If triglyceride is 1.70, the score is 0. When triglyceride is higher than 1.70, the score increases by 0.15 for every 0.1 mmol/l increase. When triglyceride is higher than 2.25, the score increases by 0.2 for every 0.1 mmol/l increase. The highest score is less than 2. |
| Low-density lipoprotein cholesterol (mmol/l) | 3.37-4.12 | 0 | If low-density lipoprotein cholesterol is 3.37, the score is 0. When low-density lipoprotein cholesterol is higher than 3.37, the score increases by 0.3 for every 0.1 mmol/l increase. When the low-density lipoprotein cholesterol is higher than 4.12, the score increases by 0.4 for every 0.1 mmol/l increase. The highest score is less than 15. |
| High-density lipoprotein cholesterol (mmol/l) | <1.04 | 0 | If high-density lipoprotein cholesterol is 1.04, the score is 0. When high-density lipoprotein cholesterol is less than 1.04, the score increases by 0.2 for every 0.1 mmol/l decrease. The highest score is less than 2. When the high-density lipoprotein cholesterol is higher than 1.04, the score decreases by 0.1 for every 0.1 mmol/l decrease. The lowest score is less than 1. |
| Life style | Average frequency of exercise weekly (time) | 0 | 1 | If average frequency is 0, the score is 1. If the average frequency is 1-2, the score is 0.5. |
| Average time of each exercise (minute) | <10 | 0.05 | If average time of each exercise is less than 10, the score is 0.05. If the average time of each exercise is 10-30, the score is 0.01. |
| Current smoking status | 1-2 days every week | 0.1 | If the participant smoked 1-2 days every week, the score is 0.1. Similarly, the score is 0.2 if smoking 3-5 days every week, 0.3 if smoking 6-7 days every week. |
| Current drinking status | 1-2 times every week | 0.1 | If the participant drank 1-2 days every week, the score is 0.1. Similarly, the score is 0.2 if drinking 3-5 times every week, 0.4 if drinking more than 6 times every week. |
| Having mental pressure | Little | 0.1 | If the participant had mental pressure sometimes, the score is 0.3. If the participant had mental pressure frequently, the score is 0.5 |
| Having insufficient sleep | Little | 0.1 | If the participant had insufficient sleep sometimes, the score is 0.3. If the participant had insufficient sleep frequently, the score is 0.5 |

Supplementary Table 2 Methods to define dumb variables and how to assign variables.

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| Variables | Definition | Quantized value |
| y | Dependent variable | 0=low risk, 1=moderate risk, 2=high risk |
| age | Age | continuous variable |
| sex | Gender | 0=female, 1=male |
| Marriage | Marriage | 0=no, 1=yes |
| drink | Alcohol consumption | 0=no, 1=yes |
| smoke | Smoking | 0=no, 1=yes |
| BMI | Body mass index | continuous variable |
| UA | Uric acid | continuous variable |
| SBP | Systolic pressure | continuous variable |
| DBP | Diastolic pressure | continuous variable |
| TG | Triglycerides | continuous variable |
| HDL | High-density lipoprotein cholesterol | continuous variable |
| LDL | Low-density lipoprotein cholesterol | continuous variable |
| GLU | Glucose | continuous variable |
| TC | Total cholesterol | continuous variable |
| baPWV | brachial-ankle pulse wave velocity | 0=soft, 1=normal, 2=medium hard, 3=hard |
| ABI | ankle-brachial index | 0=normal, 1=hard, 2=mild clogging, 3=clogging |