

**Table S1.** Obesity prevalence by provinces in Indonesia

| Island cluster         | Province             | Obesity Status |       |
|------------------------|----------------------|----------------|-------|
|                        |                      | Non-obese      | Obese |
| Sumatera               | Aceh                 | 77.50          | 22.50 |
|                        | North Sumatera       | 76.40          | 23.60 |
|                        | West Sumatera        | 81.10          | 18.90 |
|                        | Riau                 | 77.70          | 22.30 |
|                        | Jambi                | 83.70          | 16.30 |
|                        | South Sumatera       | 83.90          | 16.10 |
|                        | Bengkulu             | 81.60          | 18.40 |
|                        | Lampung              | 83.90          | 16.10 |
|                        | Kep. Bangka Belitung | 77.80          | 22.20 |
|                        | Kepulauan Riau       | 75.60          | 24.40 |
| Java                   | DKI Jakarta          | 71.40          | 28.60 |
|                        | West Java            | 78.50          | 21.50 |
|                        | Central Java         | 81.00          | 19.00 |
|                        | DI Yogyakarta        | 79.50          | 20.50 |
|                        | East Java            | 78.80          | 21.20 |
|                        | Banten               | 79.50          | 20.50 |
| Bali and Nusa Tenggara | Bali                 | 77.80          | 22.20 |
|                        | Nusa Tenggara Barat  | 86.40          | 13.60 |
|                        | Nusa Tenggara Timur  | 90.80          | 9.20  |
| Kalimantan             | West Kalimantan      | 84.20          | 15.80 |
|                        | Central Kalimantan   | 82.60          | 17.40 |
|                        | South Kalimantan     | 81.80          | 18.20 |
|                        | East Kalimantan      | 73.00          | 27.00 |
|                        | North Kalimantan     | 76.00          | 24.00 |
| Sulawesi               | North Sulawesi       | 71.70          | 28.30 |
|                        | Central Sulawesi     | 80.80          | 19.20 |
|                        | South Sulawesi       | 82.30          | 17.70 |
|                        | Southeast Sulawesi   | 82.60          | 17.40 |
|                        | Gorontalo            | 77.30          | 22.70 |
|                        | West Sulawesi        | 82.80          | 17.20 |
| Maluku                 | Maluku               | 81.90          | 18.10 |
|                        | North Maluku         | 77.90          | 22.10 |
| Papua                  | West Papua           | 75.90          | 24.10 |
|                        | Papua                | 81.10          | 18.90 |

**Table S2.** Odd ratio of obesity based on the risk factors

| Variables                                    |                         | Sumatera                             | Java                          | Bali and<br>Nusa<br>Tenggara        | Kalimantan                    | Sulawesi                      | Maluku                        | Papua                         |
|----------------------------------------------|-------------------------|--------------------------------------|-------------------------------|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Constant                                     | Odd<br>Ratio            | 0.072                                | 0.089                         | 0.03                                | 0.05                          | 0.053                         | 0.034                         | 0.107                         |
| <b>Location (X1) -&gt; Rural</b>             |                         |                                      |                               |                                     |                               |                               |                               |                               |
| Urban                                        | Odd<br>Ratio<br>(95 CI) | <b>1.276</b><br>(1.273-<br>1.278)*** | 1.372<br>(1.37-<br>1.374)***  | <b>1.627</b><br>(1.62-<br>1.634)*** | 1.442<br>(1.437-<br>1.447)*** | 1.348<br>(1.343-<br>1.352)*** | 1.497<br>(1.483-<br>1.51)***  | 1.368<br>(1.357-<br>1.379)*** |
| <b>Sex (X2) -&gt; Male</b>                   |                         |                                      |                               |                                     |                               |                               |                               |                               |
| Female                                       | Odd<br>Ratio<br>(95 CI) | 2.02<br>(2.015-<br>2.026)***         | 1.94<br>(1.937-<br>1.943)***  | 1.79<br>(1.779-<br>1.801)***        | 1.901<br>(1.892-<br>1.91)***  | 1.63<br>(1.623-<br>1.638)***  | 2.169<br>(2.142-<br>2.196)*** | 1.703<br>(1.689-<br>1.718)*** |
| <b>Marital Status (X3) -&gt; Not married</b> |                         |                                      |                               |                                     |                               |                               |                               |                               |
| Married                                      | Odd<br>Ratio<br>(95 CI) | 2.767<br>(2.759-<br>2.775)***        | 2.321<br>(2.317-<br>2.326)*** | 2.503<br>(2.487-<br>2.52)***        | 2.193<br>(2.181-<br>2.205)*** | 2.66<br>(2.646-<br>2.673)***  | 3.312<br>(3.267-<br>3.358)*** | 2.457<br>(2.429-<br>2.485)*** |
| Divorce                                      | Odd<br>Ratio<br>(95 CI) | 2<br>(1.986-<br>2.014)***            | 1.683<br>(1.676-<br>1.689)*** | 2.032<br>(2.004-<br>2.06)***        | 1.251<br>(1.235-<br>1.267)*** | 1.742<br>(1.723-<br>1.762)*** | 2.218<br>(2.147-<br>2.291)*** | 2.28<br>(2.213-<br>2.349)***  |
| Divorce (death)                              | Odd<br>Ratio<br>(95 CI) | 2.261<br>(2.25-<br>2.272)***         | 1.85<br>(1.845-<br>1.856)***  | 1.837<br>(1.817-<br>1.858)***       | 1.358<br>(1.345-<br>1.372)*** | 1.841<br>(1.826-<br>1.856)*** | 2.797<br>(2.734-<br>2.861)*** | 2.143<br>(2.101-<br>2.185)*** |
| <b>Age (X4) -&gt; &lt;= 47 years</b>         |                         |                                      |                               |                                     |                               |                               |                               |                               |
| 48-63 years                                  | Odd<br>Ratio<br>(95 CI) | 0.788<br>(0.787-<br>0.79)***         | 0.724<br>(0.724-<br>0.725)*** | 0.806<br>(0.802-<br>0.81)***        | 0.745<br>(0.742-<br>0.748)*** | 0.762<br>(0.759-<br>0.765)*** | 0.809<br>(0.801-<br>0.818)*** | 0.97<br>(0.962-<br>0.979)***  |
| >=64 years                                   | Odd<br>Ratio<br>(95 CI) | 0.336<br>(0.335-<br>0.338)***        | 0.273<br>(0.273-<br>0.274)*** | 0.331<br>(0.328-<br>0.335)***       | 0.352<br>(0.349-<br>0.355)*** | 0.335<br>(0.333-<br>0.338)*** | 0.359<br>(0.352-<br>0.366)*** | 0.349<br>(0.341-<br>0.357)*** |
| <b>Education level (X5) -&gt; High</b>       |                         |                                      |                               |                                     |                               |                               |                               |                               |
| Low                                          | Odd<br>Ratio<br>(95 CI) | 0.753<br>(0.75-<br>0.756)***         | 0.754<br>(0.752-<br>0.756)*** | 0.868<br>(0.861-<br>0.874)***       | 0.807<br>(0.801-<br>0.813)*** | 0.877<br>(0.872-<br>0.883)*** | 0.825<br>(0.812-<br>0.839)*** | 0.63<br>(0.621-<br>0.639)***  |
| <b>Occupation (X6) -&gt; Unemployed</b>      |                         |                                      |                               |                                     |                               |                               |                               |                               |
| Student                                      | Odd<br>Ratio<br>(95 CI) | 0.777<br>(0.773-<br>0.781)***        | 0.814<br>(0.811-<br>0.816)*** | 0.866<br>(0.857-<br>0.876)***       | 0.754<br>(0.747-<br>0.761)*** | 0.671<br>(0.665-<br>0.677)*** | 0.646<br>(0.631-<br>0.661)*** | 0.788<br>(0.774-<br>0.803)*** |
| Government officer/<br>military/ police      | Odd<br>Ratio            | 1.475                                | 1.429                         | 1.587                               | 1.479                         | 1.28                          | 1.826                         | 1.565                         |

|                                                                    |           |                      |                      |                      |                      |                      |                      |                      |
|--------------------------------------------------------------------|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Private company officer                                            | (95 CI)   | (1.468-<br>1.482)*** | (1.424-<br>1.434)*** | (1.572-<br>1.603)*** | (1.467-<br>1.491)*** | (1.271-<br>1.29)***  | (1.796-<br>1.856)*** | (1.543-<br>1.587)*** |
|                                                                    | Odd Ratio | 1.119                | 1.078                | 1.541                | 1.251                | 1.126                | 1.609                | 0.95                 |
| Entrepreneur                                                       | (95 CI)   | (1.115-<br>1.124)*** | (1.076-<br>1.08)***  | (1.53-<br>1.552)***  | (1.244-<br>1.258)*** | (1.118-<br>1.133)*** | (1.577-<br>1.642)*** | (0.936-<br>0.964)*** |
|                                                                    | Odd Ratio | 1.295                | 1.302                | 1.775                | 1.251                | 1.235                | 1.737                | 1.084                |
| Farmer                                                             | (95 CI)   | (1.291-<br>1.298)*** | (1.3-<br>1.304)***   | (1.764-<br>1.786)*** | (1.244-<br>1.257)*** | (1.229-<br>1.241)*** | (1.711-<br>1.762)*** | (1.072-<br>1.097)*** |
|                                                                    | Odd Ratio | 0.7                  | 0.627                | 0.648                | 0.641                | 0.639                | 0.754                | 0.611                |
| Fisherman                                                          | (95 CI)   | (0.698-<br>0.701)*** | (0.626-<br>0.628)*** | (0.644-<br>0.652)*** | (0.637-<br>0.644)*** | (0.636-<br>0.643)*** | (0.744-<br>0.763)*** | (0.605-<br>0.617)*** |
|                                                                    | Odd Ratio | 0.68                 | 1.008                | 1.337                | 0.964                | 0.691                | 0.571                | 0.505                |
| Labor/ driver/<br>housekeeper                                      | (95 CI)   | (0.673-<br>0.688)*** | (0.999-<br>1.017)    | (1.311-<br>1.364)*** | (0.948-<br>0.98)***  | (0.682-<br>0.699)*** | (0.55-<br>0.592)***  | (0.49-<br>0.52)***   |
|                                                                    | Odd Ratio | 0.874                | 0.831                | 0.983                | 0.857                | 0.924                | 1.281                | 0.763                |
| Others                                                             | (95 CI)   | (0.871-<br>0.878)*** | (0.83-<br>0.833)***  | (0.975-<br>0.991)*** | (0.85-<br>0.864)***  | (0.917-<br>0.93)***  | (1.255-<br>1.308)*** | (0.747-<br>0.779)*** |
|                                                                    | Odd Ratio | 1.138                | 1.07                 | 1.146                | 1.07                 | 1.037                | 1.394                | 1.312                |
|                                                                    | (95 CI)   | (1.134-<br>1.142)*** | (1.068-<br>1.073)*** | (1.136-<br>1.155)*** | (1.063-<br>1.077)*** | (1.031-<br>1.042)*** | (1.376-<br>1.413)*** | (1.293-<br>1.333)*** |
| <b>Mental emotional status (X7) -&gt; Without mental emotional</b> |           |                      |                      |                      |                      |                      |                      |                      |
| With mental emotional                                              | Odd Ratio | 1.027                | 0.982                | 0.934                | 0.973                | 0.906                | 0.779                | 1.116                |
|                                                                    | (95 CI)   | (1.024-<br>1.03)***  | (0.98-<br>0.984)***  | (0.929-<br>0.94)***  | (0.967-<br>0.978)*** | (0.902-<br>0.91)***  | (0.769-<br>0.789)*** | (1.104-<br>1.128)*** |
| <b>Sweet food (X8) -&gt; &lt;3x / month</b>                        |           |                      |                      |                      |                      |                      |                      |                      |
| >1x/day                                                            | Odd Ratio | 0.987                | 0.906                | 1.048                | 0.888                | 1.028                | 1.235                | 1.012                |
|                                                                    | (95 CI)   | (0.983-<br>0.99)***  | (0.904-<br>0.908)*** | (1.039-<br>1.057)*** | (0.882-<br>0.895)*** | (1.021-<br>1.035)*** | (1.213-<br>1.256)*** | (0.999-<br>1.025)    |
| <b>Sugar sweetened beverages (X9) -&gt; &lt;3x / month</b>         |           |                      |                      |                      |                      |                      |                      |                      |
| >1x/day                                                            | Odd Ratio | 0.807                | 0.809                | 0.824                | 0.809                | 0.832                | 0.744                | 0.858                |
|                                                                    | (95 CI)   | (0.804-<br>0.81)***  | (0.807-<br>0.81)***  | (0.819-<br>0.83)***  | (0.803-<br>0.815)*** | (0.827-<br>0.837)*** | (0.731-<br>0.756)*** | (0.848-<br>0.869)*** |
| <b>Food high in salt (X10) -&gt; &lt;3x / month</b>                |           |                      |                      |                      |                      |                      |                      |                      |
| >1x/day                                                            | Odd Ratio | 0.858                | 0.916                | 1.173                | 1.002                | 0.885                | 1.264                | 0.86                 |
|                                                                    | (95 CI)   | (0.855-<br>0.861)*** | (0.915-<br>0.918)*** | (1.161-<br>1.185)*** | (0.996-<br>1.009)    | (0.879-<br>0.891)*** | (1.24-<br>1.287)***  | (0.846-<br>0.874)*** |
| <b>High-fat food (X11) -&gt; &lt;3x / month</b>                    |           |                      |                      |                      |                      |                      |                      |                      |
| >1x/day                                                            | Odd Ratio | 1.183                | 1.158                | 1.406                | 1.245                | 1.482                | 1.133                | 1.141                |
|                                                                    | (95 CI)   | (1.179-<br>1.187)*** | (1.156-<br>1.161)*** | (1.397-<br>1.416)*** | (1.238-<br>1.253)*** | (1.473-<br>1.491)*** | (1.115-<br>1.152)*** | (1.126-<br>1.156)*** |

|                                                     |           |                  |                  |                  |                  |                  |                  |                  |
|-----------------------------------------------------|-----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Meat food (X12) -&gt; &lt;3x / month</b>         |           |                  |                  |                  |                  |                  |                  |                  |
| >1x/day                                             | Odd Ratio | 1.356            | 0.887            | 1.088            | 1.024            | 1.01             | 0.982            | 1.104            |
|                                                     | (95 CI)   | (1.343-1.369)*** | (0.883-0.891)*** | (1.067-1.109)*** | (1.009-1.04)***  | (0.997-1.023)    | (0.964-1.001)    | (1.078-1.13)***  |
| <b>Carbonated drinks (X13) -&gt; &lt;3x / month</b> |           |                  |                  |                  |                  |                  |                  |                  |
| >1x/day                                             | Odd Ratio | 0.984            | 0.902            | 0.839            | 0.868            | 1.525            | 1.609            | 1.809            |
|                                                     | (95 CI)   | (0.971-0.997)*   | (0.896-0.908)*** | (0.816-0.863)*** | (0.849-0.887)*** | (1.499-1.551)*** | (1.552-1.668)*** | (1.758-1.861)*** |
| <b>Energy drink (X14) -&gt; &lt;3x / month</b>      |           |                  |                  |                  |                  |                  |                  |                  |
| >1x/day                                             | Odd Ratio | 0.953            | 1.171            | 0.561            | 0.849            | 0.88             | 0.928            | 1.01             |
|                                                     | (95 CI)   | (0.939-0.967)*** | (1.162-1.18)***  | (0.54-0.583)***  | (0.832-0.867)*** | (0.862-0.897)*** | (0.898-0.959)*** | (0.985-1.036)    |
| <b>Instant food (X15) -&gt; &lt;3x / month</b>      |           |                  |                  |                  |                  |                  |                  |                  |
| >1x/day                                             | Odd Ratio | 0.87             | 1.038            | 0.968            | 0.827            | 0.78             | 0.926            | 0.992            |
|                                                     | (95 CI)   | (0.864-0.876)*** | (1.034-1.042)*** | (0.953-0.984)*** | (0.818-0.837)*** | (0.773-0.787)*** | (0.907-0.946)*** | (0.975-1.009)    |
| <b>FV consumption (X16) -&gt; Adequate</b>          |           |                  |                  |                  |                  |                  |                  |                  |
| Inadequate                                          | Odd Ratio | 0.894            | 0.83             | 0.799            | 0.77             | 0.96             | 0.775            | 0.724            |
|                                                     | (95 CI)   | (0.89-0.898)***  | (0.828-0.832)*** | (0.793-0.805)*** | (0.765-0.776)*** | (0.953-0.966)*** | (0.764-0.786)*** | (0.715-0.732)*** |
| <b>Smoking behavior (X17) -&gt; Never smoke</b>     |           |                  |                  |                  |                  |                  |                  |                  |
| Quitted                                             | Odd Ratio | 1.143            | 1.065            | 1.077            | 1.12             | 0.917            | 1.501            | 1.063            |
|                                                     | (95 CI)   | (1.138-1.148)*** | (1.063-1.068)*** | (1.067-1.087)*** | (1.112-1.129)*** | (0.91-0.923)***  | (1.469-1.533)*** | (1.043-1.083)*** |
| Currently smoke                                     | Odd Ratio | 0.794            | 0.693            | 0.685            | 0.709            | 0.664            | 0.822            | 0.779            |
|                                                     | (95 CI)   | (0.792-0.797)*** | (0.692-0.694)*** | (0.68-0.69)***   | (0.706-0.713)*** | (0.661-0.668)*** | (0.811-0.833)*** | (0.771-0.786)*** |
| <b>Physical activity (X18) -&gt; Active</b>         |           |                  |                  |                  |                  |                  |                  |                  |
| Inactive                                            | Odd Ratio | 1.009            | 1.099            | 1.093            | 1.113            | 1.028            | 1.026            | 1.05             |
|                                                     | (95 CI)   | (1.008-1.011)*** | (1.098-1.1)***   | (1.089-1.098)*** | (1.109-1.117)*** | (1.024-1.031)*** | (1.017-1.035)*** | (1.043-1.057)*** |
| <b>Alcohol consumption (X19) -&gt; No</b>           |           |                  |                  |                  |                  |                  |                  |                  |
| Yes                                                 | Odd Ratio | 0.835            | 0.75             | 0.763            | 1.085            | 0.954            | 1.132            | 1.02             |
|                                                     | (95 CI)   | (0.83-0.839)***  | (0.747-0.753)*** | (0.758-0.768)*** | (1.075-1.095)*** | (0.948-0.96)***  | (1.115-1.151)*** | (1.005-1.036)*   |
| <b>Blood pressure (X20) -&gt; Normal</b>            |           |                  |                  |                  |                  |                  |                  |                  |
| Prehypertension                                     | Odd Ratio | 2.259            | 2.438            | 2.745            | 2.434            | 2.512            | 2.413            | 2.059            |
|                                                     | (95 CI)   | (2.254-2.265)*** | (2.435-2.442)*** | (2.731-2.759)*** | (2.421-2.446)*** | (2.502-2.522)*** | (2.388-2.439)*** | (2.042-2.076)*** |

|                      |              |                      |                      |                      |                      |                      |                      |                      |
|----------------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Hypertension stage 1 | Odd<br>Ratio | 3.94                 | 4.382                | 4.765                | 4.619                | 4.049                | 4.695                | 3.654                |
|                      | (95 CI)      | (3.929-<br>3.95)***  | (4.375-<br>4.389)*** | (4.736-<br>4.793)*** | (4.594-<br>4.644)*** | (4.031-<br>4.068)*** | (4.638-<br>4.752)*** | (3.618-<br>3.69)***  |
| Hypertension stage 2 | Odd<br>Ratio | 5.984                | 6.556                | 7.398                | 6.731                | 5.684                | 6.358                | 5.165                |
|                      | (95 CI)      | (5.966-<br>6.003)*** | (6.544-<br>6.568)*** | (7.347-<br>7.448)*** | (6.692-<br>6.771)*** | (5.655-<br>5.714)*** | (6.266-<br>6.451)*** | (5.099-<br>5.232)*** |

---