### Supplementary Table 1 Characteristics of the study population according to weight changes over 1 year

| Characteristics | Quarters of weight change | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | P-value |
|-----------------|---------------------------|-----------|-----------|-----------|-----------|---------|
| Age (years)     |                           | 56.7±0.7  | 58.4±1.0  | 57.2±0.6  | 54.2±0.7  | 0.025   |
| Sex (% men)     |                           | 43.7      | (37.5-50.1)| 50.0      | (39.3-60.7)| 49.9    | (44.1-55.8)| 41.0    | (35.0-47.4)| 0.192   |
| Body mass index (kg/m²) |                 | 30.4±0.5  | 26.8±0.6  | 29.2±0.4  | 31.2±0.4  | 0.030   |
| Waist circumference (cm) |              | 103.6±1.1 | 96.6±1.6  | 100.5±1.0 | 104.5±1.0 | 0.630   |
| Hypertension (%) |                           | 48.0      | 36.6      | 43.1      | 44.0      | 0.377   |
| Diabetes (%)    |                           | 26.0      | 16.1      | 17.6      | 14.4      | 0.006   |
| Ethnicity (%)   |                           |           |           |           |           | <0.001  |
| Non-Hispanic White |                   | 59.9      | (52.0-67.4)| 68.8      | (59.7-76.7)| 71.4    | (63.5-78.2)| 61.4    | (53.0-69.2)|         |
| Non-Hispanic Black |                 | 12.3      | (9.0-16.6) | 8.6       | (4.7-15.5) | 7.6     | (5.1-11.2) | 13.8    | (9.5-19.7) |         |
| Hispanic        |                           | 16.2      | (12.7-20.5)| 10.9      | (6.5-17.7) | 11.0    | (7.7-15.4) | 15.6    | (12.0-20.0)|         |
| Non-Hispanic Asian |               | 3.3       | (2.2-4.8)  | 9.8       | (5.9-15.9) | 7.1     | (4.5-10.9) | 5.1     | (3.5-7.4)  |         |
| Other           |                           | 8.3       | (4.7-14.1) | 1.8       | (0.8-4.3)  | 3.0     | (2.0-4.4)  | 4.1     | (2.7-6.2)  |         |
| Smoking (%)     |                           |           |           |           |           | 0.036   |
| Never           |                           | 51.2      | (44.8-57.6)| 68.0      | (57.7-76.5)| 60.1    | (55.2-64.8)| 57.1    | (52.1-61.9)|         |
| Current smoker  |                           | 29.8      | (25.3-34.9)| 25.5      | (17.8-35.0)| 27.6    | (24.3-31.1)| 30.2    | (24.0-37.2)|         |
| Former smoker   |                           | 19.0      | (14.7-24.2)| 6.7       | (3.3-13.2) | 12.4    | (9.7-15.7) | 12.8    | (9.2-17.5) |         |
| High education (%) |                   | 88.1      | (84.4-91.0)| 90.9      | (85.8-94.3)| 89.1    | (86.2-91.5)| 89.3    | (85.3-92.3)| 0.734   |
| Married (%)     |                           | 64.0      | (57.2-70.3)| 69.7      | (59.7-78.2)| 74.0    | (71.0-76.9)| 68.0    | (62.5-73.0)| 0.028   |
| Total cholesterol (mg/dL) |     | 190.2±2.8 | 194.7±4.3 | 195.5±2.0 | 202.0±2.5 | 0.009   |
| High-density lipoprotein cholesterol (mg/dL) |     | 53.1±0.9  | 55.8±1.6  | 54.3±1.0  | 53.6±1.0  | 0.802   |
| Triglyceride (mg/dL) |                 | 114.8±4.4 | 115.5±14.0| 115.9±6.7 | 134.9±9.3 | 0.078   |
| Fasting glucose (mg/dL) |              | 114.8±2.4 | 111.9±3.0 | 115.6±3.1 | 109.2±1.6 | 0.214   |
| Hemoglobin A1c (%) |                           | 5.90±0.05 | 5.78±0.08 | 5.83±0.04 | 5.74±0.02 | 0.007   |
| Fasting insulin (pmol/L) |                   | 93.3±10.3 | 64.2±7.1  | 67.0±3.1  | 85.5±6.8  | 0.343   |
| Alanine aminotransferase (IU/L) |         | 20.3±0.5  | 21.3±1.0  | 21.2±0.6  | 23.5±0.5  | 0.005   |
| Aspartate aminotransferase (IU/L) |         | 20.5±0.3  | 20.8±0.5  | 21.0±0.3  | 21.9±0.4  | 0.019   |
| Gamma glutamyl transferase (IU/L) |         | 27.7±1.1  | 26.0±2.1  | 27.7±1.3  | 29.8±1.0  | 0.149   |
| NAFLD (CAP ≥263 dB/m, %) |                     | 55.1      | (49.5-60.5)| 38.6      | (28.5-49.7)| 50.9    | (45.0-56.8)| 65.9    | (59.7-71.5)| <0.001  |
| NAFLD (CAP ≥285 dB/m, %) |                     | 40.9      | (33.8-48.4)| 27.6      | (19.4-37.7)| 37.0    | (33.1-41.0)| 48.5    | (41.0-56.0)| 0.004   |
| Significant fibrosis (≥F2, %) |                 | 9.7       | (6.9-13.4) | 5.5       | (3.0-9.9)  | 7.0     | (5.2-9.3)  | 11.6    | (8.2-16.1) | 0.038   |

Data are shown as the weighted mean ± standard error or weighted frequency (95% confidence interval) as appropriate.

Triglycerides, fasting glucose, fasting insulin were calculated from fasting subjects only.

Range of quartile 1, <-5 pounds (-2.27 kg); quartile 2, -5 pounds (-2.27 kg) to 0 pounds; quartile 3, 0 pounds to 4 pounds (1.81 kg); and quartile 4, ≥4 pounds (1.81 kg)

CAP, controlled attenuation parameter; NAFLD, nonalcoholic fatty liver disease