

Supplementary Table 1. Baseline characteristics of participants with no-SLD, NAFLD, MASLD, MetALD, and MAFLD

Characteristic	No-SLD (n=4,708)	NAFLD (n=2,190)	MASLD (n=2,205)	MASLD+MetALD (n=2,440)	MAFLD (n=3,896)
Follow-up time (person-years)	120,414	52,813	52,809	58,105	91,311
Age, years, median (IQR)	35 (27,48)	41 (31,57)	42 (32, 58)	42 (32, 57)	44 (34, 59)
Age (%)					
20–44	3,299 (70.1)	1,236 (56.4)	1,203 (54.6)	1,332 (54.6)	1,977 (50.7)
45–59	746 (15.8)	487 (22.2)	504 (22.9)	570 (23.4)	958 (24.6)
≥60	663 (14.1)	467 (21.3)	498 (22.6)	538 (22.0)	961 (24.7)
Female, sex (%)	2,447 (52)	1,136 (51.9)	1,149 (52.1)	1,225 (50.2)	2,012 (51.6)
Poverty income ratio, median (IQR)	2.22 (1.15, 3.70)	1.92 (1.01, 3.18)	1.86 (1.00, 3.15)	1.86 (0.99, 3.15)	1.85 (0.97, 3.17)
Race/ethnicity (%)					
Non-Hispanic whites	1,777 (37.7)	779 (35.6)	767 (34.8)	845 (34.6)	2,481 (63.7)
Non-Hispanic blacks	1,437 (30.5)	525 (24.0)	530 (24.0)	592 (24.3)	991 (25.4)
Mexican Americans	1,269 (27.0)	810 (37.0)	832 (57.7)	918 (37.6)	390 (10.0)
Other	225 (4.8)	76 (3.5)	76 (3.4)	85 (3.5)	30 (0.8)
BMI, kg/m ² , median (IQR)	25 (22.5, 28.3)	28.2 (24.5, 32.2)	28.5 (25.1, 32.5)	28.5 (25.1, 32.5)	29.2 (25.9, 33.3)
Overweight* (%)	2391 (50.8)	1,567 (71.6)	1,665 (75.5)	1,844 (75.6)	3,163 (81.2)
Waist circumference, cm, median (IQR)	87.9 (79.45, 96.6)	96.95 (86.6, 107.2)	97.9 (88.8, 107.98)	98.2 (89, 107.9)	100 (91.1, 109.2)
High waist circumference* (%)	1,632 (34.6)	1,544 (70.5)	1,216 (55.1)	1,330 (54.5)	3,061 (78.6)
Overweight/high waist circumference (%)	2,829 (60.1)	1,737 (79.3)	1,839 (83.4)	2,034 (83.4)	3,590 (92.1)
Hypertension (%)	1,226 (26.0)	930 (42.5)	982 (44.5)	1,108 (45.4)	2,123 (54.5)
HbA1c (%)	5.2 (4.9, 5.5)	5.4 (5.0,5.8)	5.40 (5.0, 5.90)	5.4 (5.0, 5.8)	5.5 (5.1, 5.9)
Fasting blood glucose, mmol/L, median (IQR)	5.09 (4.79, 5.44)	5.28 (4.91, 5.77)	5.30 (4.94, 5.80)	5.30 (4.94, 5.80)	5.36 (4.98, 5.89)
Pre-DM/DM (%)	1,522 (32.3)	1,111 (50.7)	1173 (53.2)	1,296 (53.1)	2,085 (53.5)
TG, mmol/L, median (IQR)	1.14 (0.81, 1.72)	1.64 (1.08, 2.47)	1.67 (1.10, 2.52)	1.66 (1.08, 2.52)	1.66 (1.12, 2.46)
High triglycerides* (%)	1,002 (21.3)	995 (45.4)	1,036 (47.0)	1,136 (46.6)	1,825 (46.8)
HDL, mmol/L, median (IQR)	1.11 (0.80, 1.59)	1.16 (0.96, 1.42)	1.16 (0.96, 1.42)	1.16 (0.96, 1.42)	1.14 (0.96, 1.37)
Low HDL* (%)	2,455 (52.1)	970 (44.3)	1024 (46.4)	1,121 (45.9)	1,891 (48.5)
AST, U/L, median (IQR)	19 (16,24)	21 (17, 28)	21 (17,28)	21 (17, 29)	21 (17,27)
ALT, U/L, median (IQR)	14 (10,20)	18 (12, 29)	18 (12,29)	18 (13, 29)	18 (13, 28)
ALP, U/L, median (IQR)	79 (64, 97)	85 (70, 104)	85 (70, 105)	85 (70,104)	86(72, 103)
Platelet count, ×10 ⁹ /L, median (IQR)	270 (230.5, 320)	275 (233, 327.5)	274.5 (232.25, 327)	274 (232, 325.88)	272 (230.5, 320.5)

Supplementary Table 1. Continued

Characteristic	No-SLD (n=4,708)	NAFLD (n=2,190)	MASLD (n=2,205)	MASLD+MetALD (n=2,440)	MAFLD (n=3,896)
FIB-4 Category (%)	0.67 (0.46, 1.04)	0.74(0.52,1.14)	0.76 (0.53, 1.15)	0.77 (0.53, 1.17)	0.80 (0.56, 1.20)
<1.3	4,121 (87.5)	1,841 (84.1)	1,847 (83.8)	2,017 (82.7)	3,210 (82.4)
1.3≤FIB-4<2.67	531 (11.1)	140 (6.4)	209 (9.5)	254 (10.4)	432 (11.1)
≥2.67	50 (1.1)	90 (4.1)	33 (1.5)	42 (1.7)	77 (2.0)

Continuous values are presented as medians (interquartile range) and categorical variables are presented as counts (percentages).

MASLD, metabolic dysfunction-associated steatotic liver disease; NAFLD, non-alcoholic fatty liver disease; MAFLD, metabolic dysfunction-associated fatty liver disease; MetALD, metabolic dysfunction and alcohol-associated liver disease; DM, diabetes mellitus; BMI, body mass index; ALT, alanine transaminase; AST, aspartate transaminase; ALP, alkaline phosphatase; TG, total triglyceride; HDL, high-density lipoprotein cholesterol; FIB-4, Fibrosis-4 index.

*Overweigh was defined as BMI ≥25 kg/m²; high waist circumference was defined as >80 cm for women or >94 cm for men; High triglycerides were defined as fasting triglyceride level ≥1.7 mmol/L; low HDL was defined as HDL ≤1.3 mmol/L for women or ≤1.0 mmol/L for men.