

Supplemental table 1

Baseline characteristics of participants free of diabetes according to BMI groups

	Body mass index, kg/m ²				P for trend
	<18.5	18.5-<24.0	24.0-<28.0	≥28	
Male					
Participants, n	3429	52741	46159	13793	
BMI, kg/m ²	17.6 (0.7)	21.8 (1.5)	25.7 (1.1)	29.9 (1.9)	< 0.0001
Age, y	36.6 (12.5)	40.9 (12.9)	44.2 (12.8)	42.9 (12.5)	< 0.0001
Current smoker, %	28.8	28.5	32.1	35.8	< 0.0001
Current drinker, %	1.7	2.8	3.8	4.7	< 0.0001
Fasting plasma glucose, mmol/L	4.76 (0.56)	4.89 (0.60)	5.04 (0.63)	5.15 (0.67)	< 0.0001
Systolic blood pressure, mmHg	115 (14)	120 (15)	125 (15)	130 (16)	< 0.0001
Diastolic blood pressure, mmHg	72 (10)	74 (10)	78 (11)	82 (11)	< 0.0001
Total cholesterol, mmol/L	4.26 (0.80)	4.58 (0.86)	4.85 (0.89)	4.97 (0.89)	< 0.0001
Triglyceride, mmol/L	0.81 (0.62, 1.05)	1.07 (0.77, 1.51)	1.50 (1.05, 2.17)	1.81 (1.30, 2.59)	< 0.0001
LDL-C, mmol/L	2.47 (0.62)	2.71 (0.65)	2.85 (0.67)	2.91 (0.68)	< 0.0001
HDL-C, mmol/L	1.44 (0.30)	1.33 (0.28)	1.25 (0.27)	1.22 (0.27)	< 0.0001
Family history of diabetes, %	0.79	1.24	1.52	1.85	< 0.0001
Female					
Participants, n	8652	64070	18614	4373	
BMI, kg/m ²	17.6 (0.7)	21.2 (1.5)	25.5 (1.1)	30.1 (2.1)	< 0.0001
Age, y	34.9 (9.2)	40.6 (11.5)	47.7 (13.1)	48.5 (13.9)	< 0.0001
Current smoker, %	0.05	0.14	0.17	0.01	0.80
Current drinker, %	0.10	0.15	0.10	0.21	0.008
Fasting plasma glucose, mmol/L	4.65 (0.55)	4.80 (0.56)	5.02 (0.60)	5.16 (0.64)	< 0.0001

Systolic blood pressure, mmHg	108 (13)	112 (15)	122 (18)	129 (18)	< 0.0001
Diastolic blood pressure, mmHg	68 (9)	70 (10)	75 (11)	79 (12)	< 0.0001
Total cholesterol, mmol/L	4.43 (0.81)	4.62 (0.89)	4.92 (0.94)	5.03 (0.97)	< 0.0001
Triglyceride, mmol/L	0.70 (0.55, 0.90)	0.81 (0.60, 1.12)	1.16 (0.82, 1.67)	1.43 (1.03, 2.00)	< 0.0001
LDL-C, mmol/L	2.52 (0.61)	2.70 (0.68)	2.91 (0.71)	2.97 (0.72)	< 0.0001
HDL-C, mmol/L	1.59 (0.33)	1.49 (0.31)	1.39 (0.28)	1.34 (0.26)	< 0.0001
Family history of diabetes, %	1.86	2.82	3.14	3.50	< 0.0001

Data are mean (SD), or median (IQR), or proportions.

Supplemental table 2

Sex-adjusted HRs of incident diabetes with increasing body mass index, by baseline age groups.

	Body mass index, kg/m ²			
	<18.5	18.5-<24.0	24.0-<28.0	≥28
Age, y				
20 to <30	0.56 (0.18, 1.76)	0.77 (0.48, 1.22)	1.43 (0.79, 2.61)	13.06 (8.98, 19.00)
30 to <40	0.51 (0.22, 1.15)	Ref.	4.06 (3.18, 5.18)	18.03 (14.28, 22.78)
40 to <50	1.35 (0.50, 3.65)	3.21 (2.50,4.12)	11.07 (8.86, 13.82)	28.83 (22.82, 36.42)
50 to <60	5.05 (2.06, 12.41)	11.16 (8.91,13.99)	22.40 (18.10, 27.72)	47.17 (37.55, 59.24)
60 to <70	18.25 (9.52, 34.97)	19.93 (15.85,25.06)	33.35 (26.87, 41.39)	48.51 (38.01, 61.92)
≥70	7.90 (2.50, 24.91)	32.19 (25.23,41.08)	48.14 (38.19, 60.69)	68.30 (51.99, 89.73)

Supplemental table 3

Interaction of BMI × smoking status and age × family history of diabetes on the risk of incident diabetes.

	HR	
	Unadjusted	Multivariable-adjusted
Risk of per increase of BMI		
Current smoker	1.84 (1.69-2.00)	1.97 (1.80-2.15)
Non-smoker	2.16 (1.76-2.64)	2.34 (1.86-2.93)
BMI × smoking status interaction, P	0.10	0.25
Risk of family history of diabetes		
Total	1.98 (1.70-2.31)	1.68 (1.38-2.03)
20 to <30	2.13 (0.52-8.67)	4.38 (0.82-23.39)
30 to <40	3.06 (2.23-4.21)	2.81 (1.86-4.24)
40 to <50	2.10 (1.59-2.79)	1.81 (1.25-2.64)
50 to <60	1.90 (1.43-2.52)	1.80 (1.27-2.56)
60 to <70	2.04 (1.36-3.06)	1.44 (0.85-2.42)
≥70	1.35 (0.43-4.20)	0.78 (0.19-3.22)
Age × family history of diabetes interaction, P	0.45	0.71

Multivariable-adjusted model adjusted for age, sex, smoking status, drinking status, family history of diabetes, except the strata variable.