

S1 Table. Sex-specific mean body mass index (BMI) values and standard deviations (SD) by smoking status, region, and the twin cohort (country) in the CODATwins database with 230,378 BMI and smoking observations.

Cohorts by regions (country)	Number of BMI observations per twin cohort/ region (% of males)	ALL (n=230,378)			MEN (n=118,733)			WOMEN (n=111,645)		
		Smoking status			Smoking status			Smoking status		
		Never	Current	Former	Never	Current	Former	Never	Current	Former
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Total	230,378 (52)	23.9 (3.7)	23.5 (3.5)	24.8 (3.7)	24.5 (3.2)	24.2 (3.2)	25.5 (3.3)	23.5 (4.0)	22.5 (3.7)	23.6 (4.0)
Europe	165,616 (48)	23.8 (3.6)	23.2 (3.4)	24.6 (3.6)	24.3 (3.1)	24.0 (3.2)	25.3 (3.3)	23.5 (3.8)	22.3 (3.5)	23.6 (3.8)
Flanders (BEL)	801 (48)	22.1 (3.4)	22.5 (3.6)	22.4 (3.0)	22.1 (2.9)	22.6 (3.4)	23.0 (2.4)	22.1 (3.7)	22.5 (3.9)	22.0 (3.3)
FinnTwin12 (FIN)	3,149 (44)	23.1 (3.6)	23.9 (4.0)	23.8 (3.6)	24.1 (3.2)	24.5 (3.7)	24.7 (3.5)	22.4 (3.7)	23.3 (4.2)	23.1 (3.5)
FinnTwin16 (FIN)	5,054 (46)	22.9 (3.4)	23.2 (3.5)	23.5 (3.7)	23.9 (3.2)	24.0 (3.2)	24.3 (3.6)	22.2 (3.4)	22.4 (3.6)	22.8 (3.7)
FinnTwin Old (FIN)	66,230 (48)	24.0 (3.7)	23.6 (3.5)	24.9 (3.8)	24.4 (3.2)	24.3 (3.2)	25.6 (3.4)	23.8 (3.9)	22.5 (3.6)	23.7 (4.1)
Berlin (DEU)	466 (35)	23.4 (3.7)	23.6 (4.0)	25.2 (4.1)	24.0 (3.7)	24.1 (3.6)	26.4 (3.5)	23.1 (3.7)	23.4 (4.2)	24.2 (4.4)
Hungary (HUN)	554 (30)	24.4 (4.9)	24.3 (4.4)	24.9 (4.7)	25.3 (4.4)	24.7 (4.8)	27.6 (4.8)	24.0 (5.1)	24.1 (4.3)	23.6 (4.1)
Italy (ITA)	4,978 (39)	23.0 (3.7)	23.0 (3.6)	24.6 (3.9)	24.4 (3.2)	24.3 (3.1)	25.9 (3.5)	22.3 (3.7)	22.1 (3.6)	23.3 (3.8)
Norway (NOR)	19,183 (47)	23.0 (2.9)	22.6 (2.9)	23.6 (3.0)	23.6 (2.5)	23.6 (2.6)	24.4 (2.6)	22.6 (3.1)	21.7 (2.8)	22.5 (3.1)
Murcia (ESP)	2,216 (43)	27.2 (4.3)	25.9 (4.1)	27.6 (4.4)	27.5 (3.9)	27.1 (3.8)	28.4 (4.0)	27.1 (4.5)	24.9 (4.1)	26.0 (4.9)
SYMETS-adults (SWE)	3,651 (100)	23.3 (2.8)	23.3 (2.8)	23.6 (2.9)	23.3 (2.8)	23.3 (2.8)	23.6 (2.9)	-	-	-
Swedish Twin (SWE)	58,869 (47)	23.9 (3.5)	22.9 (3.4)	24.6 (3.5)	24.5 (3.1)	23.7 (3.2)	25.2 (3.2)	23.5 (3.7)	22.2 (3.4)	23.8 (3.7)
Turkey (TUR)	465 (55)	22.2 (3.3)	23.6 (3.4)	27.0 (5.3)	23.6 (2.9)	24.0 (3.2)	26.7 (4.9)	21.2 (3.3)	22.1 (3.7)	27.5 (6.1)
North America/ Australia	61,973 (61)	24.4 (4.0)	24.2 (3.7)	25.2 (3.8)	25.1 (3.3)	24.7 (3.3)	25.8 (3.4)	23.7 (4.4)	23.2 (4.4)	23.9 (4.4)

Australia (AUS)	2,357 (22)	25.0 (4.7)	25.8 (5.7)	26.3 (4.8)	25.9 (4.0)	26.7 (4.7)	27.2 (3.9)	24.7 (4.9)	25.5 (5.9)	26.0 (5.1)
Queensland (AUT)	24,826 (40)	23.9 (4.0)	23.8 (4.0)	24.3 (4.0)	24.4 (3.4)	24.6 (3.5)	25.3 (3.5)	23.6 (4.3)	23.1 (4.3)	23.5 (4.2)
WWII (USA)	21,959 (100)	25.4 (2.9)	24.6 (3.0)	25.7 (3.0)	25.4 (2.9)	24.6 (3.0)	25.7 (3.0)	-	-	-
VETSA (USA)	1,225 (100)	28.9 (4.4)	27.9 (4.5)	30.3 (4.8)	28.9 (4.4)	27.9 (4.5)	30.3 (4.8)	-	-	-
Colorado (USA)	1,819 (45)	22.9 (3.9)	23.3 (4.6)	23.2 (4.1)	23.6 (3.5)	22.9 (3.9)	23.4 (3.8)	22.3 (4.1)	23.5 (5.0)	23.0 (4.3)
Mid-Atlantic (USA)	9,787 (36)	24.1 (4.2)	23.8 (4.1)	24.9 (4.1)	24.7 (3.3)	24.7 (3.5)	25.9 (3.4)	23.8 (4.4)	23.2 (4.3)	24.1 (4.4)
East Asia	2,789 (39)	22.9 (3.2)	23.5 (3.1)	24.1 (3.1)	24.2 (3.0)	24.0 (3.0)	24.7 (2.9)	22.6 (3.2)	22.0 (3.1)	21.3 (2.4)
Korea Twin-Fam (KOR)	1,340 (38)	22.6 (2.9)	23.7 (3.3)	24.3 (2.8)	24.1 (2.7)	24.2 (3.0)	24.8 (2.7)	22.4 (2.9)	21.9 (3.7)	21.9 (2.0)
Osaka (JPN)	451 (26)	20.9 (3.0)	22.2 (2.8)	22.6 (3.2)	23.3 (3.7)	22.8 (3.6)	23.8 (2.8)	20.4 (2.5)	22.0 (2.6)	20.6 (2.8)
Qingdao (CHN)	998 (47)	24.0 (3.2)	23.9 (2.9)	25.2 (3.3)	24.6 (3.0)	23.9 (2.9)	25.2 (3.3)	23.8 (3.3)	22.3 (4.4)	0 (0)

S1 Table. Sex-specific mean body mass index (BMI) values and standard deviations (SD) by smoking status, region, and the twin cohort (country) in the CODATwins database with 230,378 BMI and smoking observations.

Cohorts by regions (country)	Number of BMI observations per twin cohort/ region (% of males)	ALL (n=230,378)			MEN (n=118,733)			WOMEN (n=111,645)		
		Smoking status			Smoking status			Smoking status		
		Never	Current	Former	Never	Current	Former	Never	Current	Former
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Total	230,378 (52)	23.9 (3.7)	23.5 (3.5)	24.8 (3.7)	24.5 (3.2)	24.2 (3.2)	25.5 (3.3)	23.5 (4.0)	22.5 (3.7)	23.6 (4.0)
Europe	165,616 (48)	23.8 (3.6)	23.2 (3.4)	24.6 (3.6)	24.3 (3.1)	24.0 (3.2)	25.3 (3.3)	23.5 (3.8)	22.3 (3.5)	23.6 (3.8)
Flanders (BEL)	801 (48)	22.1 (3.4)	22.5 (3.6)	22.4 (3.0)	22.1 (2.9)	22.6 (3.4)	23.0 (2.4)	22.1 (3.7)	22.5 (3.9)	22.0 (3.3)
FinnTwin12 (FIN)	3,149 (44)	23.1 (3.6)	23.9 (4.0)	23.8 (3.6)	24.1 (3.2)	24.5 (3.7)	24.7 (3.5)	22.4 (3.7)	23.3 (4.2)	23.1 (3.5)
FinnTwin16 (FIN)	5,054 (46)	22.9 (3.4)	23.2 (3.5)	23.5 (3.7)	23.9 (3.2)	24.0 (3.2)	24.3 (3.6)	22.2 (3.4)	22.4 (3.6)	22.8 (3.7)
FinnTwin Old (FIN)	66,230 (48)	24.0 (3.7)	23.6 (3.5)	24.9 (3.8)	24.4 (3.2)	24.3 (3.2)	25.6 (3.4)	23.8 (3.9)	22.5 (3.6)	23.7 (4.1)
Berlin (DEU)	466 (35)	23.4 (3.7)	23.6 (4.0)	25.2 (4.1)	24.0 (3.7)	24.1 (3.6)	26.4 (3.5)	23.1 (3.7)	23.4 (4.2)	24.2 (4.4)
Hungary (HUN)	554 (30)	24.4 (4.9)	24.3 (4.4)	24.9 (4.7)	25.3 (4.4)	24.7 (4.8)	27.6 (4.8)	24.0 (5.1)	24.1 (4.3)	23.6 (4.1)
Italy (ITA)	4,978 (39)	23.0 (3.7)	23.0 (3.6)	24.6 (3.9)	24.4 (3.2)	24.3 (3.1)	25.9 (3.5)	22.3 (3.7)	22.1 (3.6)	23.3 (3.8)
Norway (NOR)	19,183 (47)	23.0 (2.9)	22.6 (2.9)	23.6 (3.0)	23.6 (2.5)	23.6 (2.6)	24.4 (2.6)	22.6 (3.1)	21.7 (2.8)	22.5 (3.1)
Murcia (ESP)	2,216 (43)	27.2 (4.3)	25.9 (4.1)	27.6 (4.4)	27.5 (3.9)	27.1 (3.8)	28.4 (4.0)	27.1 (4.5)	24.9 (4.1)	26.0 (4.9)
SYMETS-adults (SWE)	3,651 (100)	23.3 (2.8)	23.3 (2.8)	23.6 (2.9)	23.3 (2.8)	23.3 (2.8)	23.6 (2.9)	-	-	-
Swedish Twin (SWE)	58,869 (47)	23.9 (3.5)	22.9 (3.4)	24.6 (3.5)	24.5 (3.1)	23.7 (3.2)	25.2 (3.2)	23.5 (3.7)	22.2 (3.4)	23.8 (3.7)
Turkey (TUR)	465 (55)	22.2 (3.3)	23.6 (3.4)	27.0 (5.3)	23.6 (2.9)	24.0 (3.2)	26.7 (4.9)	21.2 (3.3)	22.1 (3.7)	27.5 (6.1)
North America/ Australia	61,973 (61)	24.4 (4.0)	24.2 (3.7)	25.2 (3.8)	25.1 (3.3)	24.7 (3.3)	25.8 (3.4)	23.7 (4.4)	23.2 (4.4)	23.9 (4.4)

Australia (AUS)	2,357 (22)	25.0 (4.7)	25.8 (5.7)	26.3 (4.8)	25.9 (4.0)	26.7 (4.7)	27.2 (3.9)	24.7 (4.9)	25.5 (5.9)	26.0 (5.1)
Queensland (AUT)	24,826 (40)	23.9 (4.0)	23.8 (4.0)	24.3 (4.0)	24.4 (3.4)	24.6 (3.5)	25.3 (3.5)	23.6 (4.3)	23.1 (4.3)	23.5 (4.2)
WWII (USA)	21,959 (100)	25.4 (2.9)	24.6 (3.0)	25.7 (3.0)	25.4 (2.9)	24.6 (3.0)	25.7 (3.0)	-	-	-
VETSA (USA)	1,225 (100)	28.9 (4.4)	27.9 (4.5)	30.3 (4.8)	28.9 (4.4)	27.9 (4.5)	30.3 (4.8)	-	-	-
Colorado (USA)	1,819 (45)	22.9 (3.9)	23.3 (4.6)	23.2 (4.1)	23.6 (3.5)	22.9 (3.9)	23.4 (3.8)	22.3 (4.1)	23.5 (5.0)	23.0 (4.3)
Mid-Atlantic (USA)	9,787 (36)	24.1 (4.2)	23.8 (4.1)	24.9 (4.1)	24.7 (3.3)	24.7 (3.5)	25.9 (3.4)	23.8 (4.4)	23.2 (4.3)	24.1 (4.4)
East Asia	2,789 (39)	22.9 (3.2)	23.5 (3.1)	24.1 (3.1)	24.2 (3.0)	24.0 (3.0)	24.7 (2.9)	22.6 (3.2)	22.0 (3.1)	21.3 (2.4)
Korea Twin-Fam (KOR)	1,340 (38)	22.6 (2.9)	23.7 (3.3)	24.3 (2.8)	24.1 (2.7)	24.2 (3.0)	24.8 (2.7)	22.4 (2.9)	21.9 (3.7)	21.9 (2.0)
Osaka (JPN)	451 (26)	20.9 (3.0)	22.2 (2.8)	22.6 (3.2)	23.3 (3.7)	22.8 (3.6)	23.8 (2.8)	20.4 (2.5)	22.0 (2.6)	20.6 (2.8)
Qingdao (CHN)	998 (47)	24.0 (3.2)	23.9 (2.9)	25.2 (3.3)	24.6 (3.0)	23.9 (2.9)	25.2 (3.3)	23.8 (3.3)	22.3 (4.4)	0 (0)

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		Smoking status			Smoking status			Smoking status		
		Never	Current	Former	Never	Current	Former	Never	Current	Former
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Total	230,378 (52)	23.9 (3.7)	23.5 (3.5)	24.8 (3.7)	24.5 (3.2)	24.2 (3.2)	25.5 (3.3)	23.5 (4.0)	22.5 (3.7)	23.6 (4.0)
Europe	165,616 (48)	23.8 (3.6)	23.2 (3.4)	24.6 (3.6)	24.3 (3.1)	24.0 (3.2)	25.3 (3.3)	23.5 (3.8)	22.3 (3.5)	23.6 (3.8)
Flanders (BEL)	801 (48)	22.1 (3.4)	22.5 (3.6)	22.4 (3.0)	22.1 (2.9)	22.6 (3.4)	23.0 (2.4)	22.1 (3.7)	22.5 (3.9)	22.0 (3.3)
FinnTwin12 (FIN)	3,149 (44)	23.1 (3.6)	23.9 (4.0)	23.8 (3.6)	24.1 (3.2)	24.5 (3.7)	24.7 (3.5)	22.4 (3.7)	23.3 (4.2)	23.1 (3.5)
FinnTwin16 (FIN)	5,054 (46)	22.9 (3.4)	23.2 (3.5)	23.5 (3.7)	23.9 (3.2)	24.0 (3.2)	24.3 (3.6)	22.2 (3.4)	22.4 (3.6)	22.8 (3.7)
FinnTwin Old (FIN)	66,230 (48)	24.0 (3.7)	23.6 (3.5)	24.9 (3.8)	24.4 (3.2)	24.3 (3.2)	25.6 (3.4)	23.8 (3.9)	22.5 (3.6)	23.7 (4.1)
Berlin (DEU)	466 (35)	23.4 (3.7)	23.6 (4.0)	25.2 (4.1)	24.0 (3.7)	24.1 (3.6)	26.4 (3.5)	23.1 (3.7)	23.4 (4.2)	24.2 (4.4)
Hungary (HUN)	554 (30)	24.4 (4.9)	24.3 (4.4)	24.9 (4.7)	25.3 (4.4)	24.7 (4.8)	27.6 (4.8)	24.0 (5.1)	24.1 (4.3)	23.6 (4.1)
Italy (ITA)	4,978 (39)	23.0 (3.7)	23.0 (3.6)	24.6 (3.9)	24.4 (3.2)	24.3 (3.1)	25.9 (3.5)	22.3 (3.7)	22.1 (3.6)	23.3 (3.8)
Norway (NOR)	19,183 (47)	23.0 (2.9)	22.6 (2.9)	23.6 (3.0)	23.6 (2.5)	23.6 (2.6)	24.4 (2.6)	22.6 (3.1)	21.7 (2.8)	22.5 (3.1)
Murcia (ESP)	2,216 (43)	27.2 (4.3)	25.9 (4.1)	27.6 (4.4)	27.5 (3.9)	27.1 (3.8)	28.4 (4.0)	27.1 (4.5)	24.9 (4.1)	26.0 (4.9)
SYMETS-adults (SWE)	3,651 (100)	23.3 (2.8)	23.3 (2.8)	23.6 (2.9)	23.3 (2.8)	23.3 (2.8)	23.6 (2.9)	-	-	-
Swedish Twin (SWE)	58,869 (47)	23.9 (3.5)	22.9 (3.4)	24.6 (3.5)	24.5 (3.1)	23.7 (3.2)	25.2 (3.2)	23.5 (3.7)	22.2 (3.4)	23.8 (3.7)
Turkey (TUR)	465 (55)	22.2 (3.3)	23.6 (3.4)	27.0 (5.3)	23.6 (2.9)	24.0 (3.2)	26.7 (4.9)	21.2 (3.3)	22.1 (3.7)	27.5 (6.1)
North America/ Australia	61,973 (61)	24.4 (4.0)	24.2 (3.7)	25.2 (3.8)	25.1 (3.3)	24.7 (3.3)	25.8 (3.4)	23.7 (4.4)	23.2 (4.4)	23.9 (4.4)

Australia (AUS)	2,357 (22)	25.0 (4.7)	25.8 (5.7)	26.3 (4.8)	25.9 (4.0)	26.7 (4.7)	27.2 (3.9)	24.7 (4.9)	25.5 (5.9)	26.0 (5.1)
Queensland (AUT)	24,826 (40)	23.9 (4.0)	23.8 (4.0)	24.3 (4.0)	24.4 (3.4)	24.6 (3.5)	25.3 (3.5)	23.6 (4.3)	23.1 (4.3)	23.5 (4.2)
WWII (USA)	21,959 (100)	25.4 (2.9)	24.6 (3.0)	25.7 (3.0)	25.4 (2.9)	24.6 (3.0)	25.7 (3.0)	-	-	-
VETSA (USA)	1,225 (100)	28.9 (4.4)	27.9 (4.5)	30.3 (4.8)	28.9 (4.4)	27.9 (4.5)	30.3 (4.8)	-	-	-
Colorado (USA)	1,819 (45)	22.9 (3.9)	23.3 (4.6)	23.2 (4.1)	23.6 (3.5)	22.9 (3.9)	23.4 (3.8)	22.3 (4.1)	23.5 (5.0)	23.0 (4.3)
Mid-Atlantic (USA)	9,787 (36)	24.1 (4.2)	23.8 (4.1)	24.9 (4.1)	24.7 (3.3)	24.7 (3.5)	25.9 (3.4)	23.8 (4.4)	23.2 (4.3)	24.1 (4.4)
East Asia	2,789 (39)	22.9 (3.2)	23.5 (3.1)	24.1 (3.1)	24.2 (3.0)	24.0 (3.0)	24.7 (2.9)	22.6 (3.2)	22.0 (3.1)	21.3 (2.4)
Korea Twin-Fam (KOR)	1,340 (38)	22.6 (2.9)	23.7 (3.3)	24.3 (2.8)	24.1 (2.7)	24.2 (3.0)	24.8 (2.7)	22.4 (2.9)	21.9 (3.7)	21.9 (2.0)
Osaka (JPN)	451 (26)	20.9 (3.0)	22.2 (2.8)	22.6 (3.2)	23.3 (3.7)	22.8 (3.6)	23.8 (2.8)	20.4 (2.5)	22.0 (2.6)	20.6 (2.8)
Qingdao (CHN)	998 (47)	24.0 (3.2)	23.9 (2.9)	25.2 (3.3)	24.6 (3.0)	23.9 (2.9)	25.2 (3.3)	23.8 (3.3)	22.3 (4.4)	0 (0)