

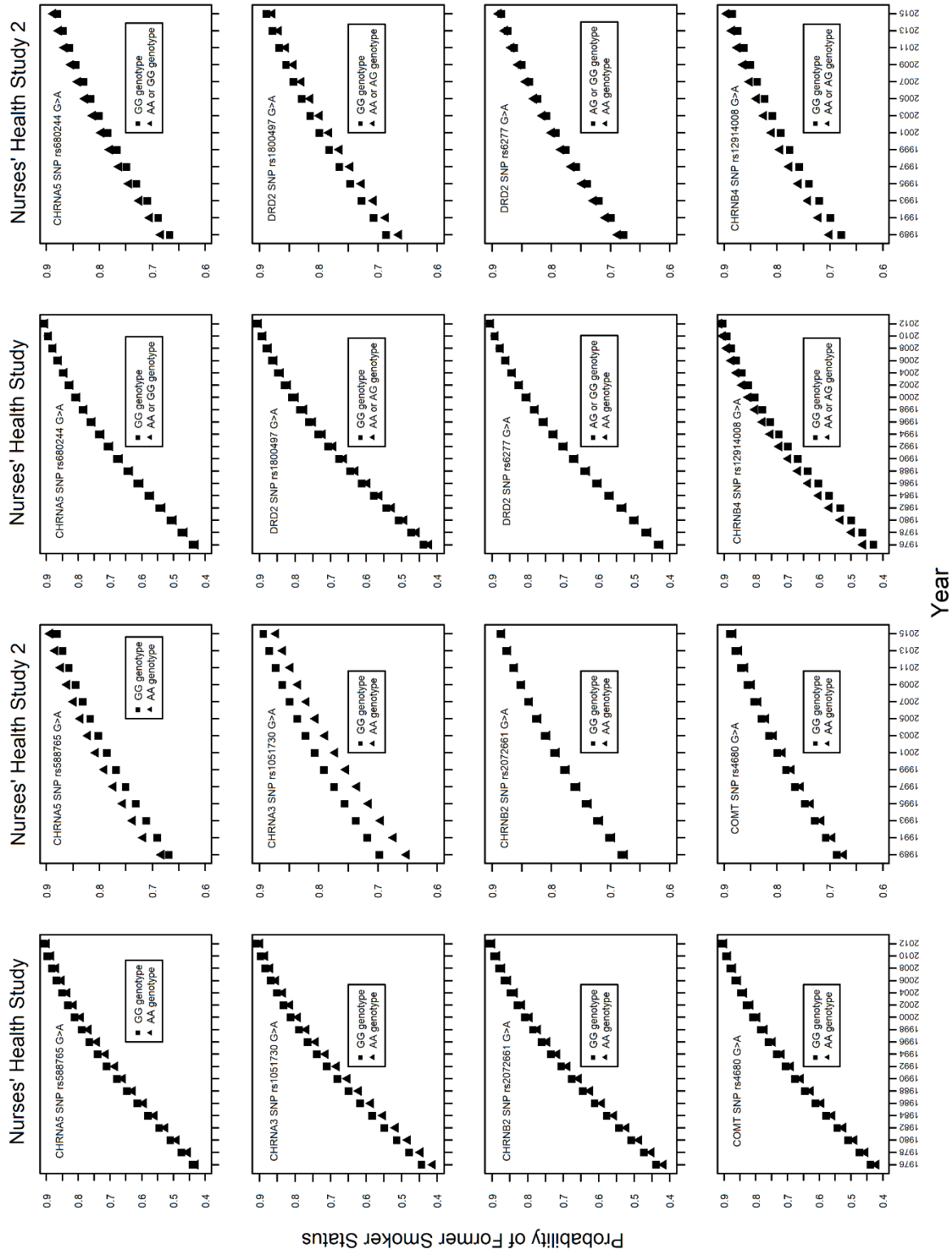
Supplementary Table 1. Study population genotype frequencies					
		Nurses' Health Study (N = 10,017)		Nurses' Health Study 2 (N = 2,793)	
SNP		n	%	n	%
SNP rs16969968 G>A	GG	4,356	43.5	1,201	43.0
	AG	4,458	44.5	1,251	44.8
	AA	1,203	12.0	341	12.2
SNP rs588765 T>C	TT	2,398	23.9	651	23.3
	CT	4,895	48.9	1,373	49.2
	CC	2,724	27.2	769	27.5
SNP rs680244 T>C	TT	2,401	24.0	651	23.3
	CT	4,907	49.0	1,373	49.2
	CC	2,709	27.0	769	27.5
SNP rs578776 G>A	GG	5,214	52.0	1,496	53.6
	AG	4,038	40.3	1,089	39.0
	AA	765	7.6	208	7.4
SNP rs1051730 G>A	GG	4,346	43.4	1,203	43.1
	AG	4,466	44.6	1,243	44.5
	AA	1,205	12.0	347	12.4
SNP rs12914008 G>A	GG	9,236	92.2	2,553	91.4
	AG	759	7.6	239	8.6
	AA	22	0.2	1	0.0
SNP rs1800497 G>A	GG	6,588	65.8	1,856	66.4
	AG	3,100	30.9	837	30.0
	AA	329	3.3	100	3.6
SNP rs2072661 G>A	GG	5,588	55.8	1,581	56.6
	AG	3,785	37.8	1,040	37.2
	AA	644	6.4	172	6.2
SNP rs6277 G>A	GG	2,500	25.0	791	28.3
	AG	4,915	49.0	1,355	48.5
	AA	2,602	26.0	647	23.2
SNP rs4680 G>A	GG	2,486	24.8	688	24.6
	AG	5,008	50.0	1,410	50.5
	AA	2,523	25.2	695	24.9

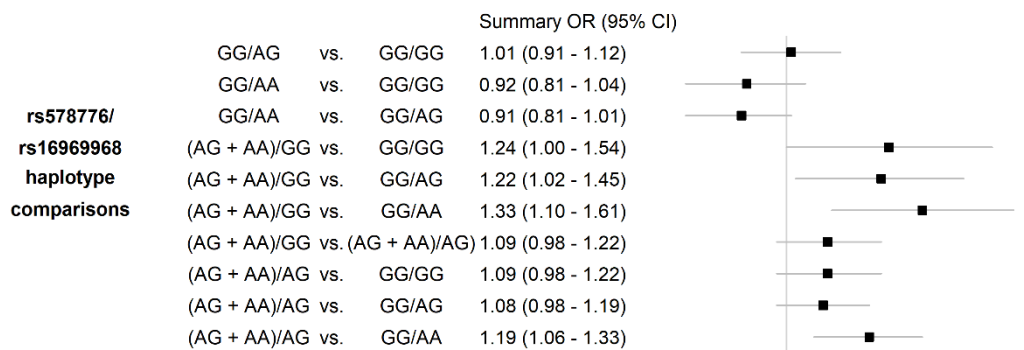
Supplementary Table 2. Odds ratio (95% confidence interval) of smoking cessation for all genetic models tested for the 10 single nucleotide polymorphisms evaluated (<65 years of age)

SNP	Statistical Model	Study	Additive	Recessive	Dominant	Codominant	
			Aa vs. AA	aa vs (Aa + AA)	(aa + Aa) vs AA	Aa vs AA	aa vs. AA
rs16969968	Unadjusted	NHS	0.93 (0.88, 0.98)	0.86 (0.78, 0.96)	0.92 (0.86, 0.99)	0.95 (0.88, 1.02)	0.84 (0.75, 0.94)
		NHS-2	0.87 (0.78, 0.96)	0.80 (0.64, 1.00)	0.84 (0.73, 0.97)	0.87 (0.75, 1.02)	0.75 (0.59, 0.94)
rs16969968	Adjusted	NHS	0.94 (0.89, 0.99)	0.89 (0.80, 0.99)	0.93 (0.87, 1.01)	0.95 (0.88, 1.03)	0.87 (0.77, 0.98)
		NHS-2	0.90 (0.80, 1.00)	0.84 (0.67, 1.05)	0.88 (0.76, 1.02)	0.91 (0.78, 1.06)	0.80 (0.63, 1.01)
rs578776	Unadjusted	NHS	1.10 (1.04, 1.16)	1.10 (0.97, 1.26)	1.13 (1.05, 1.21)	1.13 (1.05, 1.21)	1.16 (1.01, 1.33)
		NHS-2	1.26 (1.12, 1.41)	1.42 (1.07, 1.89)	1.31 (1.14, 1.51)	1.27 (1.09, 1.48)	1.56 (1.17, 2.09)
rs578776	Adjusted	NHS	1.09 (1.03, 1.16)	1.08 (0.95, 1.24)	1.13 (1.05, 1.21)	1.12 (1.04, 1.21)	1.14 (0.99, 1.31)
		NHS-2	1.21 (1.08, 1.37)	1.33 (0.99, 1.79)	1.26 (1.08, 1.46)	1.23 (1.05, 1.43)	1.45 (1.07, 1.96)
rs1051730	Unadjusted	NHS	0.92 (0.88, 0.97)	0.86 (0.78, 0.96)	0.92 (0.86, 0.99)	0.95 (0.88, 1.02)	0.84 (0.75, 0.94)
		NHS-2	0.87 (0.78, 0.97)	0.80 (0.64, 0.99)	0.85 (0.74, 0.98)	0.88 (0.76, 1.03)	0.75 (0.59, 0.94)
rs1051730	Adjusted	NHS	0.94 (0.89, 0.99)	0.88 (0.79, 0.99)	0.93 (0.87, 1.00)	0.95 (0.88, 1.03)	0.86 (0.77, 0.97)
		NHS-2	0.90 (0.81, 1.00)	0.84 (0.67, 1.04)	0.89 (0.77, 1.03)	0.92 (0.78, 1.07)	0.80 (0.63, 1.01)
rs1800497	Unadjusted	NHS	0.96 (0.90 - 1.02)	1.11 (0.92, 1.35)	0.93 (0.87, 1.00)	0.92 (0.85, 0.99)	1.08 (0.89, 1.32)
		NHS-2	0.93 (0.82, 1.05)	1.13 (0.77, 1.67)	0.89 (0.76, 1.03)	0.87 (0.74, 1.01)	1.08 (0.73, 1.60)
rs1800497	Adjusted	NHS	0.96 (0.90, 1.03)	1.11 (0.91, 1.35)	0.94 (0.87, 1.01)	0.92 (0.86, 1.00)	1.08 (0.88, 1.32)
		NHS-2	0.94 (0.83, 1.07)	1.11 (0.75, 1.65)	0.90 (0.78, 1.05)	0.89 (0.76, 1.04)	1.07 (0.72, 1.59)
rs680244	Unadjusted	NHS	0.99 (0.94, 1.04)	0.99 (0.91, 1.07)	0.98 (0.90, 1.06)	0.98 (0.90, 1.07)	0.97 (0.88, 1.07)
		NHS-2	1.00 (0.91, 1.11)	0.97 (0.83, 1.14)	1.04 (0.88, 1.23)	1.06 (0.88, 1.26)	1.01 (0.83, 1.23)
rs680244	Adjusted	NHS	0.97 (0.92, 1.02)	0.96 (0.89, 1.05)	0.96 (0.88, 1.05)	0.97 (0.89, 1.06)	0.94 (0.85, 1.05)
		NHS-2	1.02 (0.92, 1.13)	0.99 (0.84, 1.16)	1.08 (0.91, 1.28)	1.09 (0.91, 1.31)	1.05 (0.85, 1.28)
rs588765	Unadjusted	NHS	0.99 (0.94, 1.04)	0.99 (0.91, 1.07)	0.98 (0.90, 1.06)	0.98 (0.90, 1.07)	0.97 (0.88, 1.07)
		NHS-2	0.99 (0.90, 1.10)	0.96 (0.82, 1.13)	1.03 (0.87, 1.21)	1.05 (0.88, 1.25)	0.99 (0.81, 1.21)
rs588765	Adjusted	NHS	0.97 (0.92, 1.02)	0.96 (0.89, 1.05)	0.96 (0.88, 1.05)	0.97 (0.89, 1.06)	0.94 (0.85, 1.04)
		NHS-2	1.01 (0.91, 1.12)	0.98 (0.83, 1.15)	1.07 (0.90, 1.26)	1.08 (0.90, 1.30)	1.03 (0.84, 1.27)
rs12914008	Unadjusted				1.13 (0.99, 1.29)		
					1.10 (0.84, 1.43)		
rs12914008	Adjusted				1.14 (1.00, 1.31)		
					1.11 (0.85, 1.45)		
rs2072661	Unadjusted	NHS	0.95 (0.90, 1.01)	0.89 (0.78, 1.03)	0.95 (0.87, 1.02)	0.96 (0.90, 1.04)	0.88 (.0.76, 1.01)
		NHS-2	0.98 (0.88, 1.10)	1.06 (0.78, 1.43)	0.96 (0.83, 1.11)	0.95 (0.82, 1.10)	1.03 (0.76, 1.40)
rs2072661	Adjusted	NHS	0.96 (0.90, 1.02)	0.93 (0.80, 1.07)	0.95 (0.89, 1.03)	0.96 (0.89, 1.04)	0.91 (0.79, 1.05)
		NHS-2	0.99 (0.88, 1.11)	1.08 (0.79, 1.46)	0.96 (0.83, 1.12)	0.95 (0.81, 1.11)	1.05 (0.77, 1.43)
rs6277	Unadjusted	NHS	0.99 (0.94, 1.03)	0.98 (0.91, 1.05)	0.98 (0.91, 1.06)	0.99 (0.91, 1.08)	0.97 (0.89, 1.06)
		NHS-2	1.02 (0.92, 1.12)	1.05 (0.89, 1.25)	1.00 (0.86, 1.17)	0.98 (0.83, 1.16)	1.04 (0.85, 1.27)
rs6277	Adjusted	NHS	0.98 (0.94, 1.03)	0.97 (0.89, 1.04)	0.98 (0.90, 1.06)	0.99 (0.91, 1.08)	0.96 (0.88, 1.05)
		NHS-2	1.02 (0.92, 1.13)	1.04 (0.88, 1.24)	1.01 (0.86, 1.19)	1.00 (0.84, 1.18)	1.04 (0.85, 1.27)
rs4680	Unadjusted	NHS	0.97 (0.92, 1.02)	0.93 (0.86, 1.01)	0.98 (0.90, 1.05)	1.00 (0.92, 1.09)	0.94 (0.85, 1.03)
		NHS-2	0.99 (0.90, 1.08)	1.02 (0.87, 1.19)	0.94 (0.80, 1.11)	0.93 (0.78, 1.11)	0.97 (0.80, 1.18)
rs4680	Adjusted	NHS	0.96 (0.92, 1.01)	0.92 (0.85, 1.00)	0.97 (0.89, 1.05)	0.99 (0.91, 1.08)	0.92 (0.84, 1.02)
		NHS-2	0.97 (0.88, 1.07)	1.00 (0.85, 1.18)	0.92 (0.78, 1.08)	0.91 (0.76, 1.08)	0.94 (0.77, 1.15)

A = Major allele, a = minor allele, AA = homozygous for major allele, aa = homozygous for minor allele, Aa = heterozygous

Supplementary Figure 1. Probability of former smoker status over time by SNP genotype





Haplotype		NHS	NHS-2
rs578776	rs16969968	Frequency	Frequency
GG	GG	1435	408
GG	AG	2579	747
GG	AA	1200	341
AG + AA	GG	2921	793
AG + AA	AG*	1882	504

Supplementary Figure 2. Single nucleotide polymorphisms rs578776 and rs16969968 haplotype comparisons.

NHS = Nurses' Health Study, NHS-2 = Nurses' Health Study

* includes n = 3 NHS participants with AA genotype for rs16969968