Supplementary Table 1: Association of SNPs with type 2 diabetes in Delhi and Pune studies before and after adjustments for covariates

SNP (Gene)	Delhi					Pune					Combined				
	n Cases/ Controls	OR* (95% CI)	p*	OR† (95% CI)	p†	n Cases/ Controls	OR* (95% CI)	p*	OR† (95% CI)	p†	n Cases/ Controls	OR* (95% CI)	p*	OR‡ (95% CI)	p‡
rs1801282 (*PPARG*)	1019/ 1004	1.29 (1.06-1.54)	0.009	1.30 (1.08-1.57)	0.006	1422/ 1553	1.43 (1.21-1.69)	2.5×10^{-5}	1.47 (1.15-1.88)	1.8×10^{-3}	2441/ 2557	1.35 (1.20-1.53)	1.4×10^{-6}	1.37 (1.19-1.59)	1.6×10^{-5}
rs5219 (*KCNJ11*)	1017/ 1006	1.19 (1.05-1.36)	0.009	1.17 (1.02-1.33)	0.02	1417/ 1397	1.67 (1.49-1.86)	6.4×10^{-19}	1.84 (1.55-2.18)	4.4×10^{-12}	2434/ 2403	1.44 (1.33-1.57)	1.8×10^{-17}	1.39 (1.26-1.54)	6.7×10^{-11}
rs7903146 (*TCF7L2*)	1017/ 1006	1.64 (1.44-1.88)	2.1×10^{-13}	1.67 (1.46-1.92)	1.7×10^{-13}	1423/ 1515	2.07 (1.85-2.33)	4.6×10^{-35}	2.10 (1.77-2.49)	1.7×10^{-17}	2439/ 2521	1.88 (1.72-2.05)	$4..2 \times 10^{-46}$	1.89 (1.71-2.09)	4.6×10^{-34}
rs13266634 (*SLC30A8*)	1010/ 1000	1.29 (1.12-1.50)	0.0006	1.32 (1.13-1.53)	0.0003	1456/ 1539	1.23 (1.08-1.39)	1.2×10^{-3}	1.25 (1.04-1.51)	0.02	2466/ 2539	1.25 (1.14-1.38)	3.7×10^{-6}	1.34 (1.20-1.50)	3.4×10^{-7}
rs1111875 (*HHEX*)	1018/ 1003	1.23 (1.09-1.40)	0.001	1.29 (1.13-1.47)	0.0001	1454/ 1598	1.15 (1.04-1.27)	6.3×10^{-3}	1.20 (1.03-1.39)	0.02	2472/ 2601	1.18 (1.09-1.28)	3.1×10^{-5}	1.27 (1.16-1.39)	5.7×10^{-7}
rs10811661 (*CDKN2A*)	1019/ 1006	1.28 (1.06-1.55)	0.01	1.30 (1.07-1.59)	0.009	1431/ 1086	1.38(1.16-1.63)	1.8×10^{-4}	1.43 (1.09-1.87)	0.01	2450/ 2092	1.33 (1.18-1.51)	7.7×10^{-6}	1.37 (1.18-1.59)	5.1×10^{-5}
rs4402960 (*IGF2BP2*)	1019/ 1006	1.16 (1.02-1.31)	0.02	1.18 (1.03-1.33)	0.02	1444/ 868	1.18 (1.04-1.32)	7.4×10^{-3}	1.30 (1.08-1.56)	5.5×10^{-3}	2463/ 1874	1.19 (1.09-1.30)	6.0×10^{-5}	1.20 (1.09-1.33)	2.6×10^{-3}
rs10946398 (*CDKAL1*)	1006/ 990	1.15 (1.00-1.32)	0.04	1.19 (1.03-1.38)	0.02	1456/ 1512	1.08 (0.96-1.21)	0.20	1.17 (0.98-1.38)	0.08	2462/ 2501	1.11 (1.01-1.21)	0.03	1.18 (1.07-1.32)	1.6×10^{-3}

n represents the number of subjects genotyped; * Odds ratio unadjusted for covariates; † Odds ratio adjusted for sex, age and BMI; ‡ Odds ratio adjusted for sex, age, BMI and geographical region (Delhi and Pune).

Supplementary Table 2: Meta-analysis performed by combining the summary data of the two studies

Gene	SNP	P (F)	P (R)	OR (F)	OR (R)	Q	I
PPARG	rs1801282	4.3×10^{-5}	4.4×10^{-5}	1.36	1.36	0.44	0
KCNJ11	rs5219	1.7×10^{-9}	0.10	1.38	1.46	0.00	94.04
TCF7L2	rs7903146	1.7×10^{-28}	4.2×10^{-8}	1.83	1.86	0.04	75.86
SLC30A8	rs13266634	2.0×10^{-5}	2.0×10^{-5}	1.29	1.29	0.65	0
HHEX	rs1111875	7.7×10^{-6}	7.7×10^{-6}	1.25	1.25	0.47	0
CDKN2A	rs10811661	2.8×10^{-4}	2.8×10^{-4}	1.34	1.34	0.60	0
IGF2BP2	rs4402960	4.2×10^{-4}	4.2×10^{-4}	1.21	1.21	0.36	0
CDKAL1	rs10946398	2.9×10^{-3}	2.9×10^{-3}	1.18	1.18	0.85	0

P (F): Fixed-effects meta-analysis p-value; P (R): Random-effects meta-analysis p-value; OR (F): Fixed-effects OR estimate; OR (R): Random-effects OR estimate; Q: p-value for Cochrane's Q statistic; I: I^2 heterogeneity index (0-100)

Supplementary Table 3: *A priori* **and posterior power calculations for Delhi, Pune and combined studies**

Gene	SNP	RAF in controls[†]	OR[‡]	a priori Power						Posterior Power					
				Delhi		Pune		Combined		Delhi		Pune		Combined	
				$\alpha = 0.05$	$\alpha = 0.0062$	$\alpha = 0.05$	$\alpha = 0.0062$	$\alpha = 0.05$	$\alpha = 0.0062$	$\alpha = 0.05$	$\alpha = 0.0062$	$\alpha = 0.05$	$\alpha = 0.0062$	$\alpha = 0.05$	$\alpha = 0.0062$
PPARG	rs1801282	0.86	1.14	30	10	42	16	62	32	79	52	99	98	99	99
KCNJ11	rs5219	0.47	1.14	55	26	73	58	91	72	67	38	99	99	99	99
TCF7L2	rs7903146	0.26	1.37	99	96	99	99	99	99	99	99	99	99	99	99
SLC30A8	rs13266634	0.65	1.12	40	15	56	26	77	49	96	83	94	79	99	99
HHEX	rs1111875	0.53	1.13	49	21	67	37	87	64	98	91	95	80	99	99
CDKN2A	rs10811661	0.83	1.20	57	27	75	46	92	74	76	48	99	97	99	99
IGF2BP2	rs4402960	0.29	1.14	48	20	66	36	86	62	74	46	99	99	99	97
CDKAL1	rs10946398	0.31	1.12	39	15	55	26	76	48	64	34	79	51	95	82

Data are presented as percentages. Power calculations of the study were done assuming a log additive model with disease prevalence of 10%
[†] The risk allele frequencies for Europeans, DGI (9)
[‡] The ORs for Europeans, combined study of DGI, FUSION and WTCCC (9)

Supplementary Table 4: HWE P-values and call rates of Delhi and Pune studies

Gene	SNP	Delhi			Pune		
		HWE P-values in cases[†]	HWE P-values in controls[†]	Call rate (%)	HWE P-values in cases[†]	HWE P-values in controls[†]	Call rates (%)
PPARG	rs1801282	0.35	0.19	99	0.05	0.64	95
KCNJ11	rs5219	0.05	0.84	99	0.91	0.60	90
TCF7L2	rs7903146	0.43	0.59	99	0.003	0.44	94
SLC30A8	rs13266634	1.00	0.87	99	0.61	1.00	95
HHEX	rs1111875	0.12	0.90	99	0.34	0.96	97
CDKN2A	rs10811661	0.87	0.34	100	0.33	0.21	80
IGF2BP2	rs4402960	0.66	0.30	100	0.60	0.19	74
CDKAL1	rs10946398	**3.4×10^{-8}**	0.005	98	0.47	0.89	95

HWE, Hardy-Weinberg equilibrium
[†] P-value of <0.0031 ($\alpha = 0.05/16$) was considered significant

Supplementary Table 5: Association of SNPs with quantitative traits (measures of obesity and lipid profile) in combined controls

Gene SNP	Genotypes Major Hetero Minor	n	BMI (Kg/m²)		WHR		Total Cholesterol (mmol/l)		Triglyceride (mmol/l)		HDL-C (mmol/l)	
			Median (IQR)	P†	Median (IQR)	P†	Median (IQR)	P‡	Median (IQR)	P‡	Median (IQR)	P‡
PPARG rs1801282 (C/G)	CC CG GG	1932 578 47	21.64 (18.91-24.95) 21.40 (18.60-24.63) 21.78 (19.51-25.16)	0.91	0.88 (0.79-0.95) 0.88 (0.79-0.95) 0.88 (0.83-0.97)	0.71	3.97 (3.41-4.64) 4.03 (3.41-4.69) 3.78 (3.37-4.56)	0.32	1.01 (0.71-1.49) 0.99 (0.71-1.47) 1.13 (0.80-1.46)	0.75	0.85 (0.53-1.13) 0.85 (0.51-1.10) 0.70 (0.48-1.03)	0.67
KCNJ11 rs5219 (C/T)	CC CT TT	1143 1016 244	21.57 (18.76-24.45) 21.53 (18.93-25.11) 22.39 (19.22-25.39)	0.63	0.87 (0.79-0.94) 0.89 (0.82-0.96) 0.89 (0.81-0.97)	0.01*	3.90 (3.38-4.57) 4.03 (3.46-4.67) 4.10 (3.47-4.79)	0.81	0.99 (0.71-1.45) 1.03 (0.74-1.52) 1.08 (0.71-1.61)	0.74	0.86 (0.54-1.13) 0.79 (0.50-1.08) 0.70 (0.44-1.08)	0.35
TCF7L2 rs7903146 (C/T)	CC CT TT	1449 919 153	21.45 (18.69-24.61) 21.72 (19.03-25.23) 21.74 (19.34-24.77)	0.74	0.87 (0.79-0.94) 0.89 (0.81-0.95) 0.88 (0.81-0.94)	0.75	3.92 (3.41-4.60) 4.00 (3.41-4.67) 4.13 (3.41-4.74)	0.74	0.97 (0.70-1.45) 1.04 (0.76-1.55) 1.03 (0.74-1.51)	0.99	0.89 (0.56-1.13) 0.77 (0.48-1.08) 0.71 (0.47-1.04)	0.90
SLC30A8 rs13266634 (C/T)	CC CT TT	1487 911 141	21.54 (18.71-24.80) 21.64 (19.00-25.22) 22.20 (19.49-25.16)	0.62	0.88 (0.79-0.94) 0.88 (0.80-0.95) 0.89 (0.81-0.95)	0.63	3.92 (3.38-4.61) 4.04 (3.44-4.69) 3.90 (3.38-4.63)	0.54	0.99 (0.71-1.49) 1.03 (0.73-1.46) 0.96 (0.69-1.47)	0.18	0.87 (0.54-1.13) 0.82 (0.51-1.10) 0.82 (0.50-1.10)	0.54
HHEX rs1111875 (A/G)	AA AG GG	847 1274 480	21.72 (19.17-24.88) 21.59 (18.75-24.96) 21.08 (18.88-24.69)	0.37	0.88 (0.80-0.95) 0.88 (0.80-0.95) 0.88 (0.80-0.94)	0.86	3.99 (3.42-4.67) 3.97 (3.41-4.62) 3.95 (3.38-4.61)	0.61	1.01 (0.72-1.48) 1.00 (0.72-1.45) 0.99 (0.74-1.56)	0.07	0.87 (0.54-1.13) 0.83 (0.52-1.13) 0.82 (0.54-1.10)	0.05
CDKN2A rs10811661 (T/C)	TT TC CC	1554 497 41	21.31 (18.79-24.86) 21.10 (18.60-25.08) 19.95 (18.15-22.82)	0.61	0.89 (0.82-0.95) 0.88 (0.81-0.95) 0.88 (0.79-0.96)	0.21	3.99 (3.44-4.65) 3.95 (3.38-4.62) 3.46 (3.10-4.05)	0.14	1.01 (0.73-1.49) 1.01 (0.73-1.54) 0.82 (0.58-1.26)	0.22	0.77 (0.48-1.08) 0.78 (0.47-1.08) 0.82 (0.58-1.03)	0.06
IGF2BP2 rs4402960 (G/T)	GG GT TT	591 919 364	21.56 (18.79-25.63) 21.68 (18.92-24.92) 21.68 (18.92-24.92)	0.95	0.90 (0.83-0.97) 0.89 (0.82-0.96) 0.89 (0.81-0.95)	0.10	4.03 (3.44-4.72) 4.03 (3.44-4.67) 3.95 (3.42-4.63)	0.96	1.11 (0.77-1.61) 1.04 (0.74-1.54) 1.03 (0.76-1.47)	0.53	0.68 (0.46-1.03) 0.69 (0.45-1.06) 0.77 (0.48-1.10)	0.31
CDKAL1 rs10946398 (A/C)	AA AC CC	1466 875 160	21.63 (18.96-24.97) 21.39 (18.94-24.61) 20.94 (18.57-24.76)	0.68	0.88 (0.81-0.95) 0.88 (0.79-0.95) 0.87 (0.78-0.93)	0.17	3.97 (3.41-4.66) 3.97 (3.36-4.59) 3.93 (3.43-4.59)	0.65	1.03 (0.73-1.50) 0.97 (0.69-1.44) 0.99 (0.74-1.53)	0.66	0.81 (0.51-1.08) 0.90 (0.55-1.15) 0.92 (0.58-1.15)	0.66

n represents the number of individuals. Data are presented as median (Interquartile range).
† Analysis adjusted for sex, age and geographical region
‡ Analysis adjusted for sex, age, BMI and geographical region
* Significant P-value

Supplementary Table 6: Association of SNPs with quantitative traits (measures of obesity and lipid profile) in Delhi study

Gene SNP	Genotypes Major Hetero Minor	n	BMI (Kg/m^2) Median (IQR)	P†	WHR Median (IQR)	P†	Total Cholesterol (mmol/l) Median (IQR)	P‡	Triglyceride (mmol/l) Median (IQR)	P‡	HDL-C (mmol/l) Median (IQR)	P‡
PPARG rs1801282 (C/G)	CC CG GG	746 233 25	23.81(20.45-27.13) 23.48(19.95-26.39) 24.61(20.08-25.64)	0.54	0.93(0.86-0.98) 0.93(0.88-0.98) 0.93(0.85-1.01)	0.86	4.34(3.73-5.11) 4.53(3.87-5.04) 3.85(3.43-4.99)	0.24	1.30(0.96-1.77) 1.36(0.99-1.98) 1.43(1.06-1.68)	0.17	1.06(0.89-1.28) 1.04(0.86-1.26) 1.06(0.86-1.23)	0.47
KCNJ11 rs5219 (C/T)	CC CT TT	423 456 127	23.30(20.07-26.94) 23.88(20.42-26.72) 24.24(21.26-27.56)	0.02*	0.92(0.86-0.98) 0.94(0.87-0.98) 0.94(0.88-0.99)	0.08	4.33(3.70-5.08) 4.35(3.79-5.06) 4.56(3.77-5.27)	0.67	1.28(0.95-1.78) 1.34(0.99-1.82) 1.39(0.98-1.91)	0.83	1.05(0.88-1.28) 1.08(0.90-1.28) 1.01(0.83-1.26)	0.05
TCF7L2 rs7903146 (C/T)	CC CT TT	507 420 79	23.92(20.76-27.13) 23.58(20.15-26.90) 22.76(20.43-26.09)	0.21	0.93(0.87-0.99) 0.93(0.87-0.98) 0.91(0.85-0.96)	0.12	4.38(3.77-5.10) 4.31(3.70-5.06) 4.51(3.92-5.23)	0.28	1.33(0.99-1.89) 1.31(0.96-1.76) 1.33(0.89-1.74)	0.95	1.07(0.87-1.29) 1.04(0.88-1.27) 1.08(0.96-1.26)	0.31
SLC30A8 rs13266634 (C/T)	CC CT TT	559 376 65	23.81(20.43-26.92) 23.63(20.20-27.18) 24.28(21.10-26.08)	0.88	0.93(0.86-0.98) 0.92(0.87-0.98) 0.94(0.88-0.98)	0.42	4.35(3.74-5.14) 4.38(3.78-5.06) 4.31(3.70-5.03)	0.98	1.34(0.97-1.82) 1.30(0.99-1.81) 1.22(0.88-1.80)	0.45	1.05(0.87-1.26) 1.07(0.88-1.28) 1.04(0.90-1.40)	0.45
HHEX rs1111875 (A/G)	AA AG GG	336 487 180	23.92(21.02-26.98) 23.73(20.08-27.21) 23.81(20.20-26.31)	0.25	0.93(0.87-0.98) 0.93(0.87-0.98) 0.93(0.86-0.97)	0.39	4.36(3.77-5.14) 4.35(3.73-5.10) 4.38(3.77-5.05)	0.69	1.36(0.98-1.91) 1.29(0.96-1.76) 1.33(0.99-1.88)	0.08	1.07(0.89-1.31) 1.05(0.87-1.26) 1.06(0.89-1.26)	0.57
CDKN2A rs10811661 (T/C)	TT TC CC	750 242 14	23.70(20.43-26.90) 23.93(20.20-27.03) 23.49(21.71-27.99)	0.92	0.93(0.87-0.98) 0.93(0.86-0.98) 0.99(0.90-1.03)	0.04*	4.38(3.77-5.10) 4.34(3.72-5.03) 4.20(3.46-5.42)	0.71	1.30(0.98-1.80) 1.39(0.94-1.93) 1.24(0.91-1.63)	0.22	1.06(0.87-1.29) 1.03(0.89-1.24) 1.08(0.91-1.25)	0.66
IGF2BP2 rs4402960 (G/T)	GG GT TT	329 507 170	23.87(20.32-27.34) 23.80(20.32-26.48) 23.52(20.60-27.72)	0.58	0.93(0.87-0.99) 0.93(0.86-0.98) 0.92(0.86-0.97)	0.07	4.37(3.83-5.19) 4.36(3.72-5.06) 4.36(3.76-5.05)	0.84	1.37(0.98-1.92) 1.32(0.97-1.78) 1.24(0.97-1.72)	0.36	1.06(0.88-1.27) 1.05(0.88-1.28) 1.07(0.87-1.28)	0.69
CDKAL1 rs10946398 (A/C)	AA AC CC	631 299 59	23.68(20.32-26.81) 23.85(20.81-26.93) 22.18(18.93-28.13)	0.71	0.92(0.86-0.98) 0.94(0.87-0.98) 0.93(0.87-0.97)	0.22	4.38(3.74-5.06) 4.32(3.69-5.08) 4.40(3.76-5.19)	0.56	1.29(0.96-1.78) 1.36(0.98-1.82) 1.34(0.98-1.79)	0.88	1.07(0.87-1.28) 1.03(0.88-1.25) 1.03(0.90-1.38)	0.47

n represents the number of individuals. Data are presented as median (Interquartile range).
† Analysis adjusted for sex and age
‡ Analysis adjusted for sex, age and BMI
* Significant P-value

Supplementary Table 7: Association of SNPs with quantitative traits (Glucose and Insulin metabolism) in Delhi study

Gene SNP	Genotypes Major Hetero Minor	n	FPG (mmol/l)		2 h PG (mmol/l)		FPI (pmol/l)		HOMA-IR		HOMA-B	
			Median (IQR)	P‡	Median (IQR)	P‡	Median (IQR)	P‡	Median (IQR)	P‡	Median (IQR)	P‡
PPARG rs1801282 (C/G)	CC CG GG	746 233 25	4.92(4.48-5.26) 4.88(4.55-5.29) 4.87(4.72-5.12)	0.60	5.58(4.81-6.28) 5.43(4.86-6.44) 6.24(4.24-6.24)	0.85	34.14(18.24-58.56) 29.34(15.90-46.20) 27.36(13.26-43.38)	0.58	1.20(0.63-2.12) 1.08(0.56-1.69) 0.95(0.42-1.70)	0.85	76.90(40.70-141.67) 64.86(41.43-121.66) 75.41(27.48-104.15)	0.91
KCNJ11 rs5219 (C/T)	CC CT TT	423 456 127	4.87(4.46-5.24) 4.94(4.52-5.27) 4.88(4.43-5.30)	0.43	5.57(4.90-6.21) 5.35(4.56-6.26) 6.35(5.32-6.83)	0.04*	32.58(17.46-59.01) 31.23(17.42-52.80) 35.88(18.86-61.11)	0.25	1.20(0.57-2.07) 1.10(0.61-1.92) 1.30(0.62-2.19)	0.37	73.15(40.69-138.88) 69.19(40.67-132.69) 81.52(41.24-169.68)	0.35
TCF7L2 rs7903146 (C/T)	CC CT TT	507 420 79	4.88(4.52-5.24) 4.97(4.48-5.28) 4.83(4.39-5.11)	0.14	5.58(4.85-6.27) 5.46(4.62-6.35) 5.95(4.93-6.25)	0.86	34.20(18.33-59.01) 30.72(17.04-54.00) 37.86(18.54-58.32)	0.56	1.20(0.58-2.07) 1.11(0.59-1.99) 1.26(0.71-2.01)	0.67	73.37(39.44-138.88) 72.68(41.48-134.74) 76.90(44.32-159.86)	0.41
SLC30A8 rs13266634 (C/T)	CC CT TT	559 376 65	4.91(4.51-5.26) 4.91(4.51-5.28) 4.89(4.52-5.17)	0.76	5.33(4.66-6.35) 5.77(4.93-6.24) 5.94(4.91-6.26)	0.59	33.33(17.94-58.85) 31.44(17.48-55.79) 30.78(17.94-47.88)	0.61	1.21(0.63-2.06) 1.14(0.58-2.02) 1.05(0.55-1.82)	0.71	74.66(40.52-141.06) 72.92(40.51-135.39) 75.41(44.32-127.95)	0.95
HHEX rs1111875 (A/G)	AA AG GG	336 487 180	4.88(4.56-5.28) 4.89(4.46-5.24) 4.98(4.50-5.24)	0.46	5.43(4.74-6.16) 5.50(4.76-6.25) 5.95(5.14-6.61)	0.20	32.94(17.46-58.56) 32.01(18.50-57.95) 32.46(16.62-54.00)	0.62	1.23(0.59-2.02) 1.15(0.60-2.02) 1.17(0.57-1.95)	0.68	79.24(41.94-139.07) 70.73(40.52-134.59) 75.41(38.55-132.99)	0.77
CDKN2A rs10811661 (T/C)	TT TC CC	750 242 14	4.95(4.56-5.28) 4.84(4.37-5.19) 4.66(4.16-4.79)	0.002*	5.68(4.90-6.36) 5.31(4.52-6.14) 4.86(4.13-5.24)	0.11	32.16(18.03-54.56) 32.40(17.10-63.24) 29.40(18.33-56.75)	0.60	1.18(0.62-1.95) 1.13(0.55-2.15) 0.83(0.64-1.49)	0.50	73.91(41.03-137.86) 76.71(40.52-141.67) 56.58(33.01-87.68)	0.48
IGF2BP2 rs4402960 (G/T)	GG GT TT	329 507 170	4.89(4.48-5.21) 4.88(4.47-5.28) 4.95(4.65-5.26)	0.39	5.48(4.86-6.35) 5.58(4.82-6.16) 5.73(4.83-6.61)	0.43	34.50(20.28-61.89) 30.36(15.75-54.81) 32.91(18.30-57.44)	0.06	1.30(0.65-2.22) 1.06(0.56-1.86) 1.19(0.64-2.07)	0.05	82.77(45.74-149.42) 65.77(35.97-130.77) 78.30(44.25-138.53)	0.06
CDKAL1 rs10946398 (A/C)	AA AC CC	631 299 59	4.86(4.44-5.26) 4.96(4.60-5.27) 4.92(4.61-5.17)	0.17	5.67(4.87-6.30) 5.50(4.49-6.29) 5.81(4.93-6.32)	0.76	31.89(16.79-56.43) 32.55(18.53-55.56) 32.67(19.37-63.93)	0.59	1.14(0.57-1.96) 1.20(0.64-2.08) 1.16(0.65-2.52)	0.35	71.27(40.51-138.62) 77.42(41.69-136.43) 75.96(45.98-126.78)	0.75

n represents the number of individuals. Data are presented as median (Interquartile range).
† Analysis adjusted for sex and age
‡ Analysis adjusted for sex, age and BMI
* Significant P-value

Supplementary Table 8: Association of SNPs with quantitative traits (measures of obesity and lipid profile) in Pune study

Gene SNP	Genotypes Major Hetero Minor	n	BMI (Kg/m^2) Median (IQR)	P†	WHR Median (IQR)	P†	Total Cholesterol (mmol/l) Median (IQR)	P‡	Triglyceride (mmol/l) Median (IQR)	P‡	HDL-C (mmol/l) Median (IQR)	P‡
PPARG rs1801282 (C/G)	CC CG GG	1186 345 22	20.48(18.21-23.40) 20.36(18.20-23.13) 21.06(19.36-23.81)	0.86	0.84(0.76-0.91) 0.83(0.76-0.92) 0.85(0.81-0.89)	0.92	3.77(3.28-4.36) 3.77(3.27-4.23) 3.69(3.34-4.06)	0.38	0.84(0.62-1.22) 0.82(0.60-1.12) 0.88(0.72-1.27)	0.08	1.03(0.87-1.26) 1.05(0.87-1.23) 1.03(0.83-1.31)	0.94
KCNJ11 rs5219 (C/T)	CC CT TT	720 560 117	20.73(18.33-23.28) 20.09(18.11-22.95) 19.78(18.17-23.05)	0.09	0.84(0.76-0.91) 0.85(0.78-0.91) 0.82(0.76-0.91)	0.49	3.74(3.28-4.33) 3.77(3.26-4.31) 3.76(3.30-4.24)	0.68	0.84(0.63-1.23) 0.84(0.62-1.17) 0.79(0.57-1.13)	0.91	1.03(0.85-1.23) 1.03(0.87-1.23) 1.08(0.92-1.32)	0.08
TCF7L2 rs7903146 (C/T)	CC CT TT	942 499 74	20.23(18.14-23.08) 20.50(18.51-23.55) 20.04(19.16-23.46)	0.52	0.83(0.76-0.91) 0.85(0.77-0.92) 0.84(0.76-0.91)	0.16	3.72(3.28-4.29) 3.79(3.26-4.38) 3.69(3.14-4.23)	0.44	0.83(0.61-1.17) 0.87(0.63-1.25) 0.82(0.61-1.18)	0.73	1.03(0.87-1.23) 1.05(0.87-1.23) 1.04(0.87-1.26)	0.88
SLC30A8 rs13266634 (C/T)	CC CT TT	928 535 76	20.34(18.17-23.19) 20.50(18.30-23.45) 20.53(19.18-22.90)	0.51	0.84(0.76-0.91) 0.83(0.76-0.91) 0.84(0.77-0.91)	0.34	3.74(3.28-4.26) 3.77(3.31-4.41) 3.66(3.15-4.14)	0.30	0.83(0.61-1.21) 0.85(0.62-1.18) 0.80(0.61-1.16)	0.20	1.03(0.87-1.26) 1.05(0.85-1.23) 1.07(0.90-1.24)	0.95
HHEX rs1111875 (A/G)	AA AG GG	511 787 300	20.47(18.34-23.12) 20.66(18.29-23.42) 20.16(18.32-23.11)	0.64	0.83(0.76-0.91) 0.84(0.77-0.91) 0.85(0.76-0.91)	0.47	3.74(3.31-4.36) 3.77(3.26-4.31) 3.74(3.28-4.30)	0.84	0.83(0.63-1.21) 0.84(0.61-1.18) 0.83(0.63-1.21)	0.48	1.05(0.88-1.26) 1.03(0.85-1.21) 1.03(0.82-1.23)	0.06
CDKN2A rs10811661 (T/C)	TT TC CC	804 255 27	19.76(17.96-22.29) 19.79(18.11-22.01) 19.52(17.62-21.16)	0.69	0.85(0.77-0.91) 0.85(0.77-0.92) 0.81(0.78-0.90)	0.85	3.69(3.23-4.23) 3.67(3.23-4.23) 3.38(3.04-3.81)	0.18	0.80(0.61-1.11) 0.80(0.60-1.12) 0.69(0.54-0.86)	0.78	1.05(0.90-1.26) 1.05(0.90-1.23) 1.00(0.81-1.13)	0.04*
IGF2BP2 rs4402960 (G/T)	GG GT TT	262 412 194	19.76(17.88-22.20) 19.73(18.06-22.10) 19.69(18.08-21.92)	0.76	0.86(0.77-0.92) 0.85(0.77-0.92) 0.85(0.76-0.92)	0.79	3.64(3.21-4.23) 3.67(3.23-4.18) 3.65(3.20-4.26)	0.90	0.81(0.56-1.20) 0.78(0.61-1.04) 0.84(0.62-1.17)	0.12	1.03(0.90-1.23) 1.08(0.90-1.29) 1.05(0.85-1.26)	0.15
CDKAL1 rs10946398 (A/C)	AA AC CC	835 576 101	20.48(18.30-23.13) 20.36(18.29-23.18) 20.25(18.08-23.26)	0.37	0.85(0.77-0.91) 0.84(0.76-0.91) 0.83(0.76-0.90)	0.37	3.74(3.28-4.26) 3.82(3.27-4.36) 3.73(3.13-4.32)	0.21	0.84(0.63-1.21) 0.83(0.60-1.18) 0.89(0.63-1.22)	0.17	1.03(0.85-1.23) 1.05(0.88-1.26) 1.07(0.92-1.23)	0.62

n represents the number of individuals. Data are presented as median (Interquartile range).

† Analysis adjusted for sex and age

‡ Analysis adjusted for sex, age and BMI

* Significant P-value

Supplementary Table 9: Association of SNPs with quantitative traits (Glucose and Insulin metabolism) in Pune study

Gene SNP	Genotypes Major Hetero Minor	n	FPG (mmol/l)		2 h PG (mmol/l)		FPI (pmol/l)		HOMA-IR		HOMA-B	
			Median (IQR)	P[‡]	Median (IQR)	P[‡]	Median (IQR)	P[‡]	Median (IQR)	P[‡]	Median (IQR)	P[‡]
PPARG rs1801282 (C/G)	CC CG GG	1186 345 22	5.11(4.67-5.56) 5.06(4.67-5.50) 5.11(4.72-5.46)	0.63	5.50(4.56-6.50) 5.61(4.72-6.39) 5.45(4.65-6.25)	0.42	32.71(20.70-48.20) 31.00(20.84-48.24) 28.66(19.58-45.00)	0.64	1.22(0.76-1.87) 1.17(0.76-1.90) 1.10(0.74-1.58)	0.51	70.40(44.44-106.74) 67.62(45.03-116.27) 61.41(39.94-106.60)	0.77
KCNJ11 rs5219 (C/T)	CC CT TT	720 560 117	5.11(4.61-5.50) 5.22(4.83-5.61) 5.20(4.78-5.68)	0.004*	5.44(4.56-6.50) 5.50(4.61-6.56) 5.36(4.44-6.16)	0.18	32.00(20.39-46.00) 33.27(22.05-51.18) 29.34(19.53-45.91)	0.004*	1.17(0.74-1.77) 1.28(0.83-1.95) 1.14(0.72-1.68)	0.001*	69.70(43.17-109.29) 67.67(46.32-101.12) 62.14(38.85-107.78)	0.45
TCF7L2 rs7903146 (C/T)	CC CT TT	942 499 74	5.11(4.61-5.50) 5.17(4.72-5.56) 5.17(4.89-5.66)	0.04*	5.28(4.50-6.31) 5.67(4.72-6.56) 5.56(4.74-6.71)	0.04*	32.00(20.00-46.08) 32.00(21.14-51.13) 33.41(19.93-45.00)	0.85	1.17(0.72-1.81) 1.21(0.80-1.93) 1.23(0.72-1.78)	0.83	71.22(44.35-109.27) 67.19(42.92-111.20) 67.97(34.76-95.19)	0.11
SLC30A8 rs13266634 (C/T)	CC CT TT	928 535 76	5.11(4.72-5.56) 5.11(4.61-5.50) 5.06(4.49-5.40)	0.17	5.44(4.52-6.50) 5.61(4.72-6.50) 5.17(4.31-6.50)	0.18	32.00(20.49-47.00) 32.92(20.53-49.24) 26.53(18.68-43.51)	0.07	1.19(0.76-1.86) 1.23(0.76-1.86) 0.99(0.68-1.72)	0.03*	68.27(44.84-105.55) 68.50(43.01-112.40) 73.82(39.03-101.58)	0.88
HHEX rs1111875 (A/G)	AA AG GG	511 787 300	5.11(4.67-5.50) 5.11(4.67-5.50) 5.11(4.72-5.56)	0.32	5.44(4.56-6.44) 5.44(4.56-6.56) 5.64(4.63-6.38)	0.34	34.56(20.82-51.48) 31.02(21.00-45.26) 33.00(20.90-54.00)	8×10^{-4}*	1.26(0.78-2.02) 1.17(0.77-1.74) 1.28(0.76-2.02)	3×10^{-4}*	72.44(47.51-113.86) 68.32(44.12-106.72) 72.10(43.81-110.65)	0.12
CDKN2A rs10811661 (T/C)	TT TC CC	804 255 27	5.17(4.78-5.61) 5.22(4.83-5.50) 5.28(4.94-5.70)	0.43	5.33(4.44-6.39) 5.50(4.56-6.44) 5.22(4.36-6.42)	0.32	32.92(20.45-49.35) 29.51(20.44-45.95) 32.71(25.18-56.99)	0.20	1.23(0.76-1.93) 1.18(0.75-1.73) 1.27(1.00-2.40)	0.17	68.22(43.86-105.66) 61.80(42.63-95.67) 71.97(43.57-106.66)	0.44
IGF2BP2 rs4402960 (G/T)	GG GT TT	262 412 194	5.17(4.78-5.50) 5.17(4.78-5.61) 5.11(4.83-5.50)	0.82	5.33(4.50-6.39) 5.33(4.44-6.31) 5.36(4.43-6.39)	0.64	32.26(20.54-46.31) 30.74(20.44-47.97) 30.70(19.26-42.57)	0.87	1.20(0.78-1.81) 1.18(0.74-1.88) 1.13(0.71-1.68)	0.92	70.77(43.97-103.35) 64.86(43.88-100.46) 62.62(39.70-94.37)	0.74
CDKAL1 rs10946398 (A/C)	AA AC CC	835 576 101	5.11(4.72-5.56) 5.11(4.72-5.56) 5.14(4.61-5.50)	0.62	5.50(4.61-6.50) 5.56(4.55-6.57) 4.94(4.39-6.00)	0.09	32.29(20.35-49.49) 32.50(21.39-47.96) 35.87(23.10-53.20)	0.18	1.19(0.75-1.92) 1.23(0.79-1.87) 1.39(0.85-1.98)	0.29	67.97(41.57-107.72) 68.80(46.05-106.69) 78.56(53.20-119.62)	0.06

n represents the number of individuals. Data are presented as median (Interquartile range).

[†] Analysis adjusted for sex and age

[‡] Analysis adjusted for sex, age and BMI

* Significant P-value