

Supplementary Tables:

Table S1: Age-specific Incidence (cases/1000 person-years) of diabetes# by sex and ethnicity

Age category (years)	South Asians			US Blacks			US Whites			SA vs US Whites (ref)		US Blacks Vs US Whites (ref)	
	New cases	PYR	Incidence (95%CI)	New cases	PYR	Incidence (95%CI)	New cases	PYR	Incidence (95%CI)	Incidence rate ratio (IRR)	Incidence risk difference (IRD)	Incidence rate ratio (IRR)	Incidence risk difference (IRD)
Men													
Age(years)													
45-49	65	2659	24.4 (19.2,31.2)	70	2827	24.8 (19.0, 30.6)	128	8625	14.8 (12.3, 17.4)	1.65 (1.2,2.24)	9.6 (3.1,16.1)	1.67 (1.23,2.25)	9.9 (3.6,16.3)
50-54	49	1902	25.8 (19.5,34.1)	53	2142	24.7 (18.1, 31.4)	155	9450	16.4 (13.8, 19.0)	1.57 (1.12,2.18)	9.4 (1.7,17)	1.51 (1.08,2.07)	8.3 (1.2,15.5)
55-59	36	1198	30 (21.7,41.6)	40	1748	22.9 (15.8, 30.0)	158	9401	16.8 (14.2, 19.4)	1.79 (1.21,2.58)	13.2 (3.1,23.4)	1.36 (0.94,1.94)	6.1 (-1.5,13.6)
≥60	50	2600	19.2 (14.6,25.4)	34	1544	22.0 (14.6, 29.4)	132	8540	15.5 (12.8, 18.1)	1.24 (0.88,1.74)	3.8 (-2.2,9.7)	1.42 (0.95,2.09)	6.6 (-1.3,14.4)
Total (Crude)	200	8360	23.9 (20.8,27.5)	197	8261	23.8 (20.7, 27.4)	573	36014	15.9 (14.7, 17.3)	1.5 (1.27,1.77)	8 (4.5,11.6)	1.5 (1.27,1.77)	7.9 (4.4,11.5)
Total (Age standardised ^a)			23.4 (20.1,26.6)			23.3 (20.0,26.5)			15.7 (14.4,17.0)				
Women													
Age(years)													
45-49	88	3049	28.9 (23.4,35.6)	110	5002	22 (18.2, 26.5)	104	12151	8.6 (7.1, 10.4)	3.36 (2.5,4.5)	20.3 (14,26.5)	2.71 (2.05,3.58)	14.7 (10,19.3)
50-54	60	1891	31.7 (24.6,40.9)	105	3874	27.1 (22.4, 32.8)	110	11654	9.4 (7.8, 11.4)	3.35 (2.41,4.63)	22.3 (14,30.5)	2.99 (2.27,3.94)	18.8 (13.1,24.5)
55-59	35	1214	28.8 (20.7,40.1)	77	2790	27.6 (22.1, 34.5)	118	10205	11.6 (9.7, 13.8)	2.49 (1.66,3.66)	17.3 (7.5,27)	2.47 (1.83,3.32)	17 (10.3,23.7)
≥60	54	1901	28.4 (21.8,37.1)	54	2089	25.9 (19.8, 33.8)	106	8519	12.4 (10.3, 15.1)	2.28 (1.61,3.2)	16 (8,23.9)	2.15 (1.52,3.02)	14.4 (6.8,21.9)
Total (Crude)	237	8056	29.4 (25.9,33.4)	346	13754	25.2 (22.6, 28.0)	438	42529	10.3 (9.4, 11.3)	2.85 (2.42,3.35)	19.1 (15.2,23)	2.55 (2.21,2.94)	16 (13.1,18.9)
Total (Age standardised ^a)			29.2 (25.5,32.9)			25.5 (22.8,28.2)			10.9(9.9,11.9)				
Both sexes													
Total (Crude)	437	16415	26.6 (24.2,29.2)	543	22016	24.7 (22.7, 26.8)	1011	78543	12.9 (12.1, 13.7)	2.07 (1.84,2.31)	13.7 (11.1,16.4)	1.97 (1.77,2.19)	12.5 (10.2,14.8)
Total (Age standardised ^a)			26.0 (23.6,28.5)			24.6 (22.5,26.7)			13.1 (12.3,13.9)				

SA-South Asians; PYR-person years; ^a standardised to World population; ref-reference

Incidence rate ratio (IRR, ratio of incidence rates) calculated as South Asians/US Blacks (incidence rate) divided by US Whites (incidence rate)

Incidence risk difference (IRD, Risk difference, cases/1000 person years) calculated as South Asians/US Blacks (Incidence rate) minus US Whites (incidence rate)

#Diabetes defined as FPG≥ 7.00 mmol/L (126 mg/dL) or self-reported/physician diagnosed diabetes or medication

Table S2: BMI-specific Incidence (cases/1000 person-years) of diabetes# by sex and ethnicity

BMI categories	South Asians			US Blacks			US Whites			SA vs US Whites (ref)		US Blacks Vs US Whites (ref)	
	New cases	PYR	Incidence (95%CI)	New cases	PYR	Incidence (95%CI)	New cases	PYR	Incidence (95%CI)	Incidence rate ratio (IRR)	Incidence risk difference (IRD)	Incidence rate ratio (IRR)	Incidence risk difference (IRD)
Men													
<23	65	4020	16.2 (12.3,20.1)	29	2602	11.2 (7.1, 15.2)	64	10396	6.2 (4.6, 7.7)	2.63 (1.83,3.77)	10 (5.8,14.2)	1.81 (1.13,2.85)	5.0 (0.7,9.3)
23.0-25.0	68	2158	31.3 (23.9,38.8)	76	3656	20.8 (16.1, 25.4)	271	18773	14.4 (12.7, 16.2)	2.18 (1.65,2.86)	17.1 (9.4,24.8)	1.44 (1.1,1.86)	6.4 (1.4,11.3)
≥30	34	800	42.3 (28,56.5)	91	1974	46.1 (36.6, 55.5)	238	6836	34.9 (30.5, 39.3)	1.22 (0.83,1.75)	7.7 (-7.3,22.6)	1.32 (1.03,1.69)	11.3 (0.8,21.7)
Women													
<23	34	2555	13.3 (8.9,17.8)	26	2832	9.2 (5.7, 12.7)	84	21204	4.0 (3.1, 4.9)	3.36 (2.19,5.06)	9.3 (4.8,13.9)	2.32 (1.43,3.64)	5.2 (1.6,8.8)
23.0-25.0	78	2479	31.4 (24.4,38.3)	105	5152	20.4 (16.5, 24.3)	148	13050	11.3 (9.5, 13.1)	2.77 (2.08,3.67)	20.1 (12.9,27.3)	1.8 (1.39,2.32)	9.0 (4.7,13.3)
≥30	97	1943	49.9 (40,59.8)	215	5744	37.5 (32.5, 42.5)	206	8254	24.9 (21.5, 28.3)	2.00 (1.55,2.56)	25.0 (14.5,35.5)	1.5 (1.23,1.82)	12.5 (6.4,18.5)

SA-South Asians; PYR-person years; ref-reference

Age adjusted incidence reported

Incidence rate ratio (IRR, ratio of incidence rates) calculated as South Asians/US Blacks (incidence rate) divided by US Whites (incidence rate)

Incidence risk difference (IRD, Risk difference, cases/1000 person years) calculated as South Asians/US Blacks (Incidence rate) minus US Whites (incidence rate)

NOTE: Incidence relative risk and Incidence risk difference calculated from crude incidence rates

#Diabetes defined as FPG≥ 7.00 mmol/L (126 mg/dL) or self-reported/physician diagnosed diabetes or medication

Table S3: Factors associated with diabetes# incidence by ethnicity, Cox Proportional Hazards Analysis

Variables	South Asians	US Blacks	US Whites
	HR (95% CI)	HR (95% CI)	HR (95% CI)
Age (Per Unit)	0.95 (0.81, 1.12)	0.97 (0.71, 1.34)	1.02 (0.81, 1.29)
Age square	1.00 (1.00, 1.00)	1.00 (1.00, 1.00)	1.00 (1.00, 1.00)
Sex (Men)	1.03 (0.79, 1.33)	0.98 (0.81, 1.19)	1.00 (0.88, 1.13)
BMI (Per Unit)	1.07 (1.04, 1.1)	1.04 (1.02, 1.05)	1.06 (1.04, 1.07)
FH (Yes)	1.45 (1.09, 1.92)	1.46 (1.21, 1.76)	1.56 (1.36, 1.78)
Log HOMA-IR (Per SD)	4.01 (3.1, 5.18)	16.63 (12.50, 22.11)	36.94 (29.35, 46.50)

Log HOMA-B (Per SD)	0.26 (0.2, 0.34)	0.08 (0.06, 0.11)	0.04 (0.03, 0.06)
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Diabetes defined as FPG \geq 7.00 mmol/L (126 mg/dL) or self-reported/physician diagnosed diabetes or medication

HOMA-IR, homeostatic model assessment of Insulin resistance; HOMA-B, homeostasis model assessment of β -cell dysfunction

#Diabetes defined as FPG \geq 7.00 mmol/L (126 mg/dL) or self-reported/physician diagnosed diabetes or medication

Table S4: BMI-specific Incidence (cases/1000 person-years) of diabetes by sex and ethnicity

BMI-Cat	South Asians			US Blacks			US Whites		
	PYR	New Cases	Incidence (95%CI)	PYR	New Cases	Incidence (95%CI)	PYR	New Cases	Incidence (95%CI)
Male									
<23.0	2457	43	17.5 (12.3, 22.7)	1268	13	10.2 (4.7, 15.7)	4016	21	5.2 (3.0, 7.4)
23.0-24.9	1066	23	21.6 (12.8, 30.4)	1319.2	21	15.9 (9.1, 22.6)	6395	44	6.9 (4.9, 8.9)
25.0-29.0	1710	62	36.3 (27.2, 45.3)	3619.3	83	23.0 (18.1, 28.0)	18738.2	276	14.7 (13.0, 16.5)
≥30	558	24	43.0 (25.8, 60.2)	1919	98	51.3 (41.1, 61.5)	6827.4	242	35.6 (31.1, 40.1)
Female									
<23.0	1365	26	19.1 (11.7, 26.4)	1255.6	8	6.4 (2.0, 10.9)	13063.3	39	3.0 (2.1, 4.0)
23.0-24.9	848	23	27.3 (16.1, 38.5)	1564.9	21	13.4 (7.7, 19.1)	8167.5	50	6.1 (4.4, 7.8)
25.0-29.0	1891	67	35.3 (26.8, 43.8)	5094	115	22.6 (18.5, 26.8)	13043.8	155	11.8 (10.0, 13.7)
≥30	1303	69	52.8 (40.3, 65.2)	5627.6	230	41.1 (35.8, 46.4)	8204.3	211	25.7 (22.2, 29.2)

SA-South Asians; PYR-person years; ref-reference

Diabetes defined as FPG ≥ 7.00 mmol/L (126 mg/dL) or HbA1c ≥ 48 mmol/mol (6.5 %) or self-reported/physician diagnosed diabetes or medication

Table S5: Waist circumference-specific Incidence (cases/1000 person-years) of diabetes by sex and ethnicity

As per South Asian cut-off	South Asians			US Blacks			US Whites			SA vs US Whites	US Blacks vs US Whites	Incidence risk difference (IRR)	
	New cases	Person years	Incidence (95%CI)	New cases	Person years	Incidence(95% CI)	New cases	Person years	Incidence(95% CI)	Incidence rate ratio (IRR)	Incidence rate ratio (IRR)		
Male													
<90.0	62	3274	18.9 (14.2, 23.6)	26	2581	10.1 (6.2, 13.9)	23	5909	3.9 (2.3, 5.5)	4.87 (2.97,8.23)	15.0 (10.1,20.0)	2.59 (1.42,4.75)	6.2 (2,10.4)
≥90.0	112	3318	33.7 (27.5, 40.0)	190	5494	34.5 (29.6, 39.4)	560	29976	18.6 (17.1, 20.1)	1.81 (1.46,2.22)	15.1 (8.6,21.5)	1.85 (1.56,2.19)	15.9 (10.7,21.1)
Female													
<80.0	31	1812	17.1(11.1, 23.1)	12	1416	8.6 (3.7, 13.5)	23	8428	2.8 (1.7, 3.9)	6.27 (3.54,11.26)	14.4 (8.3,20.5)	3.11 (1.41,6.5)	5.7 (0.8,10.7)
≥80.0	171	4234	40.4(34.3, 46.4)	360	12075	29.9 (26.8, 32.9)	430	33928	12.7 (11.5, 13.9)	3.19 (2.65,3.81)	27.7 (21.5,33.9)	2.35 (2.04,2.71)	17.1 (13.8,20.4)
As per Europids cut-off													
Male													
<94.0	83	4119	20.1(15.8, 24.4)	45	3753	11.9 (8.5, 15.5)	64	10770	5.9 (4.5, 7.4)	3.39 (2.42,4.77)	14.2 (9.6,18.8)	2.02 (1.35,3)	6 (2.3,9.8)
≥94.0	91	2472	36.8(29.3, 44.4)	171	4322	39.5 (33.6, 45.4)	519	25115	20.6 (18.8, 22.4)	1.78 (1.41,2.23)	16.1 (8.4,23.9)	1.91 (1.6,2.28)	18.9 (12.7,25.1)
Female													
<80.0	31	1812	17.1(11.1, 23.1)	12	1416	8.6 (3.7, 13.5)	23	8428	2.8 (1.7, 3.9)	6.27 (3.54,11.26)	14.4 (8.3,20.5)	3.11 (1.41,6.5)	5.7 (0.8,10.7)
≥80.0	171	4234	40.4(34.3, 46.4)	360	12075	29.9 (26.8, 32.9)	430	33928	12.7 (11.5, 13.9)	3.19 (2.65,3.81)	27.7 (21.5,33.9)	2.35 (2.04,2.71)	17.1 (13.8,20.4)
As per ATP III-USA values													
Male													
<102.0	134	5597	23.9(20.2,28.4)	103	5907	17.4 (14.1, 20.8)	228	23433	9.7 (8.4, 10.9)	2.46(1.97,3.06)	14.2(10,18.5)	1.79(1.41,2.27)	7.7(4.1,11.3)
≥102.0	40	995	40.2(29.5,54.8)	113	2168	51.9 (42.3, 61.5)	355	12452	28.4 (25.4, 31.3)	1.41(0.99,1.96)	11.7(-1.1,24.5)	1.83(1.47,2.27)	23.6(13.6,33.7)
Female													
<88.0	80	3464	23.1(18.5,28.8)	37	3683	10.1 (6.8, 13.4)	71	18200	3.9 (3.0, 4.9)	5.92(4.25,8.27)	19.2(14.1,24.3)	2.58(1.68,3.88)	6.1(2.8,9.5)
≥88.0	122	2582	47.3(39.6,56.4)	335	9807	34.2 (30.6, 37.9)	382	24156	15.8 (14.2, 17.4)	2.99(2.42,3.67)	31.4(22.9,40)	2.16(1.86,2.51)	18.3(14.4,22.3)

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