TABLE 32 Prevalence of T2DM specifically in African origin

Author and year	Mode of assessment	Results						Reasons for differences and other relevant data
Chaturvedi *et al.* 1996[174]	Diabetes mellitus measured by non-fasting blood samples. Questionnaires were used to get medical history details of diagnosis, height and weight Proteinuria measured by salicylic sulphuric acid	**At baseline**	**Afro-Caribbeans**		**Europeans**			Age of onset higher in Afro-Caribbeans, more so in women Afro-Caribbeans were treated with more oral drugs than with insulin compared with Europeans Afro-Caribbeans with diabetes have one-third of the risk of dying from heart disease compared with Europeans
			Men	**Women**	**Men**	**Women**	***p*-value**	
		Sample size	27	50	95	55		
		Age at onset	42	42	41	39	0.6,[a] 0.06[b]	
		BMI (kg/m^2)	25.1	27.9	26.3	28.2	0.1,[a] 0.8[b]	
		Median SBP (mmHg)	128	138	136	138	0.8,[a] 0.9[b]	
		Median DBP (mmHg)	86	90	88	88	0.2,[a] 0.1[b]	
		Mean cholesterol (mmol/l)	5.4	5.3	5.9	6.1	0.07,[a] 0.001[b]	
		Current smokers (%)	43	22	35	42	0.05,[a] 0.02[b]	
		Creatinine (mmol/l)	1.10	0.87	1.00	0.80	0.01,[a] 0.03[b]	
		Heart disease (%)	4	2	13	4	0.2,[a] 0.6[b]	
		Retinopathy (%)	22	30	27	35	0.6,[a] 0.5[b]	
		Proteinuria (%)	8	16	22	24	0.1,[a] 0.3[b]	
		a Between men within each ethnic group						
		b Between women within each ethnic group						
		At follow-up after 18 person-years (range 0–20)						
			Afro-Caribbeans	**Europeans**	**HR (95% CI)**	***p*-value**		
		Sample size	77	150	Unadjusted			
		No. of deaths						
		Due to all causes	16	59	0.41 (0.23 to 0.73)	0.002		
		Due to circulatory diseases	9	39	0.33 (0.15 to 0.70)	0.004		
		Due to heart disease	8	31	0.37 (0.16 to 0.85)	0.02		
		Note:						
		Ethnic differences in mortality risk ratio after adjusting for sex, BMI, proteinuria and smoking became non-significant						

continued

TABLE 32 Prevalence of T2DM specifically in African origin (*continued*)

Author and year	Mode of assessment	Results							Reasons for differences and other relevant data
			West Africa (Nigeria)	**Caribbean**			**UK**	**USA**	
				Jamaica	**St Lucia**	**Barbados**	**Manchester**	**Maywood, IL**	
Cooper *et al.* 1997[176]	Diabetes ascertained by self-report or physician's diagnosis, except in Nigeria, where it was obtained by fasting blood plasma blood glucose. Diabetes mellitus diagnosed by WHO criteria	Sample size	247	820	1089	813	336	1518	Among people of West African origin, 2% have diabetes mellitus in Nigeria. Within the Caribbean, rates varied from 3% in men in St Lucia to 11% in women in Jamaica. In the UK and USA it was at an average of ~11%
		Prevalence of diabetes							
		Total crude							
		Prevalence (%)	2.8	8.6	6.1	8.9	14.4	10.5	
		Age adjusted							
		Prevalence (%)	2.0	8.1	6.2	8.2	10.8	10.6	Across geographical locations, BMIs were highly related to prevalence of diabetes. Prevalence increases with increase in BMI and WHR, more so with WHR using multiple logistic regression analysis
		Anthropometric measures							
		BMI (kg/m^2)							
		Men	21.7 ± 3.6	23.4 ± 4.0	24.3 ± 3.7	25.9 ± 4.3	26.6 ± 3.6	27.1 ± 5.5	
		Women	22.6 ± 4.7	27.4 ± 6.5	27.3 ± 6.2	29.4 ± 6.4	28.6 ± 5.9	30.8 ± 7.7	
		WHR							
		Men	0.88 ± 0.06	0.84 ± 0.07	0.87 ± 0.06	0.88 ± 0.07	0.90 ± 0.07	0.89 ± 0.07	
		Women	0.79 ± 0.06	0.80 ± 0.07	0.82 ± 0.07	0.82 ± 0.07	0.81 ± 0.08	0.82 ± 0.08	
		ORs with 95% CI and PAR% comparing people with BMI < 25 kg/m^2 to those BMI ≥ 25 kg/m^2							
		% BMI ≥ 25 kg/m^2	18.6	48.6	51.9	65.7	67.4	69.1	
		OR (95% CI)	1.8 (0.3 to 9.7)	1.5 (0.9 to 2.6)	2.5 (1.4 to 4.4)	1.6 (0.9 to 2.8)	1.6 (0.8 to 3.2)	1.8 (1.2 to 2.7)	
		PAR (%)	13.0	20.0	43.8	28.3	28.8	35.6	

Author and year	Mode of assessment	Results						Reasons for differences and other relevant data
Mbanya *et al.* 1999[177]	Plasma glucose by glucose oxidate method by either spectrometer of automated glucose oxidase analyser. Diabetes mellitus diagnosed according to WHO criteria		Cameroon		Jamaica	Manchester	*p*-value	In people of African origin, after age standardisation, highest prevalence of diabetes was observed for men and women in the UK and Jamaica compared with rural/urban Cameroon Jamaica had highest prevalence of IGT in both men and women Study of prevalence of glucose tolerance in similar West African genetic background show that higher levels are found in migrants to Britain
			Rural	Urban				
		In men: data are median (quartiles) or percentages						
		Sample size	188	138	199	181		
		BMI (kg/m^2)	21.3 (20.2 to 23.4)	25.2 (22.5 to 28.2)	22.5 (20.5 to 25)	26.8 (24.4 to 28.9)	0.0001	
		% BMI ≥ 25 kg/m^2	10	51	29	68	0.0001	
		Fast glucose (mmol/l)	3.9 (3.6 to 4.4)	4.2 (3.7 to 4.6)	4.9 (4.6 to 5.5)	5.1 (4.7 to 5.5)	0.0001	
		2-hour glucose (mmol/l)	5.6 (4.3 to 5.8)	4.9 (4.2 to 5.6)	5.7 (4.6 to 7.2)	6.0 (5.1 to 7.1)	0.0001	
		Age standardised prevalence (95% CI)						
		Diabetes	1.1 (0.1 to 4.0)	1.0 (0.1 to 3.6)	6.5 (3.3 to 11.3)	15.3 (7.7 to 25.9)	< 0.001	
		IGT	6.4 (3.3 to 11.3)	1.6 (0.3 to 4.6)	16.3 (11.1 to 22.9)	11.1 (3.2 to 23.9)	0.2	
		Diabetes or IGT	7.6 (4.1 to 12.7)	2.1 (0.6 to 5.3)	22.8 (16.6 to 30.5)	26.3 (14.8 to 41.6)	< 0.001	
		In women: data are median (quartiles) or percentages						
		Sample size	196	157	198	224		
		BMI (kg/m^2)	21.9 (20.1 to 23.7)	26.8 (24.3 to 30.4)	26.9 (22.7 to 30.6)	28.2 (24.0 to 32.1)	0.0001	
		% BMI ≥ 25 kg/m^2	16	67	62	70	0.0001	
		Fasting glucose (mmol/l)	4.1 (3.7 to 4.4)	4.2 (3.7 to 4.6)	5.0 (4.5 to 5.6)	5.0 (4.6 to 5.4)	0.0001	
		2-hour glucose (mmol/l)	5.0 (4.3 to 5.8)	4.9 (4.2 to 5.4)	6.5 (5.3 to 7.9)	5.5 (4.3 to 7.1)	0.0001	
		Age standardised prevalence (95% CI)						
		Diabetes	0.5 (0 to 3.0)	2.8 (0.9 to 6.6)	10.6 (6.5 to 16.1)	14.0 (7.7 to 23.4)	< 0.001	
		IGT	3.1 (1.1 to 6.8)	4.6 (0.8 to 13.0)	19.6 (13.9 to 26.8)	14.4 (6.0 to 27.5)	< 0.001	
		Diabetes or IGT	3.6 (1.4 to 7.6)	7.5 (2.6 to 15.5)	30.1 (23.0 to 38.8)	28.5 (17.4 to 43.3)	< 0.001	
		Note: Kruskal–Wallis test for quantitative variables and chi-squared test for qualitative variables						

PAR, population attributable risk.