

Supplemental Table 4. The association between intermediate hyperglycemia and all-cause mortality, cardiovascular disease mortality, cardiovascular disease, stroke, heart disease, heart failure, and chronic kidney disease by region and presence of a pre-existing condition

	IFG-ADA			IFG-WHO			IGT			HbA1c-ADA			HbA1c-IEC		
	No. of Studies	HR [95% CI]	P value	No. of Studies	HR [95% CI]	P value	No. of Studies	HR [95% CI]	P value	No. of Studies	HR [95% CI]	P value	No. of Studies	HR [95% CI]	P value
Mortality															
Region															
Europe	6	1.23 [1.04-1.44]	0.49	9	1.16 [1.13-1.19]	0.66	12	1.16 [1.13-1.19]	0.05	5	0.98 [0.90-1.06]	0.22	1	1.21 [0.94-1.55]	0.02
USA/ Canada	8	1.08 [1.02-1.16]		6	1.16 [1.05-1.28]		5	1.14 [1.04-1.24]		5	1.20 [0.96-1.49]		1	1.56 [1.40-1.73]	
Asia	7	1.21 [1.01-1.45]		4	1.12 [1.01-1.24]		7	1.36 [1.17-1.57]		4	0.99 [0.92-1.07]		1	1.08 [0.81-1.44]	
Australia	2	1.02 [0.78-1.36]		1	1.60 [1.03-2.48]		1	1.50 [1.11-2.02]		-	-		-	-	
Middle East	3	1.06 [0.92-1.23]		3	1.04 [0.67-1.61]		3	1.30 [1.10-1.54]		-	-		-	-	
Africa	-	-		2	1.05 [0.81-1.37]		2	1.30 [1.11-1.53]		-	-		-	-	
South America	-	-		-	-		-	-		-	-		-	-	
Pre-existing Cardiovascular Condition															
No	21	1.07 [1.01-1.14]	0.03	24	1.16 [1.13-1.19]	0.01	28	1.19 [1.14-1.23]	0.30	11	1.06 [0.95-1.19]	0.91	3	1.30 [1.03-1.66]	NA
Yes	5	1.45 [1.11-1.88]		1	1.39 [1.21-1.59]		2	1.70 [0.86-3.37]		3	1.0741 [0.95-1.22]		0	NA	
CVD Mortality															
Region															
Europe	6	1.29 [1.10-1.52]	0.01	8	1.19 [1.03-1.37]	0.45	12	1.25 [1.08-1.45]	0.53	3	1.05 [0.87-1.27]	<0.01	-	-	NA
USA/ Canada	8	0.99 [0.89-1.11]		5	1.20 [1.00-1.43]		4	1.10 [0.89-1.36]		2	2.03 [1.41-2.92]		1	1.07 [0.61-1.87]	
Asia	9	1.24 [1.03-1.50]		3	1.24 [1.01-1.53]		4	1.26 [1.05-1.50]		2	0.88 [0.63-1.23]		-	-	
Australia				1	2.50 [1.21-5.15]		1	1.20 [0.68-2.13]		-	-		-	-	
Middle East	1	0.62 [0.28-1.36]		1	1.29 [1.01-1.64]		1	0.62 [0.28-1.36]		-	-		-	-	
Africa	-	-		2	0.98 [0.54-1.78]		2	1.27 [1.02-1.58]		-	-		-	-	
South America	-	-		-	-		-	-		-	-		-	-	
Pre-existing Cardiovascular Condition															
No	18	1.06 [0.97-1.16]	0.04	19	1.20 [1.08-1.33]	0.58	22	1.183 [1.09-1.29]	0.05	6	1.23 [0.89-1.71]	0.42	1	1.07 [0.61-1.87]	NA
Yes	6	1.40 [1.09-1.80]		1	1.29 [1.01-1.64]		2	2.20 [1.18-4.12]		1	0.95 [0.55-1.65]		-	-	
CVD Events															
Region															
Europe	7	1.22 [0.96-1.56]	0.28	3	1.11 [0.93-1.34]	0.21	8	1.23 [1.06-1.43]	0.53	9	1.12 [1.03-1.23]	0.20	4	1.16 [1.01-1.34]	<0.01
USA/ Canada	9	1.16 [1.01-1.33]		2	1.21 [1.07-1.37]		3	1.14 [1.02-1.28]		4	1.38 [1.07-1.79]		1	1.91 [1.65-2.21]	
Asia	7	1.07		3	1.60		6	1.17		3	1.04				

Australia	-	[0.94-1.22]	-	[1.12-2.27]	-	[1.07- 1.27]	-	[0.89- 1.21]	-	-	-	-	-	-	-
Middle East	2	1.46	-	-	2	1.46	-	-	-	-	-	-	-	-	-
Africa	1	1.77	-	-	-	-	-	-	-	-	-	-	-	-	-
South America	-	[0.92-3.40]	-	-	-	-	-	-	-	-	-	-	-	-	-
Pre-existing Cardiovascular Condition															
No	18	1.14	0.63	7	1.20	0.25	15	1.17	0.21	12	1.14	0.77	5	1.32	NA
		[1.04-1.26]			[1.08-1.32]			[1.09-1.24]			[1.00-1.31]			[1.00-1.73]	
Yes	8	1.22	-	1	1.86	-	4	1.33	-	4	1.18	-	-	-	-
		[0.96-1.54]			[0.88-3.95]			[1.10-1.62]			[0.96-1.45]				
Stroke Events															
Region															
Europe	3	1.29	0.22	4	1.21	0.93	5	1.29	0.71	2	1.22	0.18	2	1.28	NA
		[0.99-1.69]			[1.05-1.40]			[1.07-1.56]			[0.72-2.08]			[0.72-2.27]	
USA/Canada	7	0.94	-	1	1.13	-	1	1.17	-	3	1.39	-	-	-	-
		[0.80-1.11]			[0.86-1.49]			[0.76- 1.81]			[1.15-1.66]				
Asia	4	1.10	-	2	0.99	-	4	1.26	-	1	1.22	-	-	-	-
		[0.90-1.36]			[0.22-4.34]			[0.80-1.98]			[0.72; 2.08]				
Australia															
Middle East	3	1.29	-	2	1.47	-	3	0.91	-	-	-	-	-	-	-
		[0.86-1.93]			[0.59-3.63]			[0.51-1.62]							
Africa	1	1.49	-	-	-	-	-	-	-	-	-	-	-	-	-
		[0.59-3.75]													
South America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pre-existing Cardiovascular Condition															
No	15	1.06	0.87	9	1.22	NA	13	1.24	NA	6	1.23	NA	2	1.28	NA
		[0.95-1.19]			[1.07- 1.40]			[1.06-1.45]			[1.04-1.46]			[0.72-2.27]	
Yes	3	1.03	-	-	-	-	-	1	-	-	-	-	-	-	-
		[0.71- 1.49]													
Heart Disease Events															
Region															
Europe	1	1.12	0.86	6	1.19	0.16	5	1.12	0.18	2	1.12	0.05	2	1.33	NA
		[0.80-1.57]			[1.03-1.21]			[1.03-1.22]			[0.95-1.33]			[0.74-2.38]	
USA/Canada	6	1.10	-	1	1.45	-	2	0.96	-	3	1.47	-	-	-	-
		[0.99-1.21]			[1.15-1.83]			[0.79-1.17]			[1.27-1.70]				
Asia	7	1.19	-	3	0.97	-	6	1.32	-	1	1.24	-	-	-	-
		[1.00-1.41]			[0.62-1.52]			[1.07-1.63]			[0.97-1.60]				
Australia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	3	1.02	-	3	1.0500	-	3	1.2346	-	-	-	-	-	-	-
		[0.72-1.46]			[0.8048; 1.3699]			[0.8307; 1.8349]							
Africa	1	0.96	-	-	-	-	-	-	-	-	-	-	-	-	-
		[0.62-1.48]													
South America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pre-existing Cardiovascular Condition															
No	16	1.11	0.94	13	1.14	NA	15	1.13	0.85	6	1.28	NA	2	1.33	NA
		[1.01-1.21]			[1.06-1.22]			[1.06-1.21]			[1.13-1.46]			[0.74-2.38]	
Yes	2	1.10	-	-	-	-	1	1.19	-	-	-	-	-	-	-
		[0.92-1.30]						[0.69- 2.06]							
Heart Failure Events															

Region															
Europe	1	1.13 [0.82-1.54]	0.25	-	-	NA	-	-	NA	-	-	NA	-	-	NA
USA/	4	0.92 [0.81-1.05]		-	-		1	5.04 [1.00-25.40]		3	1.13 [0.87-1.45]		-	-	
Canada															
Asia	-	-		-	-		-	-		-	-		-	-	
Australia	-	-		-	-		-	-		-	-		-	-	
Middle East	-	-		-	-		-	-		-	-		-	-	
Africa	-	-		-	-		-	-		-	-		-	-	
South	-	-		-	-		-	-		-	-		-	-	
America															
Pre-existing Cardiovascular Conditions															
No	4	0.92 [0.81-1.05]	0.25	-	-	NA	1	5.04 [1.00-25.40]	NA	3	1.13 [0.87-1.45]	NA	-	-	NA
Yes	1	1.13 [0.82-1.55]		-	-		-	-		-	-		-	-	
CKD Events															
Region			0.82			0.04			0.26			0.53			NA
Europe	-	-		-	-		-	-		-	-		-	-	
USA/	3	1.09 [1.00-1.19]		1	1.28 [1.14-1.43]		2	1.14 [1.02-1.28]		2	1.28 [1.02-1.60]		1	1.50 [1.32-1.70]	
Canada															
Asia	-	-		3	1.07 [0.83-1.38]		2	1.40 [0.93-2.11]		1	1.39 [1.21-1.60]		-	-	
Australia	-	-		-	-		-	-		-	-		-	-	
Middle East	2	1.12 [0.89-1.41]		2	0.91 [0.71-1.17]		2	0.94 [0.71-1.25]		-	-		-	-	
Africa	-	-		-	-		-	-		-	-		-	-	
South	-	-		-	-		-	-		-	-		-	-	
America															