

Association of the DI-GM and all-cause and cardiovascular mortality in patients with diabetes or prediabetes

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Supplementary Table 1. Correlation analysis of DI-GM components with all-cause mortality and cardiovascular mortality

Variables	Model 1		Model 2		Model 3	
	HR(95%CI)	P	HR(95%CI)	P	HR(95%CI)	P
All-cause mortality						
Avocado	1.00(0.99,1.00)	0.32	1.00(0.99,1.00)	0.55	1.00(0.99,1.00)	0.69
Broccoli	1.00(1.00,1.00)	0.47	1.00(1.00,1.00)	0.86	1.00(1.00,1.00)	0.62
Chickpea	1.00(0.99,1.01)	0.62	1.00(0.99,1.01)	0.86	1.00(0.99,1.01)	0.95
Coffee	1.00(1.00,1.00)	0.01	1.00(1.00,1.00)	0.90	1.00(1.00,1.00)	0.07
Cranberry	1.00(1.00,1.00)	0.89	1.00(1.00,1.00)	0.02	1.00(1.00,1.00)	0.01
Fermented dairy	1.00(1.00,1.00)	<0.0001	1.00(1.00,1.00)	0.28	1.00(1.00,1.00)	0.96
Fiber	0.98(0.98,0.99)	<0.0001	0.98(0.97,0.99)	<0.001	0.99(0.98,1.00)	0.04
Green tea	1.00(1.00,1.00)	0.07	1.00(1.00,1.00)	0.25	1.00(1.00,1.00)	0.45
Soybean	1.00(1.00,1.00)	0.17	1.00(1.00,1.00)	0.06	1.00(1.00,1.00)	0.34
Whole grains	1.07(1.01,1.13)	0.02	0.98(0.91,1.06)	0.65	1.01(0.94,1.08)	0.79
Fat	0.99(0.99,0.99)	<0.0001	1.00(0.99,1.00)	<0.001	1.00(1.00,1.00)	0.02
Refined grains	0.93(0.91,0.95)	<0.0001	0.99(0.97,1.02)	0.60	0.99(0.97,1.02)	0.55
Processed meat	0.96(0.93,0.99)	0.02	0.98(0.95,1.02)	0.40	0.98(0.94,1.01)	0.21
Red meat	0.96(0.95,0.98)	<0.001	1.00(0.98,1.02)	0.94	1.00(1.08,1.09)	<0.0001
Cardiovascular mortality						
Avocado	0.99(0.97,1.00)	0.02	0.99(0.98,1.00)	0.05	0.99(0.98,1.00)	0.06
Broccoli	1.00(1.00,1.00)	0.46	1.00(1.00,1.00)	0.86	1.00(1.00,1.00)	0.83
Chickpea	1.00(0.99,1.01)	0.80	1.00(0.99,1.01)	0.95	1.00(0.99,1.01)	0.94
Coffee	1.00(1.00,1.00)	0.89	1.00(1.00,1.00)	0.15	1.00(1.00,1.00)	0.04
Cranberry	1.00(1.00,1.00)	0.46	1.00(1.00,1.00)	0.02	1.00(1.00,1.00)	0.01
Fermented dairy	1.00(1.00,1.00)	<0.0001	1.00(1.00,1.00)	0.60	1.00(1.00,1.00)	0.97
Fiber	0.99(0.98,1.01)	0.32	0.99(0.97,1.01)	0.33	1.00(0.98,1.02)	0.79
Green tea	1.00(1.00,1.00)	0.51	1.00(1.00,1.00)	0.86	1.00(1.00,1.00)	0.93
Soybean	1.00(1.00,1.00)	0.14	1.00(1.00,1.00)	0.07	1.00(1.00,1.00)	0.37
Whole grains	1.10(0.98,1.22)	0.10	1.00(0.86,1.17)	0.97	1.03(0.88,1.20)	0.73
Fat	0.99(0.99,1.00)	<0.0001	1.00(0.99,1.00)	0.31	1.00(1.00,1.00)	0.76
Refined grains	0.93(0.90,0.96)	<0.0001	1.00(0.97,1.04)	0.82	1.00(0.97,1.03)	0.95
Processed meat	0.97(0.92,1.02)	0.23	0.99(0.94,1.05)	0.76	0.99(0.93,1.05)	0.71
Red meat	0.99(0.95,1.02)	0.45	1.03(0.99,1.07)	0.17	1.03(1.10,1.13)	0.18

HR: hazard ratio, CI: confidence interval, Ref: reference

Model 1: No adjustments made;

Model 2: Adjusted for age, sex, Race;

Model 3: Adjusted for age, sex, Race, PIR, smoke, alcohol, BMI, Cancer, hypertension, CVD, marital and education;

Supplementary Table 2. Sensitivity analysis excluding patients on antidiabetic therapy

		Model 1		Model 2		Model 3	
		HR(95%CI)	P	HR(95%CI)	P	HR(95%CI)	P
All-cause mortality							
DI-GM		1.00(0.95,1.04)	0.90	0.93(0.88,0.97)	0.001	0.96(0.91,1.00)	0.06
DI-GM Quartiles							
Q1	Ref		Ref	Ref	Ref	Ref	Ref
Q2		0.97(0.78,1.21)	0.81	0.89(0.73,1.09)	0.27	0.95(0.78,1.16)	0.61
Q3		1.01(0.83,1.22)	0.91	0.86(0.71,1.03)	0.10	0.91(0.75,1.10)	0.32
Q4		0.86(0.70,1.05)	0.14	0.69(0.55,0.87)	0.001	0.80(0.64,1.00)	0.05
P for trend		0.961		0.012		0.114	
Cardiovascular mortality							
DI-GM		0.95(0.87,1.03)	0.19	0.87(0.80,0.95)	0.002	0.90(0.83,0.97)	0.01
DI-GM Quartiles							
Q1	Ref		Ref	Ref	Ref	Ref	Ref
Q2		0.97(0.66,1.42)	0.86	0.91(0.62,1.34)	0.63	0.95(0.65,1.40)	0.81
Q3		0.82(0.58,1.15)	0.25	0.69(0.49,0.97)	0.03	0.70(0.49,0.99)	0.05
Q4		0.79(0.51,1.24)	0.31	0.55(0.35,0.87)	0.01	0.63(0.41,0.97)	0.04
P for trend		0.276		0.005		0.020	

HR: hazard ratio, CI: confidence interval, Ref: reference

Model 1: No adjustments made;

Model 2: Adjusted for age, sex, Race;

Model 3: Adjusted for age, sex, Race, PIR, smoke, alcohol, BMI, Cancer, hypertension, CVD, marital and education;

Supplementary Table 3. Sensitivity analyses excluded patients with self-reported cancer

		Model 1		Model 2		Model 3	
		HR(95%CI)	P	HR(95%CI)	P	HR(95%CI)	P
All-cause mortality							
DI-GM		0.97(0.93,1.02)	0.22	0.93(0.89,0.97)	<0.001	0.96(0.92,1.00)	0.07
DI-GM Quartiles							
Q1		Ref	Ref	Ref	Ref	Ref	Ref
Q2		0.97(0.79,1.20)	0.81	0.92(0.76,1.12)	0.42	0.98(0.82,1.18)	0.87
Q3		1.01(0.83,1.22)	0.91	0.93(0.77,1.12)	0.45	0.99(0.82,1.19)	0.93
Q4		0.86(0.70,1.05)	0.14	0.68(0.55,0.84)	<0.001	0.80(0.65,0.99)	0.04
P for trend		0.303		0.004		0.082	
Cardiovascular mortality							
DI-GM		0.92(0.87,0.98)	0.01	0.87(0.82,0.93)	<0.0001	0.91(0.85,0.96)	0.001
DI-GM Quartiles							
Q1		Ref	Ref	Ref	Ref	Ref	Ref
Q2		0.92(0.64,1.32)	0.64	0.87(0.60,1.25)	0.44	0.91(0.63,1.31)	0.91
Q3		0.91(0.68,1.21)	0.52	0.83(0.62,1.11)	0.22	0.87(0.64,1.18)	0.87
Q4		0.71(0.49,1.04)	0.08	0.53(0.37,0.77)	<0.001	0.64(0.45,0.90)	0.01
P for trend		0.139		0.002		0.028	

HR: hazard ratio, CI: confidence interval, Ref: reference

Model 1: No adjustments made;

Model 2: Adjusted for age, sex, Race;

Model 3: Adjusted for age, sex, Race, PIR, smoke, alcohol, BMI, Cancer, hypertension, CVD, marital and education;

Supplementary Table 4.Sensitivity Analysis Non-Weighted Data

		Model 1		Model 2		Model 3	
		HR(95%CI)	P	HR(95%CI)	P	HR(95%CI)	P
All-cause mortality							
DI-GM		0.96(0.93,0.99)	0.003	0.92(0.89,0.94)	<0.0001	0.94(0.91,0.97)	<0.0001
DI-GM Quartiles							
Q1	Ref	Ref		Ref		Ref	
Q2		0.94(0.83,1.07)	0.34	0.90(0.79,1.02)	0.09	0.93(0.82,1.05)	0.25
Q3		0.96(0.84,1.10)	0.58	0.85(0.74,0.97)	0.02	0.90(0.79,1.03)	0.14
Q4		0.82(0.71,0.94)	0.004	0.66(0.58,0.76)	<0.0001	0.76(0.66,0.88)	<0.001
P for trend		0.056		<0.0001		0.004	
Cardiovascular mortality							
DI-GM		0.93(0.88,0.98)	0.004	0.88(0.84,0.92)	<0.0001	0.91(0.86,0.95)	<0.001
DI-GM Quartiles							
Q1	Ref	Ref		Ref		Ref	
Q2		0.82(0.66,1.03)	0.09	0.78(0.62,0.98)	0.03	0.80(0.64,1.01)	0.06
Q3		0.85(0.67,1.09)	0.20	0.73(0.57,0.93)	0.01	0.77(0.60,0.98)	0.03
Q4		0.75(0.59,0.96)	0.02	0.58(0.45,0.74)	<0.0001	0.68(0.53,0.88)	0.003
P for trend		0.276		0.004		0.069	

HR: hazard ratio, CI: confidence interval, Ref: reference

Model 1: No adjustments made;

Model 2: Adjusted for age, sex, Race;

Model 3: Adjusted for age, sex, Race, PIR, smoke, alcohol, BMI, Cancer, hypertension, CVD, marital and education;