

SUPPLEMENTARY DATA

Long-term absolute risk for cardiovascular disease stratified by fasting glucose level

Short-title: Blood glucose and absolute cardiovascular risk

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Supplementary Table 1. Incidence rates and 95% confidence intervals for atherosclerotic cardiovascular disease including fatal and non-fatal coronary heart disease and stroke according to fasting glucose category for index ages 45, 55, 65, and 75 years

	Incidence per 1000 Person Years (PY) and 95% Confidence Intervals						
Index Age 45		ASCVD		CHD		Stroke	
Fasting Glucose (FG) Category	N	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)
FG <5.0 mmol/L	4829	214 / 71180.5	3.0 (2.6, 3.4)	146 / 71602	2.0 (1.7, 2.4)	154 / 63914	2.4 (2, 2.8)
FG 5.0-5.5 mmol/L	3952	222 / 61460	3.6 (3.1, 4.1)	156 / 61742	2.5 (2.1, 2.9)	220 / 98517	2.2 (1.9, 2.5)
FG 5.6-6.2 mmol/L	1859	165 / 29898	5.5 (4.7, 6.4)	119 / 30194	3.9 (3.2, 4.6)	209 / 74807	2.8 (2.4, 3.2)
FG 6.3-6.9 mmol/L	369	46 / 5792.5	7.9 (5.6, 10.2)	29 / 5895	4.9 (3.1, 6.7)	70 / 18480	3.8 (2.9, 4.7)
FG ≥7.0 mmol/L or diabetes medications (Rx)	611	123 / 7945	15.5 (12.7, 18.2)	87 / 8128	10.7 (8.5, 13)	224 / 23888	9.4 (8.1, 10.6)
Index Age 55		ASCVD		CHD		Stroke	
Fasting Glucose (FG) Category	N	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)
FG <5.0 mmol/L	4798	385 / 62625.5	6.1 (5.5, 6.8)	263 / 63258	4.2 (3.7, 4.7)	154 / 63914	2.4 (2, 2.8)
FG 5.0-5.5 mmol/L	6772	584 / 96479	6.1 (5.6, 6.5)	397 / 97495	4.1 (3.7, 4.5)	220 / 98517	2.2 (1.9, 2.5)
FG 5.6-6.2 mmol/L	4883	559 / 72711	7.7 (7.1, 8.3)	396 / 73500	5.4 (4.9, 5.9)	209 / 74807	2.8 (2.4, 3.2)
FG 6.3-6.9 mmol/L	1234	192 / 17831	10.8 (9.2, 12.3)	135 / 18188	7.4 (6.2, 8.7)	70 / 18480	3.8 (2.9, 4.7)
FG ≥7.0 mmol/L or diabetes medications (Rx)	1943	497 / 22477	22.1 (20.2, 24.1)	339 / 23329	14.5 (13, 16.1)	224 / 23888	9.4 (8.1, 10.6)
Index Age 65		ASCVD		CHD		Stroke	
Fasting Glucose (FG) Category	N	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)
FG <5.0 mmol/L	3020	403 / 37675.5	10.7 (9.7, 11.7)	244 / 38439	6.3 (5.6, 7.1)	195 / 38606	5.1 (4.3, 5.8)
FG 5.0-5.5 mmol/L	5199	820 / 69299.5	11.8 (11, 12.6)	524 / 70576	7.4 (6.8, 8.1)	358 / 71253	5.0 (4.5, 5.5)
FG 5.6-6.2 mmol/L	4327	828 / 58421.5	14.2 (13.2, 15.1)	577 / 59620	9.7 (8.9, 10.5)	322 / 60618	5.3 (4.7, 5.9)
FG 6.3-6.9 mmol/L	1252	255 / 16359.5	15.6 (13.7, 17.5)	166 / 16803	9.9 (8.4, 11.4)	105 / 16956	6.2 (5, 7.4)
FG ≥7.0 mmol/L or diabetes medications (Rx)	2237	670 / 24212.5	27.7 (25.6, 29.8)	480 / 25232	19.0 (17.3, 20.7)	265 / 25584	10.4 (9.1, 11.6)
Index Age 75		ASCVD		CHD		Stroke	
Fasting Glucose (FG) Category	N	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)	Events/PY	Incidence (95%)
FG <5.0 mmol/L	1833	383 / 19586	19.6 (17.6, 21.5)	236 / 20086	11.7 (10.3, 13.2)	181 / 20120	9.0 (7.7, 10.3)
FG 5.0-5.5 mmol/L	2861	706 / 31536	22.4 (20.7, 24)	454 / 32483	14.0 (12.7, 15.3)	337 / 32579	10.3 (9.2, 11.4)
FG 5.6-6.2 mmol/L	2102	582 / 22398	26 (23.9, 28.1)	394 / 23165	17.0 (15.3, 18.7)	256 / 23476	10.9 (9.6, 12.2)
FG 6.3-6.9 mmol/L	635	197 / 6515	30.2 (26, 34.5)	125 / 6805	18.4 (15.1, 21.6)	90 / 6797	13.2 (10.5, 16)
FG ≥7.0 mmol/L or diabetes medications (Rx)	1238	407 / 11227.5	36.3 (32.7, 39.8)	287 / 11716	24.5 (21.7, 27.3)	185 / 11738	15.8 (13.5, 18)

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Supplementary Table 2. Long-term risk for incident atherosclerotic cardiovascular disease (including fatal and non-fatal coronary heart disease and stroke) according to fasting glucose category at index age 55 when not accounting for the competing risk of non-atherosclerotic cardiovascular disease death

	30-Year Risk for Incident Atherosclerotic Cardiovascular Disease, Probability (95% CI)							
Women	White Women				Black Women			
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	N	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	2231	152	16.2 (12.5, 19.9)	Reference	1083	53	19.0 (8.1, 29.9)	Reference
FG 5.0-5.5 mmol/L	2744	183	16.6 (13.4, 19.9)	0.98 (0.80, 1.20)	1072	64	18.8 (12.9, 24.8)	1.22 (0.86, 1.74)
FG 5.6-6.2 mmol/L	1540	132	16.5 (13.1, 19.9)	1.26 (1.01, 1.57)	773	69	20.2 (14.0, 26.3)	1.82 (1.29, 2.58)
FG 6.3-6.9 mmol/L	307	32	19.7 (12.6, 26.8)	1.53 (1.07, 2.20)	221	22	27.2 (9.0, 45.3)	2.03 (1.26, 3.27)
FG ≥7.0 mmol/L or diabetes medications (Rx)	421	107	43.9 (36.6, 51.2)	3.73 (2.98, 4.67)	623	123	43.8 (34.4, 53.3)	4.03 (2.97, 5.48)
Men	White Men				Black Men			
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	N	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	974	140	26.1 (21.3, 30.9)	Reference	510	40	27.6 (15.7, 39.5)	Reference
FG 5.0-5.5 mmol/L	2188	259	22.5 (19.4, 25.6)	1.74 (1.43, 2.10)	768	78	35.1 (23.9, 46.4)	2.08 (1.48, 2.91)
FG 5.6-6.2 mmol/L	1993	288	26.1 (22.5, 29.8)	2.12 (1.76, 2.56)	577	70	25.2 (18.0, 32.4)	2.48 (1.76, 3.49)
FG 6.3-6.9 mmol/L	522	105	33.7 (26.2, 41.2)	2.95 (2.35, 3.71)	184	33	41.5 (27.0, 55.9)	3.66 (2.44, 5.50)
FG ≥7.0 mmol/L or diabetes medications (Rx)	513	169	53.5 (46.4, 60.7)	4.84 (3.97, 5.89)	386	98	67.6 (50.6, 84.6)	5.19 (3.79, 7.10)

*RR: relative risk (95% confidence interval)

†Absolute risk estimates can account for competing risk of death but cannot adjust for covariates

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Supplementary Table 3. Long-term risk for incident atherosclerotic cardiovascular disease (including fatal and non-fatal coronary heart disease and stroke, and adjusted for competing risk of death) according to fasting glucose category starting at index age 45

		30-Year Risk for Atherosclerotic Cardiovascular Disease, Probability (95% CI)								
Women		ASCVD			CHD			Stroke		
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	3193	99	5.6 (4.2, 7.0)	Reference	49	3.2 (2.1, 4.3)	Reference	55	2.8 (1.9, 3.8)	Reference
FG 5.0-5.5 mmol/L	2123	77	6.1 (4.7, 7.6)	1.17 (0.90, 1.53)	45	3.5 (2.4, 4.6)	1.38 (0.92, 2.06)	36	3.1 (2.0, 4.3)	0.98 (0.65, 1.49)
FG 5.6-6.2 mmol/L	826	46	8.3 (5.7, 10.9)	1.80 (1.30, 2.47)	29	4.9 (2.9, 6.9)	2.29 (1.45, 3.60)	22	4.0 (2.1, 5.9)	1.55 (0.95, 2.52)
FG 6.3-6.9 mmol/L	164	16	14.1 (7.5, 20.6)	3.15 (1.93, 5.14)	9	8.1 (2.9, 13.3)	3.58 (1.79, 7.15)	10	8.7 (3.5, 14.0)	3.54 (1.84, 6.82)
FG ≥7.0 mmol/L or diabetes medications (Rx)	328	62	31.1 (23.9, 38.3)	6.10 (4.65, 8.00)	39	18.7 (13.0, 24.4)	7.75 (5.17, 11.62)	31	17.0 (10.7, 23.3)	5.49 (3.59, 8.39)
Men		ASCVD			CHD			Stroke		
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	1636	115	14.8 (11.1, 18.4)	Reference	97	12.3 (8.9, 15.8)	Reference	31	3.9 (2.0, 5.7)	Reference
FG 5.0-5.5 mmol/L	1829	145	13.4 (11.0, 15.8)	1.13 (0.89, 1.43)	111	9.5 (7.7, 11.4)	1.02 (0.79, 1.33)	46	5.2 (3.4, 7.0)	1.33 (0.85, 2.08)
FG 5.6-6.2 mmol/L	1033	119	17.7 (14.4, 21.0)	1.64 (1.28, 2.09)	90	13.6 (10.6, 16.7)	1.47 (1.11, 1.94)	34	4.8 (3.2, 6.4)	1.74 (1.07, 2.81)
FG 6.3-6.9 mmol/L	205	30	23.1 (14.5, 31.7)	2.08 (1.43, 3.03)	20	12.9 (7.4, 18.3)	1.65 (1.04, 2.60)	12	11.6 (3.9, 19.3)	3.09 (1.61, 5.92)
FG ≥7.0 mmol/L or diabetes medications (Rx)	283	61	33.3 (26.1, 40.5)	3.07 (2.31, 4.07)	48	26.8 (19.9, 33.6)	2.86 (2.07, 3.95)	20	12.0 (6.8, 17.2)	3.73 (2.16, 6.45)
Subsample with concurrent FG and HbA1c		20-Year Risk for Atherosclerotic Cardiovascular Disease, Probability (95% CI)								
Women		ASCVD			CHD			Stroke		
FG and HbA1c Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.6 mmol/L and HbA1c <5.7% (<39 mmol/mol)	1873	21	1.8 (1.0, 2.6)	Reference	11	0.9 (0.3, 1.4)	Reference	12	1.0 (0.4, 1.7)	Reference
FG 5.6-6.9 mmol/L or HbA1c 5.7-6.4% (39-47 mmol/mol)	757	13	5.0 (0.2, 9.8)	1.53 (0.77, 3.04)	5	1.4 (0.0, 2.9)	1.12 (0.39, 3.23)	8	3.6 (0.0, 8.2)	1.65 (0.68, 4.02)
FG ≥7.0 mmol/L, HbA1c ≥6.5% (≥48 mmol/mol), or diabetes Rx	211	18	13.2 (6.6, 19.8)	7.61 (4.12, 14.05)	10	7.8 (2.2, 13.3)	8.07 (3.47, 18.78)	9	5.9 (2.1, 9.7)	6.66 (2.84, 15.62)

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Men		ASCVD			CHD			Stroke		
FG and HbA1c Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.6 mmol/L and HbA1c <5.7% (<39 mmol/mol)	1119	37	5.8 (3.5, 8.0)	Reference	27	4.0 (2.4, 5.7)	Reference	11	1.9 (0.3, 3.5)	Reference
FG 5.6-6.9 mmol/L or HbA1c 5.7-6.4% (39-47 mmol/mol)	837	31	7.4 (4.1, 10.7)	1.12 (0.70, 1.79)	24	5.9 (2.8, 9.0)	1.19 (0.69, 2.04)	11	2.3 (0.9, 3.8)	1.34 (0.58, 3.07)
FG ≥7.0 mmol/L, HbA1c ≥6.5% (≥48 mmol/mol), or diabetes Rx	176	12	13.5 (5.9, 21.1)	2.06 (1.10, 3.88)	6	7.7 (1.4, 13.9)	1.41 (0.59, 3.37)	7	7.5 (1.8, 13.2)	4.05 (1.59, 10.30)

*RR: relative risk (95% confidence interval)

†Absolute risk estimates can account for competing risk of death but cannot adjust for covariates

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Supplementary Table 4. Long-term risk for incident atherosclerotic cardiovascular disease (including fatal and non-fatal coronary heart disease and stroke, and adjusted for competing risk of death) according to fasting glucose category starting at index age 65

		30-Year Risk for Atherosclerotic Cardiovascular Disease, Probability (95% CI)								
Women		ASCVD			CHD			Stroke		
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	2002	234	29.8 (25.1, 34.4)	Reference	139	17.6 (13.9, 21.2)	Reference	117	14.7 (11.2, 18.1)	Reference
FG 5.0-5.5 mmol/L	2941	391	32.2 (28.4, 35.9)	1.14 (0.98, 1.32)	216	17.2 (14.3, 20.1)	1.06 (0.86, 1.30)	198	16.9 (13.9, 19.8)	1.15 (0.92, 1.44)
FG 5.6-6.2 mmol/L	2099	351	30.3 (26.9, 33.8)	1.43 (1.23, 1.67)	223	20.0 (16.9, 23.0)	1.53 (1.25, 1.87)	159	13.6 (11.2, 16.0)	1.30 (1.03, 1.63)
FG 6.3-6.9 mmol/L	603	108	31.0 (24.8, 37.2)	1.53 (1.24, 1.89)	65	19.6 (14.1, 25.1)	1.55 (1.17, 2.05)	49	13.0 (9.2, 16.8)	1.39 (1.01, 1.92)
FG ≥7.0 mmol/L or diabetes medications (Rx)	1176	302	43.4 (38.1, 48.7)	2.20 (1.88, 2.56)	211	31.6 (26.7, 36.6)	2.58 (2.11, 3.16)	132	18.0 (14.8, 21.1)	1.92 (1.51, 2.44)
Men		ASCVD			CHD			Stroke		
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	1018	169	30.2 (24.7, 35.8)	Reference	105	19.6 (14.8, 24.5)	Reference	78	13.8 (10.0, 17.5)	Reference
FG 5.0-5.5 mmol/L	2258	429	32.8 (29.2, 36.5)	1.14 (0.97, 1.35)	308	23.6 (20.3, 26.8)	1.32 (1.07, 1.63)	160	12.5 (10.1, 14.9)	0.92 (0.71, 1.20)
FG 5.6-6.2 mmol/L	2228	477	36.1 (32.4, 39.9)	1.29 (1.10, 1.51)	354	29.5 (25.7, 33.2)	1.54 (1.26, 1.89)	163	11.0 (9.1, 12.8)	0.95 (0.74, 1.24)
FG 6.3-6.9 mmol/L	649	147	36.9 (30.2, 43.6)	1.36 (1.12, 1.66)	101	27.7 (21.1, 34.4)	1.51 (1.17, 1.95)	56	12.5 (9.0, 16.0)	1.13 (0.81, 1.56)
FG ≥7.0 mmol/L or diabetes medications (Rx)	1061	368	52.0 (46.7, 57.2)	2.09 (1.78, 2.45)	269	39.5 (34.4, 44.6)	2.46 (2.00, 3.03)	133	18.8 (15.2, 22.5)	1.64 (1.25, 2.13)
Subsample with concurrent FG and HbA1c		20-Year Risk for Atherosclerotic Cardiovascular Disease, Probability (95% CI)								
Women		ASCVD			CHD			Stroke		
FG and HbA1c Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.6 mmol/L and HbA1c <5.7% (<39 mmol/mol)	453	28	12.5 (7.5, 17.5)	Reference	18	8.8 (4.3, 13.3)	Reference	13	5.3 (1.9, 8.7)	Reference
FG 5.6-6.9 mmol/L or HbA1c 5.7-6.4% (39-47 mmol/mol)	567	29	12.7 (7.4, 18.0)	0.83 (0.50, 1.37)	10	5.4 (1.2, 9.6)	0.44 (0.21, 0.95)	21	8.7 (4.8, 12.6)	1.29 (0.65, 2.55)
FG ≥7.0 mmol/L, HbA1c ≥6.5%	469	87	25.7 (18.4, 33.0)	3.00 (2.00, 4.50)	54	15.6 (9.2, 24.0)	2.90 (1.73, 4.80)	41	11.3 (7.0, 16.6)	3.05 (1.65, 5.65)

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(≥48 mmol/mol), or diabetes Rx			32.9)	4.50)		22.0)	4.86)		15.7)	5.61)
Men										
FG and HbA1c Category	N	ASCVD			CHD			Stroke		
		Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.6 mmol/L and HbA1c <5.7% (<39 mmol/mol)	288	27	15.6 (9.2, 22.1)	Reference	13	10.4 (4.5, 16.2)	Reference	15	5.9 (2.6, 9.2)	Reference
FG 5.6-6.9 mmol/L or HbA1c 5.7-6.4% (39-47 mmol/mol)	466	40	20.2 (13.1, 27.2)	0.92 (0.57, 1.46)	24	12.0 (6.5, 17.5)	1.14 (0.59, 2.20)	21	10.6 (5.3, 15.8)	0.87 (0.45, 1.65)
FG ≥7.0 mmol/L, HbA1c ≥6.5% (≥48 mmol/mol), or diabetes Rx	292	84	42.7 (32.3, 53.1)	3.07 (2.05, 4.59)	57	25.6 (18.8, 32.4)	4.32 (2.42, 7.72)	36	21.4 (12.2, 30.6)	2.37 (1.33, 4.23)

*RR: relative risk (95% confidence interval)

†Absolute risk estimates can account for competing risk of death but cannot adjust for covariates

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Supplementary Table 5. Long-term risk for incident atherosclerotic cardiovascular disease (including fatal and non-fatal coronary heart disease and stroke, and adjusted for competing risk of death) according to fasting glucose category starting at index age 75

		25-Year Risk for Atherosclerotic Cardiovascular Disease, Probability (95% CI)								
Women		ASCVD			CHD			Stroke		
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	1218	237	26.6 (23.4, 29.9)	Reference	134	18.7 (15.2, 22.3)	Reference	129	17.2 (13.8, 20.6)	Reference
FG 5.0-5.5 mmol/L	1667	390	29.7 (26.9, 32.4)	1.20 (1.04, 1.39)	232	23.9 (20.7, 27.1)	1.27 (1.04, 1.54)	210	20.0 (17.1, 22.8)	1.19 (0.97, 1.46)
FG 5.6-6.2 mmol/L	1070	286	32.2 (28.8, 35.5)	1.37 (1.18, 1.60)	171	25.1 (21.3, 28.8)	1.45 (1.18, 1.79)	151	19.7 (16.6, 22.8)	1.33 (1.07, 1.66)
FG 6.3-6.9 mmol/L	311	101	37.2 (31.0, 43.4)	1.67 (1.37, 2.03)	58	24.1 (18.3, 29.9)	1.70 (1.28, 2.25)	53	21.7 (16.2, 27.1)	1.61 (1.20, 2.16)
FG ≥7.0 mmol/L or diabetes medications (Rx)	638	184	40.3 (35.3, 45.4)	1.48 (1.25, 1.75)	123	32.8 (26.2, 39.3)	1.75 (1.40, 2.2)	89	20.5 (16.3, 24.7)	1.32 (1.02, 1.70)
Men		ASCVD			CHD			Stroke		
Fasting Glucose (FG) Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.0 mmol/L	615	146	33.9 (28.7, 39.1)	Reference	102	26.8 (20.8, 32.7)	Reference	52	17.0 (11.3, 22.8)	Reference
FG 5.0-5.5 mmol/L	1194	316	32.7 (29.4, 36.1)	1.11 (0.94, 1.32)	222	26.0 (22.7, 29.3)	1.12 (0.91, 1.39)	127	15.6 (12.7, 18.5)	1.26 (0.92, 1.71)
FG 5.6-6.2 mmol/L	1032	296	35.8 (32.0, 39.7)	1.21 (1.02, 1.43)	223	34.3 (30.0, 38.6)	1.30 (1.05, 1.61)	105	14.8 (11.9, 17.7)	1.20 (0.88, 1.65)
FG 6.3-6.9 mmol/L	324	96	39.6 (32.6, 46.5)	1.25 (1.00, 1.55)	67	30.1 (23.4, 36.8)	1.25 (0.94, 1.65)	37	16.3 (11.2, 21.3)	1.35 (0.91, 2.01)
FG ≥7.0 mmol/L or diabetes medications (Rx)	600	223	47.9 (41.9, 53.9)	1.57 (1.31, 1.87)	164	38.6 (33.1, 44.2)	1.65 (1.32, 2.05)	96	22.9 (18.2, 27.6)	1.89 (1.38, 2.60)
Subsample with concurrent FG and HbA1c		15-Year Risk for Atherosclerotic Cardiovascular Disease, Probability (95% CI)								
Women		ASCVD			CHD			Stroke		
FG and HbA1c Category	N	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.6 mmol/L and HbA1c <5.7% (<39 mmol/mol)	187	23	14.1 (7.6, 20.5)	Reference	10	7.8 (2.9, 12.7)	Reference	16	9.0 (3.5, 14.5)	Reference
FG 5.6-6.9 mmol/L or HbA1c 5.7-6.4% (39-47 mmol/mol)	233	24	15.9 (9.6, 22.2)	0.84 (0.49, 1.44)	10	6.4 (2.4, 10.5)	0.80 (0.34, 1.89)	16	11.0 (5.5, 16.6)	0.80 (0.41, 1.56)
FG ≥7.0 mmol/L, HbA1c ≥6.5%	1492	527	25.2 (22.8, 27.6)	2.87 (1.95, 4.23)	318	20.1 (17.9, 22.3)	3.99 (2.16, 7.34)	271	14.2 (12.2, 16.2)	2.12 (1.31, 3.43)

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(≥48 mmol/mol), or diabetes Rx			27.6)	4.24)		22.3)	7.34)		16.1)	3.43)
Men										
FG and HbA1c Category	N	ASCVD			CHD			Stroke		
		Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)	Events	Absolute Risk (95%)	RR* (95%)
FG <5.6 mmol/L and HbA1c <5.7% (<39 mmol/mol)	108	19	28.3 (14.4, 42.2)	Reference	9	10.9 (4.2, 17.7)	Reference	12	20.3 (7.2, 33.4)	Reference
FG 5.6-6.9 mmol/L or HbA1c 5.7-6.4% (39-47 mmol/mol)	205	24	19.4 (10.7, 28.2)	0.67 (0.38, 1.16)	14	12.2 (4.9, 19.5)	0.82 (0.37, 1.83)	11	8.1 (2.6, 13.7)	0.48 (0.22, 1.06)
FG ≥7.0 mmol/L, HbA1c ≥6.5% (≥48 mmol/mol), or diabetes Rx	955	398	36.6 (32.7, 40.6)	2.37 (1.56, 3.59)	298	32.9 (29.3, 36.5)	3.74 (1.99, 7.05)	146	13.5 (10.8, 16.2)	1.38 (0.79, 2.39)

*RR: relative risk (95% confidence interval)

†Absolute risk estimates can account for competing risk of death but cannot adjust for covariates

SUPPLEMENTARY DATA

Supplementary Table 6. Long-term risk for incident cardiovascular disease (including fatal and non-fatal coronary heart disease and stroke) according to fasting glucose category at index age 55 when stratifying by the presence of other cardiovascular risk factors

30-Year Risk for Cardiovascular Disease, Probability (95% CI)												
Fasting Glucose (FG) Category												
Women	FG <5.6 mmol/L				FG 5.6-6.9 mmol/L				FG ≥7.0 mmol/L or diabetes Rx			
Stratum of CVD Risk Factors	N	Events	Absolute Risk (95%)	RR* (95%)	N	Events	Absolute Risk (95%)	RR* (95%)	N	Events	Absolute Risk (95%)	RR* (95%)
0 Risk factors	1924	58	11.6 (7.1, 16.1)	Reference	406	18	10.0 (3.7, 16.2)	1.47 (0.88, 2.47)	41	3	13.8 (0.0, 30.0)	2.43 (0.79, 7.43)
1 Risk Factors	2456	142	14.6 (11.3, 17.9)	Reference	845	57	11.1 (8.0, 14.3)	1.17 (0.87, 1.57)	175	35	30.4 (21.0, 39.8)	3.46 (2.47, 4.84)
2 Risk Factors	1773	160	17.1 (13.9, 20.2)	Reference	1008	108	18.7 (14.6, 22.8)	1.19 (0.94, 1.50)	436	96	37.1 (28.6, 45.6)	2.44 (1.94, 3.07)
3-4 Risk Factors	646	88	28.0 (21.6, 34.5)	Reference	460	71	26.9 (20.8, 33.0)	1.13 (0.85, 1.51)	338	91	49.0 (38.9, 59.1)	1.98 (1.52, 2.57)
FG Category												
Men	FG <5.6 mmol/L				FG 5.6-6.9 mmol/L				FG ≥7.0 mmol/L or diabetes Rx			
Stratum of CVD Risk Factors	N	Events	Absolute Risk (95%)	RR* (95%)	N	Events	Absolute Risk (95%)	RR* (95%)	N	Events	Absolute Risk (95%)	RR* (95%)
0 Risk factors	1092	64	11.7 (8.3, 15.1)	Reference	606	63	19.4 (13.3, 25.5)	1.77 (1.27, 2.48)	63	15	35.2 (17.0, 53.4)	4.06 (2.46, 6.71)
1 Risk Factors	1681	177	20.3 (16.9, 23.6)	Reference	1172	141	19.3 (15.8, 22.8)	1.14 (0.93, 1.41)	225	71	45.6 (36.4, 54.7)	3.00 (2.36, 3.80)
2 Risk Factors	1138	198	29.5 (25.3, 33.6)	Reference	994	192	29.3 (25.1, 33.6)	1.11 (0.93, 1.33)	348	110	45.1 (38.0, 52.1)	1.82 (1.49, 2.22)
3-4 Risk Factors	349	74	37.9 (28.5, 47.3)	Reference	400	96	42.7 (33.7, 51.7)	1.13 (0.87, 1.48)	217	64	62.7 (51.5, 73.9)	1.39 (1.04, 1.86)

*RR: relative risk (95% confidence interval)

†Absolute risk estimates can account for competing risk of death but cannot adjust for covariates

§Risk factors were summed as the aggregate of hypertension, obesity, current smoking, and high cholesterol (range 0-4). Hypertension defined as systolic blood pressure/diastolic blood pressure: 140/90 mm Hg or use of blood pressure lowering medications. Obesity defined as body mass index ≥ 30 kg/m². Current smoking defined as self-report of being a current smoker. High cholesterol defined as total cholesterol ≥ 6.2 mmol/L or use of cholesterol lowering medications.

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Supplementary Table 7. Long-term risk for incident cardiovascular disease (including fatal and non-fatal coronary heart disease and stroke, and adjusted for competing risk of death) according to fasting glucose category at index age 55, when excluding each individual cohort

30-Year Risk for Cardiovascular Disease, Probability (95% CI)			
Fasting Glucose (FG) Category			
Women	FG <5.6 mmol/L	FG 5.6-6.9 mmol/L	FG ≥7.0 mmol/L or diabetes medication use
Excluding ARIC	16.0 (12.2, 19.8)	18.9 (10.2, 27.6)	42.2 (29.3, 55.1)
Excluding CARDIA	17.3 (15.1, 19.6)	16.6 (14.2, 18.9)	38.7 (33.3, 44.0)
Excluding FOS	15.6 (13.4, 17.7)	16.1 (13.7, 18.5)	38.1 (32.8, 43.4)
Excluding JHS	15.7 (13.7, 17.6)	16.4 (14.0, 18.7)	38.9 (33.6, 44.1)
Excluding MESA	15.7 (13.8, 17.7)	16.5 (14.2, 18.8)	39.5 (34.0, 44.9)
Men	FG <5.6 mmol/L	FG 5.6-6.9 mmol/L	FG ≥7.0 mmol/L or diabetes medication use
Excluding ARIC	22.5 (18.4, 26.7)	26.9 (18.7, 35.1)	53.2 (40.1, 66.2)
Excluding CARDIA	22.2 (20.1, 24.4)	25.5 (23.0, 27.9)	48.3 (43.4, 53.3)
Excluding FOS	21.9 (19.5, 24.3)	24.6 (22.0, 27.2)	47.0 (41.8, 52.2)
Excluding JHS	22.6 (20.4, 24.7)	25.1 (22.7, 27.6)	47.7 (42.7, 52.7)
Excluding MESA	22.8 (20.6, 25.0)	25.3 (22.8, 27.7)	48.6 (43.6, 53.6)

*Abbreviations: ARIC, Atherosclerosis Risk in Communities Study; CARDIA, Coronary Artery Risk Development in Young Adults; FOS, Framingham Offspring Study; JHS, Jackson Heart Study; MESA, Multi-Ethnic Study of Atherosclerosis

†Absolute risk estimates can account for competing risk of death but cannot adjust for covariates

§Each row includes 4 of the 5 cohorts; ARIC, CARDIA, FOS, JHS, and MESA. The Cardiovascular Health Study and Framingham Heart Study were excluded from this sensitivity analysis due to all participants from each cohort having age greater than 55 years at the time of glucose status.