

1 **Supplementary eTable 1. As community-based entirely random samples, ICELAND MI participants and AGES participants**  
 2 **exhibit nearly identical characteristics.**

Variable	ICELAND MI (all phase1, regardless of CMR scan) N=702	AGES N=2254
Age, median (IQR), yrs	75 (72-81)	76 (72-81)
Female Gender, No. (%)	379 (54%)	1284 (57%)
Diabetes, No. (%)	77 (11%)	270 (12%)
Hypertension, No. (%)	562 (80%)	1826 (81%)
Smoking, No. (%)		
Never, No. (%)	267 (38%)	879 (39%)
Ex, No. (%)	351 (50%)	1127 (50%)
Current, No. (%)	77 (11%)	248 (11%)
Prior MI/PCI/CABG, No. (%)	112 (16%)	338 (15%)
Family Hx of CAD, No. (%)	260 (37%)	789 (35%)
Statin use, No. (%)	176 (25%)	541 (24%)
Systolic BP, median (IQR), mm Hg	140 (128-153)	141 (129-155)
Diastolic BP, median (IQR), mm Hg	74 (68-80)	74 (68-80)
Total Cholesterol, median (IQR), mg/dL†	216 (183-245)	219 (188-251)
HDL Cholesterol, median (IQR), mg/dL†	134 (105-163)	134 (108-163)
LDL Cholesterol, median (IQR), mg/dL†	59 (49-71)	60 (49-72)
Triglycerides, median (IQR), mg/dL†	89 (66-117)	88 (66-121)

3 † To convert to SI units, multiply cholesterol values by 0.0259, and triglyceride values by 0.0113.

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5 **Supplementary eTable 2.** Absolute Kaplan-Meier mortality rates by MI status ascertained by CMR.

Year	No MI		Unrecognized MI			Recognized MI			Mortality Rate differences		
	Mortality Rate (95%CI)	Died (n)	Survived (n)	Mortality Rate (95%CI)	Died (n)	Survived (n)	Mortality Rate (95%CI)	Died (n)	Survived (n)	UMI-NoMI (95%CI)	RMI-UMI (95%CI)
0	0.0% (0-0)	0	688	0.0% (0-0)	0	157	0.0% (0-0)	0	91	0.0% (0-0)	0.0% (0-0)
1	0.6% (0-1.1)	4	684	1.9% (0-4.0)	3	154	3.3% (1.2-5.4)	3	88	1.3% (0.5-2.1)	1.4% (0.1-2.8)
2	2.2% (1.1-3.3)	15	673	4.5% (1.2-7.7)	7	150	6.6% (3.4-9.8)	6	85	2.3% (1.3-3.3)	2.1% (0.3-3.9)
3	4.7% (3.1-6.2)	32	656	7.6% (3.5-11.8)	12	145	15.4% (11.2-19.5)	14	77	3.0% (1.8-4.2)	7.7% (4.2-11.2)
4	7.1% (5.2-9.0)	49	639	14.0% (8.6-19.4)	22	135	17.6% (12.2-23.0)	16	75	6.9% (5.1-8.7)	3.6% (1.1-6.1)
5	11.7% (9.3-14.1)	79	506	22.5% (15.9-29.1)	35	94	23.2% (16.6-29.8)	21	55	10.8% (8.3-13.3)	0.7% (-0.6-2.0)
6	15.8% (12.9-18.6)	100	433	28.0% (20.6-35.4)	41	77	27.9% (20.5-35.4)	24	44	12.3% (9.5-15.2)	-0.1% (-0.7-0.5)
7	20.3% (16.8-23.8)	117	184	31.3% (23.3-39.3)	44	32	37.1% (29.1-45.1)	28	19	11.0% (6.8-15.2)	5.8% (-0.6-12.2)

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8 **Supplementary eTable 3a.** Tabular data for continuous (category free) NRI derived from adding unrecognized MI to a Cox mortality  
 9 risk model adjusting for the presence of recognized myocardial infarction (NRI 0.34 (CI 0.16-0.53; p<0.001).

	Reclassified Upwards (more likely to experience events)	Reclassified Downwards (less likely to experience events)	Total, (N)
Events, N (%)	94 (39%)	147 (61%)	242
NonEvents, N (%)	154 (22%)	541 (78%)	694

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12 **Supplementary eTable 3b.** Tabular data for continuous (category free) NRI derived from adding unrecognized MI to a Cox mortality  
 13 risk model adjusting for age, gender, diabetes, and the presence of recognized myocardial infarction (NRI 0.16 (CI 0.01-0.31; p=0.048).

	Reclassified Upwards (more likely to experience events)	Reclassified Downwards (less likely to experience events)	Total, (N)
Events, No. (%)	68 (28%)	174 (72%)	242
NonEvents, No. (%)	139 (20%)	555 (80%)	694

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**Supplementary eTable 4. Category-based NRI tables used to generate a category-based NRI for adding unrecognized MI to the Cox mortality risk model adjusting for age, gender, diabetes and recognized myocardial infarction.** Using cut-off values of 0.12 and 0.26 for mortality risk, the category-based NRI<sub>(0.12, 0.26)</sub> was 0.06 (CI 0.02-0.10, p= 0.002). The numbers of participants in the risk categories before and after addition of the unrecognized MI variable are shown.

Risk Category	Non Events (N=743)		Non Events (N=193)	
	Model without unrecognized MI by CMR variable, No. (%)	Model with unrecognized MI by CMR variable, No. (%)	Model without unrecognized MI by CMR variable, No. (%)	Model with unrecognized MI by CMR variable, No. (%)
<b>0-0.12</b>	136 (18.3%)	169 (22.7%)	16 (8.3%)	19 (9.8%)
<b>0.12-0.26</b>	337 (45.4%)	309 (41.6%)	46 (23.8%)	38 (19.7%)
<b>0.26-1.0</b>	270 (36.3%)	265 (35.7%)	131 (67.9%)	136 (70.4%)