

**Supplemental Table 1.** Hazard ratios (HR) for diabetes specific variables modeled in the joint HNR/MESA data predicting hard CHD events (n=85) among 1343 participants followed for an average of 8.6 years

	<b>HR Adjusted for age and sex (95% CI; p-value)</b>	<b>HR Adjusted for Framingham Risk Score (95% CI; p-value)</b>
1) Duration of Diabetes (per year)	1.04 (1.02 to 1.05; <.0001)	1.02 (1.01 to 1.05; 0.0020)
2) Insulin Use	2.20 (1.30 to 3.72; 0.0032)	1.94 (1.14 to 3.29; 0.0150)
3) Multiple Med model: Insulin	2.17 (1.25 to 3.74; 0.0056)	1.91 (1.11 to 3.31; 0.0195)
3) Multiple Med model: Metformin	0.92 (0.64 to 1.71; 0.73)	0.84 (0.52 to 1.37; 0.48)
3) Multiple Med model: Sulfonylurea	1.05 (0.64 to 1.71; 0.84)	0.97 (0.59 to 1.59; 0.91)
3) Multiple Med model: Glitazone	1.28 (0.64 to 2.55; 0.49)	1.15 (0.57 to 2.32; 0.69)
4) HbA1c (per %)	0.99 (0.86 to 1.15; 0.92)	0.92 (0.80 to 1.08; 0.32)
5) Baseline Glucose (per mg/dL)	1.00 (1.00 to 1.01; 0.86)	1.00 (0.99 to 1.00; 0.48)

HbA1c: hemoglobin A1C

**Supplemental Table 2.** Bayesian Model Averaging to select posterior probability of including a traditional, diabetes-specific or novel risk factor in the family of possible models for the time to hard CHD in the HNR/MESA cohort.

<b>Risk Factor</b>	<b>Posterior probability of selection</b>
Age	<b>48.6%</b>
Sex	<b>37.6%</b>
Systolic Blood Pressure	<b>21.3%</b>
Diastolic Blood Pressure	9.5%
HDL Cholesterol	5.0%
LDL Cholesterol	14.4%
Total Cholesterol	7.1%
Triglycerides	1.9%
Current Smoking	1.6%
Anti-hypertension Medication use	2.1%
Lipid Lowering Medication use	1.9%
Log (CAC + 25)	<b>100%</b>
C-Reactive Protein (mg/L)	14.8%
Ankle-Brachial index < 0.90	3.0%
CCA intimal medial thickness (mm)	8.4%
Pack-years of smoking (years)	2.2%
Family History	1.7%
Unknown Family History	2.0%
HbA1c (%)	2.9%
Baseline Glucose (mg/dL)	1.9%
Metformin use	4.6%
Sulfonylurea use	1.7%
Insulin use	3.6%
Glitazone use	1.7%
Duration of Diabetes (years)	<b>90.6%</b>
In MESA cohort (as a check variable)	2.6%

CAC: coronary artery calcium score; CCA: common carotid artery; HbA1c: hemoglobin A1c

**Supplement Table 3.** Parameter estimate values for the components of the MESA- HNR 8 – year CHD risk score.

Parameter	Estimate	95% Confidence Interval
Hazard ratio for an increase in 1 unit of log(cac + 25)	1.60	(1.36, 1.87)
Hazard ratio for an increase of 5 years in duration of diabetes	1.14	(1.04, 1.24)
Hazard ratio for an increase of 5 years in age	1.15	(1.00, 1.32)
Hazard ratio for male sex	1.64	(0.99, 2.71)
Hazard ratio for an increase of 5 mmHg of systolic blood pressure	1.04	(0.99, 1.08)
Baseline survival at 8 years	0.94	-

CAC: coronary artery calcium score

**Supplement Table 4.** Model B predicted 8 year risks of hard coronary heart disease.

Default states are 63 years old, male, sbp of 136, duration of diabetes of 5.5 years, and CAC of 74 agatston units. (This represents the mean patient.)		
	For (only changes from default listed):	8 year estimated risk
10 year age difference	58 years old	6.7%
	68 years old	8.8%
Male vs. Female	Male	7.7%
	Female	4.8%
SBP 25th to 75th percentile	120 sbp	6.9%
	150 sbp	8.4%
Duration of diabetes 25th to 75th percentile	0 years duration of diabetes	6.7%
	8 years duration of diabetes	8.2%
CAC	0	4.1%
	10	4.8%
	100	8.5%
	400	14.6%
	1000	21.2%

SBP: systolic blood pressure, CAC: coronary artery calcium score

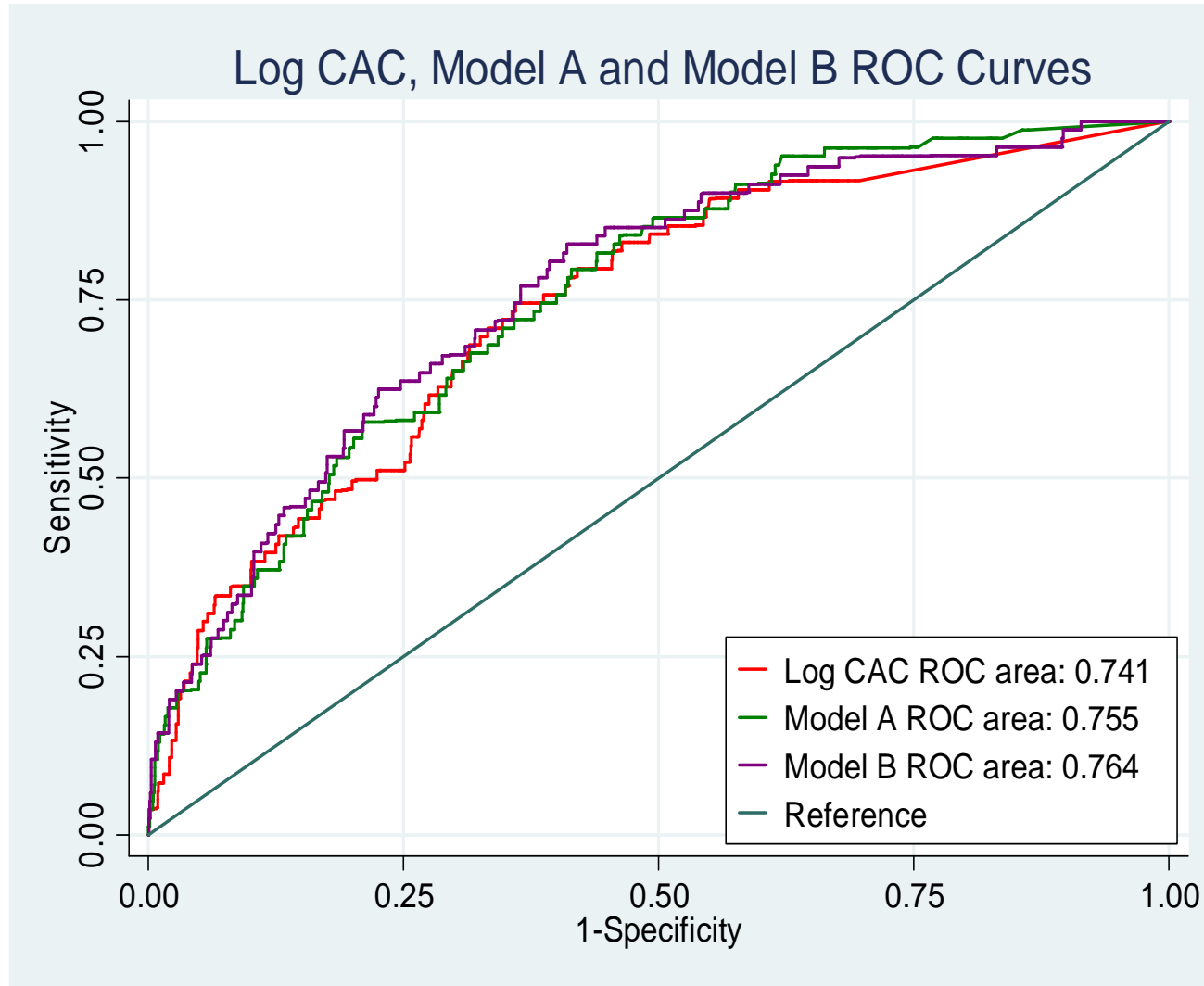
**Supplemental Table 5.**

Net Reclassification Improvement (NRI) table comparing the MESA-HNR score versus the New Pooled Equations (ASCVD risk estimator) for atherosclerotic cardiovascular disease (ASCVD) events.

Risk in MESA-HNR Score					
Risk in ASCVD	<7.5%	≥7.5%	Overall	Reclassified as Higher Risk	Reclassified as Lower Risk
<b>&lt;7.5%</b>					
No. of participants	240	17	257		
No. of events	10	2	12	2	NA
No. of non-events	230	15	245	15	NA
<b>≥7.5%</b>					
No. of participants	744	342	1086		
No. of events	48	69	117	NA	48
No. of non-events	696	273	969	NA	696
<b>Overall</b>					
No. of participants	984	359	1343		
No. of events	58	71	129	2	48
No. of non-events	926	288	1214	15	696

n	NRI*	Standard Error NRI	P-value NRI
1343	0.204	0.059	<0.001

\*NRI= Net Reclassification Index



Supplement Figure 1: ROC curves comparing the discriminative ability( AUC) of Log(CAC + 25), model A[ log (CAC + 25) and duration of diabetes] and model B[ age, sex, systolic bp, duration of diabetes and log( CAC +25) ] for incident hard CHD in this cohort