

***Part A: Originally published coefficients of ACC/AHA risk score for Caucasian race***  
(Goff et al. 2014)

	<b>Women</b>	<b>Men</b>
Ln Age (years)	-29.799	12.344
Ln Age (years), Squared	4.884	0
Ln Total Cholesterol (mg/dL)	13.54	11.853
Ln HDL Cholesterol (mg/dL)	-13.578	-7.99
Current Smoker (1=yes, 0=no)	7.574	7.837
Diabetes (1=yes, 0=no)	0.661	0.658
Ln Age x Ln Total Cholesterol	-3.114	-2.664
Ln Age x Ln HDL Cholesterol	3.149	1.769
Ln Untreated SBP (mm Hg)	1.957	1.764
Ln Treated SBP (mm Hg)	2.019	1.797
Ln Age x Current Smoker	-1.665	-1.795
Population mean	-29.18	61.18
Baseline Survival at 10 years	0.9665	0.9144

Ln = natural logarithm, HDL = High-density lipoprotein, SBP = Systolic blood pressure.

***Part B: Calculation of ASCVD 10 year risk for German population with and without recalibration of ACC/AHA risk score***

- ASCVD risk by original ACC/AHA risk equations:

$$10 \text{ year risk of ASCVD} = 1 - \text{Baseline Survival at 10 years}^{\exp(\text{Risk score} - \text{Population mean})}$$

- ASCVD risk using the recalibrated ACC/AHA risk equations:

$$\text{correction factor} = \ln \left( \frac{\frac{\text{observed event frequency}}{1 - \text{observed event frequency}}}{\frac{\text{mean predicted risk}}{1 - \text{mean predicted risk}}} \right) = \ln \left( \frac{\frac{0.06923566}{0.93076434}}{\frac{0.1030771}{0.8969229}} \right) = -0.434997$$

$$10 \text{ year risk of ASCVD} = 1 - \text{Baseline Survival at 10 years}^{\exp(\text{Risk score} - \text{Population mean} - 0.434997)}$$