

Supplemental Material

AESurv: autoencoder survival analysis for accurate early prediction of coronary heart disease

Yike Shen, Arce Domingo-Relloso, Allison Kupsco, Marianthi-Anna Kioumourtzoglou, Maria Tellez-Plaza, Jason G. Umans, Amanda M. Fretts, Ying Zhang, Peter F. Schnatz, Ramon Casanova, Lisa Warsinger Martin, Steve Horvath, JoAnn E. Manson, Shelley A. Cole, Haotian Wu, Eric A. Whitsel, Andrea A. Baccarelli, Ana Navas-Acien, Feng Gao

Table S1. Descriptive statistics for the Strong Heart Study participants in this study.

	Overall (N=2321)
Age (years)	
Mean (SD)	56.2 (8.10)
Median [Min, Max]	55.0 [44.5, 75.4]
Sex (%)	
Male	962 (41.4%)
Female	1359 (58.6%)
Follow-up years (years)	
Mean (SD)	16.45 (9.09)
Median [Min, Max]	16.88 [0.02, 28.62]
BMI (kg/m²)	
Mean (SD)	30.3 (6.10)
Median [Min, Max]	29.6 [15.4, 70.4]
Smoke (%)	
Current	892 (38.4%)
Former	745 (32.1%)
Never	684 (29.5%)
Center (%)	
Arizona	311 (13.4%)
Oklahoma	981 (42.3%)
North Dakota and South Dakota	1029 (44.3%)
Incidence CHD (%)	
No	1572 (67.7%)
Yes	749 (32.3%)
Systolic blood pressure (mmHg)	
Mean (SD)	126 (18.8)
Median [Min, Max]	124 [73.0, 222]
Diabetes (%)	
No	1355 (58.4%)

Yes	966 (41.6%)
Albuminuria (%)	
Macroalbuminuria	166 (7.2%)
Microalbuminuria	363 (15.6%)
Normal	1792 (77.2%)
Hypertension treatment (%)	
No	1857 (80.0%)
Yes	464 (20.0%)
LDL cholesterol (mg/dL)	
Mean (SD)	120 (33.2)
Median [Min, Max]	119 [23.0, 288]
HDL cholesterol (mg/dL)	
Mean (SD)	46.4 (13.9)
Median [Min, Max]	44.0 [18.0, 126]
CD8T (houseman cell proportion)	
Mean (SD)	0.171 (0.0642)
Median [Min, Max]	0.162 [0.0106, 0.527]
CD4T (houseman cell proportion)	
Mean (SD)	0.137 (0.0620)
Median [Min, Max]	0.130 [0, 0.449]
NK (houseman cell proportion)	
Mean (SD)	0.0914 (0.0343)
Median [Min, Max]	0.0856 [0.00249, 0.264]
Bcell (houseman cell proportion)	
Mean (SD)	0.0802 (0.0314)
Median [Min, Max]	0.0756 [0.00734, 0.238]
Mono (houseman cell proportion)	
Mean (SD)	0.0975 (0.0277)
Median [Min, Max]	0.0943 [0.0183, 0.393]

WHI Investigator acknowledgement

We acknowledge key WHI investigators as follows:

Program Office: (National Heart, Lung, and Blood Institute, Bethesda, Maryland) Jacques Rossouw, Shari Ludlam, Joan McGowan, Leslie Ford, and Nancy Geller

Clinical Coordinating Center: (Fred Hutchinson Cancer Research Center, Seattle, WA) Garnet Anderson, Ross Prentice, Andrea LaCroix, and Charles Kooperberg

Investigators and Academic Centers: (Brigham and Women's Hospital, Harvard Medical

School, Boston, MA) JoAnn E. Manson; (MedStar Health Research Institute/Howard University, Washington, DC) Barbara V. Howard; (Stanford Prevention Research Center, Stanford, CA) Marcia L. Stefanick; (The Ohio State University, Columbus, OH) Rebecca Jackson; (University of Arizona, Tucson/Phoenix, AZ) Cynthia A. Thomson; (University at Buffalo, Buffalo, NY) Jean Wactawski-Wende; (University of Florida, Gainesville/Jacksonville, FL) Marian Limacher; (University of Iowa, Iowa City/Davenport, IA) Jennifer Robinson; (University of Pittsburgh, Pittsburgh, PA) Lewis Kuller; (Wake Forest University School of Medicine, Winston-Salem, NC) Sally Shumaker; (University of Nevada, Reno, NV) Robert Brunner

Women's Health Initiative Memory Study: (Wake Forest University School of Medicine, Winston-Salem, NC) Mark Espeland