

Supplemental Material

Table S1. Definition and scoring approach for the American Heart Association's Life's Essential 8 score.

Domain	CVH Metric	Measurement	Quantification and Scoring of CVH Metric
Health Behaviors	Diet	Healthy Eating Index-2015 diet score percentile	<p>Quantiles of DASH-style diet adherence or HEI-2015 (population)</p> <p>Scoring (Population):</p> <p><u>Points</u> <u>Quantile</u></p> <p>100 \geq 95th percentile (top/ideal diet)</p> <p>80 75th- 94th percentile</p> <p>50 50th -74th percentile</p> <p>25 25th -49th percentile</p> <p>0 1st-24th percentile (bottom/least ideal quartile)</p>
	Physical activity	Self-reported minutes of moderate or vigorous physical activity per week	<p>Metric: Minutes of moderate (or greater) intensity activity per week</p> <p>Scoring:</p> <p><u>Points</u> <u>Minutes</u></p> <p>100 \geq 150</p> <p>90 120 - 149</p> <p>80 90 - 119</p> <p>60 60 - 89</p>

Domain	CVH Metric	Measurement	Quantification and Scoring of CVH Metric
			<p>40 30 - 59</p> <p>20 1 - 29</p> <p>0 0</p>
	Nicotine exposure	Self-reported use of cigarettes or inhaled nicotine- delivery system	<p>Metric: Combustible tobacco use and/or inhaled NDS use; or secondhand smoke exposure</p> <p>Scoring:</p> <p><u>Points Status</u></p> <p>100 Never smoker</p> <p>75 Former smoker, quit ≥ 5 y</p> <p>50 Former smoker, quit 1 - < 5 y</p> <p>25 Former smoker, quit < 1 y, or currently using inhaled NDS</p> <p>0 Current smoker</p> <p>Subtract 20 points (unless score is 0) for living with active indoor smoker in home</p>
	Sleep health	Self-reported average hours of sleep per night	<p>Metric: Average hours of sleep per night</p> <p>Scoring:</p> <p><u>Points Level</u></p> <p>100 7 - <9</p>

Domain	CVH Metric	Measurement	Quantification and Scoring of CVH Metric
			<p>90 9 - < 10</p> <p>70 6 - < 7</p> <p>40 5 - < 6 or ≥ 10</p> <p>20 4 - < 5</p> <p>0 < 4</p>
Health Factors	Body mass index	Body weight (kg) divided by height squared (m ²)	<p>Metric: Body mass index (kg/m²)</p> <p>Scoring:</p> <p><u>Points</u> <u>Level</u></p> <p>100 < 25</p> <p>70 25.0 - 29.9</p> <p>30 30.0 - 34.9</p> <p>15 35.0 - 39.9</p> <p>0 ≥ 40.0</p>
	Blood lipids	Plasma total and HDL-cholesterol with calculation of non-HDL-cholesterol	<p>Metric: Non-HDL-cholesterol (mg/dL)</p> <p>Scoring:</p> <p><u>Points</u> <u>Level</u></p> <p>100 <130</p> <p>60 130 - 159</p> <p>40 160 - 189</p> <p>20 190 - 219</p> <p>0 ≥ 220</p>

Domain	CVH Metric	Measurement	Quantification and Scoring of CVH Metric
			<p>If drug-treated level, subtract 20 points</p>
	Blood glucose	Fasting blood glucose or casual hemoglobin A1c	<p>Metric: Fasting blood glucose (mg/dL) or Hemoglobin A1c (%)</p> <p>Scoring:</p> <p><u>Points Level</u></p> <p>100 No history of diabetes and FBG < 100 (or HbA1c < 5.7)</p> <p>60 No diabetes and FBG 100 - 125 (or HbA1c 5.7 - 6.4) (Pre-diabetes)</p> <p>40 Diabetes with HbA1c < 7.0</p> <p>30 Diabetes with HbA1c 7.0 - 7.9</p> <p>20 Diabetes with HbA1c 8.0 - 8.9</p> <p>10 Diabetes with Hb A1c 9.0 - 9.9</p> <p>0 Diabetes with HbA1c \geq 10.0</p>
	Blood pressure	Appropriately measured systolic and diastolic blood pressure	<p>Metric: Systolic and diastolic blood pressure (mm Hg)</p> <p>Scoring:</p> <p><u>Points Level</u></p> <p>100 < 120/< 80 (Optimal)</p> <p>75 120 - 129/< 80 (Elevated)</p> <p>50 130 - 139 or 80 - 89 (Stage I HTN)</p>

Domain	CVH Metric	Measurement	Quantification and Scoring of CVH Metric
			25 140 - 159 or 90 - 99 0 ≥ 160 or ≥ 100 Subtract 20 points if treated level

CVH, cardiovascular health; FBG, Fasting blood glucose; HbA1c, Hemoglobin A1c

Table S2. Healthy Eating Index-2015 Components & Scoring Standards*

Component	Maximum points	Standard for maximum score	Standard for minimum score of zero
Adequacy [†]			
Total Fruits	5	≥0.8 cup equiv. per 1,000 kcal	No Fruit
Whole Fruits	5	≥0.4 cup equiv. per 1,000 kcal	No Whole Fruit
Total Vegetables	5	≥1.1 cup equiv. per 1,000 kcal	No Vegetables
Greens and Beans	5	≥0.2 cup equiv. per 1,000 kcal	No Dark Green Vegetables or Legumes
Whole Grains	10	≥1.5 oz equiv. per 1,000 kcal	No Whole Grains
Dairy	10	≥1.3 cup equiv. per 1,000 kcal	No Dairy
Total Protein Foods	5	≥2.5 oz equiv. per 1,000 kcal	No Protein Foods
Seafood and Plant Proteins	5	≥0.8 oz equiv. per 1,000 kcal	No Seafood or Plant Proteins
Fatty Acids [‡]	10	(PUFAs + MUFAs)/SFAs ≥2.5	(PUFAs + MUFAs)/SFAs ≤1.2
Moderation [§]			
Refined Grains	10	≤1.8 oz equiv. per 1,000 kcal	≥4.3 oz equiv. per 1,000 kcal
Sodium	10	≤1.1 gram per 1,000 kcal	≥2.0 grams per 1,000 kcal
Added Sugars	10	≤6.5% of energy	≥26% of energy
Saturated Fats	10	≤8% of energy	≥16% of energy

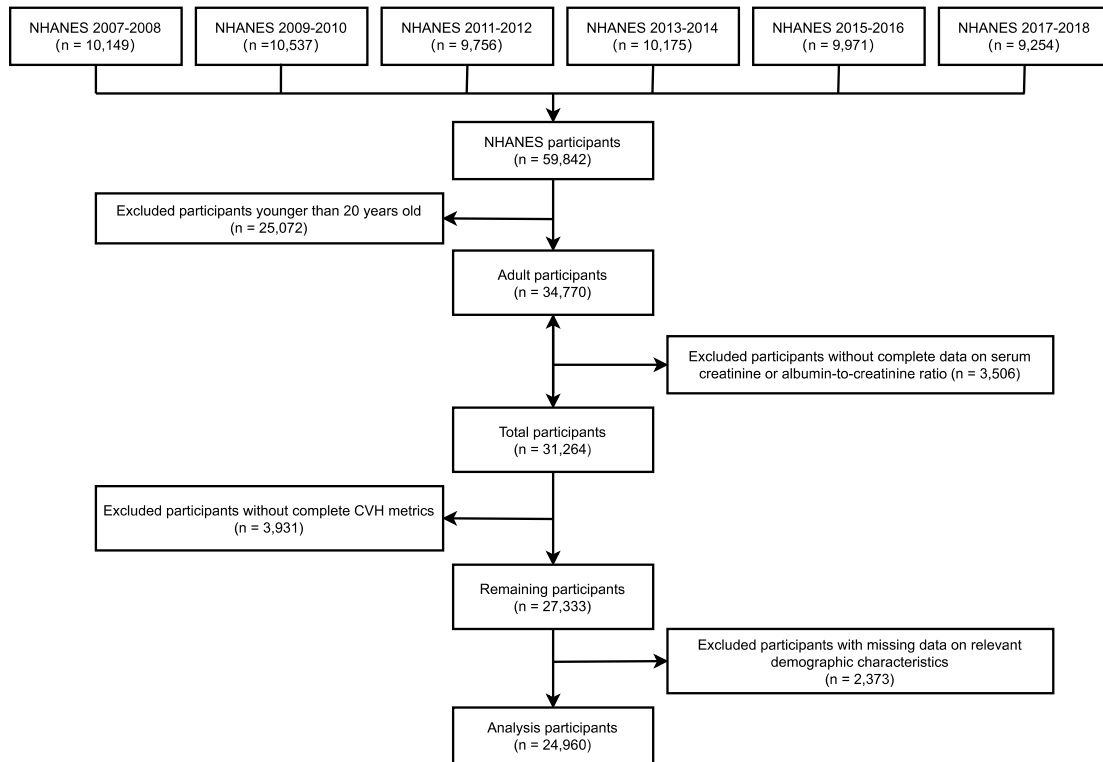
*Intakes between the minimum and maximum standards are scored proportionately.

†Adequacy components represent the food groups, subgroups, and dietary elements that are encouraged. For these components, higher scores reflect higher intakes, because higher intakes are desirable.

‡Ratio of poly- and monounsaturated fatty acids (PUFAs and MUFAs) to saturated fatty acids (SFAs).

§Moderation components represent the food groups and dietary elements for which there are recommended limits to consumption. For moderation components, higher scores reflect lower intakes, because lower intakes are more desirable.

Figure S1. Flow chart of the screening process for the selection of the study population.



NHANES, National Health and Nutrition Examination Survey; CVH, cardiovascular health