

Online Resource 1 for:

Associations of psychosocial factors with of cardiovascular health in aging: Insights from the Inlife-Aging Project.

Submitted to *GeroScience*

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Table S1 Definition, tools and scoring approach for quantifying Life's Essential 8 scores

LE8 Domains	LE8 Components	Method of Measurement	Quantification															
Health Behaviors	Diet quality	<p>Measurement: Diet quality was summarized using the HEI-2020 [1].</p> <p>Tools: PREDIMED semi-quantitative FFQ [2, 3] and Spanish Food Composition Tables [4, 5].</p> <p>Daily consumption was estimated by multiplying the portion size by its frequency of intake using an ad hoc computer program specifically developed for this purpose [4, 6].</p>	<p>Metric: Quantiles of HEI-2020-style diet adherence.</p> <p>Scoring:</p> <table> <thead> <tr> <th>Points</th> <th>Quantile</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>≥95th %ile (top/ideal diet)</td> </tr> <tr> <td>80</td> <td>75th - 94th %ile</td> </tr> <tr> <td>50</td> <td>50th - 74th %ile</td> </tr> <tr> <td>25</td> <td>25th - 49th %ile</td> </tr> <tr> <td>0</td> <td>1st - 24th %ile (bottom/least ideal quartile)</td> </tr> </tbody> </table>	Points	Quantile	100	≥95 th %ile (top/ideal diet)	80	75 th - 94 th %ile	50	50 th - 74 th %ile	25	25 th - 49 th %ile	0	1 st - 24 th %ile (bottom/least ideal quartile)			
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Physical activity	<p>Measurement: Self-reported minutes of moderate or vigorous physical activity per week, obtained via interviewer-administered questionnaire.</p> <p>Tools: GPAQ [7].</p>	<p>Metric: Minutes of moderate (or greater) intensity activity per week.</p> <p>Scoring:</p> <table> <thead> <tr> <th>Points</th> <th>Minutes</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>≥150</td> </tr> <tr> <td>90</td> <td>120-149</td> </tr> <tr> <td>80</td> <td>90 - 119</td> </tr> <tr> <td>60</td> <td>60 - 89</td> </tr> <tr> <td>40</td> <td>30 - 59</td> </tr> <tr> <td>20</td> <td>1 - 29</td> </tr> <tr> <td>0</td> <td>0</td> </tr> </tbody> </table>	Points	Minutes	100	≥150	90	120-149	80	90 - 119	60	60 - 89	40	30 - 59	20	1 - 29	0	0
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	Nicotine exposure	<p>Measurement: Self-reported use of cigarettes.</p> <p>Tools: Sociodemographic questionnaire in clinical consultation.</p> <p>Assessment was limited to cigarette smoking, as data on other combustible tobacco products, nicotine delivery systems, or household exposure to tobacco smoke were not available.</p>	<p>Metric: Combustible tobacco uses and/or inhaled.</p> <p>Scoring:</p> <table> <thead> <tr> <th>Points</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>Never smoker</td> </tr> <tr> <td>75</td> <td>Former smoker, quit ≥ 5 yrs</td> </tr> <tr> <td>50</td> <td>Former smoker, quit 1 - <5 yrs</td> </tr> <tr> <td>25</td> <td>Former smoker, quit < 1 year</td> </tr> <tr> <td>0</td> <td>Current smoker</td> </tr> </tbody> </table>	Points	Status	100	Never smoker	75	Former smoker, quit ≥ 5 yrs	50	Former smoker, quit 1 - <5 yrs	25	Former smoker, quit < 1 year	0	Current smoker		
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	Sleep health	<p>Measurement: Self-reported average hours of sleep per night.</p> <p>Tools: PSQI [8, 9].</p> <p>Sleep duration was calculated by subtracting time to fall asleep (item 2) from time in bed, which was derived by subtracting wake-up time (item 3) from bedtime (item 1).</p>	<p>Metric: Average hours of sleep per night.</p> <p>Scoring:</p> <table> <thead> <tr> <th>Points</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>7 to 9</td> </tr> <tr> <td>90</td> <td>9 to <10</td> </tr> <tr> <td>70</td> <td>6 to <7</td> </tr> <tr> <td>40</td> <td>5 to <6 or ≥10</td> </tr> <tr> <td>20</td> <td>4 to <5</td> </tr> <tr> <td>0</td> <td><4</td> </tr> </tbody> </table>	Points	Level	100	7 to 9	90	9 to <10	70	6 to <7	40	5 to <6 or ≥10	20	4 to <5	0	<4
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Health Factors	Body Mass Index	<p>Measurement: Body weight (kg) divided by height squared (m²).</p> <p>Tools: Height was measured without shoes using a stadiometer (Charter Medical, model HM200P), and weight was assessed using the InBody 770 device, with participants wearing light indoor clothing and no shoes.</p>	<p>Metric: BMI (kg/m²).</p> <p>Scoring:</p> <table border="1"> <thead> <tr> <th>Points</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>100</td> <td><25</td> </tr> <tr> <td>70</td> <td>25 to <30</td> </tr> <tr> <td>30</td> <td>30 to <35</td> </tr> <tr> <td>15</td> <td>35 to <40</td> </tr> <tr> <td>0</td> <td>≥40</td> </tr> </tbody> </table>	Points	Level	100	<25	70	25 to <30	30	30 to <35	15	35 to <40	0	≥40
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	Blood lipids	<p>Measurement: Total Plasma and HDL-cholesterol calculation of non-HDL-cholesterol.</p> <p>Tools: Fasting blood sample. The use of lipid-lowering medications was determined through a medication review by the study staff.</p>	<p>Metric: Non-HDL-cholesterol (mg/dL).</p> <p>Scoring:</p> <table border="1"> <thead> <tr> <th>Points</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>100</td> <td><130</td> </tr> <tr> <td>60</td> <td>130 to <160</td> </tr> <tr> <td>40</td> <td>160 to <189</td> </tr> <tr> <td>20</td> <td>190 to <220</td> </tr> <tr> <td>0</td> <td>≥220</td> </tr> </tbody> </table> <p>If drug-treated level, subtract 20 points.</p>	Points	Level	100	<130	60	130 to <160	40	160 to <189	20	190 to <220	0	≥220
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	Blood glucose	<p>Measurement: Fasting blood glucose and casual hemoglobin A1c.</p> <p>Tools: Fasting blood sample. Individuals with elevated fasting glucose levels (>125 mg/dL) or elevated HbA1c (>6.4%) without a history of diabetes are treated as cases of undiagnosed diabetes and included in the diabetes group, as described elsewhere [10].</p>	<p>Metric: Fasting blood glucose (mg/dL) or Hemoglobin A1c (%).</p> <p>Scoring:</p> <table border="1"> <thead> <tr> <th>Points</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>No history of diabetes and FBG <100 (or HbA1c <5.7)</td> </tr> <tr> <td>60</td> <td>No diabetes and FBG 100 - 125 (or HbA1c 5.7 - 6.4) (pre-diabetes)</td> </tr> <tr> <td>40</td> <td>Diabetes with HbA1c <7.0</td> </tr> <tr> <td>30</td> <td>Diabetes with HbA1c 7.0 to < 8.0</td> </tr> <tr> <td>20</td> <td>Diabetes with HbA1c 8.0 to < 9.0</td> </tr> <tr> <td>10</td> <td>Diabetes with HbA1c 9.0 to < 10.0</td> </tr> <tr> <td>0</td> <td>Diabetes with HbA1c ≥ 10.0</td> </tr> </tbody> </table>	Points	Level	100	No history of diabetes and FBG <100 (or HbA1c <5.7)	60	No diabetes and FBG 100 - 125 (or HbA1c 5.7 - 6.4) (pre-diabetes)	40	Diabetes with HbA1c <7.0	30	Diabetes with HbA1c 7.0 to < 8.0	20	Diabetes with HbA1c 8.0 to < 9.0	10	Diabetes with HbA1c 9.0 to < 10.0	0	Diabetes with HbA1c ≥ 10.0
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	Blood pressure	<p>Measurement: Maximum average blood pressure (right/left arm) of the last 2 repetitions out of a total of 3, as described elsewhere [11].</p> <p>Tools: Omron M6 Comfort (HEM-7360-E).</p>	<p>Metric: Systolic and diastolic blood pressure (mmHg).</p> <p>Scoring:</p> <table border="1"> <thead> <tr> <th>Points</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>100</td> <td><120 / <80</td> </tr> <tr> <td>75</td> <td>120 - 129 / <80</td> </tr> <tr> <td>50</td> <td>130 - 139 or 80 - 89</td> </tr> <tr> <td>25</td> <td>140 - 159 or 90 - 99</td> </tr> <tr> <td>0</td> <td>≥160 or ≥100</td> </tr> </tbody> </table> <p>If drug-treated level, subtract 20 points.</p>	Points	Level	100	<120 / <80	75	120 - 129 / <80	50	130 - 139 or 80 - 89	25	140 - 159 or 90 - 99	0	≥160 or ≥100				
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CVH: Cardiovascular Health; FBG: fasting blood glucose; FFQ: Food Frequency Questionnaire; HEI-2020: Healthy Eating Index 2020; GPAQ: Global Physical Activity Questionnaire; HbA1c: hemoglobin A1c; HDL: high-density lipoprotein; PSQI: Pittsburgh Sleep Quality Index.

Table S2 Description of psychosocial variables and dichotomous classifications

Variable	Assessment tool or survey question	Classification of possible answers into dichotomous variables
Economic Status	"Currently, and in relation to your household's total monthly net income, how do you usually manage to make ends meet?"	<ul style="list-style-type: none"> • Financial ease: "With some ease", "With ease", "With great ease" • Financial hardship: "With great difficulty", "With difficulty", "With some difficulty"
Net Income	"Could you tell me which of the following ranges best represents your household's total monthly net income, after deductions for taxes, social security, etc.?"	<ul style="list-style-type: none"> • Below the minimum wage: "Less than 650 euros per month", "Between 650 and 1,000 euros per month" • At or above the minimum wage: "Between 1,001 and 2,000 euros per month", "Between 2,001 and 3,000 euros per month", "More than 3,001 euros per month"
Educational level	"What studies have you completed? Please add up all the years of formal education you have finished."	<p>Possible answers are whole numbers (e.g., 0-20+).</p> <ul style="list-style-type: none"> • "12 years of education or less" (typically corresponds to secondary education or below) • "More than 12 years of education" (typically indicates post-secondary or higher education)
Marital Status	"What is your marital status?"	<ul style="list-style-type: none"> • In a relationship: "Married or with partner" • Not in a relationship: "Single", "Widowed (not in a relationship)", "Legally separated or divorced (not in a relationship)"
Health Perception	"In the past twelve months, would you say your health has been very good, good, fair, poor, or very poor?" [12].	<ul style="list-style-type: none"> • Poor-Fair: "Fair", "Poor", "Very poor" • Good: "Very good", "Good"
Depressive symptoms	<i>Beck Depression Inventory-II (BDI-II)</i> [13].	<p>Responses were classified according to BDI-II total scores.</p> <ul style="list-style-type: none"> • No depressive state: score < 14 points • Depressive symptoms: score ≥ 14 points

Description of psychosocial variables, assessment tools, and their dichotomous classification used in the analysis. BDI-II: Beck Depression Inventory-II

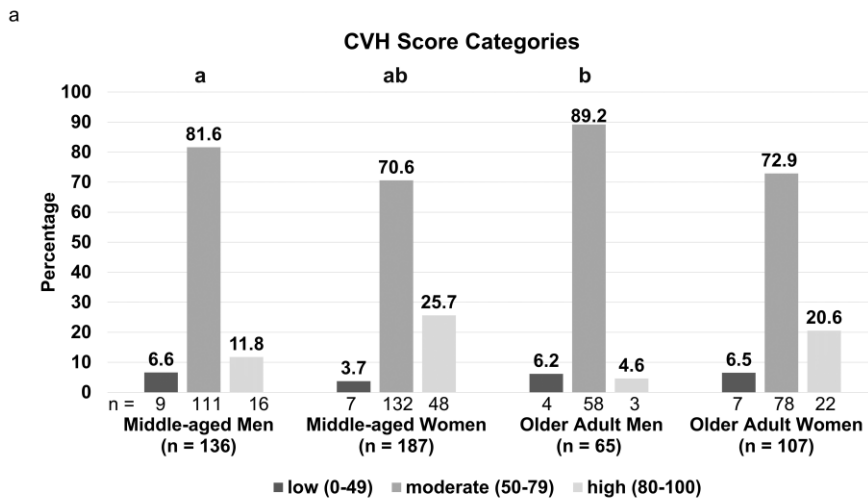
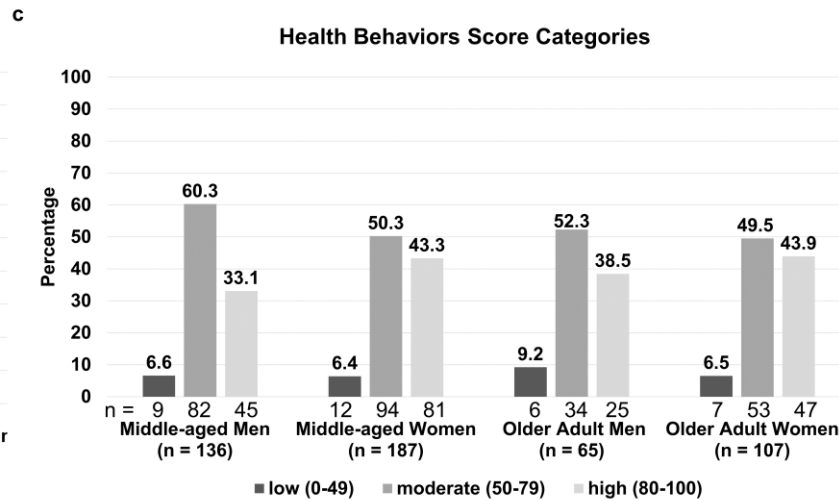
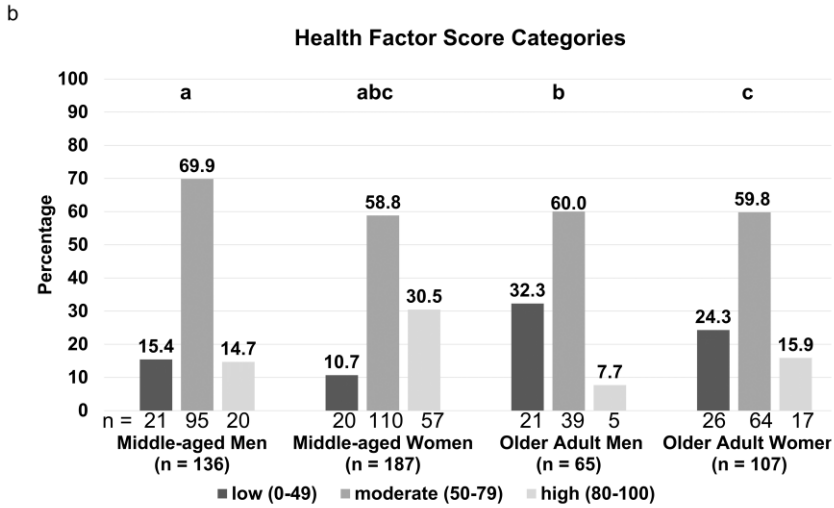


Fig. S1 Overall CVH, Health Factors, and Health Behaviors categories by age and sex. CVH (a), Health factors (b) and Health behaviors (c) score categories by Age and Sex combined. Significant differences between groups indicated by “a”, “b”, and “c”. CVH: Cardiovascular Health



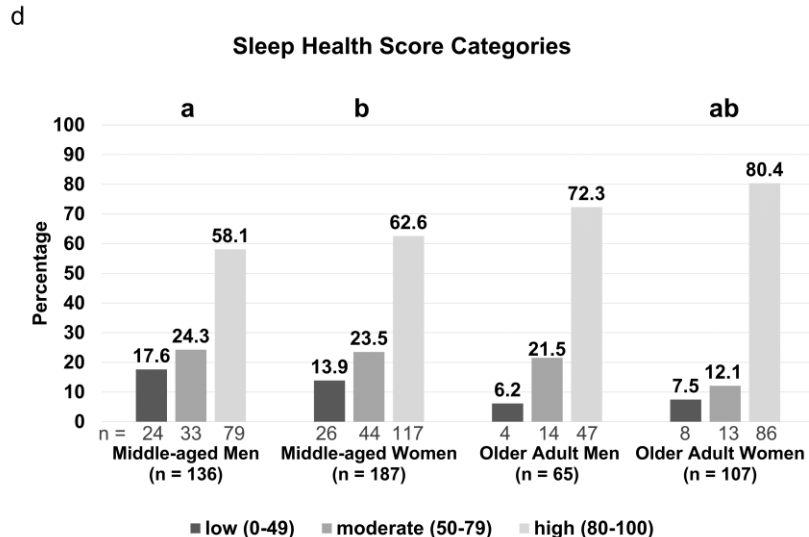
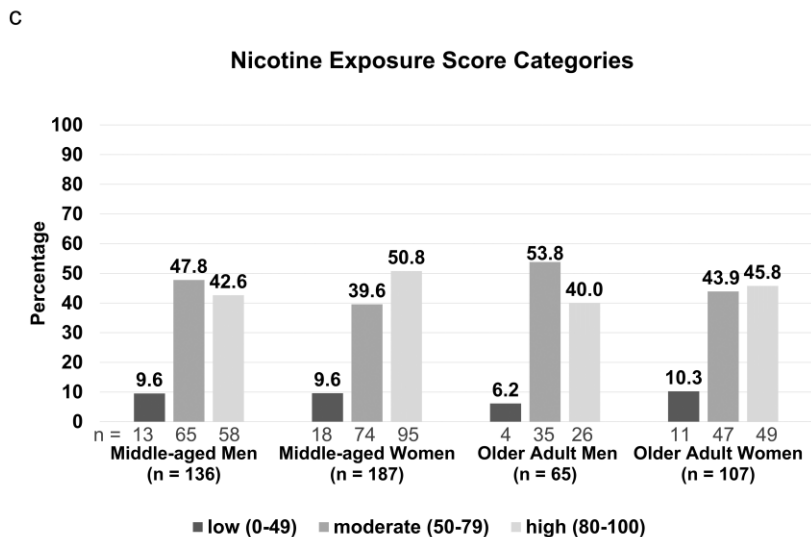
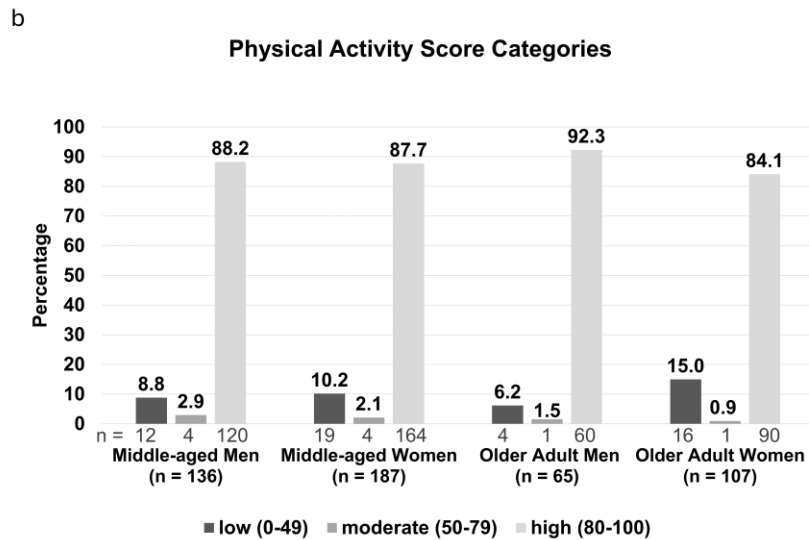
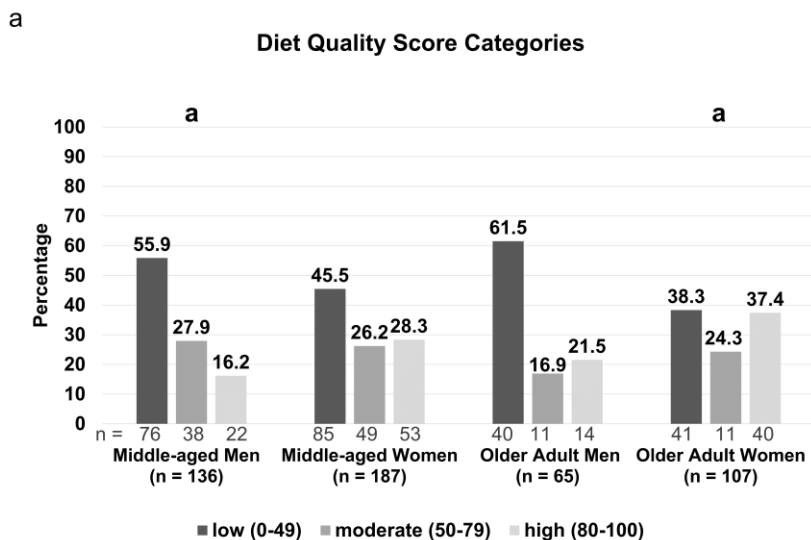


Fig. S2 Health behavior components score categories by age and sex. (a) Diet Quality. (b) Physical Activity. (c) Nicotine Exposure. (d) Sleep Health. Significant differences between groups indicated by “a”, “b”, and “c”

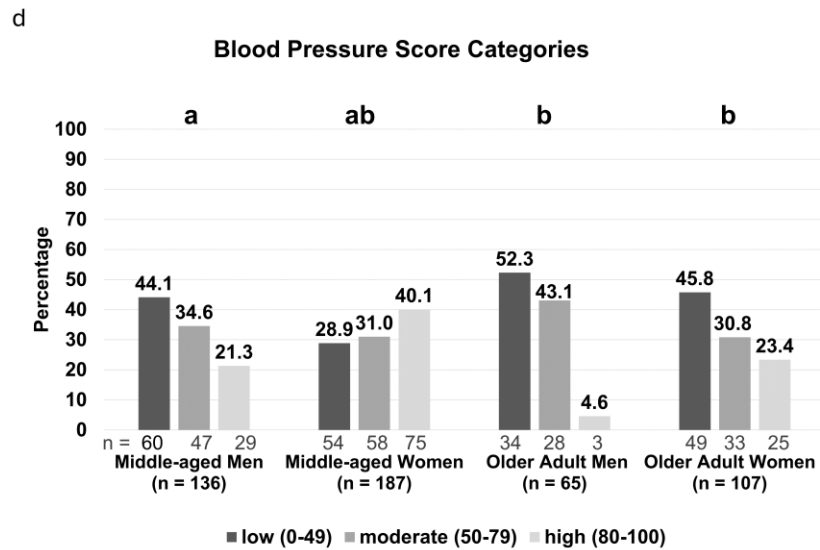
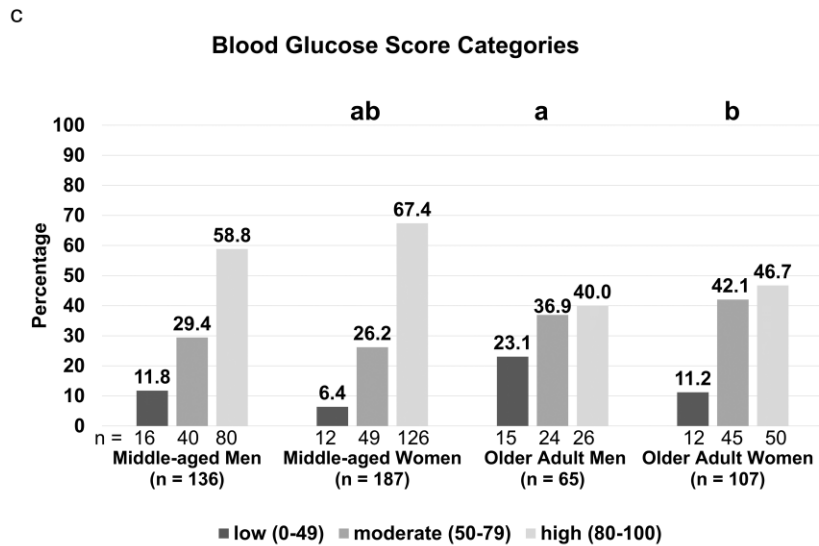
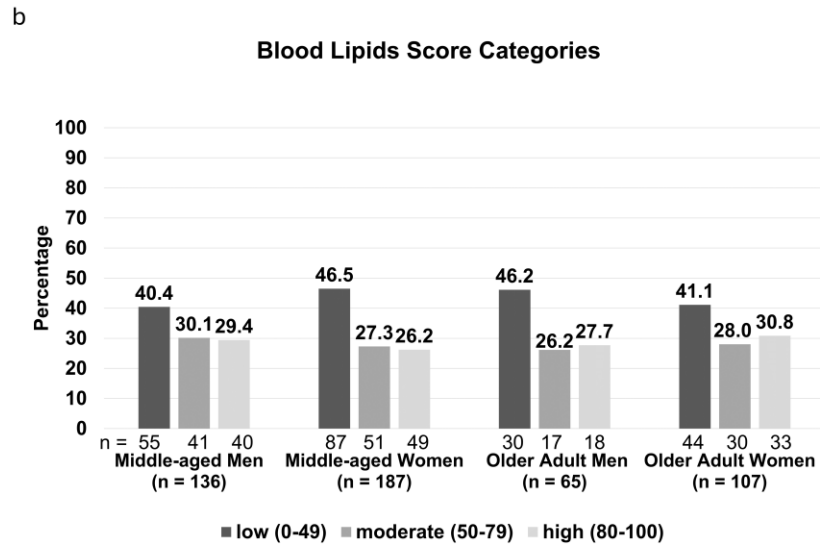
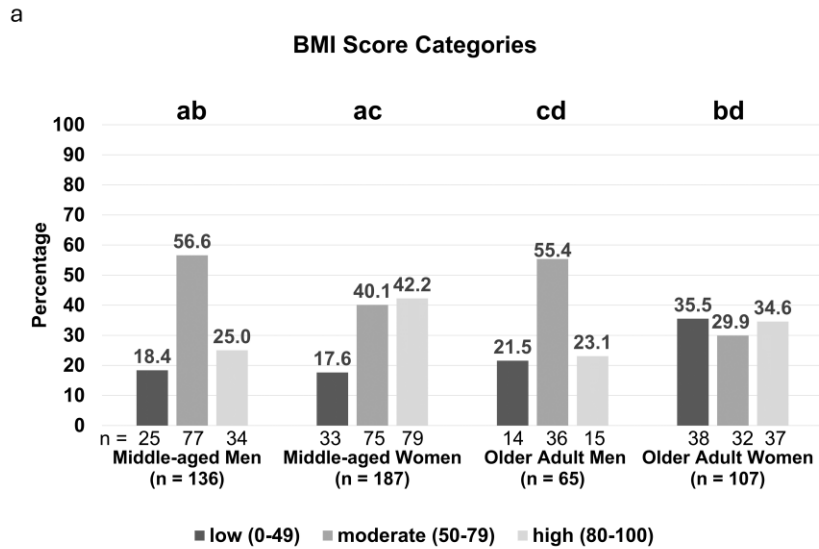


Fig. S3 Health factor components score categories by age and sex. (a) BMI. (b) Blood Lipids, (c) Blood Glucose, (d) Blood Pressure. Significant differences between groups indicated by “a”, “b”, “c” and “d”. BMI: Body Mass Index.

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