

Supplementary Material

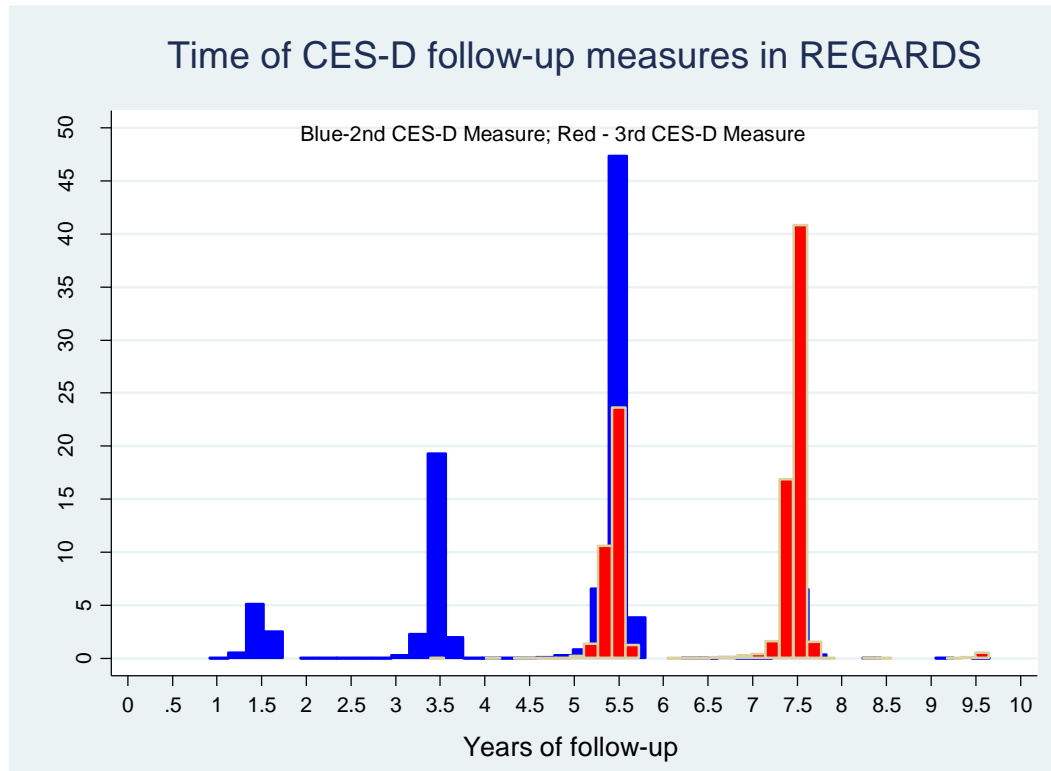
eTable 1. Proportion of persons with elevated depressive symptoms by baseline self-reported health status (original categories, without collapsing).

Self-reported general health	Baseline			Second CES-D			Third CES-D			
	CES-D<4, n, %	CES-D≥4, n, %	Total, n	CESD<4, n, %	CES-D≥4, n, %	Total, n	CESD<4, n, %	CES-D≥4, n, %	Total, n	
<b>Excellent</b>	4515 95.9 %	195 4.1%	4710	3444 94.7%	194 5.3%	3638	2109 94.6%	120 5.4%	2229	
<b>Very good</b>	8450 94.1%	530 5.9%	8980	6332 93.0%	478 7.0%	6810	3938 92.8%	305 7.2%	4243	
<b>Good</b>	9181 89.1%	1124 10.9%	10305	6363 88.6%	818 11.4%	7181	3717 88.9%	464 11.1%	4181	
<b>Fair</b>	3424 77.8 %	975 22.2 %	4399	2185 79.7%	556 20.3%	2741	1236 82.0%	271 18.0%	1507	
<b>Poor</b>	614 59.2%	424 40.9%	1038	322 61.2%	204 38.8%	526	177 65.3%	94 34.7%	271	
<b>Frequency Missing = 59</b>			29432	<b>Frequency Missing = 8595</b>			20896	<b>Frequency Missing = 17060</b>		

**eTable 2. Reasons for non-cardiovascular disease death in the REGARDS study**

<i>Causes of Death</i>	Overall		Self-reported general health as “ <b>excellent or very good</b> ” n=13,711		Self-reported general health as “ <b>poor, fair or good</b> ” n=15,780	
	n	Percent	Frequency	Percent	Frequency	Percent
Cancer	1226	44.3	474	54.0	747	39.7
Accidents/Injury/Suicide/Homicide	164	5.9	52	5.9	111	5.9
Suicide	3	0.1	2	0.2	1	0.05
Liver disease	56	2.0	14	1.6	42	2.2
Infection	498	18.0	132	15.0	365	19.4
ESRD	119	4.3	23	2.6	95	5.1
Dementia	187	6.8	74	8.4	112	6.0
COPD	247	8.9	43	4.9	204	10.9
Pulmonary Embolism	38	1.34	11	1.3	27	1.4
Other	232	8.4	55	6.3	177	9.4
	Frequency Missing = 263			Frequency Missing = 272		

**eFigure 1. Percent of participants with depression measured at baseline who had their second and third follow up measured by years of follow up.**

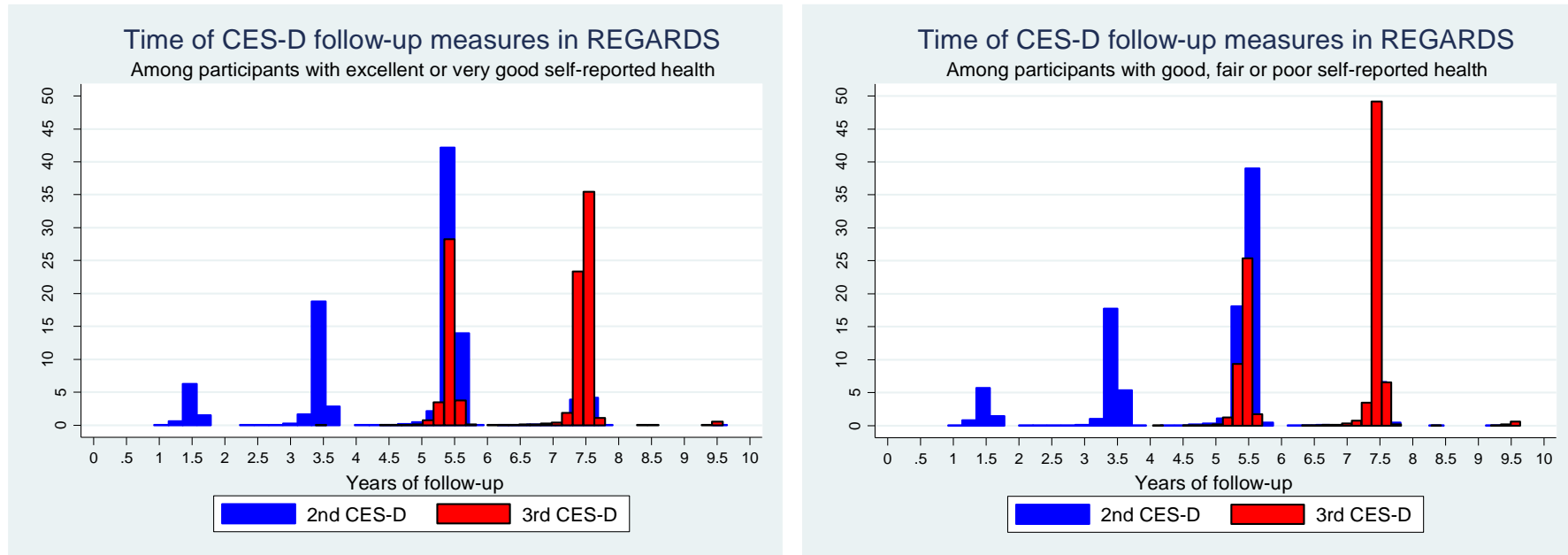


\*"Percent" is a proportion of participants reporting CES-D scores at certain times of all participants available for either 2<sup>nd</sup> follow-up (blue) or 3<sup>rd</sup> follow-up (red).

Time since preceding measurement (baseline or second follow-up), years

	Participants, n	Mean	SD	Minimum	Maximum
Second CES-D	20934	4.8	1.5	0.9	9.7
Third CES-D	12451	2.1	0.4	1.0	4.2

**eFigure 2. Timing of CES-D follow up measures in REGARDS by self reported health at baseline.**



\*"Percent" is a proportion of participants reporting CES-D scores at certain times, of all participants available for either 2<sup>nd</sup> follow-up (blue) or 3<sup>rd</sup> follow-up (red).

Self-reported general health as "excellent or very good"						Self-reported general health as "poor, fair or good"				
		Time since preceding CES-D measurement (baseline or second follow-up), years					Time since preceding CES-D measurement (baseline or second follow-up), years			
	N	Mean	SD	Minimum	Maximum	N	Mean	SD	Minimum	Maximum
Second CES-D	10448	4.8	1.5	0.9	9.7	10448	4.8	1.5	0.9	9.5
Third CES-D	6472	2.1	0.4	1.7	4.2	5959	2.1	0.5	1.0	4.2

**eTable 3. Baseline characteristics of REGARDS participants who had all 3 CES-D measures vs. those with 1 or 2 CES-D measures**

Characteristics	1 or 2 CES-D measures (n=17,040)	All 3 CES-D measures (n=12, 451)	<i>p</i> value
<b><i>Socio-demographics</i></b>			
Age, <i>M</i> (SD)	65.0 +- 10.0	64.7 +- 8.5	0.0069
Female, n (%)	9300 (54.6)	6945 (55.8)	0.04
African American, n (%)	7709 (45.2)	4420 (35.5)	<.001
Less than high school education, n (%)	2583 (15.2)	1113 (8.9)	<.001
Annual Household Income, n (%)			<.001
Less than \$20,000	3549 (20.8)	1773 (14.2)	
No Health Insurance, n (%)	1290 (7.6)	636 (5.1)	<.001
Region, n (%)			<.001
Stroke belt	5806 (34.1)	4387 (35.2)	
Stroke buckle	3887 (22.8)	2301 (18.5)	
Non-stroke belt or buckle	7347 (43.1)	5763 (46.3)	
<b><i>General health and medical conditions</i></b>			
Self-reported general health, n (%)			<.001
Poor, fair, good	9783 (57.5)	5959 (47.9)	
Excellent, very good	7218 (42.5)	6472 (52.1)	
Cardiovascular disease (CHD, stroke, PAD, AA), n (%)	4379 (25.7)	2446 (19.6)	<.001
Diabetes, n (%)	4083 (25.0)	2169 (18.0)	<.001
COPD, n (%)	1612 (9.5)	1098 (8.8)	0.05
Physical component score on SF-12 scale, <i>M</i> (SD)	45.5 +- 11.0	47.6 +- 9.9	<.001
<b><i>Physiological risk factors</i></b>			
Body Mass Index, kg/m <sup>2</sup> , <i>M</i> (SD)	29.4 +- 6.3	29.2 +- 6.0	0.0024
Systolic Blood Pressure, mmHg, <i>M</i> (SD)	128.0 +- 17.2	127.0 +- 15.9	<.001
Total Cholesterol, mg/dL, <i>M</i> (SD)	192.2 +- 41.0	191.9 +- 39.0	0.5732
High-Density Lipoprotein, mg/dL, <i>M</i> (SD)	51.4 +- 16.1	52.4 +- 16.3	<.001
QT Interval, corrected for heart rate, ms, <i>M</i> (SD)	408.4 +- 24.2	406.3 +- 22.7	<.001
High-Sensitivity C-Reactive Protein, mg/L, median, IQR	2.3[1.0-5.4]	2.1[0.9-4.7]	<.001

Albumin to Creatinine Ratio, mg/g, median, IQR	7.9[4.8-18.7]	6.9[4.5-13.5]	<.001
<b>Medications</b>			
Antihypertensive medication use, n (%)	9079 (53.9)	6118 (49.7)	<.001
Statin use, n (%)	5344 (31.4)	3951 (31.8)	0.53
Aspirin use, n (%)	7297 (42.8)	5493 (44.1)	0.03
Antidepressant use, n (%)	2440 (14.4)	1646 (13.2)	0.006
<b>Behavioral risk factors</b>			
Self-reported smoking, pack years, <i>M</i> (SD)	14.5 +- 24.4	12.2 +- 21.0	<.001
Current Smoking, n(%)	2786 (16.4)	1477 (11.9)	<.001
Alcohol use, n (%)			<.001
Heavy	652 (3.9)	520 (4.2)	
Moderate	5180 (31.1)	4446 (36.3)	
None	10822 (65.0)	7294 (59.5)	
Physical inactivity, n (%)	6150 (36.7)	3854 (31.3)	<.001
Medication non-adherence, n (%)	4548 (29.6)	3411 (29.9)	0.59
Impaired cognitive status (Cognitive score $\leq$ 4)	1300 (9.4)	588 (5.9)	<.001
Elevated perceived stress (PSS $\geq$ 5)	5437 (31.9)	3154 (25.3)	<.001

*p* Values from chi square, Student t tests. CES-D = Centers for Epidemiology Studies – Depression scale. CVD = cardiovascular disease. IQR = interquartile range. *M* = mean. SD = standard deviation.

Stroke Belt defined as the states of Alabama, Arkansas, Louisiana, Mississippi, Tennessee and the noncoastal regions within the states of North Carolina, South Carolina and Georgia. Stroke buckle defined as coastal regions within the states of North Carolina, South Carolina and Georgia.

Diabetes defined as fasting blood glucose  $\geq$ 126 or random glucose  $>$ 200 mL/dL or oral hypoglycemic or insulin use. CVD defined as baseline coronary heart disease, stroke, periphery artery disease or aortic aneurism.

**eFigure 3. Simon and Makuch plots of time-varying depressive symptoms and all-cause mortality, cardiovascular disease death, noncardiovascular disease death and cancer death.**

