

Strong Hearts, Healthy Communities: A Community-Based Randomized Trial for Rural Women

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Table S1: Life's Simple 7* Components

	Ideal	Intermediate	Poor
Smoking: self-reported, participant questionnaire.	Never smoked	Smoked, but not currently a smoker	Current smoker
BMI: calculated using measured height and weight from participant assessments.	BMI <25	BMI ≥25	BMI ≥30
Physical activity: self-reported, participant questionnaire (International Physical Activity Questionnaire (IPAQ)).	≥150 minutes/week moderate or ≥75 minutes/week vigorous or ≥150 minutes/week moderate + vigorous physical activity	1–149 minutes/week moderate or 1–74 minutes/week vigorous or 1–149 minutes/week moderate + vigorous physical activity	No physical activity
Healthy diet score: self-reported, participant questionnaire (five components: fruits and vegetables; fish; fiber-rich whole grains; sodium; and sugar-sweetened beverages).	Met criteria for 4–5 components	Met criteria for 2–3 components	Met criteria for 0–1 component
Total cholesterol: measured, blood samples taken at assessments; medication use data was from the participant questionnaire.	<200 mg/dl, without medication	200–239 mg/dL or treated to <200 mg/dL	≥240 mg/dL
Blood pressure: measured (automated) and averaged;	<120/<80 mmHg, without medication	systolic BP 120–139 or diastolic BP 80–89	systolic BP ≥140 or

medication use data was from the participant questionnaire.		mmHg, or treated to <120/<80 mmHg	diastolic BP ≥ 90 mmHg
Fasting serum glucose: measured, blood samples taken at assessments; medication use data was from the participant questionnaire.	<100 mg/dL, without medication	100–125 mg/dL, or treated to <100 mg/dL	≥ 126 mg/dL

*Lloyd-Jones DM, Hong Y, Labarthe D, Mozaffarian D, Appel LJ, Van Horn L, et al. Defining and setting national goals for cardiovascular health promotion and disease reduction: the American Heart Association's Strategic Impact Goal through 2020 and beyond. *Circulation*. 2010;121(4):586-613.

Table S2: Within Group Changes in BMI, Weight, and CVD Risk Factors (Last Observation Carried Forward)

	Unadjusted Model 1^b (N range = 186-194)				Multivariate Model 2^c (N range = 186-194)			
	<i>Within Group Change (SHHC Intervention)</i>		<i>Within Group Change (CON)</i>		<i>Within Group Change (SHHC Intervention)</i>		<i>Within Group Change (CON)</i>	
	Mean Change ^d (SE)	<i>p</i> - value	Mean Change (SE)	<i>p</i> - value	Mean Change (SE)	<i>p</i> - value	Mean Change (SE)	<i>p</i> - value
BMI ^a	-0.65 (-0.91, -0.39)	<0.001	-0.07 (-0.34, 0.20)	0.59	-0.56 (-0.92, -0.21)	0.003	0.02 (-0.33, 0.38)	0.90
Weight, kg	-1.82 (-2.62, -1.02)	<0.001	-0.14 (-0.96, 0.68)	0.72	-1.56 (-2.54, -0.58)	0.003	0.14 (-0.87, 1.15)	0.78
CRP	-1.06 (-1.66, -0.46)	<0.001	-0.02 (-0.64, 0.61)	0.96	-1.21 (-1.86, -0.55)	<0.001	-0.10 (-0.78, 0.58)	0.77
Simple 7	0.68 (0.39, 0.97)	<0.001	0.21 (-0.09, 0.51)	0.16	0.55 (0.14, 0.96)	0.009	0.06 (-0.35, 0.48)	0.77
ASCVD Risk	-0.71 (-1.17, -0.24)	0.003	-0.25 (-0.73, 0.24)	0.32	-0.76 (-1.20, -0.32)	0.008	-0.32 (-0.75, 0.11)	0.14
Waist to hip ratio	-0.004 (-0.01, 0.0008)	0.52	0.0009 (-0.01, 0.01)	0.88	-0.01 (-0.02, 0.007)	0.41	0.001 (-0.01, 0.01)	0.86
Body fat, %	-1.26 (-1.71, -0.81)	<0.001	-1.24 (-1.70, -0.77)	<0.001	-1.21 (-1.72, -0.70)	<0.001	-1.15 (-1.68, -0.62)	<0.001
Resting heart rate	-2.24 (-3.70, -0.77)	0.003	-0.87 (-2.40, 0.66)	0.26	-2.05 (-3.74, -0.36)	0.02	-0.91 (-2.65, -0.84)	0.31
Diastolic blood pressure, mmHg	-5.11 (-7.72, -2.51)	<0.001	-3.43 (-6.07, -0.80)	0.01	-4.68 (-7.43, -1.93)	0.002	-3.03 (-5.83, -0.24)	0.04
Systolic blood pressure, mmHg	-5.24 (-8.31, -2.17)	0.003	-3.09 (-6.24, 0.05)	0.05	-2.79 (-6.66, 1.07)	0.15	-0.96 (-4.89, 2.96)	0.62
Waist circumference,	-2.64 (-4.77, -0.51)	0.02	-1.42 (-3.57, 0.73)	0.18	-2.22 (-4.24, -0.20)	0.03	-0.91 (-2.95, 1.13)	0.37

cm			0.72)		0.21)		1.14)	
Cholesterol (total), mg/dL	2.42 (-3.67, 8.50)	0.41	-6.87 (- 13.06, - 0.68)	0.03	2.15 (-4.19, 8.49)	0.49	-7.00 (- 13.44, - 0.57)	0.03
HDL cholesterol, mg/dL	0.75 (-1.41, 2.91)	0.47	0.40 (-1.80, 2.60)	0.70	0.80 (-1.39, 3.00)	0.46	0.01 (-2.23, 2.25)	0.99
LDL cholesterol, mg/dL	-0.39 (-4.32, 3.54)	0.83	-5.41 (-9.44, -1.38)	0.01	0.10 (-4.58, 4.79)	0.96	-5.39 (- 10.16, - 0.62)	0.03
Triglycerides, mg/dL	-3.86 (-15.38, 7.66)	0.48	-7.02 (- 18.79, 4.75)	0.22	2.47 (-8.00, 12.93)	0.63	-1.77 (- 12.50, 8.97)	0.74
Fasting glucose, mg/dL	2.16 (-1.21, 5.53)	0.21	4.16 (0.65, 7.67)	0.02	3.24 (-0.63, 7.11)	0.10	5.40 (1.38, 9.42)	0.009
Hemoglobin A1c	-0.23 (-0.33, -0.13)	<0.001	-0.21 (-0.31, -0.11)	<0.001	-0.21 (-.32, - 0.10)	<0.001	-0.19 (-0.31, -0.08)	0.002

Boldface indicates statistical significance ($P \leq 0.05$)

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; BMI, body mass index (calculated as weight in kilograms divided by height in meters squared); CON, Strong Hearts, Healthy Women-Control; CRP, c-reactive protein; HDL, high density lipoprotein; LDL, low density lipoprotein; SHHC, Strong Hearts, Healthy Communities.

^a Calculated as weight in kilograms divided by height in meters squared.

^b Adjusted for Site

^c Adjusted for Site, Education, Age, Marital Status, and Baseline Value of the Outcome

^d Mean Change is Mean Change Baseline to Outcome (immediately following the six-month intervention) with last observation carried forward

Table S3: Between Group Differences for Changes in BMI, Weight, and CVD Risk Factors (Last Observation Carried Forward)

	Unadjusted Model 1^b (N range = 186-194)		Multivariate Model 2^c (N range = 186-194)	
	<i>Difference in Change between SHHC and CON</i>		<i>Difference in Change between SHHC and CON</i>	
	Mean Difference (SE) ^d	<i>p</i> -value	Mean Difference (SE) ^d	<i>p</i> -value
BMI ^a	-0.58 (-0.95, -0.20)	0.003	-0.59 (-1.03, -0.14)	0.01
Weight, kg	-1.68 (-2.83, -0.54)	0.007	-1.70 (-2.96, -0.45)	0.01
CRP	-1.04 (-1.91, -0.18)	0.02	-1.11 (-1.89, -0.32)	0.006
Simple 7	0.47 (0.05, 0.88)	0.03	0.49 (0.09, 0.88)	0.02
ASCVD Risk	-0.46 (-1.13, 0.21)	0.18	-0.36 (-0.97, 0.26)	0.26
Waist to hip ratio	-0.004 (-0.02, 0.01)	0.58	-0.01 (-0.02, 0.009)	0.42
Body fat, %	-0.02 (-0.67, 0.63)	0.94	-0.06 (-0.71, 0.59)	0.85
Resting heart rate	-1.37 (-3.40, 0.75)	0.20	-1.14 (-3.15, 0.88)	0.27
Diastolic blood pressure, mmHg	-1.68 (-5.39, 2.02)	0.35	-1.65 (-5.30, 2.00)	0.35
Systolic blood pressure, mmHg	-2.15 (-6.54, 2.25)	0.31	-1.83 (-6.93, 3.27)	0.45
Waist circumference, cm	-1.22 (-4.24, 1.81)	0.40	-1.32 (-4.06, 1.42)	0.32
Cholesterol (total), mg/dL	9.29 (0.61, 17.97)	0.04	9.15 (-0.86, 17.44)	0.03
HDL cholesterol, mg/dL	0.35 (-2.73, 3.43)	0.81	0.79 (-2.06, 3.64)	0.56
LDL cholesterol, mg/dL	5.02 (-0.61, 10.65)	0.08	5.49 (-0.40, 11.39)	0.07

Triglycerides, mg/dL	3.16 (-13.31, 19.62)	0.69	4.24 (-8.85, 17.33)	0.50
Fasting glucose, mg/dL	-2.00 (-6.87, 2.86)	0.42	-2.16 (-6.79, 2.47)	0.36
Hemoglobin A1c	-0.02 (-0.17, 0.12)	0.77	-0.02 (-0.17, 0.13)	0.79

Boldface indicates statistical significance ($P \leq .05$)

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; BMI, body mass index (calculated as weight in kilograms divided by height in meters squared); CON, Strong Hearts, Healthy Women-Control; CRP, c-reactive protein; HDL, high density lipoprotein; LDL, low density lipoprotein; SHHC, Strong Hearts, Healthy Communities.

^a Calculated as weight in kilograms divided by height in meters squared.

^b Adjusted for Site

^c Adjusted for Site, Education, Age, Marital Status, and Baseline Value of the Outcome

^d Mean Group Difference is difference in change between Intervention and Control with last observation carried forward