
APPENDICES

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Table S1. Propel Intervention Curriculum Session Topics.

Session	Week	Session Topic
1	1	Welcome to PROPEL
2	2	Weight Path, Plan for Eating, and Toolbox Tools
3	3	Weight Path Review and Energy Balance
4	4	Phone Session: How's it going?
5	5	Let's Move More
6	6	Food Labels and Cutting Portions
7	7	Swapping Fruits and Vegetables
8	8	Phone Session: How's it going?
9	9	Healthy Protein Choices
10	10	Healthy Carbs
11	11	Fast Food
12	12	Phone Session: How's it going?
13	13	Asking for Support & Eating Less During the Holidays & Special Events
14	14	Healthy Snacking
15	15	Eating foods that fill you up
16	16	Phone Session: How's it going?
17	17	Dealing with Stress
18	18	Skip the Extra Calories
19	19	Flavoring your food
20	20	Phone Session: How's it going?
21	21	Preparing for Monthly Meetings
22	22	Phone Session: How's it going?
23	24	Grocery shopping without breaking the bank
24	28	Phone Session: Stay Motivated
25	32	Setting and meeting your goals
26	36	Phone Session: Getting the most of your time
27	40	Easy Food Swaps
28	44	Phone Session: Mindfulness
29	48	Losing weight and keeping it off
30	52	Phone Session: Reward yourself for meeting your goals
31	56	Change the way you eat
32	60	Phone Session: Find time to keep moving!
33	64	Stay on track at family events
34	68	Phone Session: Can anyone help over here?
35	72	Making cues work for you
36	76	Phone Session: I've got to have it!
37	80	Avoid Added Sugar
38	84	Phone Session: Challenge yourself
39	88	Avoid High Calorie, Unhealthy Foods
40	92	Phone Session: Goal setting review
41	96	Have a plan for slip ups
42	100	Phone Session: Ending strong
43	104	Congratulations!

Table S2. Number of Patients and Individual Usage of Specific ILI Toolbox Options.

Toolbox option	Patients n (%) ^a	Uses n (%) ^b
Weigh yourself every day	441 (97.6)	5995 (41.6)
Use a meal replacement or single serving food for both lunch and dinner for 7 days	425 (94.0)	2633 (18.3)
Swap some of your foods for healthier ones	413 (91.4)	4958 (34.4)
Write down everything I eat	374 (82.7)	3280 (22.7)
Make an agreement with yourself that you will choose certain healthy foods or activities over unhealthy ones	363 (80.3)	2830 (19.6)
Make changes in the way I cook my meals	327 (72.3)	3335 (23.1)
Attend all of your sessions with your coach	309 (68.4)	1500 (10.4)
Keep track of what you are eating	299 (66.2)	1400 (9.7)
Use one serving sized foods ____ times a week / day ^c	296 (65.5)	2514 (17.4)
Control how much you eat by measuring your food ____ times a week / day ^c	283 (62.6)	1624 (11.3)
Remove the foods and cues that make you want to eat more and move less	281 (62.2)	1398 (9.7)
Use a meal replacement ____ times a week / day ^c	264 (58.4)	2018 (14.0)
Make an eating plan with your coach	253 (56.0)	1070 (7.4)
Write down how much activity you are doing	233 (51.5)	1408 (9.8)
Review what you've learned in your Make it Happen Book	217 (48.0)	670 (4.6)
Cook my meals at home ____ times this week ^c	163 (36.1)	1355 (9.4)
Plan to make healthy meals at home instead of eating out ____ times a week / day ^c	155 (34.3)	323 (2.2)
Your coach will contact you every few days	151 (33.4)	338 (2.3)
Eat the same breakfast, lunch and snacks each day ____ times a week / day ^c	150 (33.2)	383 (2.7)
Eat single serving foods ____ times a week / day ^c	132 (29.2)	613 (4.3)
Add ____ steps to what you are already doing each day ^c	74 (16.4)	165 (1.1)
Call my coach ____ times this week ^c	65 (14.4)	113 (0.8)
Wear a step tracker (pedometer, Fitbit)	0 (0)	0 (0)
Practice paying more attention to what, when, and how you feel when you eat	0 (0)	0 (0)

^aNumber and percentage of unique ILI patients who were assigned each toolbox option by their health coach during at least one intervention session. The same patient may be assigned the same toolbox option at multiple intervention sessions.

^bNumber and percentage of intervention sessions across all 452 intervention patients in which the health coach assigned each toolbox option.

^cSpecific number was determined through shared decision making between the health coach and patient.

Table S3. Characteristics of Participants in the Focus Groups

Characteristic	Patients n=28, %	Healthcare Providers^a n=6; %
Age, years		
18-35	11	33
36-55	32	50
56-65	32	17
≥66	25	
Race		
White	36	67
African American	64	17
Asian	0	16
Sex		
Male	14	50
Female	86	50
Education		
0-8 grade	0	0
Some high school	14	0
High school	18	0
1-3 years college	36	0
College degree	11	0
Postgraduate degree	21	100
Employment		
Full time	14	100
Part time	0	0
Medical disability	25	0
Unemployed	21	0
Retired	40	0
Annual income, \$^b		
10,000	36	0
10-19,999	11	0
20-29,999	7	0
30-39,999	21	0
50-59,999	7	0
60-69,999	7	0
≥70,000	11	100

^aPhysicians and nurse practitioners.

^bTotal household income.

Table S4. Unadjusted and Adjusted Differences from Baseline between Usual Care and the Intensive Lifestyle Intervention Groups for Changes in Weight Loss Variables over Two Years.

Variable	Unadjusted	Adjusted ¹	Adjusted ²
Change in Body Weight (%)			
At 6 months	-6.75 (-8.11, -5.39)	-6.86 (-8.05, -5.68)	-6.68 (-8.08, -5.28)
At 12 months	-6.02 (-7.51, -4.54)	-6.16 (-7.47, -4.85)	-5.98 (-7.49, -4.47)
At 18 months	-5.08 (-6.60, -3.57)	-5.22 (-6.57, -3.88)	-5.04 (-6.58, -3.50)
At 24 months	-4.37 (-5.95, -2.80)	-4.51 (-5.93, -3.10)	-4.33 (-5.93, -2.73)
Change in Body Weight (kg)			
At 6 months	-6.83 (-8.30, -5.36)	-6.98 (-8.26, -5.71)	-6.87 (-8.41, -5.32)
At 12 months	-6.05 (-7.63, -4.47)	-6.23 (-7.63, -4.83)	-6.11 (-7.76, -4.46)
At 18 months	-5.07 (-6.69, -3.46)	-5.26 (-6.69, -3.82)	-5.14 (-6.82, -3.46)
At 24 months	-4.33 (-6.00, -2.65)	-4.51 (-6.01, -3.02)	-4.39 (-6.13, -2.66)
Change in Waist Circumference (cm)			
At 6 months	-5.73 (-6.83, -4.63)	-5.85 (-7.04, -4.66)	-6.00 (-7.39, -4.60)
At 12 months	-5.83 (-7.05, -4.60)	-5.95 (-7.25, -4.65)	-6.10 (-7.60, -4.61)
At 18 months	-5.41 (-6.65, -4.16)	-5.54 (-6.86, -4.22)	-5.69 (-7.20, -4.18)
At 24 months	-5.00 (-6.29, -3.71)	-5.13 (-6.50, -3.77)	-5.28 (-6.83, -3.74)

Values are mean difference (95% C.I.)

¹Adjusted for age, race and sex

²Adjusted for age, race, sex, and clinic level variables (clinic size, %African American, %Medicaid)
95% confidence intervals which do not include zero indicate a statistically significant result.

Table S5. Changes from Baseline in Physical Activity and Dietary Intake over Two Years.

Variable	UC	ILI	Difference
Change in Total Daily PA (min/day)			
At 6 months	3.57 (-7.39, 14.53)	23.21 (11.98, 34.43)	19.64 (5.76, 33.51)
At 12 months	7.67 (-4.15, 19.50)	19.61 (7.59, 31.63)	11.94 (-3.25, 27.12)
At 24 months	3.82 (-7.64, 15.29)	10.91 (-0.76, 22.59)	7.09 (-7.55, 21.73)
Change in Percent Fat Intake			
At 6 months	-0.93 (-1.80, -0.07)	-3.31 (-4.17, -2.45)	-2.37 (-3.46, -1.29)
At 12 months	-0.89 (-1.77, -0.02)	-2.66 (-3.52, -1.79)	-1.76 (-2.85, -0.67)
At 24 months	-0.63 (-1.60, 0.33)	-2.73 (-3.67, -1.78)	-2.09 (-3.31, -0.87)

Values are mean changes (95% C.I.).

CI: Confidence interval; UC: Usual care; ILI: intensive lifestyle intervention; PA: Physical activity.

All models included age, sex and race as covariates.

95% confidence intervals which do not include zero indicate a statistically significant result.

Table S6. 24-Month Changes from Baseline in Weight Loss Variables in the Intensive Lifestyle Intervention among Patients who Received <80% and ≥80% of Session Materials.

Variable	<80% of Materials	≥80% of Materials
Change in Body Weight (%)	-1.93 (-3.81, -0.06)	-7.07 (-8.58, -5.56)
Change in Body Weight (kg)	-2.00 (-3.90, -0.11)	-7.39 (-8.92, -5.87)
Change in Waist Circumference (cm)	-1.87 (-3.71, -9.02)	-6.13 (-7.61, -4.65)

Values are mean changes (95% C.I.).

Results are from a linear mixed model including age, sex, race and baseline weight as covariates.

95% confidence intervals which do not include zero indicate a statistically significant result.

Table S7. Additional Contacts¹ between Health Coaches and Patients in the Intensive Lifestyle Intervention.

Contact Method	Total Number	Per Patient Mean (Range)
In Person	626	1.38 (0-23)
By E-mail	33	0.07 (0-4)
By Phone	306	0.68 (0-12)
By Text	6852	15.16 (0-91)
Other Method	2	0.004 (0-1)
Total (All Methods)	7819	17.29 (0-93)

Intensive Lifestyle Intervention patients only (n=452).

¹Additional contacts reflect contacts in which some type of intervention content (i.e., 'weigh yourself daily', coaches assisting patients choose a meal, etc.) was delivered to the patient above the 43 scheduled sessions (i.e., a phone session which was scheduled as part of the 43-session intervention curriculum was not considered an additional contact). Retention efforts were not considered as additional intervention contacts as no intervention content was delivered.

Table S8. Differences from Baseline between Usual Care and the Intensive Lifestyle Intervention Groups for Changes in Weight Loss Variables over Two Years in African Americans and Other Races.

Variable	African American	Other
Change in Body Weight (%)		
At 6 months	-6.45 (-7.66, -5.23)	-7.81 (-9.16, -6.46)
At 12 months	-5.64 (-7.00, -4.28)	-7.56 (-9.38, -5.75)
At 18 months	-4.78 (-6.18, -3.38)	-6.30 (-8.23, -4.37)
At 24 months	-4.16 (-5.61, -2.71)	-5.33 (-7.57, -3.10)
Change in Body Weight (kg)		
At 6 months	-6.58 (-7.78, -5.38)	-7.84 (-9.53, -6.15)
At 12 months	-5.74 (-7.08, -4.40)	-7.54 (-9.64, -5.45)
At 18 months	-4.83 (-6.22, -3.44)	-6.31 (-8.51, -4.11)
At 24 months	-4.20 (-5.65, -2.75)	-5.23 (-7.65, -2.80)
Change in Waist Circumference (cm)		
At 6 months	-5.07 (-6.50, -3.65)	-7.37 (-8.80, -5.93)
At 12 months	-5.26 (-6.82, -3.71)	-7.28 (-9.05, -5.51)
At 18 months	-5.15 (-6.71, -3.59)	-6.32 (-8.18, -4.45)
At 24 months	-4.55 (-6.13, -2.98)	-6.23 (-8.34, -4.12)

Values are mean difference (95% C.I.)

All models included age and sex as covariates.

95% confidence intervals which do not include zero indicate a statistically significant result.

Table S9. Differences from Baseline between Usual Care and the Intensive Lifestyle Intervention Groups for Changes in Weight Loss Variables over Two Years in Women and Men.

Variable	Women	Men
Change in Body Weight (%)		
At 6 months	-6.83 (-7.94, -5.72)	-7.47 (-10.13, -4.81)
At 12 months	-6.32 (-7.59, -5.05)	-6.01 (-9.03, -2.99)
At 18 months	-5.22 (-6.53, -3.91)	-6.09 (-9.21, -2.98)
At 24 months	-4.83 (-6.21, -3.45)	-3.85 (-7.38, -0.31)
Change in Body Weight (kg)		
At 6 months	-6.71 (-7.78, -5.64)	-9.00 (-12.44, -5.56)
At 12 months	-6.17 (-7.41, -4.94)	-7.25 (-11.02, -3.48)
At 18 months	-5.04 (-6.32, -3.76)	-7.31 (-11.16, -3.47)
At 24 months	-4.71 (-6.06, -3.36)	-4.51 (-8.70, -0.32)
Change in Waist Circumference (cm)		
At 6 months	-5.58 (-6.69, -4.47)	-7.43 (-10.55, -4.31)
At 12 months	-6.03 (-7.28, -4.78)	-5.49 (-8.96, -2.01)
At 18 months	-5.58 (-6.85, -4.31)	-5.42 (-8.91, -1.94)
At 24 months	-5.28 (-6.59, -3.96)	-4.51 (-8.30, -0.72)

Values are mean difference (95% C.I.)

All models included age and race as covariates.

95% confidence intervals which do not include zero indicate a statistically significant result.

Table S10. Differences from Baseline between Usual Care and the Intensive Lifestyle Intervention Groups for Changes in Weight Loss Variables over Two Years in Younger, Middle, and Older Adults.*

Variable	Younger	Middle	Older
Change in Body Weight (%)			
At 6 months	-5.55 (-7.12, -3.99)	-7.17 (-8.51, -5.83)	-8.03 (-9.48, -6.58)
At 12 months	-5.21 (-7.18, -3.25)	-6.48 (-7.98, -4.98)	-7.18 (-8.94, -5.41)
At 18 months	-4.44 (-6.47, -2.41)	-5.69 (-7.23, -4.15)	-6.13 (-7.97, -4.29)
At 24 months	-4.33 (-6.60, -2.05)	-4.90 (-6.67, -3.13)	-4.89 (-6.78, -3.00)
Change in Body Weight (kg)			
At 6 months	-5.77 (-7.49, -4.06)	-7.36 (-8.74, -5.97)	-8.01 (-9.48, -6.54)
At 12 months	-5.36 (-7.42, -3.30)	-6.60 (-8.15, -5.06)	-7.13 (-8.92, -5.35)
At 18 months	-4.55 (-6.71, -2.40)	-5.73 (-7.32, -4.14)	-6.10 (-7.96, -4.24)
At 24 months	-4.39 (-6.75, -2.02)	-4.83 (-6.63, -3.03)	-4.89 (-6.80, -2.97)
Change in Waist Circumference (cm)			
At 6 months	-4.49 (-6.07, -2.91)	-6.43 (-7.99, -4.88)	-6.60 (-8.43, -4.77)
At 12 months	-4.72 (-6.74, -2.71)	-6.62 (-8.27, -4.97)	-6.70 (-8.75, -4.66)
At 18 months	-3.70 (-5.79, -1.60)	-6.82 (-8.45, -5.20)	-6.26 (-8.34, -4.18)
At 24 months	-4.06 (-6.27, -1.85)	-4.99 (-6.75, -3.23)	-6.26 (-8.39, -4.12)

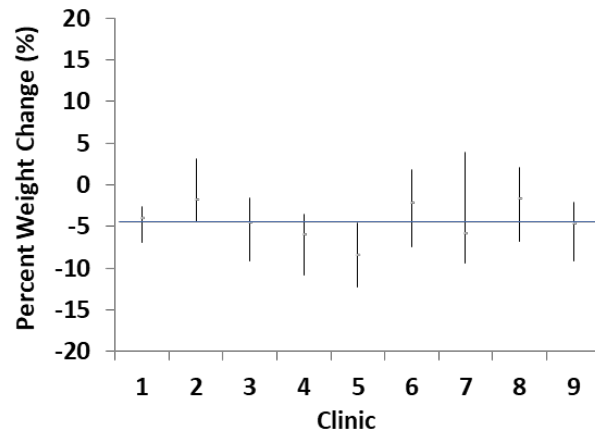
Values are mean difference (95% C.I.)

*Younger = 21-42 y; middle = 43-56 y; older = 57-74 y.

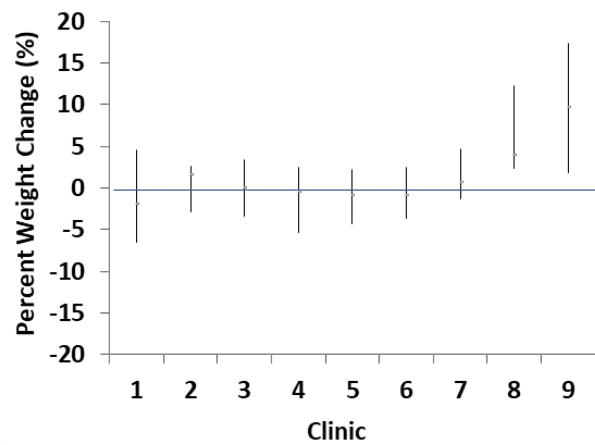
All models included sex and race as covariates.

95% confidence intervals which do not include zero indicate a statistically significant result.

A. 9 Intensive Lifestyle Intervention Clinics



B. 9 Usual Care Clinics



C. 7 Usual Care Clinics

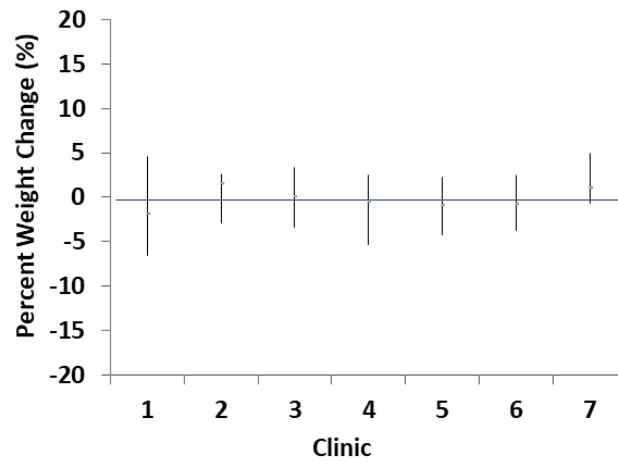


Figure S1. Percent Changes in Body Weight from Baseline to 24 Months by Clinic.

Shown are median percent weight loss changes in each clinic in the A) 9 Intensive Lifestyle Intervention (ILI) clinics, B) 9 Usual Care (UC) clinics, and C) 7 UC clinics (after combining 2 clinics that failed to recruit more than 4 patients with another UC clinic in close geographic proximity). The error bars represent the 25th and 75th percentiles of change. The blue lines indicate the median weight change in ILI or UC, respectively.

Table S11. Changes in Weight Loss Variables from a Sensitivity Analysis Using Data from 16 Clusters Instead of all 18 Clinics*

Variable	UC	ILI	Difference
Change in Body Weight (%)			
At 6 months	-0.55 (-1.50, 0.39)	-7.33 (-8.23, -6.44)	-6.78 (-7.98, -5.58)
At 12 months	-0.67 (-1.70, 0.36)	-6.75 (-7.72, -5.76)	-6.08 (-7.41, -4.75)
At 18 months	-0.49 (-1.55, 0.57)	-5.62 (-6.62, -4.63)	-5.13 (-6.49, -3.77)
At 24 months	-0.56 (-1.67, 0.55)	-4.99 (-6.03, -3.95)	-4.43 (-5.86, -3.00)
Change in Body Weight (kg)			
At 6 months	-0.91 (-1.93, 0.11)	-7.81 (-8.76, -6.85)	-6.90 (-8.19, -5.60)
At 12 months	-1.08 (-2.18, 0.02)	-7.22 (-8.25, -6.19)	-6.14 (-7.55, -4.73)
At 18 months	-0.91 (-2.04, 0.21)	-6.07 (-7.13, -5.02)	-5.16 (-6.61, -3.71)
At 24 months	-1.00 (-2.17, 0.17)	-5.42 (-6.52, -4.33)	-4.42 (-5.93, -2.91)
Change in Waist Circumference (cm)			
At 6 months	-1.04 (-1.99, -0.09)	-6.84 (-7.75, -5.93)	-5.80 (-6.99, -4.60)
At 12 months	-0.74 (-1.76, 0.29)	-6.63 (-7.61, -5.65)	-5.90 (-7.21, -4.59)
At 18 months	0.16 (-0.88, 1.20)	-5.33 (-6.32, -4.34)	-5.48 (-6.81, -4.16)
At 24 months	0.67 (-0.40, 1.74)	-4.42 (-5.44, -3.40)	-5.09 (-6.46, -3.72)

Values are mean changes (95% C.I.).

UC: Usual care; ILI: intensive lifestyle intervention; values are mean (95% C.I.)

All models included age, sex and race as covariates.

*2 clinics failed to recruit more than 4 patients (n=2; n=4) so data from these patients were combined with a usual care clinic in close geographic proximity to reduce the number of clusters from 18 to 16 for the sensitivity analysis.

95% confidence intervals which do not include zero indicate a statistically significant result.