

A Small Change Approach Delivered via Telephone Promotes Weight Loss in Veterans: Results from the ASPIRE-VA Pilot Study

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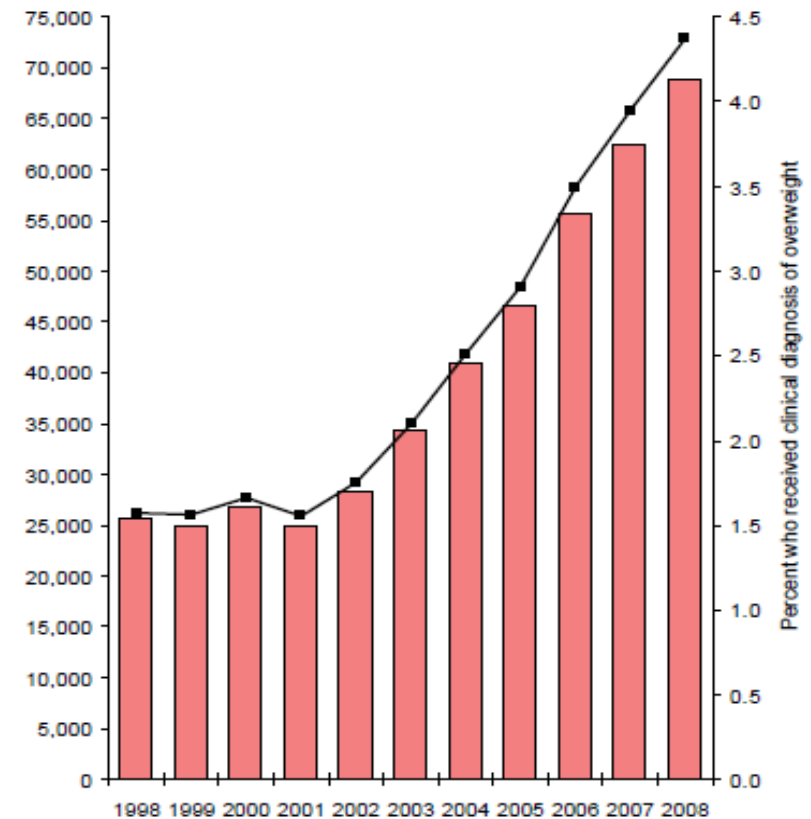


Current Statistics in the US & Veterans

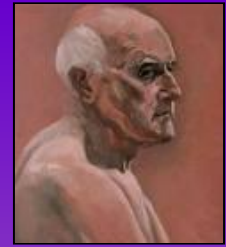


- Over 65% of Americans are overweight or obese
- Over 70% of veterans are overweight or obese
- Rates of obesity among active-duty military have doubled in the past 5 years alone

Figure 1. Crude overall number and percentage of service members who received outpatient diagnoses of overweight, by calendar year, active component, U.S. Armed Forces, January 1998-December 2008



Consequences of Obesity



- Increased risk for morbidity, disability, and overall mortality
- Decreased quality of life & psychosocial functioning
- Increased depression, anxiety, & chronic pain
- Therefore, creating effective weight loss treatment programs for veterans is a high priority

Addressing Obesity in Veterans



- A stepped-care model for treatment (*MOVE!*):
 - Step 1 = phone self-management
 - Step 2 = center-based group programs
 - Step 3 = medication
 - Step 4 = intensive in/out patient
 - Step 5 = surgery
- Challenges to date:
 - Low enrollment overall
 - Distance to centers
 - Focus on the center-based programs
 - Minimal weight loss
 - Regain across time

Is there an alternative approach?

Small Changes as a **Big** Idea

- 2003: Paradigm shift
 - Efforts should be focused on promoting small lifestyle changes
 - Not on producing weight loss or preventing obesity but on weight gain prevention

(Hill et al, 2003)
- 2008: First small change study to show weight loss
 - Aspiring for Lifelong Health (ASPIRE)

(Lutes et al, 2008)
- 2009: Report of the Joint task force
 - Increasing physical activity
 - Decreasing total energy intake
 - Preventing or reducing excessive weight gain

(Hill, 2009)

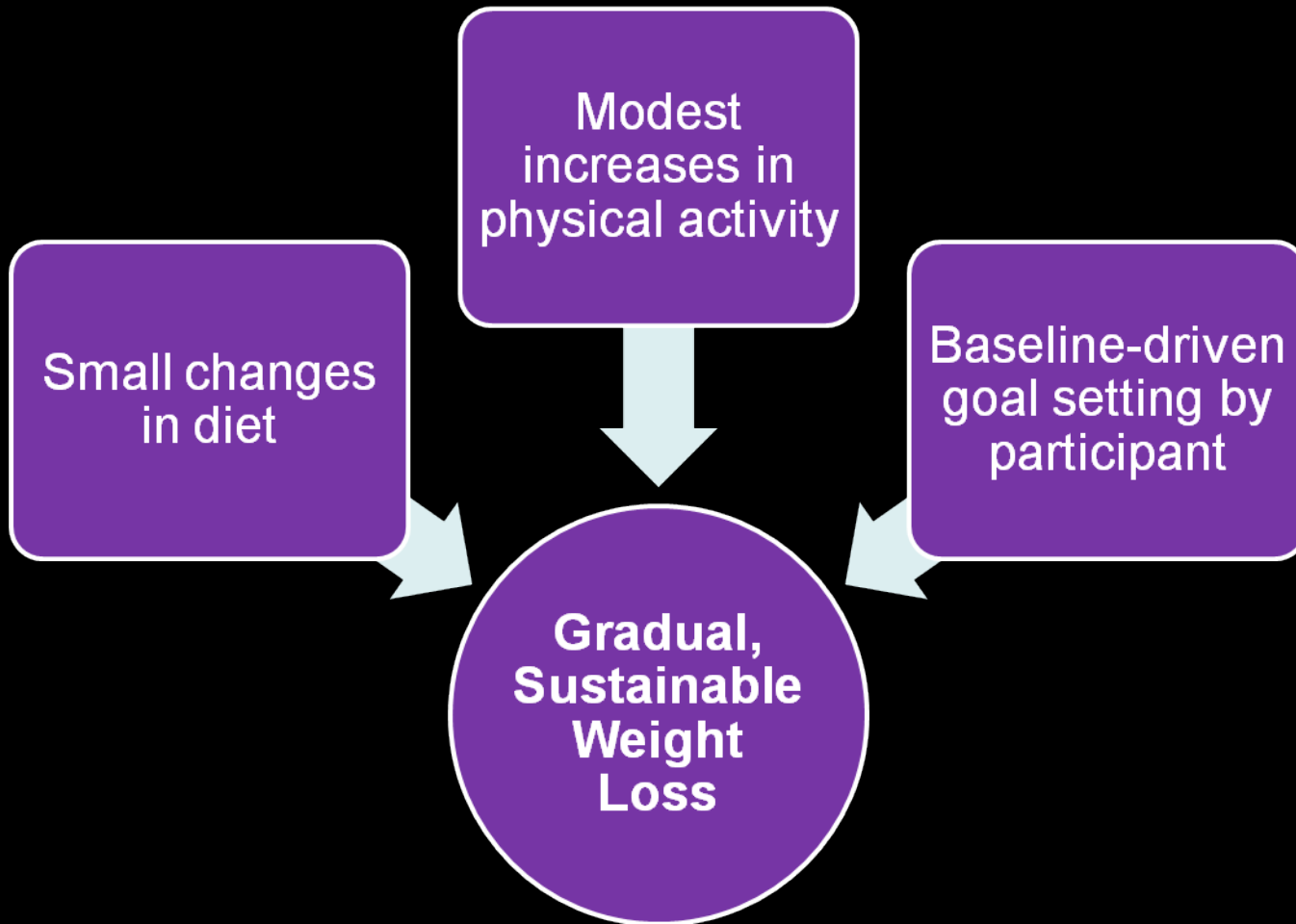
**“ Given the lack of
success with other
approaches
to lifestyle changes,
the small-changes approach
deserves serious attention.”**

THE PRESENT STUDY



- Examine the impact of a 12-week small change program delivered over the phone in a group of veterans: ASPIRE-VA
- 2 main goals:
 1. Would veterans want to participate in a phone-based treatment program?
 2. Would veterans lose weight with a small change program?

The ASPIRE Small Change Approach



Example of a Small Change



2 Cokes a day
155 calories x 2 = 310

Their Small Change is to decrease
to 1 coke per day



155 calories saved per day

1085 calories saved per week

56420 calories saved per year/

/3500 calories (1 pound)

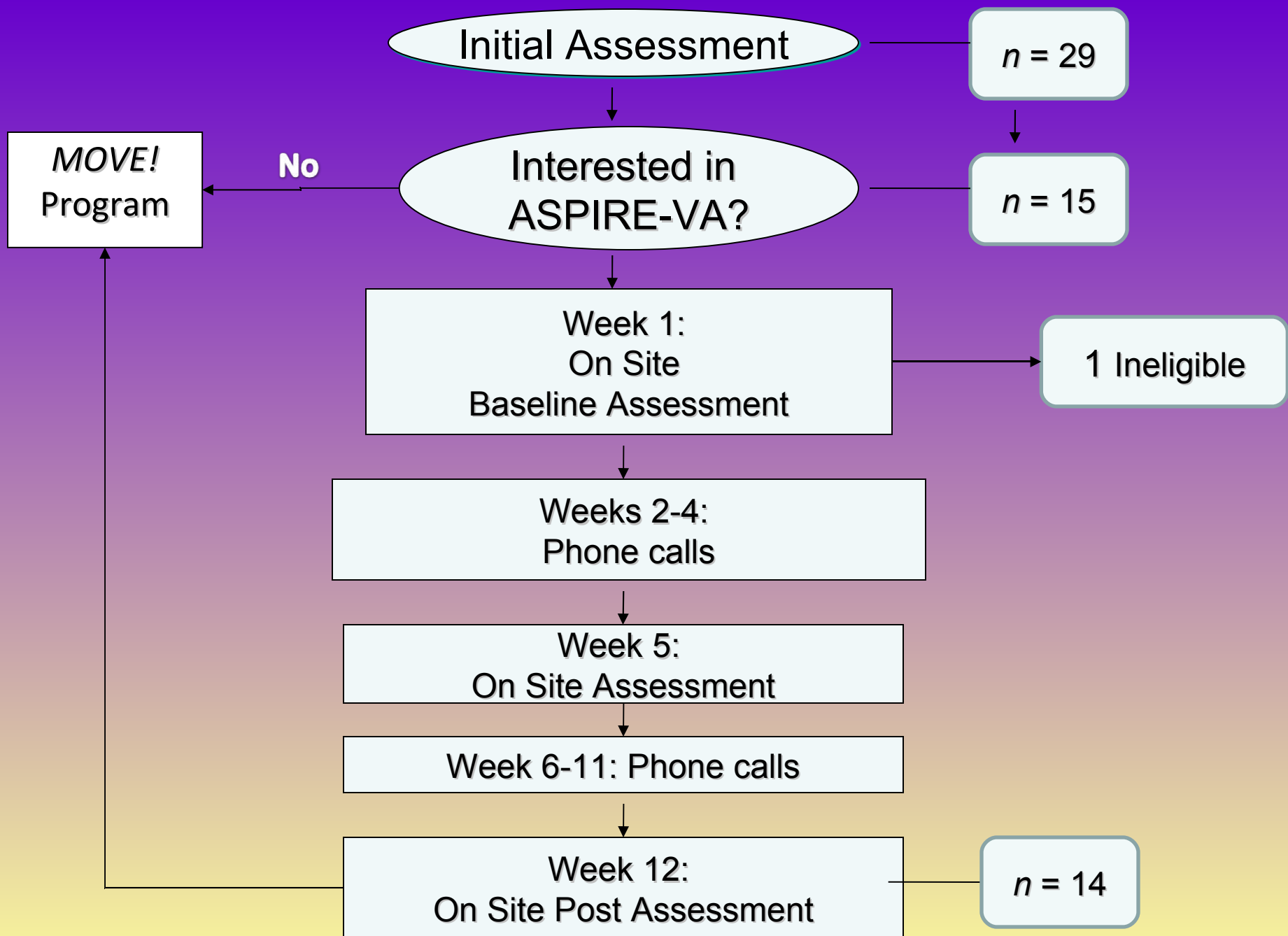
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**Pounds in
1 year!**

Intervention

- Weekly phone-call appointments
 - 20-30 minutes
 - Participants wore pedometers
 - Participants monitored food using the stoplight colors
- ASPIRE small change approach:
 - Check in: steps and colors
 - What went well? What was a challenge?
 - Material
 - Goal setting for the upcoming week





Participants



- Recruited from the Ann Arbor VA
 - Services more that 158,000 Veterans from 15 counties

Mean Age = 53.8

BMI = 37.0 (4.2)

% Male = 64%

% Racial Minority = 14%

of Chronic Conditions = 3.8

Measures & Analyses

- **All outcomes measured at 3 time points**
 - **Baseline**
 - **5 weeks**
 - **12 weeks**
- **Intention-to-treat analyses**
 - **Baseline & 12 week measures**
 - **Missing data imputed from most recent data**
 - **Paired t-tests for differences**

Primary & Secondary Outcomes

- Primary Outcome
 - Weight (kg) change from baseline



- Secondary Outcomes
 - BMI
 - Waist Circumference (inches)



Psychosocial Outcomes

- SF-12 Health Status
 - Physical Component Scale (PCS)
 - Mental Component Scale (MCS)
- Life Satisfaction Measure
 - Diener, et al (1985)
 - 5 items

Behavioral Outcomes

- Average daily step count

- Average from last 7 days of wearing pedometer
 - Omron HJ-720IT
 - Stores 42 days of detailed time-stamped step count data
 - Upload data to PC



- Nutrition Intake

- NHIS Food and Nutrition items from the Cancer supplement
- Fruit & Vegetables (servings/day)^{1,2}
- Fiber (grams/day)²

1. 1992 USDA Pyramid servings, excluding French fries
2. NCI scoring instructions

Primary Outcome: Weight



Secondary Outcomes

	Baseline Mean	Post-Test Mean	Difference Mean	<i>p</i>
BMI	37.0	35.4	-1.2	.003
Waist Circumference (in)	46.5	44.4	-1.7	.001
SF-12 PCS	37.1	39.5	+2.4	.21
SF-12 MCS	41.1	42.3	+1.2	.42
Life Satisfaction	4.1	4.7	+0.6	.04

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Daily Step Count	4471	5257	+786	.25
Fruits & Vegetables (servings/day)	3.4	5.6	+2.2	.03
Fiber Intake (grams/day)	18.7	22.9	+4.1	.23

Additional Results

- 1.7 call attempts for each phone call
- Average length of call 29 minutes
- Feedback from a focus group:
 - 93% satisfaction rating with program
 - 100% would refer program to fellow Veterans
 - Main critique: no follow-up program

Discussion

- Results of the ASPIRE-VA pilot study showed that:
 - Veterans were willing to participate in a phone-based weight loss treatment program
 - Veterans lost weight using a small change approach
 - Veterans also showed significant BMI and waist circumference reductions, improved nutrition and life satisfaction

Future Directions

- Participants will be followed up at 6 & 12 months
- Next:
 - ASPIRE-VA Phone
 - ASPIRE-VA Center-based
- vs.
- *MOVE!* Level 1& 2
- Looking at 12 month outcomes
 - W/ follow-up program

Thank You!



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