

# MOVE!+UP: Development of a Behavioral Weight Loss Program for Veterans with PTSD

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Note: The views expressed are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

# First Stop: Gratitude to the Team



- Boots on the Ground: Nadiyah Sulayman and Lamont Tanksley

# First Stop: Gratitude to the Team

- Mentors/Co-investigators:
  - Karin Nelson, Tracy Simpson, Brian Saelens, Gayle Reiber, & Jurgen Unutzer
- Research Team:
  - Marissa Black, Briana Robustelli, Preston Greene, Jeff Rodenbaugh, Marie Lutton, Katherine Raffle, and Laura Merritt, Chris Pacheco
- Operational Partners
  - National Center for Health Promotion and Disease Prevention (NCP)
  - Office of Mental Health and Suicide Prevention (OMHSP)
- Funding: VA Health Services Research & Development Funding (CDA 12-263) and Seattle R&D seed funding program

# Overview



- The story of MOVE!+UP's development
  - ▣ Weight Loss Program for PTSD
  - ▣ From Clinical Observation to Patient-Centered Intervention
  - ▣ Pilot Uncontrolled Trial
    - Takeaways from data and iterative refinement process
- ▣ What's Next: Applying for Merit to Study in Hybrid Trial
- ▣ Questions moderated by mentor Dr. Tracy Simpson

# Poll Question

- ☐ In your work with Veterans with PTSD, have you noticed unique challenges with maintaining a healthy weight?
  - ☐ Yes
  - ☐ No
  - ☐ Never thought about it
  - ☐ Don't work with Veterans with PTSD

# Poll Question

- ☐ What factors do you think affect maintaining a healthy weight among Veterans with PTSD? (select all that apply)
  - ☐ Eating behaviors, like binge eating
  - ☐ Safety concerns affect doing new things and exercising in public
  - ☐ Sleep challenges
  - ☐ Social support impairments
  - ☐ Other (specify): \_\_\_\_\_
  - ☐ Unsure



# MOVE!+UP Origins



# MOVE!+UP

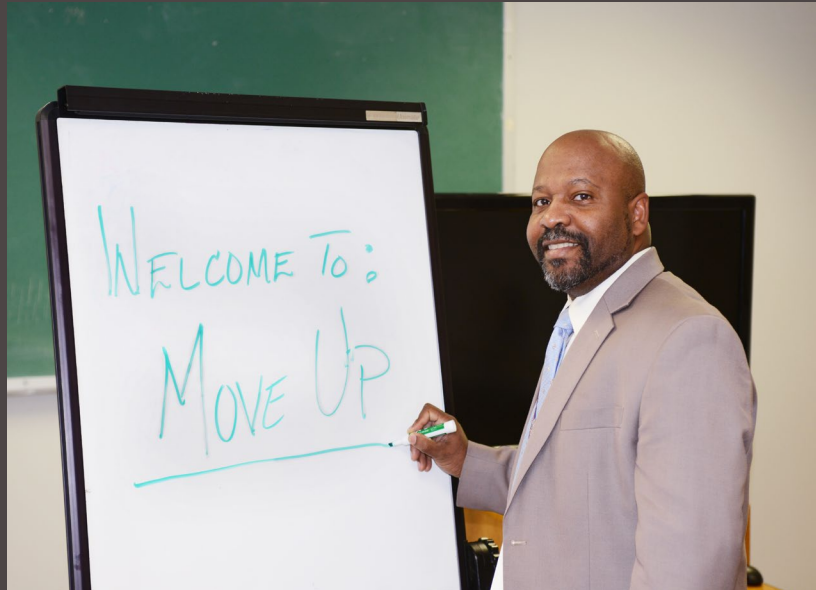
## Rationale



- Veterans with PTSD have high rates of obesity and related diseases
- MOVE! less effective for Veterans with PTSD (*Psychiatric Services*, 2014)
- Veterans with PTSD have unique barriers to activity and healthy diet
  - At risk for binge, emotional, and night eating
  - Sleep often poor, associated with poor eating and excess weight
  - Hyperarousal symptoms can interfere with exercise
  - Beliefs that affect self-efficacy and motivation
- A minority of Veterans receive an adequate dose of mental health treatment, and weight loss treatment may improve PTSD



# MOVE!+UP Overview



4-month Peer Led Weight Loss Program  
for Overweight Veterans with PTSD

# Group Education: Weight Loss and CBT for PTSD





# Community Walking



# Brief Counseling Calls



# MOVE!+UP Pilot Study Sample

- N=44 Overweight Veterans with PTSD from VA Puget Sound
  - ▣ Inclusion criteria
    - Body Mass Index  $\geq 25$
    - Lifetime experience of trauma
    - current PTSD (a score of  $\geq 33$ ) based on DSM-5 criteria measured with the PTSD Checklist-Military Version (PCL-M)
    - PCP approval required
  - ▣ Minimal exclusion criteria (e.g., acute suicidality)
  - ▣ Primarily recruited through flyers and providers

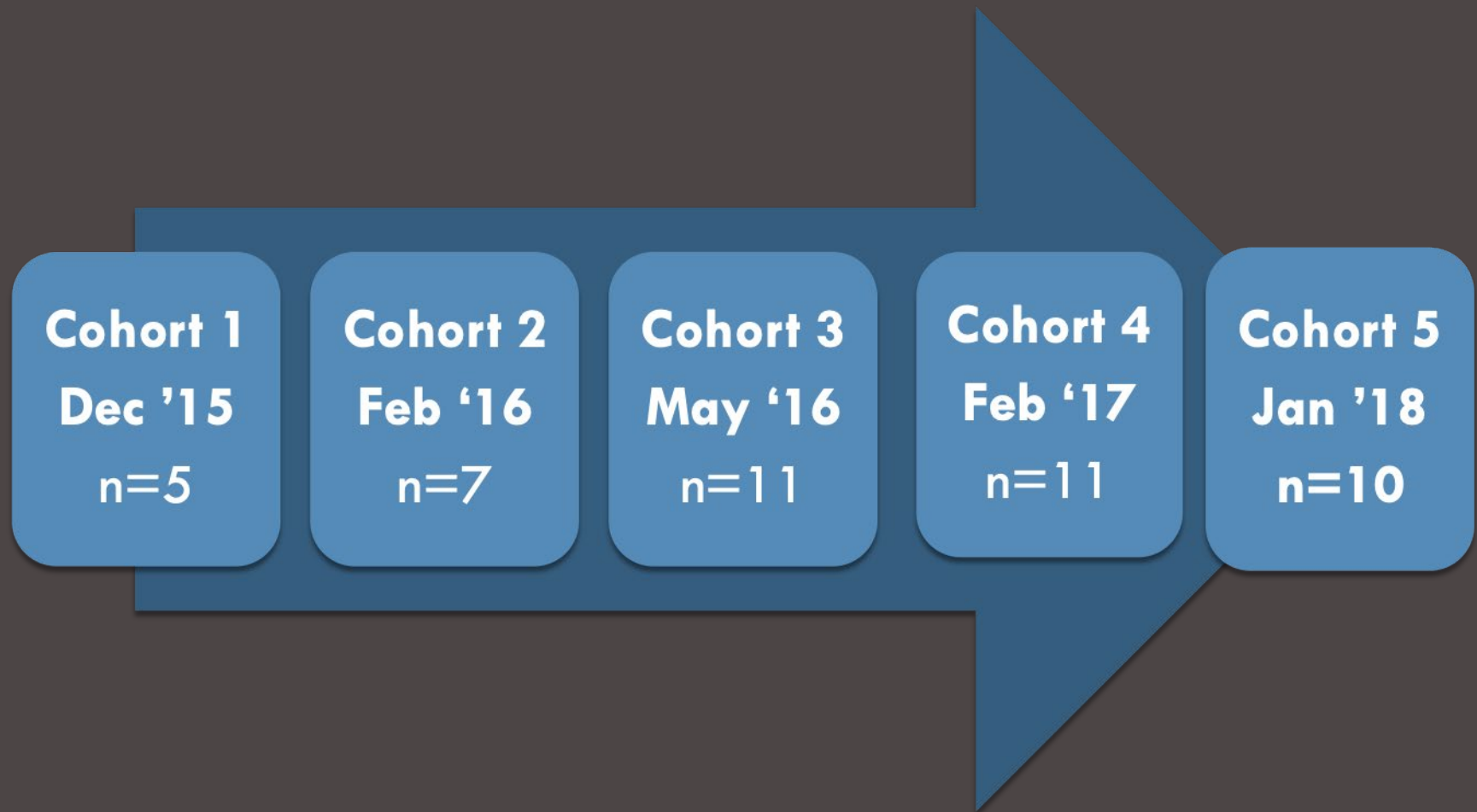
# Pilot Study Sample



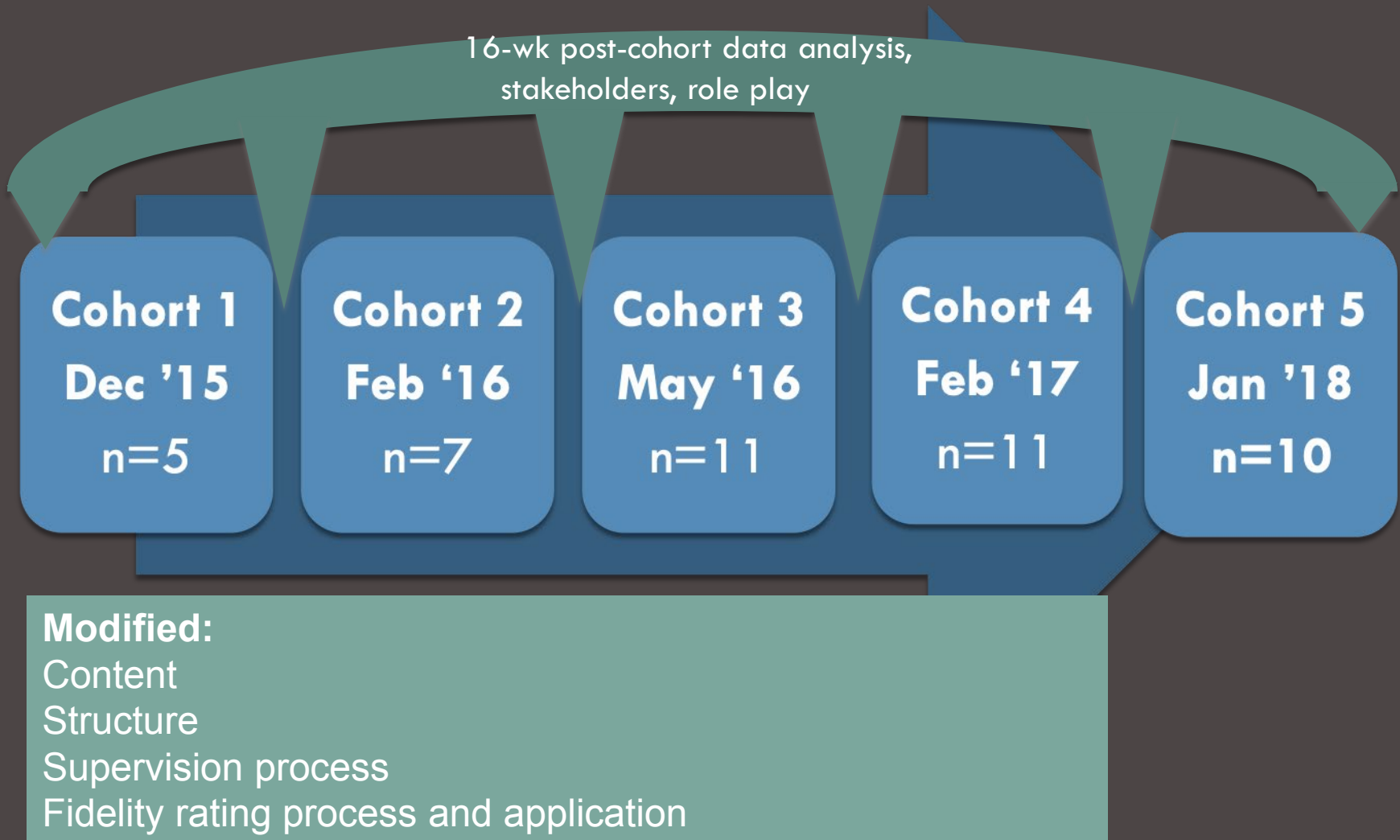
Variable	Mean or %
Age	58 years
Weight	246 lbs
Male	70%
White	64%
Married	70%



# Pilot Study Design



# Pilot Study Design



# Measures

## Baseline, 16 weeks, and 6 months

- Weight
- PTSD Checklist
- Diet quality: Starting the Conversation
- Physical activity: International Physical Activity Questionnaire
- Social Support for PA and Diet
- QoL: SF-12

qualitative interview (1-hour after in-person group sessions concluded and at 16 weeks)

# Initial MOVE!+UP Format: Cohort 1

- 4 in-person group sessions, followed by 6 bi-weekly brief counseling calls
- Augment MOVE!
  - ▣ MOVE!+UP provided PTSD-specific support
  - ▣ Encouraged to get general weight loss in MOVE!
- Peer Support Counselor-Delivered
  - ▣ Strong OMHS support, with ~800 PSCs in VA

# MOVE!+UP Pilot and Refinement

improve goal setting/check-in  
and better encourage MOVE!

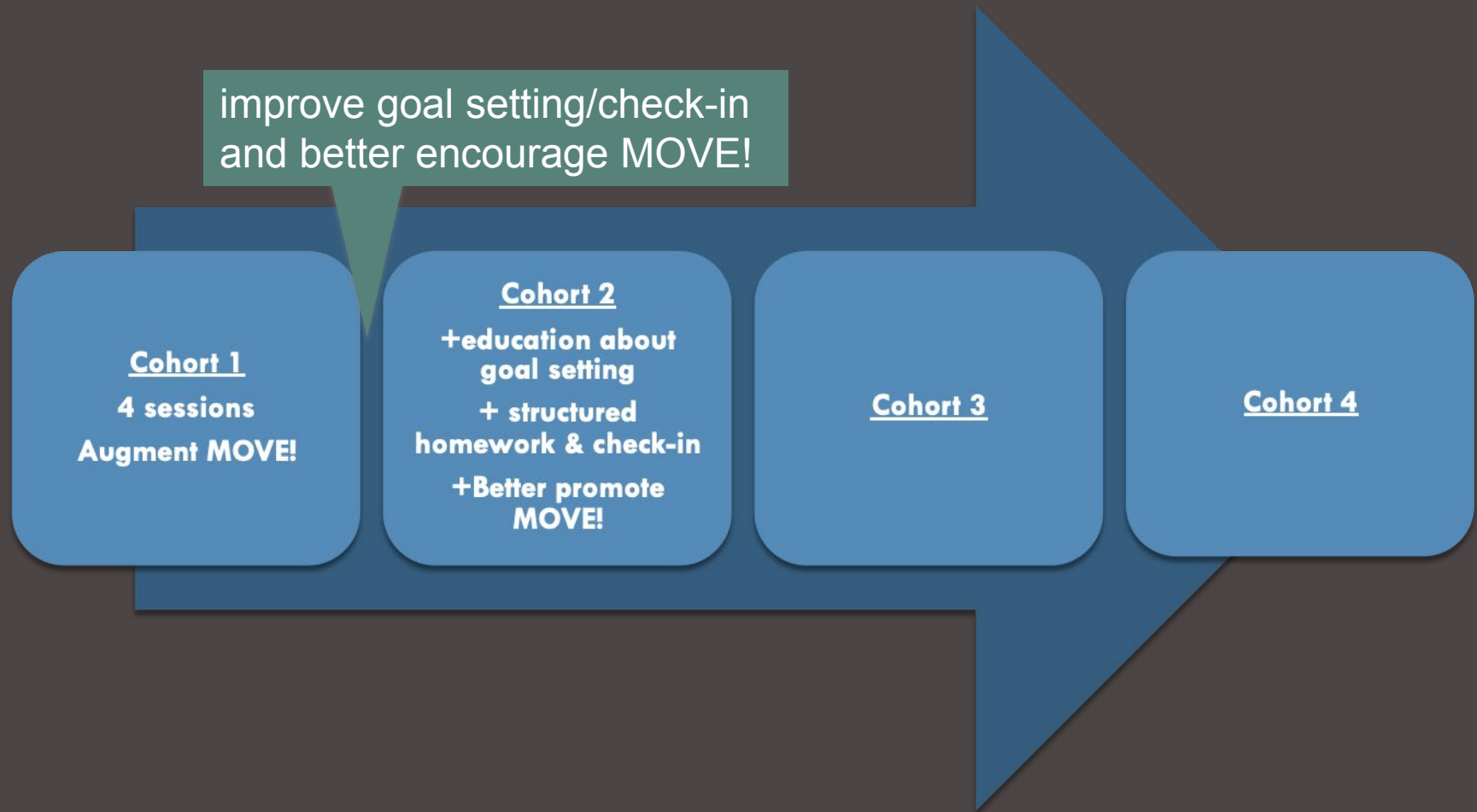
Cohort 1  
4 sessions  
Augment  
MOVE!

Cohort 2

Cohort 3

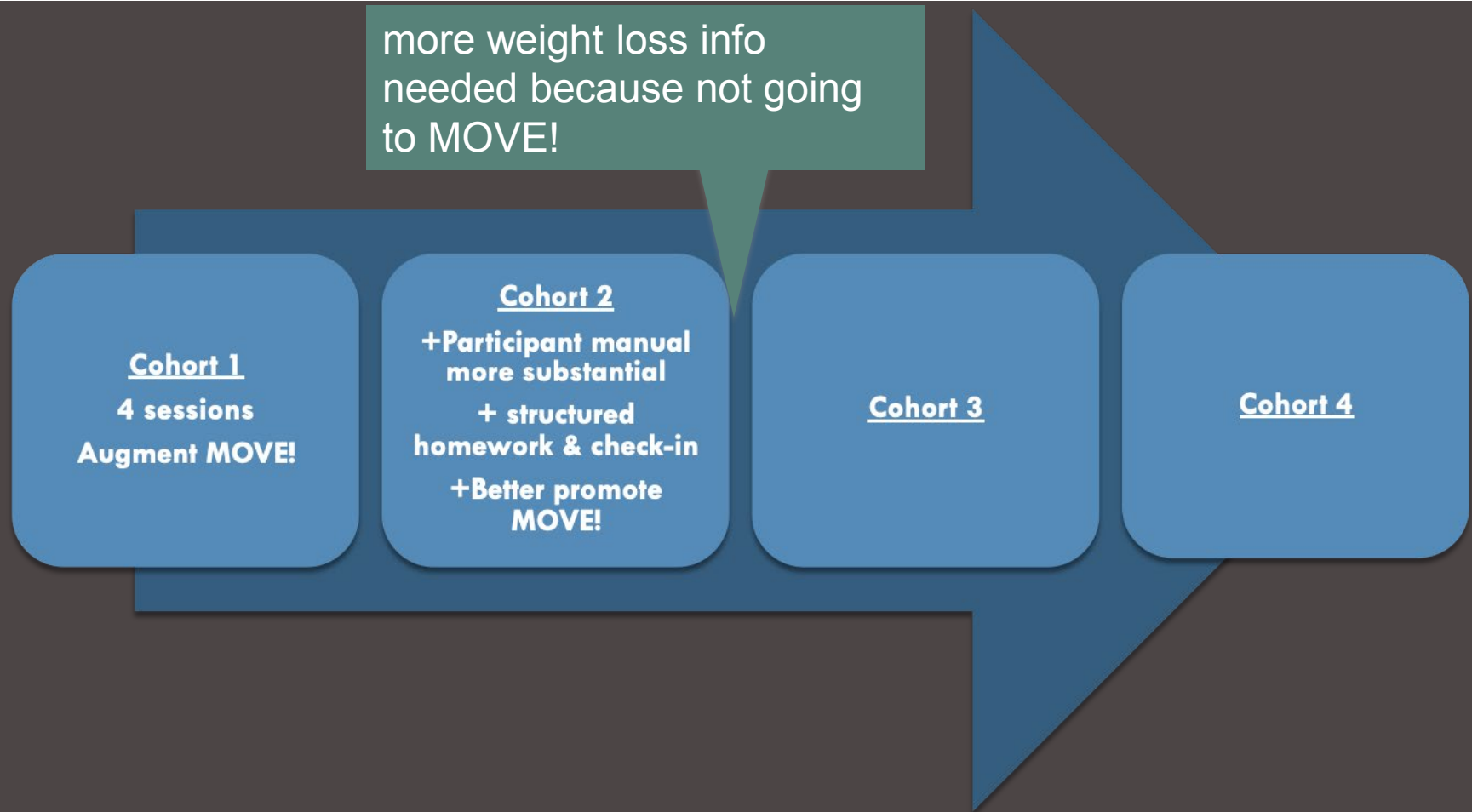
Cohort 4

# MOVE!+UP Pilot and Refinement

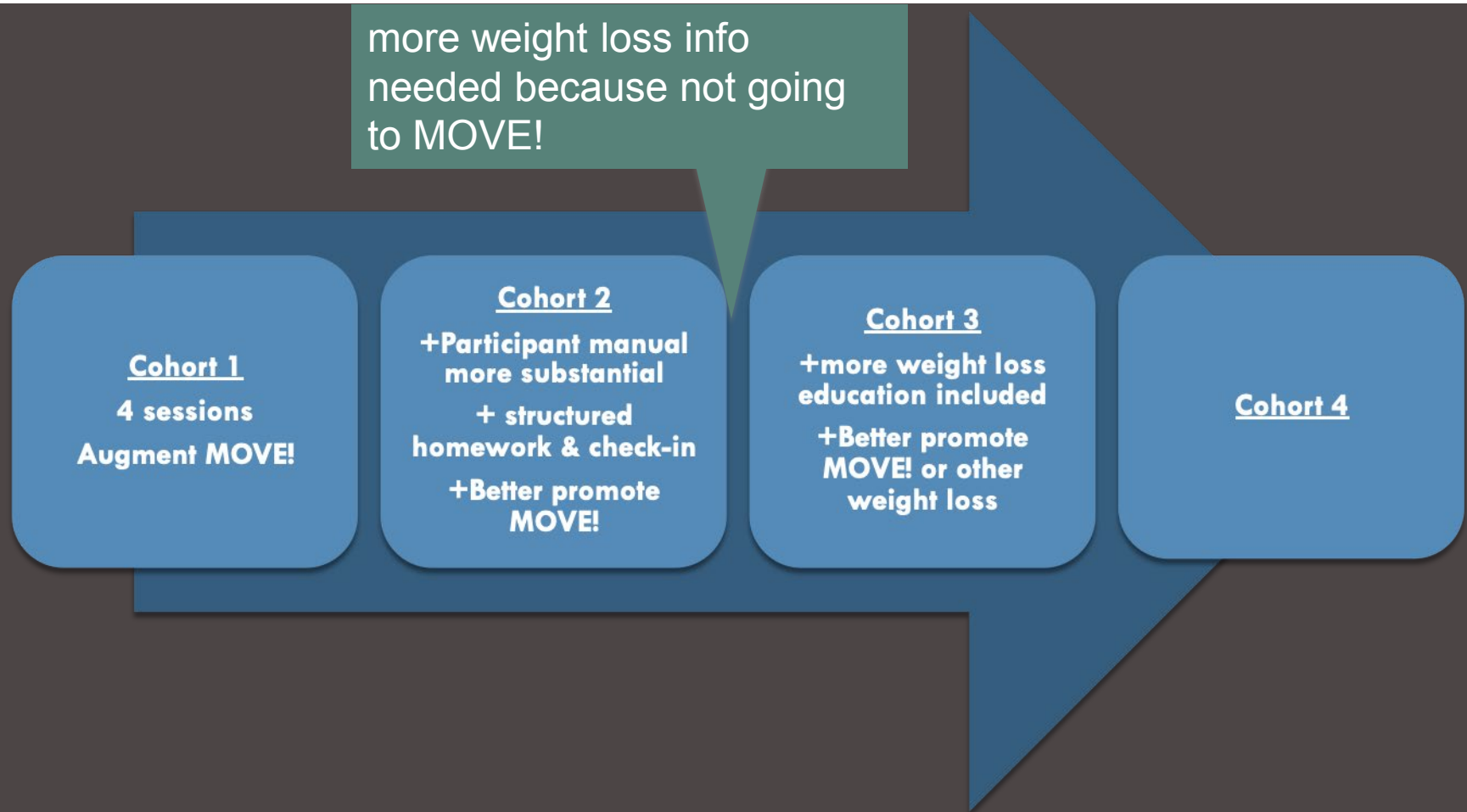




# MOVE!+UP Pilot and Refinement



# MOVE!+UP Pilot and Refinement



# MOVE!+UP Pilot and Refinement

(still) more weight loss info  
needed

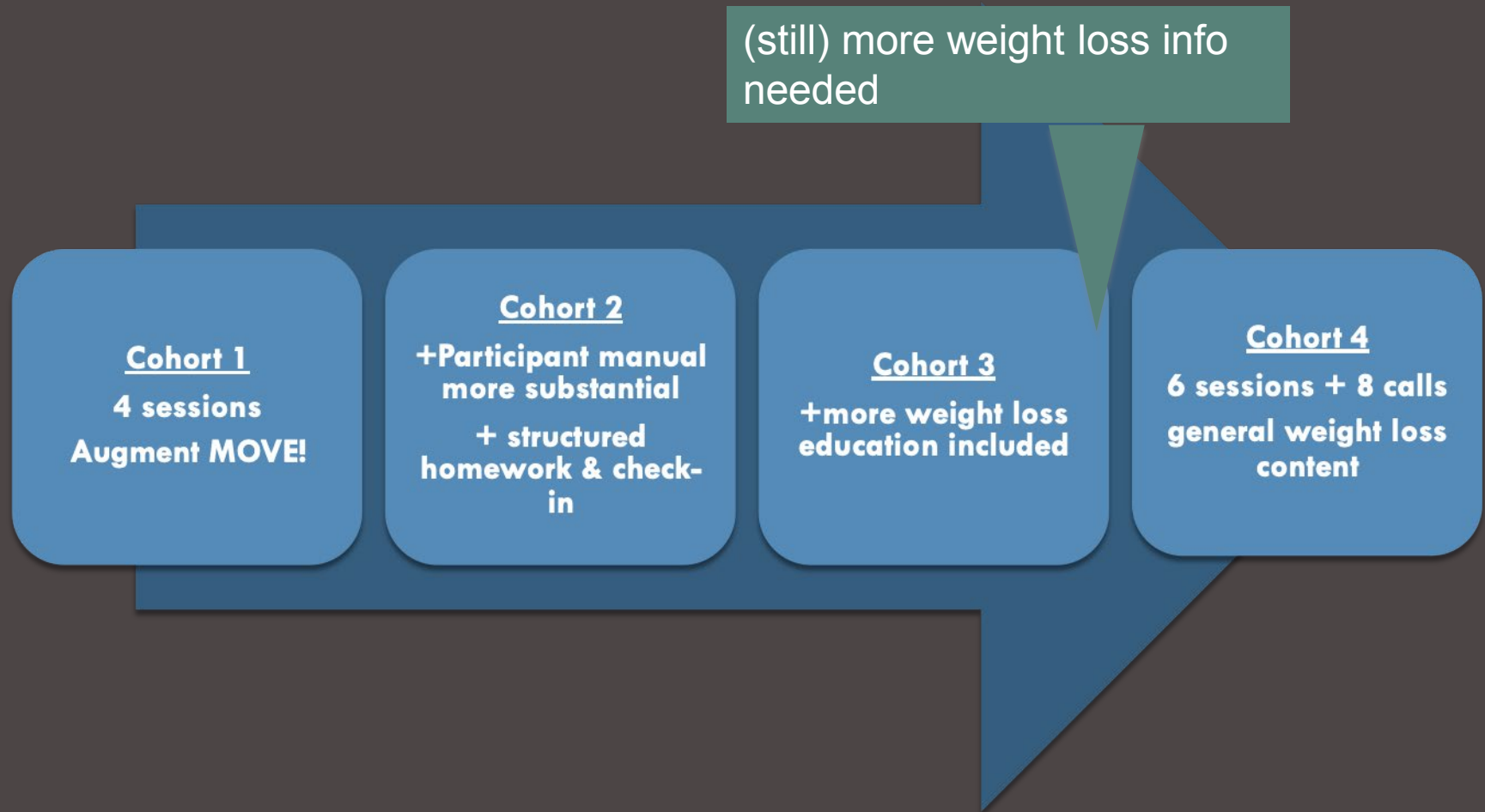
Cohort 1  
4 sessions  
Augment MOVE!

Cohort 2  
+Participant manual  
more substantial  
+ structured  
homework & check-in  
+Better promote  
MOVE!

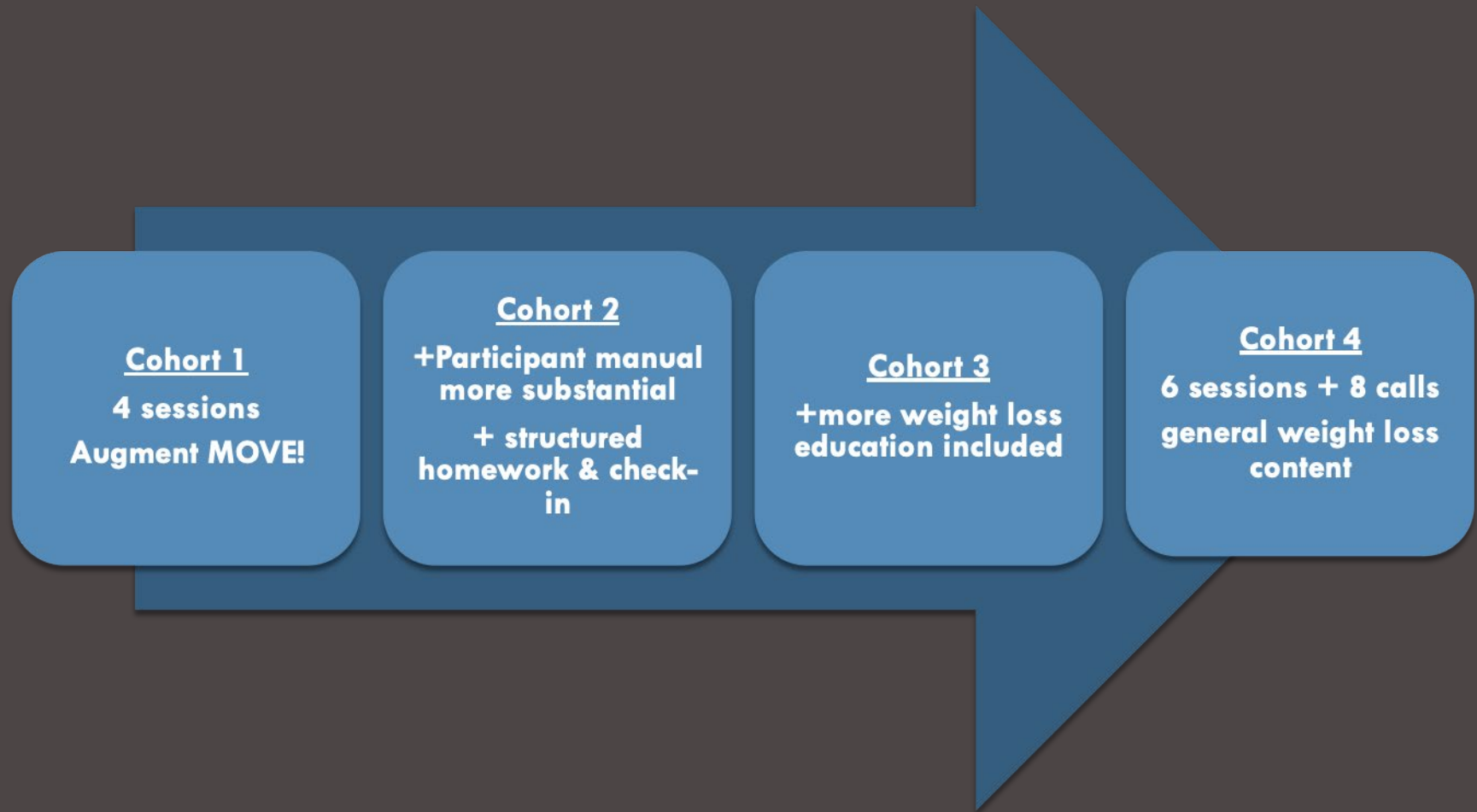
Cohort 3  
+more weight loss  
education included  
+Better promote  
MOVE! or other  
weight loss

Cohort 4

# MOVE!+UP Pilot and Refinement



# MOVE!+UP Pilot and Refinement



# Pilot Study 16-week Results Cohorts 1-4

Feasible, liked PTSD  
content, and 75%  
attended half of  
sessions

Requested MOVE! be  
integrated and more  
professional help

Diet, activity, PTSD,  
QOL, and mediators  
improved but  
changes modest

-1.8 lb avg weight  
loss  
(not surprising, b/c no  
MOVE! participation)



# Poll Question

- ❑ How do you think we responded after reviewing cohort 4 data?
  - ❑ Made another incremental change and continue to promote MOVE! engagement
  - ❑ Give up on the MOVE!+UP model
  - ❑ Made a big shift to MOVE!+UP content and structure

# Pilot Study Design

Still limited weight loss, and request for general weight loss and professional involvement

**Cohort 1**  
**4 sessions**  
**Augment**  
**MOVE!**

**Cohort 2**  
**+Participant**  
**manual more**  
**substantial**  
**+ structured**  
**homework &**  
**check-in**

**Cohort 3**  
**+more weight**  
**loss education**  
**included**

**Cohort 4**  
**-6 sessions + 8**  
**calls**  
**-general weight**  
**loss content**

**Cohort 5**

# Pilot Study Design

Still limited weight loss, and request for general weight loss and professional involvement so went back to the drawing board

**Cohort 1**  
**4 sessions**  
**Augment**  
**MOVE!**

**Cohort 2**  
**+Participant**  
**manual more**  
**substantial**  
**+ structured**  
**homework &**  
**check-in**

**Cohort 3**  
**+more weight**  
**loss education**  
**included**

**Cohort 4**  
**-6 sessions + 8**  
**calls**  
**-general weight**  
**loss content**

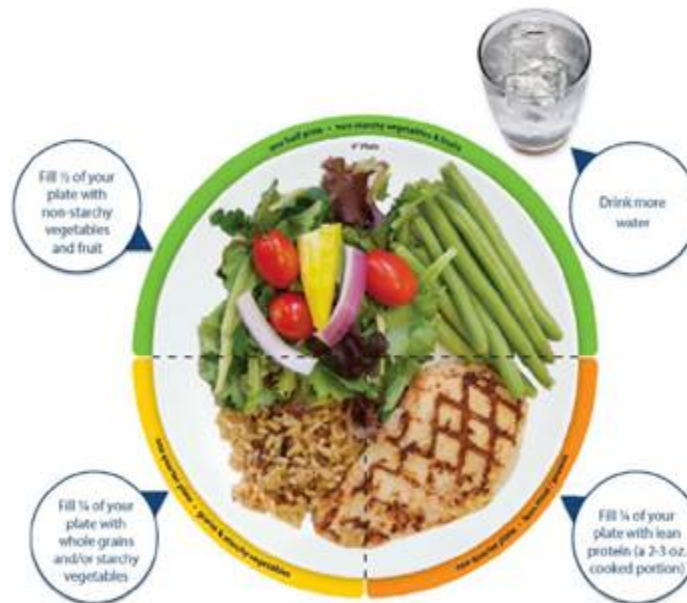
**Cohort 5**  
**+16 in-person**  
**sessions**  
**+Psychologist**  
**co-leader added**  
**+MOVE!**  
**integrated**

# Final MOVE!+UP Overview: Sample

## *Making Healthy Food Choices With a Healthy Plate*

### *How to Build a Healthy Plate*

Choose a 9-INCH OR SMALLER PLATE



# Final MOVE!+UP Overview: Sample

B11



## Mindful Eating

### What is Mindfulness?

Mindfulness means being fully aware of what is going on within and around you at each moment. Mindfulness can be applied to many aspects of life. Being mindful of your eating may help with weight management. Being mindful involves being aware of yourself and your surroundings physically, emotionally, and mentally. It means paying attention to each changing moment.



### What is Mindful Eating?

Mindful eating takes the concept of mindfulness and applies it to why, when, where, what, and how you eat. This means being aware of both the physical and emotional feelings connected to eating.

- **Observe your body.** Notice hunger and fullness signals that guide you to start and stop eating.
- **Do not judge yourself** or your reaction to food.
- **Notice your reaction to food.** What do you like, what don't you like?
- **Savor your food.** While eating, notice all of the colors, smells, flavors, and textures of the food.

Mindfulness may help you to avoid overeating. First bites may be the most satisfying, and additional bites may not be as pleasurable. This can help with portion control.



### Be aware. Ask yourself, "Am I..."

- Physically hungry? (on a scale from "1" to "10")
- Eating quickly or slowly?
- Dining in-the-moment – Am I mindlessly munching or noticing each bite?
- Multi-tasking, or truly focused on this meal or snack?
- Feeling my stomach rumbling?
- Bored, stressed, tired, anxious, angry, sad, etc.?

### Here are some tips:

- Take a breath and ask yourself, "Am I truly hungry?," before you reach for food.
- Begin practicing mindfulness. Start by eating one meal a day in a slower, more aware manner.
- Focus on eating. Avoid doing other activities while you eat (working, talking on the phone, watching TV, driving, reading, etc.).
- Set a timer for 20 minutes and take the whole time to eat the meal.
- Eat silently for 5 minutes (think about what it took to produce that meal, from the sun and water, to the farmer, to the grocer, to the cook).
- Slow down. Eat with your non-dominant hand or try using chopsticks.



# Final MOVE!+UP Overview:

## Sample

### Mindful Eating



- Mindfulness is defined as paying attention on purpose, in the present moment, non-judgmentally.
- Mindful eating means being aware of and accepting both the physical and emotional feelings connected to eating.
- PTSD involves avoiding difficult feelings and thoughts. Sometimes people use food or beverages to avoid emotional or physical pain. Mindful eating can reduce such emotional eating and increase making thoughtful choices.
- As you change your habits, it helps to be aware of how much, where, when, and why you eat. Mindfulness grows such awareness.
- Mindless eating often leads to overeating, and not savoring healthful foods. Mindful eating may help you recognize and respond to signs of fullness, reducing portions/calories and helping digestion. Remember it often takes 20 minutes for your body to recognize you are full.

#### Mindful Eating Tips

- **Observe your body.** Notice hunger and fullness signals that guide you to start and stop eating. Take a breath and ask yourself, "Am I hungry or satisfied on a scale from 1-10?" "Is this a craving or is it hunger?" before you reach for food. Do this before and often throughout a meal or snack.
- **Do not judge yourself** or your reaction to food. Also avoid judging and avoiding other experiences like difficult feelings or thoughts. Instead of using food to cope, consider an alternative coping strategy.
- **Notice your reaction to food.** What do you like, what don't you like? Why?
- **Savor your food.** Notice all of the colors, smells, flavors, and textures of the food.
- **Focus on eating.** Avoid doing other activities while you eat. Avoid working, talking on the phone, watching TV, driving, reading, and other distractions while eating.
- **Slow down.** Set a timer for 20 minutes and take the whole time to eat the meal. Put utensils down between each bite. Eat with your non-dominant hand or chopsticks.
- **Cultivate gratitude.** Think about what it took to produce the meal, from the sun and water, to the farmer, to the grocer, to the cook.
- **Be aware of others' habits.** Eat slowly and mindfully regardless of others' habits.



# Pilot Study 16-week Results Cohort 5

Feasible,  
very  
satisfied, and  
75%  
attended  
half of  
sessions

Diet, activity, and  
mediators  
improved

PTSD  
improvements  
clinically  
meaningful

-14 lb avg weight  
loss

70% lost 5%+  
weight  
(vs. 23% in  
general MOVE!,  
nationally)

# Pilot Study Results Cohort 5

- “It opened up my eyes to how I was eating..if I was getting..depressed or into my thoughts, or being alone or with the PTSD that affected my mood of eating, I’d eat more.”
- “[It helped me] do things that are more relaxing for me to do, and get me out of my shell. And interact with other people that are suffering from PTSD too.”
- “My..eating..changed, my physical activity..changed...now it has become a habit...”

# Summary: MOVE!+UP Changes

Initial	Following Refinement
<ul style="list-style-type: none"><li>• 4 in-person sessions</li><li>• 6 brief counseling calls after</li></ul>	<ul style="list-style-type: none"><li>• 16 in-person sessions</li><li>• As needed calls</li></ul>
<ul style="list-style-type: none"><li>• Peer support counselor delivered</li></ul>	<ul style="list-style-type: none"><li>• Peer support counselor and psychologist co-delivered</li></ul>
<ul style="list-style-type: none"><li>• Basic participant manual (13 pages)</li></ul>	<ul style="list-style-type: none"><li>• Comprehensive (~200 pages)</li><li>• Expanded exercises for learning</li><li>• Added content on sleep</li><li>• All components covered in session</li></ul>
<ul style="list-style-type: none"><li>• Unstructured processes for goal-setting and check-in on goals</li></ul>	<ul style="list-style-type: none"><li>• Increased education about goal setting</li><li>• Homework and check-in structured, including weekly weighing and feedback on diet/activity logs</li></ul>
<ul style="list-style-type: none"><li>• Encouraged to attend weight loss prgms</li><li>• Limited weight loss information included</li></ul>	<ul style="list-style-type: none"><li>• MOVE! content integrated into the treatment</li></ul>

# Pilot Conclusions and Next Steps

- MOVE!+UP holds promise as a program for promoting health and mental health among overweight Veterans with PTSD
  - Proof of concept
  - Efficient, improving health and mental health simultaneously
  - Meets multiple VA priorities
  
- HSR&D Merit reapplication to conduct a hybrid Type 1 trial
  - RCT
  - Identify implementation facilitators and barriers during RCT and in stakeholder interviews
  - Essential for implementation if MOVE!+UP is efficacious

# Challenges and Realities

- IRB timeframe
- Life events (kids being born, IRB staff travel, staff turnover)
- Group dynamics
- Program specifics (shorter vs. longer--former makes it easier to turn around and re-pilot)

# Conclusions: MOVE!+UP Structure

## Tradeoffs



**A one-stop shop MOVE!+UP  
is what Veterans want  
(patient-centered)**

**-Light touch  
MOVE!+UP  
had efficiency  
appeal**



# Conclusions: Iterative Refinement Tradeoffs



**Develop patient-centered  
intervention, more likely to  
be effective and  
implemented**



**-Light touch  
MOVE!+UP  
had efficiency  
appeal**







Thank you to MOVE!+UP's  
Veteran Co-Creators!



Thank you!!!

Questions?

Comments?