
EXPLORATION OF GROUP NUTRITION EDUCATION ON PERSONS WITH HIV.



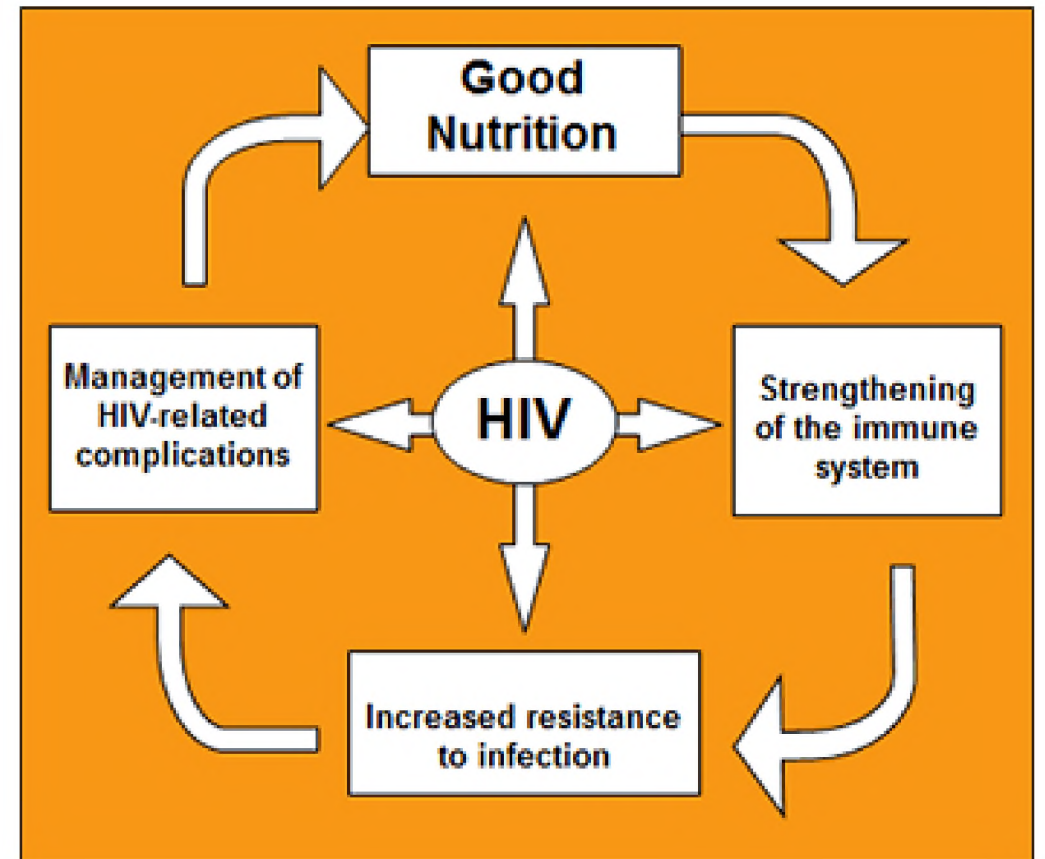
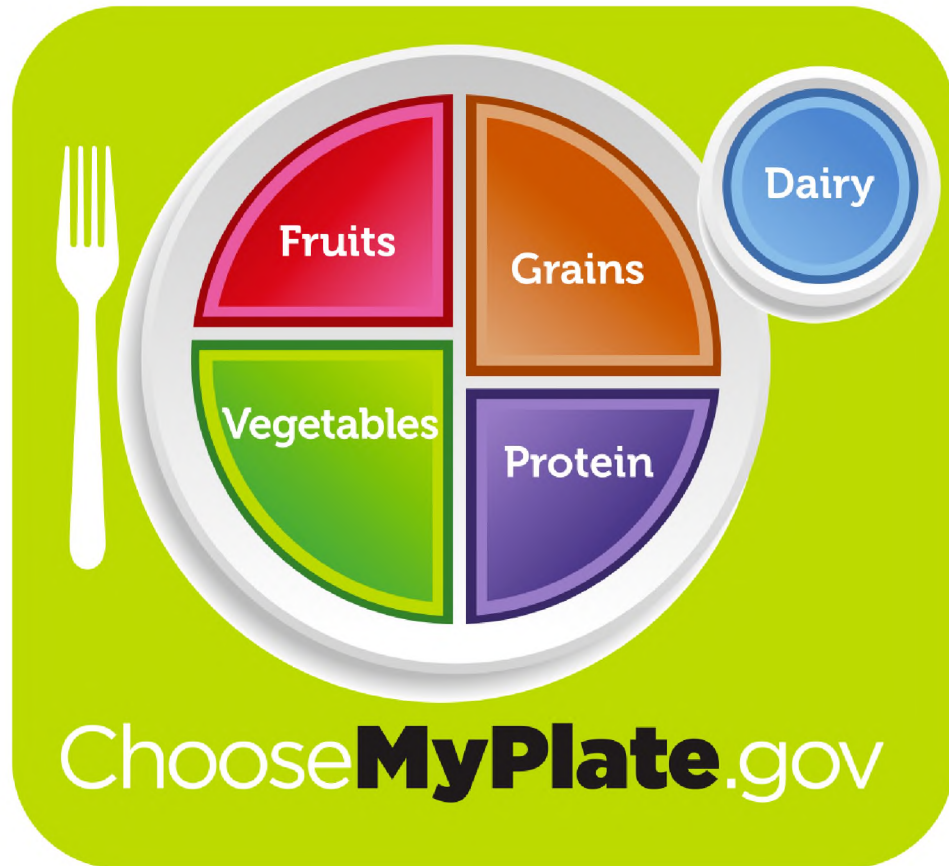
By: Jamisha Leftwich, DCN, RDN, LD/N, CLC, FAND

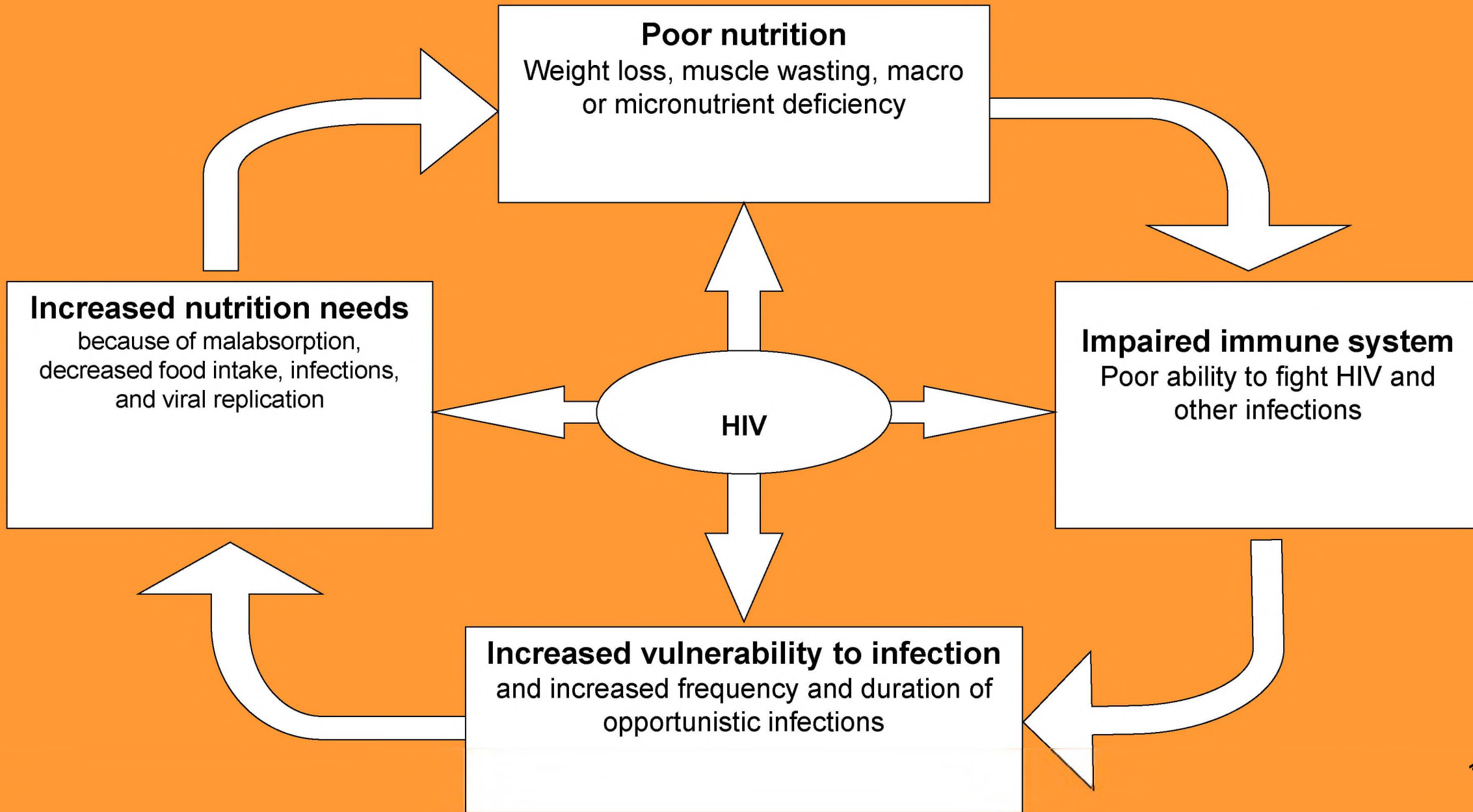


OVERVIEW

- Background
 - Nutrition and HIV
 - Chronic Diseases
 - Food Insecurity
- Significance of Problem
- Group Nutrition Education Program
- Future Research Opportunities
- Implications
- Conclusion

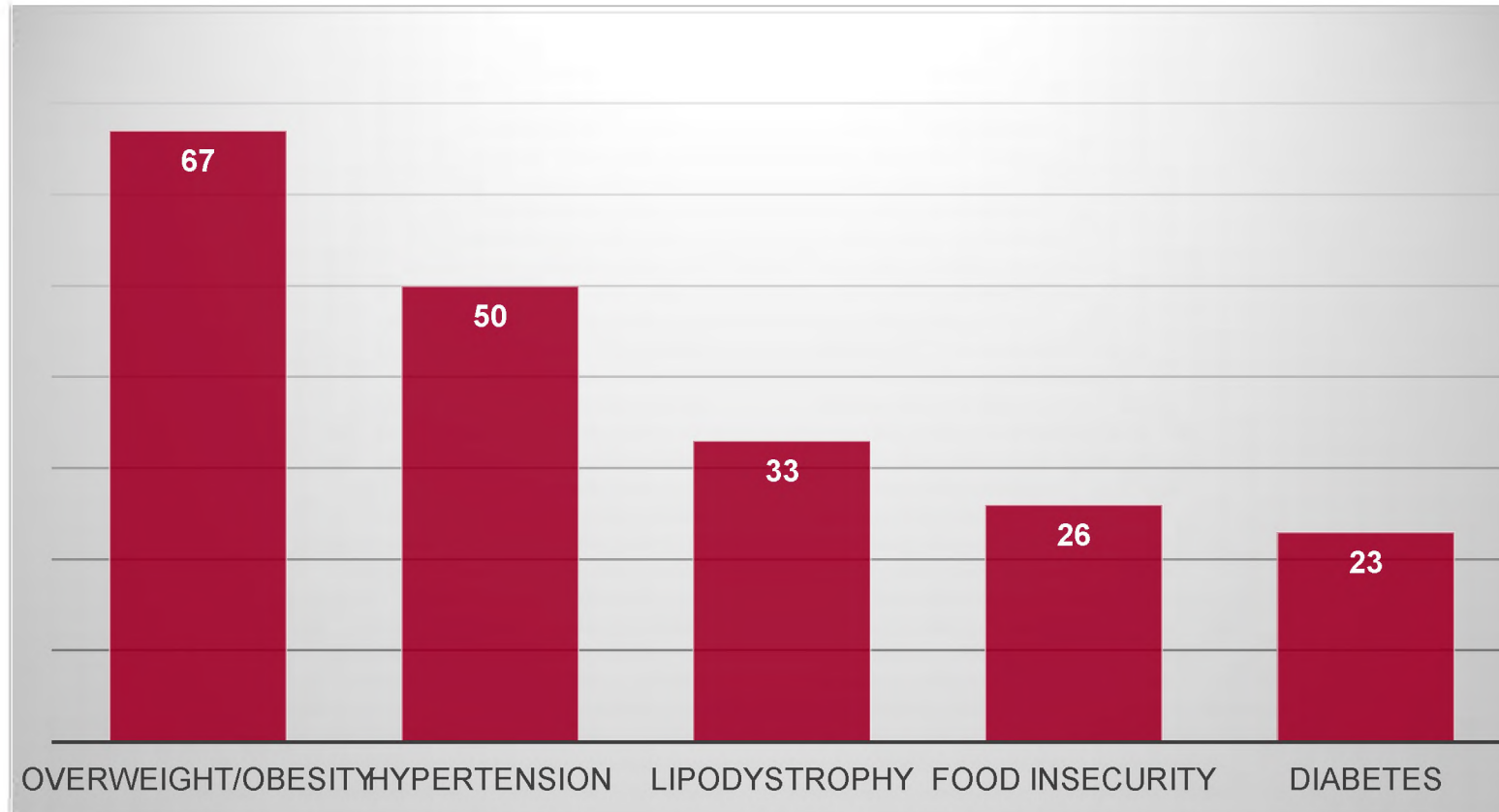
HIV AND NUTRITION





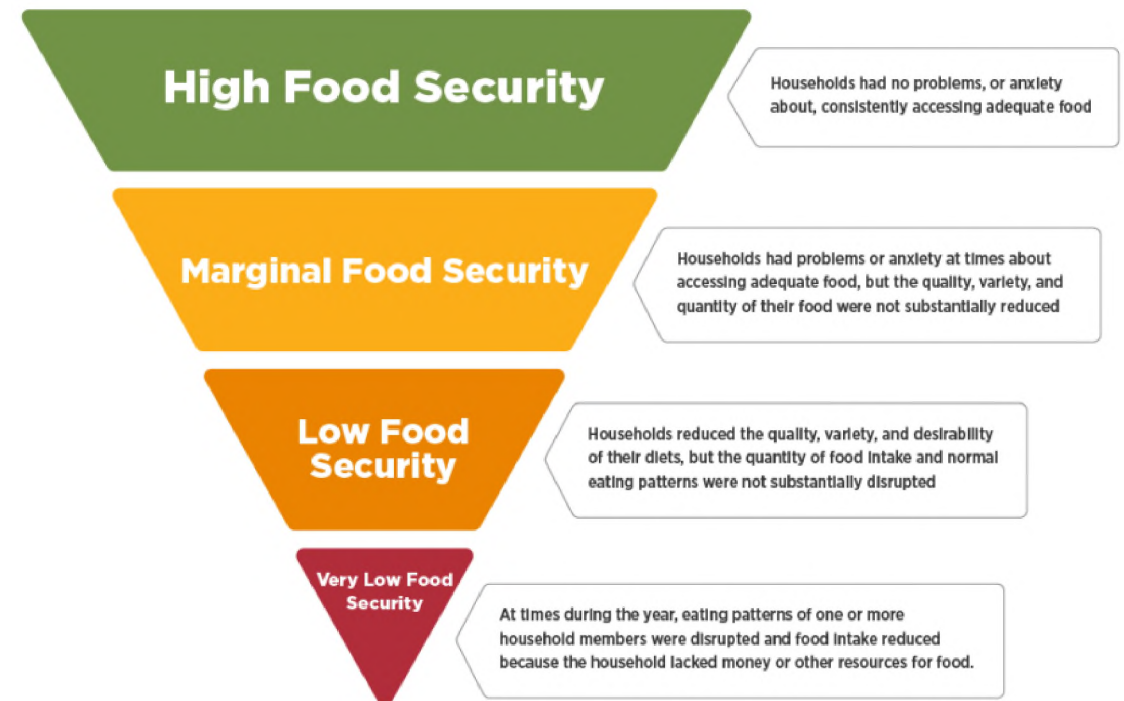
CHRONIC DISEASES

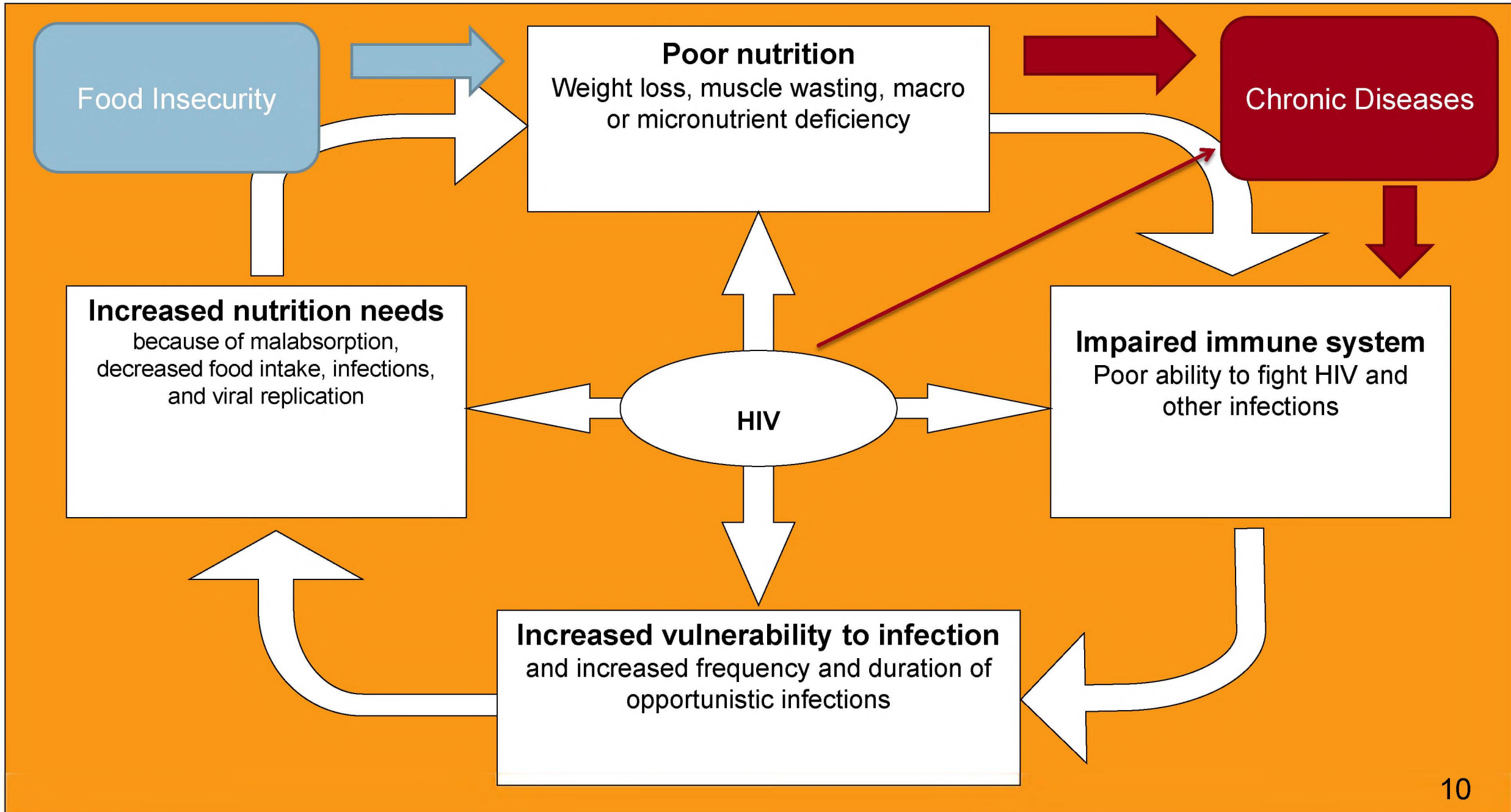
- Overweight and Obesity
- Diabetes
- Hypertension
- Cardiovascular disease
- Chronic Kidney disease

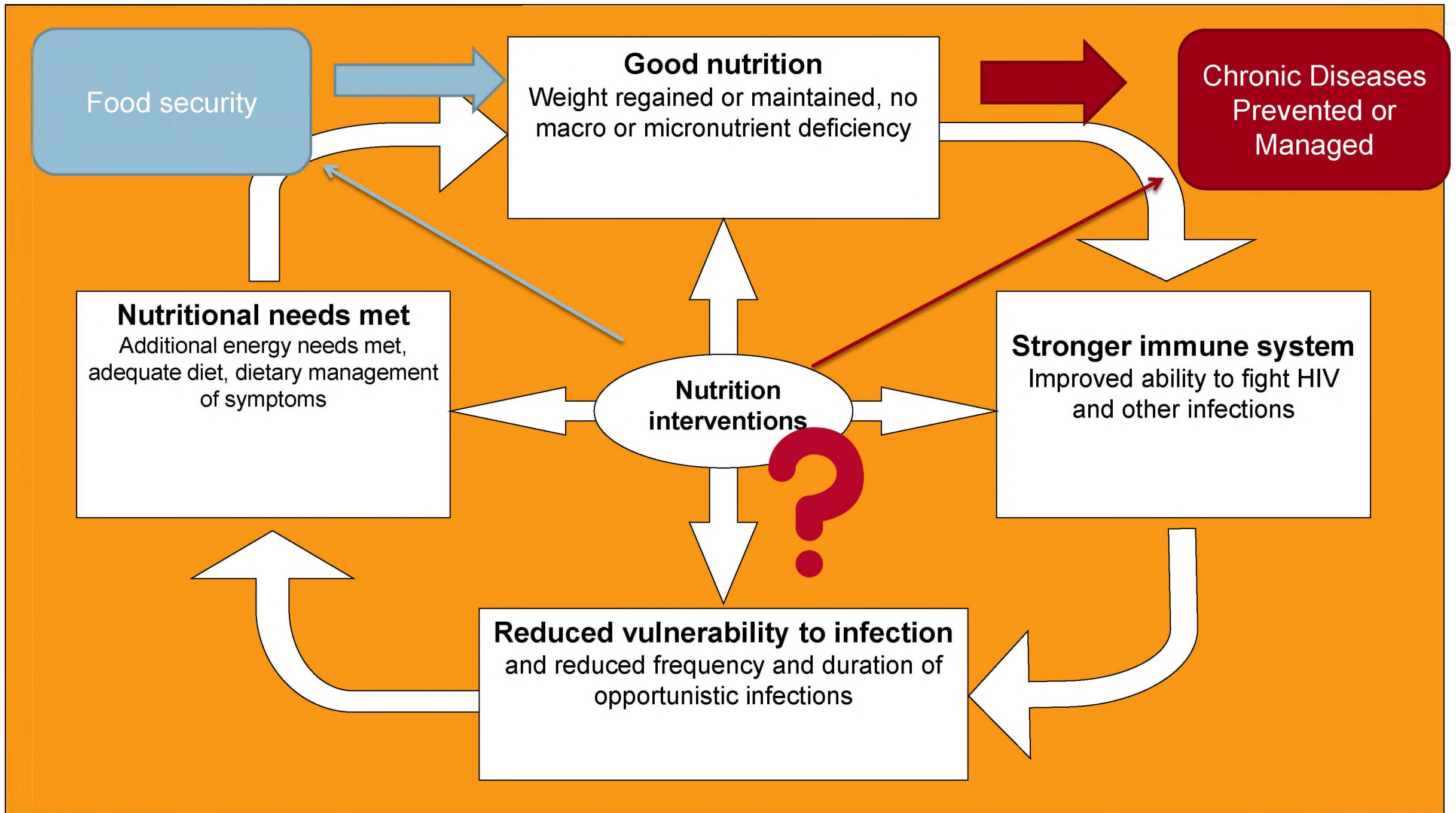


FOOD INSECURITY

- Prevalence between 24% and >50% in the HIV-infected population.
- Studies demonstrate that food insecurity and malnutrition are associated with:
 - increased morbidity and mortality,
 - higher frequency of opportunistic infections,
 - reduced adherence to antiretroviral therapy,
 - poor tolerability to antiretroviral therapy,
 - poor immunologic response and
 - diminished physical and labor capacity







GROUP NUTRITION EDUCATION



Positive Nutrition!

- 4-week comprehensive nutrition program
- Group classes

THEORETICAL FRAMEWORK: HEALTH BELIEF MODEL

Concepts	Application to proposed study
Perceived susceptibility	Perceived chance of becoming malnourished or developing a comorbidity
Perceived severity	Perceived seriousness of becoming malnourished or developing a comorbidity
Perceived Benefits	Perceived benefits of consuming a healthful diet
Perceived Barriers	Perceived barriers of consuming a healthful diet
Cues to action	Personal and environmental events motivating a consume a healthful diet.
Self-efficacy	Confidence in one's ability to successfully consume a healthful diet

STUDY PARTICIPANTS

Inclusion Criteria

- 18 years old or older
- Receiving services from CBO
- Receiving antiretroviral medication for at least 6 months
- BMI that classifies the participant as overweight or obese (BMI greater than 24.9kg/m²) and/or
- One or more comorbidity or signs of malnutrition.

Exclusion Criteria

- Unable to speak and understand English
- Less than 18 years old
- Pregnant women

RECRUITMENT

- Convenience Sample
- Advertised at monthly luncheon
- Case managers at CBO referred participants
- Recruitment period from October 2018 to January 2019

Participants Needed for Nutrition Education Classes!



Class Information

- ✓ Participants who are 18 years or older
- ✓ Speaks English
- ✓ Classified as overweight or obese
- ✓ Receiving highly active antiretroviral therapy (HAART) for at least 6 months



Who do we need?

Class topics include: 1) Eating for Health
2) Shopping on a Budget
3) Managing Health Issues with Diet
4) Grocery Store Tour



COOKING DEMO DURING EVERY CLASS!

Participants will receive*:

- ✓ FREE Food Baskets
- ✓ Gas Card
- ✓ Grocery Store Gift Card

*Participants must attend EVERY class

Classes will be held on: **November 13th, 20th, 27th and Dec. 4th** from 12:00-1:00pm

Sign Up Today!

FOR MORE INFORMATION: Email j.laster@unf.edu or Lwright@unf.edu

POSITIVE NUTRITION!

- 4-week comprehensive nutrition program
 - Week one: Eating For Health
 - Week Two: Eating on a Budget
 - Week Three: Managing Health Issues with Diet
 - Week Four: Putting nutrition into action – a supermarket tour
- Cooking Demonstrations
- Food Baskets
- 6, 4-week classes will be conducted from November 2018 to February 2019

Positive Nutrition!



CLASS ONE: EATING FOR HEALTH

- Concepts explored:
 - Macronutrients
 - Food Groups
 - USDA Myplate
 - Food Labels
- Activities:
 - Designing a balanced plate using food models
 - Comparing food labels



CLASS TWO: EATING ON A BUDGET

- Concepts explored:
 - Meal Planning
 - Developing Shopping Lists
 - Unit prices
 - Tips to shop and cook on a budget
- Activities:
 - Clipping coupons to make a healthy family meal
 - Comparing unit prices



CLASS THREE: MANAGING HEALTH WITH DIET

- Concepts explored:

- Preventing and Managing:

- Diabetes
 - Hypertension
 - Cardiovascular disease
 - Obesity

- Side effects of ART Medication

- Activities:

- Eating Out: Creating a low sodium/low fat food
 - Chair exercises



CLASS FOUR: PUTTING NUTRITION INTO ACTION

- Concepts explored:
 - Guided Tour:
 - Compared unit prices
 - Read food labels
 - Compare foods
 - Activities:
 - Grocery store challenge



FOOD BASKETS

- Shelf stable items: Feeding Northeast Florida
- Produce: Registered Dietitian
- Included items from current week's recipe



Week	Food Basket Items	
One	long grain brown rice black beans diced tomatoes canned potato soup crackers red beans oranges	honey cranberry juice corn muffin mix tea bags whole grain cereal onion cauliflower
Two	peanut butter honey chow mein noodles macaroni and cheese mashed potatoes oatmeal rice cakes	bottled water diced tomatoes canned kidney beans canned pumpkin apples celery bell peppers
Three	scalloped potatoes olive oil spray hot chocolate macaroni and cheese brown rice canned chili 100% fruit juice	bell peppers rice krispie treats potatoes mixed vegetables canned beans bananas rice krispie cereal
Four	popcorn 100% fruit juice olive oil spray cookies green beans cucumbers bottled water	carrots rice cakes mixed fruit cup squash bottled water corn muffin mix can soup

DATA COLLECTION

- The study measured the following outcomes:

1) Weight

2) BMI

3) Waist Circumference

4) Nutrition Knowledge

5) Nutrition Attitude

8) Nutrition Practice

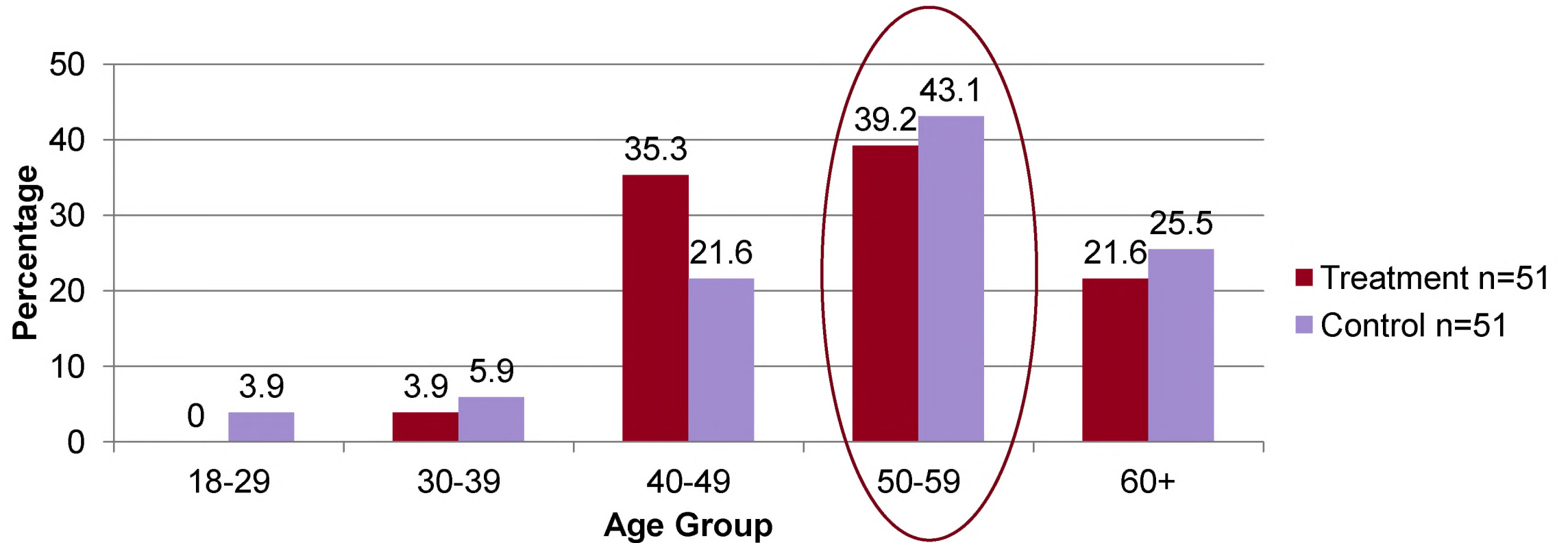
9) Nutrition Self-efficacy

10) Food Security

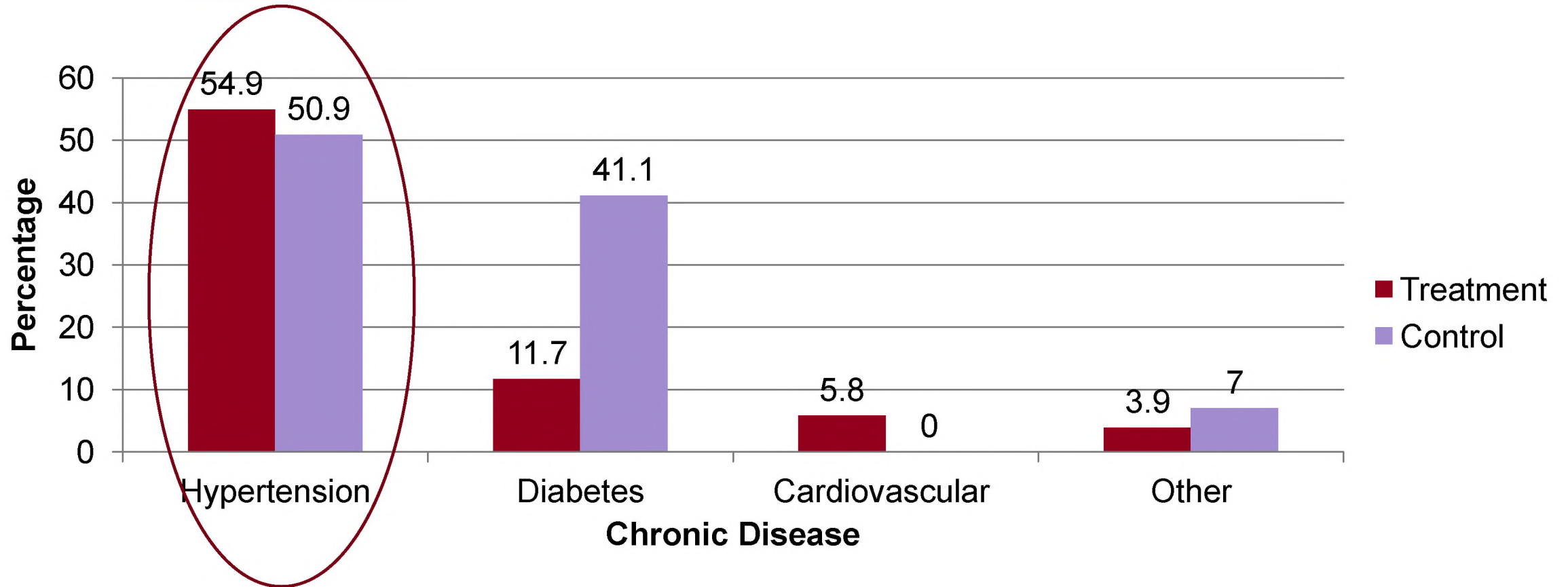
11) Antiretroviral therapy (ART) compliance

- Study measures were completed at baseline and at the conclusion of the intervention

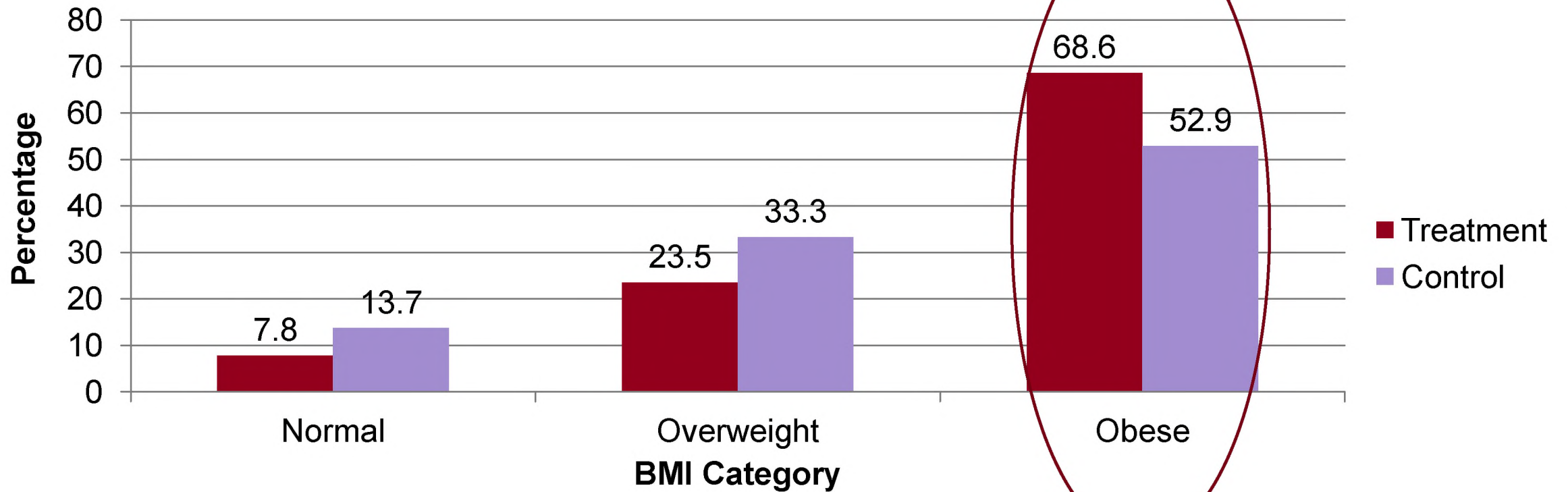
STUDY DEMOGRAPHICS



STUDY DEMOGRAPHICS



STUDY DEMOGRAPHICS



RESULTS: WEIGHT

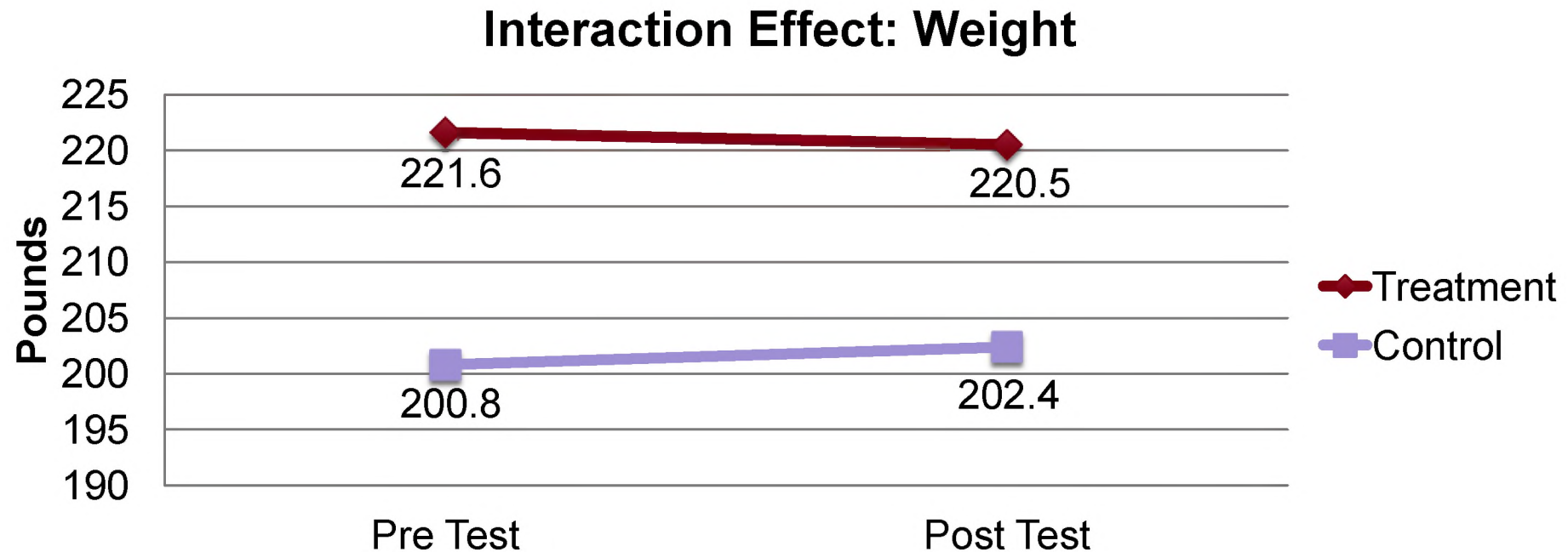


Table 2
Descriptive Statistics for Weight

		N	Mean	SD
Pre Weight	Control	51	200.8	46.4055
	Treatment	51	221.6	59.1607
Post Weight	Control	51	202.4	46.4960
	Treatment	51	220.5	58.3773

RESULTS: BMI

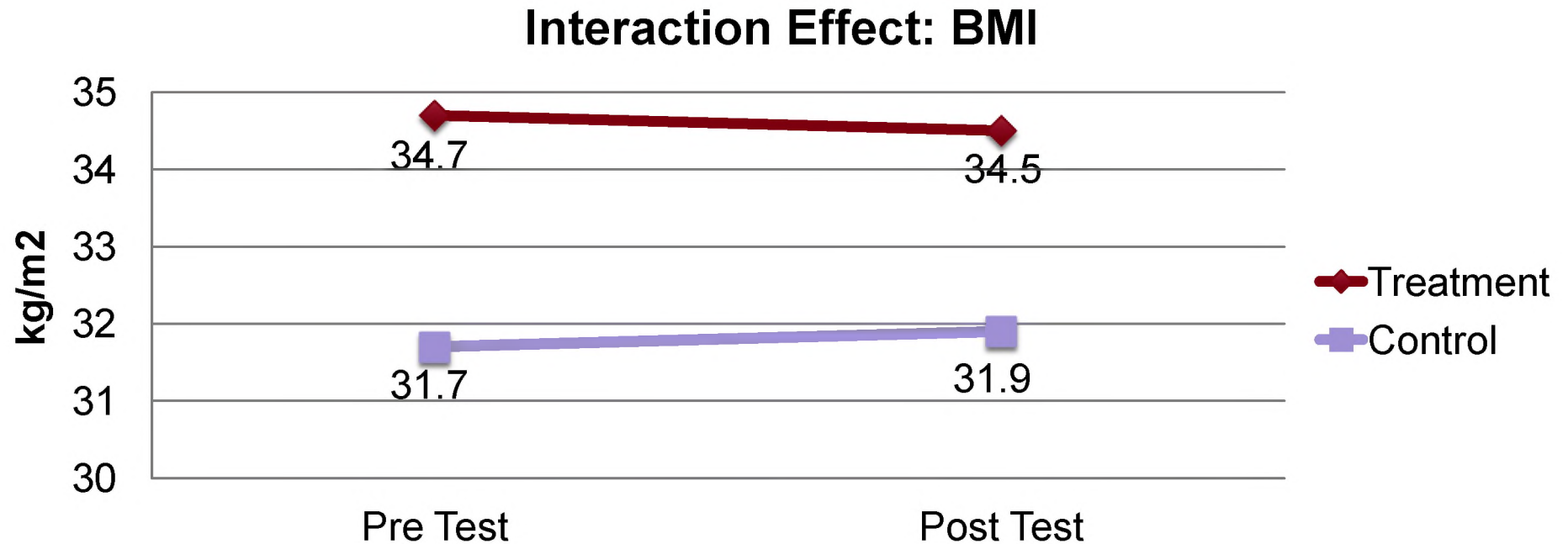


Table 3
Descriptive Statistics for BMI

		N	Mean	SD
Pre BMI	Control	51	31.7	6.5241
	Treatment	51	34.7	10.3355
Post BMI	Control	51	31.9	6.5011
	Treatment	51	34.5	10.2225

RESULTS: WAIST CIRCUMFERENCE

Interaction Effect: Waist Circumference

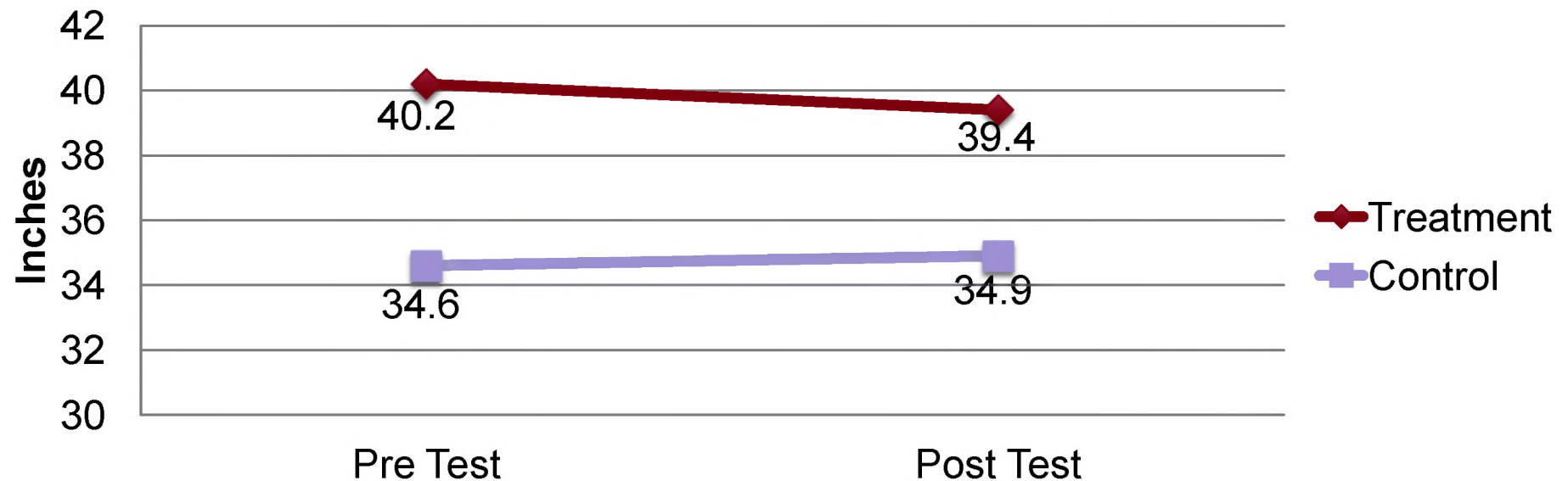


Table 4
Descriptive Statistics for Waist Circumference

		N	Mean	SD
Pre Waist Circumference	Control	51	34.6	5.1796
	Treatment	51	40.2	7.6232
Post Waist Circumference	Control	51	34.9	7.0724
	Treatment	51	39.4	5.3068

RESULTS: NUTRITION KNOWLEDGE

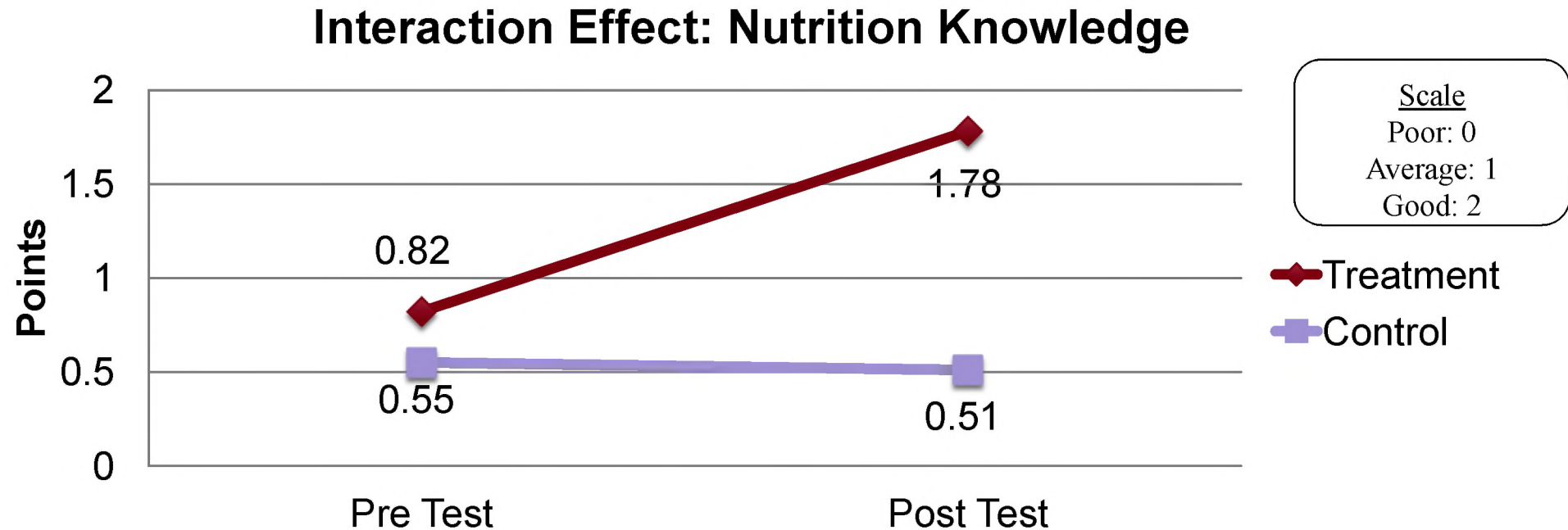


Table 8
Descriptive Statistics for Nutrition Knowledge

		N	Mean	SD
Pre Nutrition Knowledge	Control	51	.55	.642
	Treatment	51	.82	.740
Post Nutrition Knowledge	Control	51	.51	.644
	Treatment	51	1.78	.415

RESULTS: NUTRITION ATTITUDE

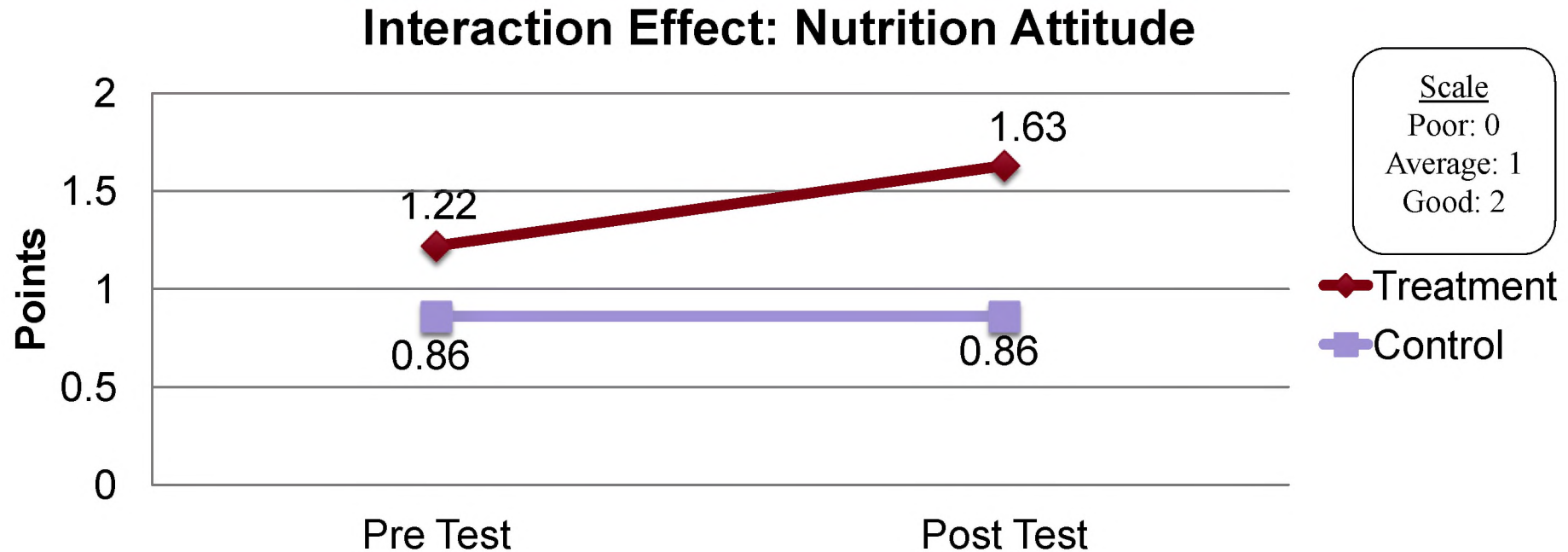


Table 9

Descriptive Statistics for Nutrition Attitude

		N	Mean	SD
Pre Nutrition Attitude	Control	51	0.86	.530
	Treatment	51	1.22	.541
Post Nutrition Attitude	Control	51	0.86	.530
	Treatment	51	1.63	.88

RESULTS: NUTRITION PRACTICE

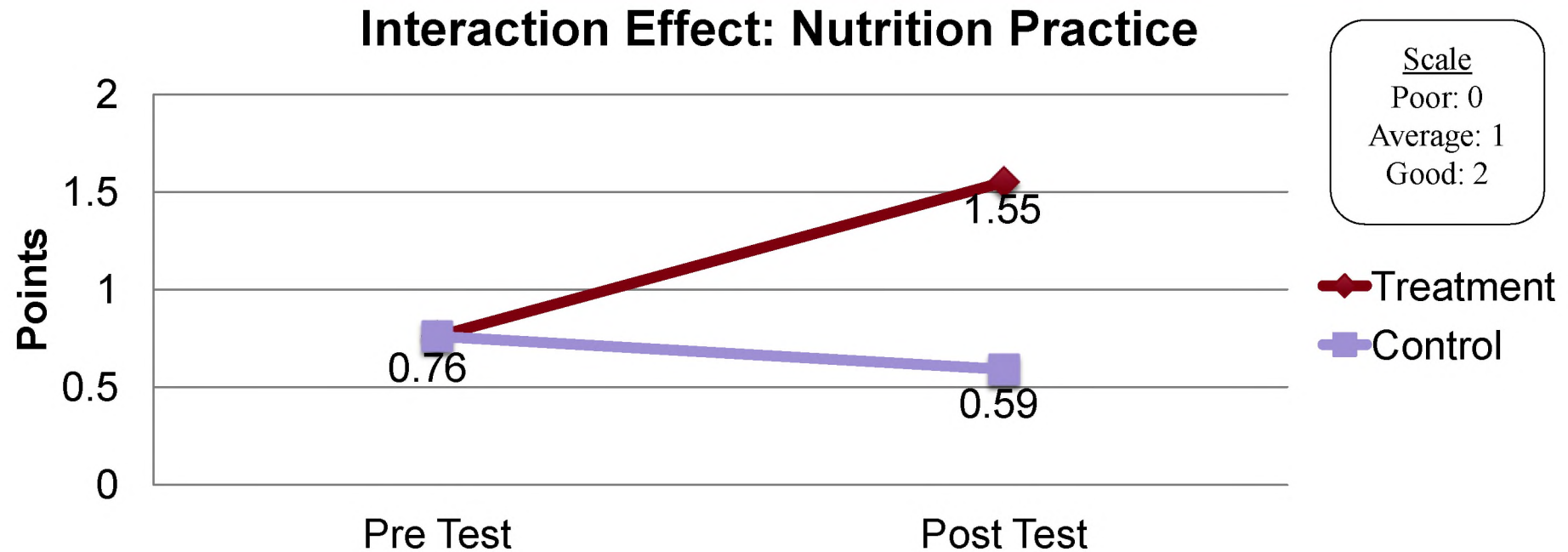


Table 10
Descriptive Statistics for Nutrition Practice

		N	Mean	SD
Pre Nutrition Practice	Control	51	0.76	.551
	Treatment	51	0.76	.551
Post Nutrition Practice	Control	51	0.59	.572
	Treatment	51	1.55	.503

RESULTS: NUTRITION SELF EFFICACY

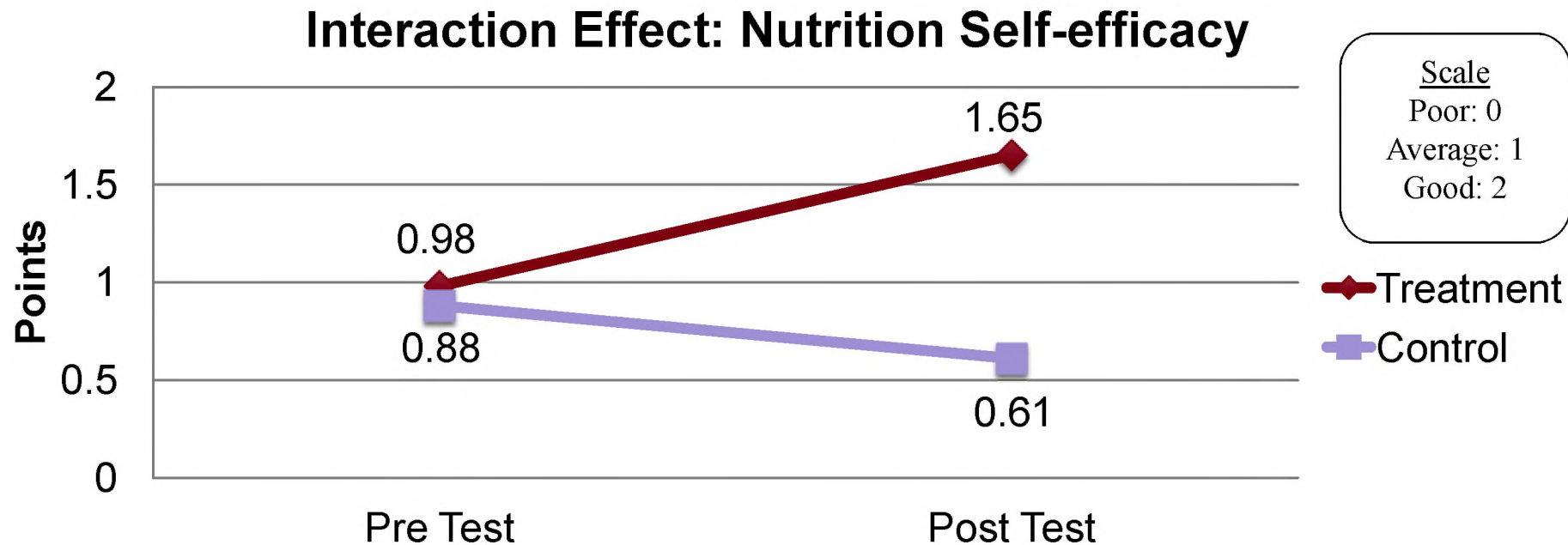


Table 11
Descriptive Statistics for Nutrition Self-efficacy

		N	Mean	SD
Pre Nutrition Self-efficacy	Control	51	0.88	.588
	Treatment	51	0.98	.547
Post Nutrition Self-efficacy	Control	51	0.61	.635
	Treatment	51	1.65	.483

RESULTS: FOOD SECURITY

Interaction Effect: Food Security

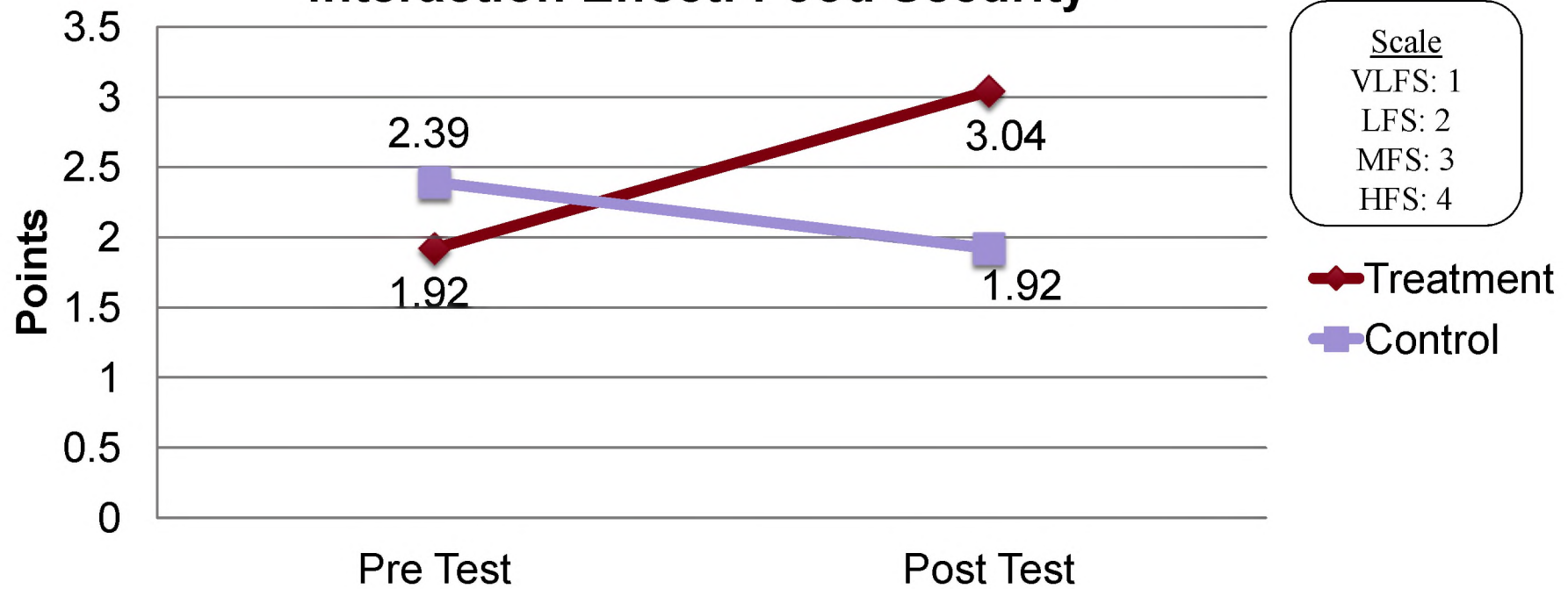


Table 13
Descriptive Statistics for Food Security

		N	Mean	SD
Pre Food Security	Control	51	2.39	.940
	Treatment	51	1.92	.956
Post Food Security	Control	51	1.92	.935
	Treatment	51	3.04	.631

RESULTS: ART COMPLIANCE

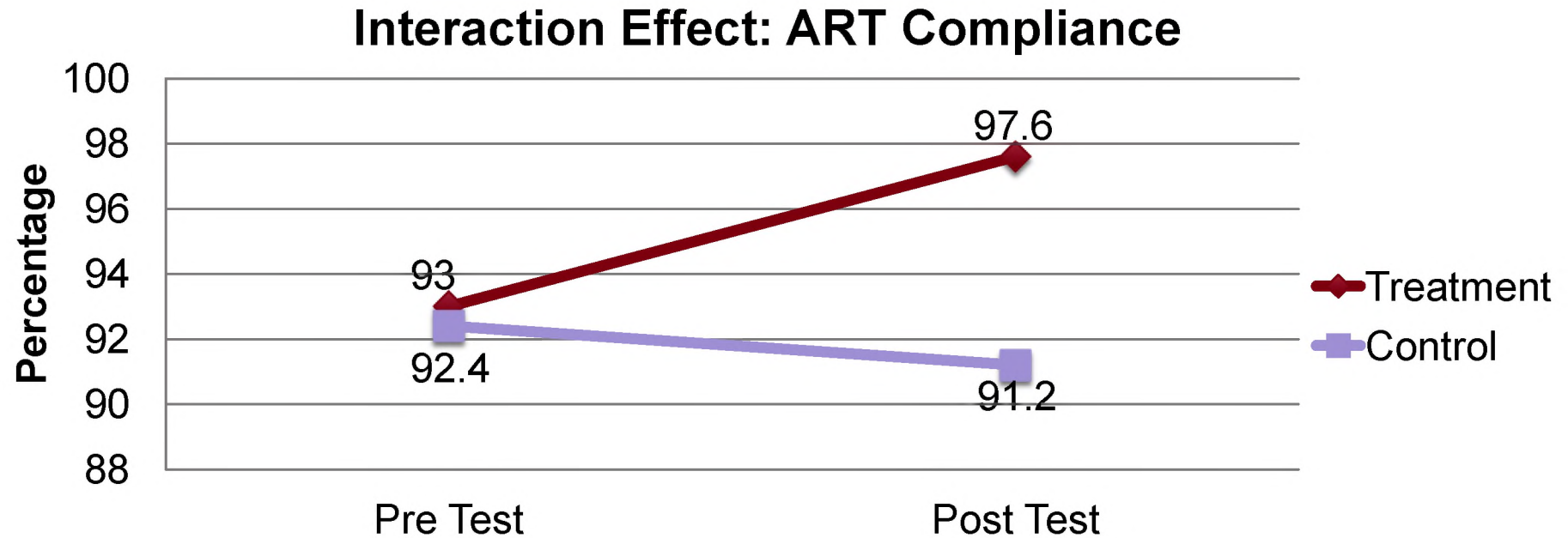


Table 15

Descriptive Statistics for ART Compliance

		N	Mean	SD
Pre ART Compliance	Control	51	92.45	15.244
	Treatment	51	93.04	14.003
Post ART Compliance	Control	51	91.27	15.995
	Treatment	51	97.65	5.418

DISCUSSION

- This study is one of the first studies to look at a nutrition education class series as an intervention to help reduce weight, BMI, waist circumference, mid-arm circumference, and mid-thigh circumference in PLWHA.
- This is one of the first studies in the United States that looked at nutrition education as an intervention to increase nutrition knowledge, attitude, practice, and self-efficacy in the HIV population.
- The increase in self-efficacy in this study confirmed that cooking demonstrations are an essential feature to change nutrition behavior.
- This study also increased food security and medication adherence.
 - The principle behind food baskets, food security and ART compliance is that food baskets are meant to ease household resource constraints and increase food availability to allow more resources to go towards ART (transportation, cost, etc.) therefore increasing compliance.

FUTURE RESEARCH OPPORTUNITIES

Program is continuing in the future

- Replication studies
- Longer durations
- Randomization
- Clinical laboratory measurements
- Individual vs. Group vs. combination
- Advanced Nutrition classes



IMPLICATIONS FOR PRACTICE

- Individual versus group counseling
- Cooking demonstrations
- Comprehensive nutrition counseling
- Therapeutic approach
 - Sensitivity to cultural
 - Counseling approach – guide vs. direct



IMPLICATIONS FOR POLICY

- Local and Regional
 - Continued research in other CBOs for generalizability to make nutrition curriculum
 - Train the trainer
 - Funding- HIV Health Services Planning Council
- National
 - Dietitians need to be at the table
 - National HIV/AIDS Strategy Update
 - Program development



Positive Nutrition!



RIGHT PRACTICES



Widespread HIV testing and linkage to care enabling people living with HIV to access treatment early.



Full access to PrEP services for those whom it is appropriate and desired, with support for medication adherence for those using PrEP.



Broad support for people living with HIV to remain engaged in comprehensive care, including support for treatment adherence.



Universal viral suppression among people living with HIV.

THE OUTCOMES BY 2020



Increase the percentage of people living with HIV **who know their serostatus** to at least **90 percent**.



Reduce the **number of new diagnoses** by at least **25 percent**.



Reduce the percentage of young gay and bisexual men who have **engaged in HIV-risk behaviors** by at least **10 percent**.



Increase the percentage of newly diagnosed persons **linked to HIV medical care** within one month of their HIV diagnosis to at least **85 percent**.



Increase the percentage of persons with diagnosed HIV infection who are **retained in HIV medical care** to at least **90 percent**.



Increase the percentage of persons with diagnosed HIV infection who are **virally suppressed** to at least **80 percent**.



Reduce the percentage of persons in HIV medical care who are **homeless** to no more than **5 percent**.



Reduce the **death rate** among persons with diagnosed HIV infection by at least **33 percent**.



Reduce **disparities in the rate of new diagnoses** by at least **15 percent** in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States.



Increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are **virally suppressed** to at least **80 percent**.



CONCLUSION

- Nutrition intervention needs to be multifaceted and address all aspects of HIV management including chronic disease prevention and food insecurity.
- The study contributes to literature on nutrition education combined with food assistance can have a significant impact on several aspects of HIV management.
- Research has potential to impact research, practice, and policy



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QUESTIONS

