

Understanding Performance of Health-Promoting Behaviors among Older African-American Men: Findings from the Healthy Eating Activity Rest Together (HEART) Matters Study

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The Health of African American (AA) Men

- Heart disease remains the #1 cause of death for adult men.
- Nearly half (46%) of all AA men have some form of cardiovascular disease.
- 45.0% of AA men have been diagnosed with Hypertension
- 7.3% of AA males have high total cholesterol levels
 - 32.6% are borderline
- 14.1% of AA men have been diagnosed with Type 2 Diabetes Mellitus

Causal Factors of Heart Disease (HD)

Risk Factors That Can't Be Changed

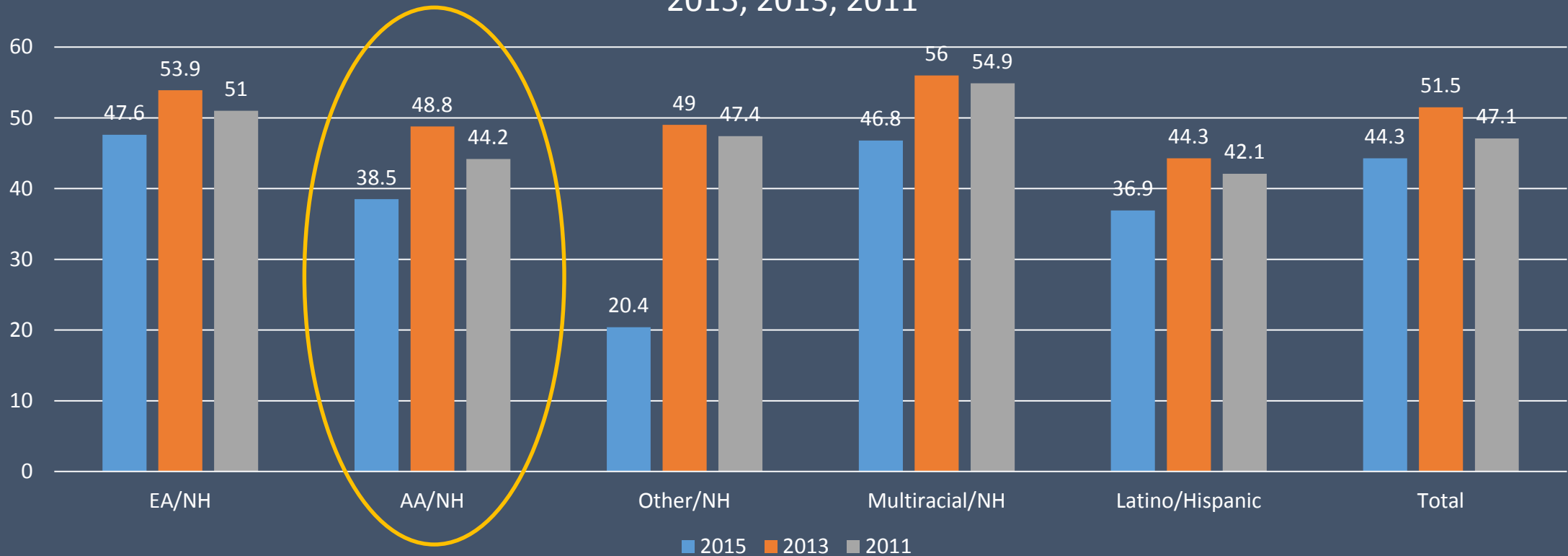
- Increasing Age
 - Majority of people who die from heart disease are 65 and older
- Male gender
 - Men have greater risks
 - Heart attacks occur earlier in life
- Heredity (including race)
 - African Americans have more severe high blood pressure [Hypertension (HTN)]
 - Higher Risk for Heart Disease (HD)

Modifiable Risk Factors

- Tobacco Smoke / Alcohol (major)
- High Blood Cholesterol (major)
- High Triglyceride (fat) Levels (major)
- High Blood Pressure (major)
- **Physical Inactivity** (major)
- **Stress / Sleep** (contributing / evidence)
- **Diet / Nutrition** (contributing)
- **Obesity/Being Overweight** (major)

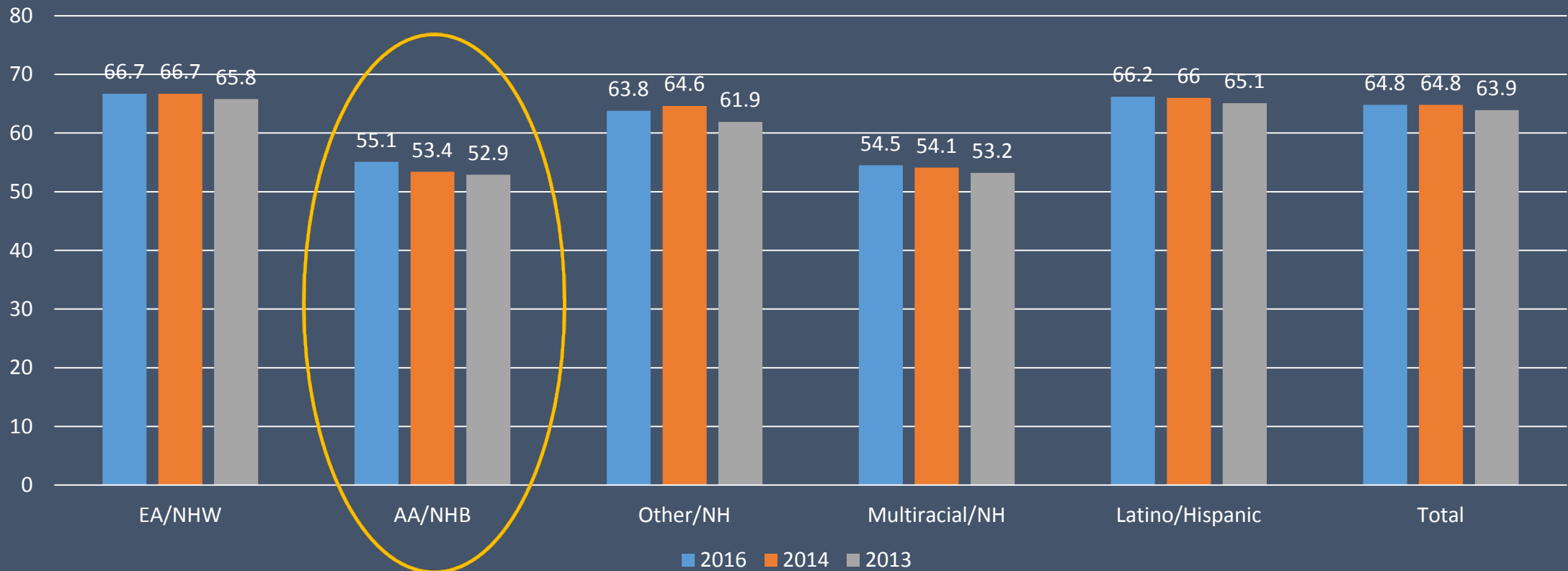
Male Subgroups Performance of 150+ Minutes of Leisure Time Physical Activity (Aerobic) Weekly

Performance of 150+ Minutes of Leisure Time Physical Activity (LTPA) Per Week, BRFSS
2015, 2013, 2011



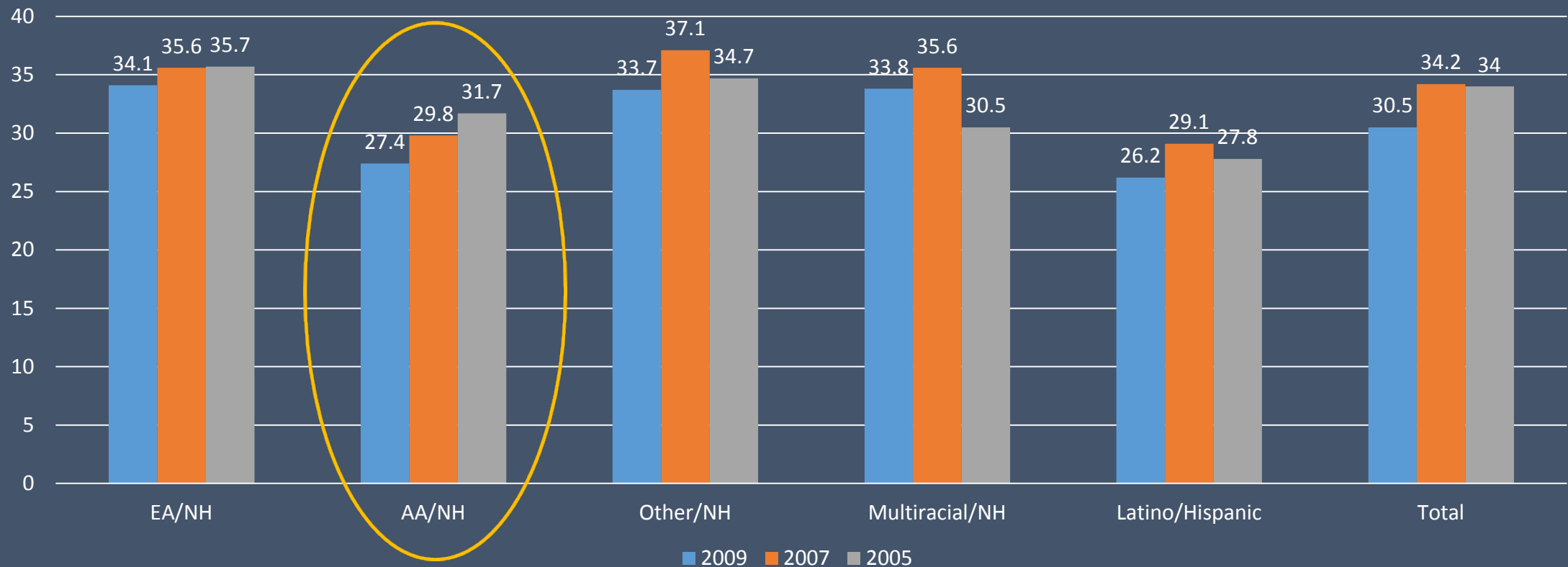
Male Subgroups Performance of 7+ Sleep: 24 Hour Period

Self Reported Sleeping 7+ Hours in 24 Hour Period, BRFSS 2016, 2014, 2013



Male Subgroups Performance of 3 – 5 Servings of Fruits/Vegetables per Day

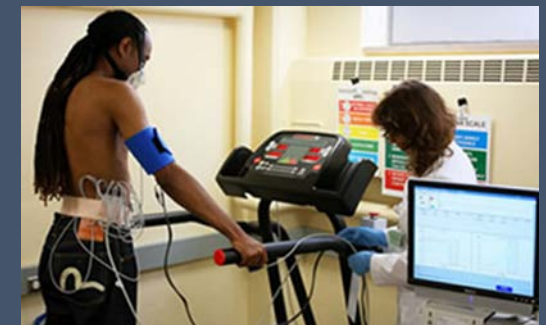
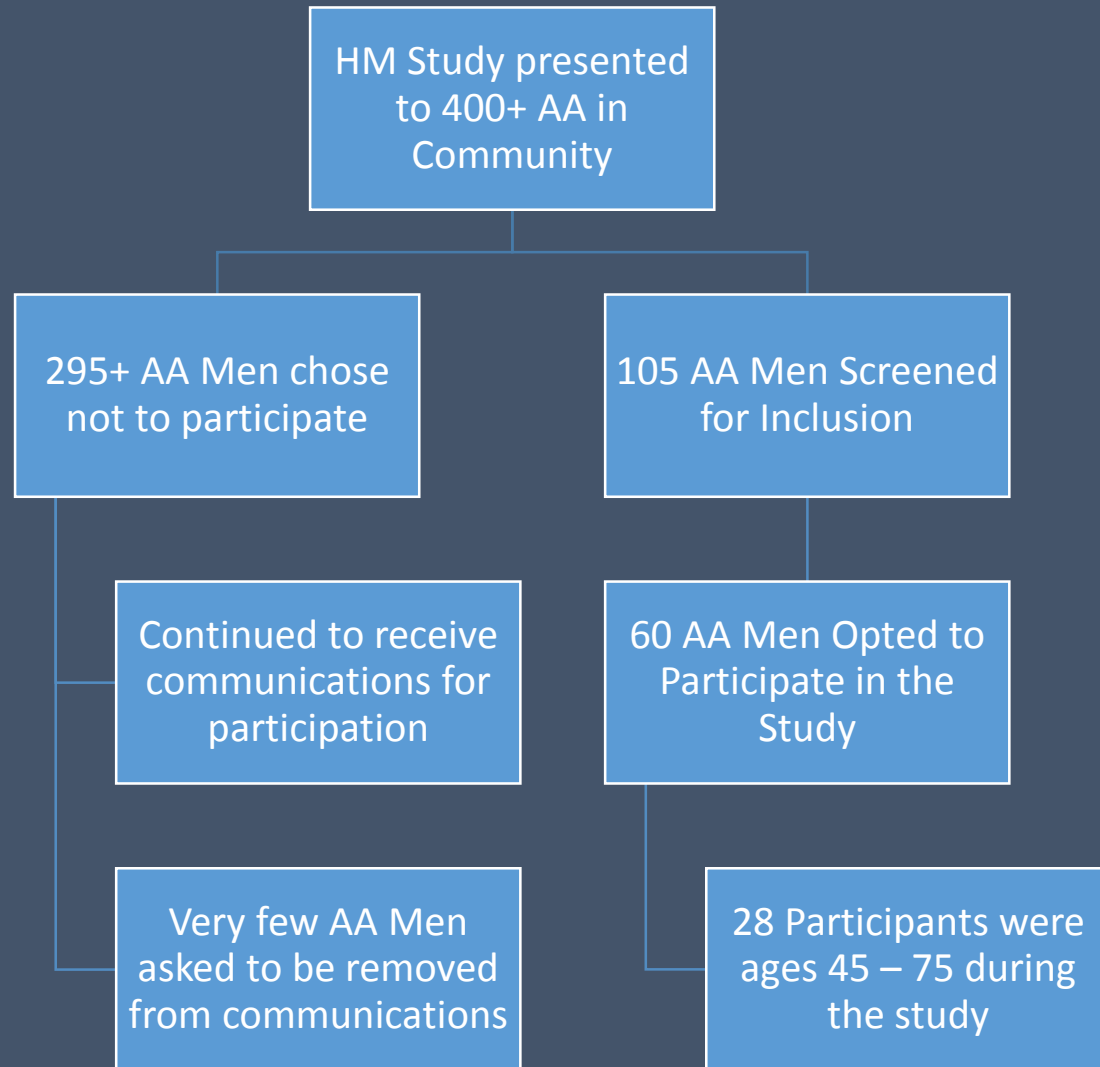
Intake of 3 - 5 Servings of Fruit/Vegetable per Day: BRFSS 2009, 2007, 2005



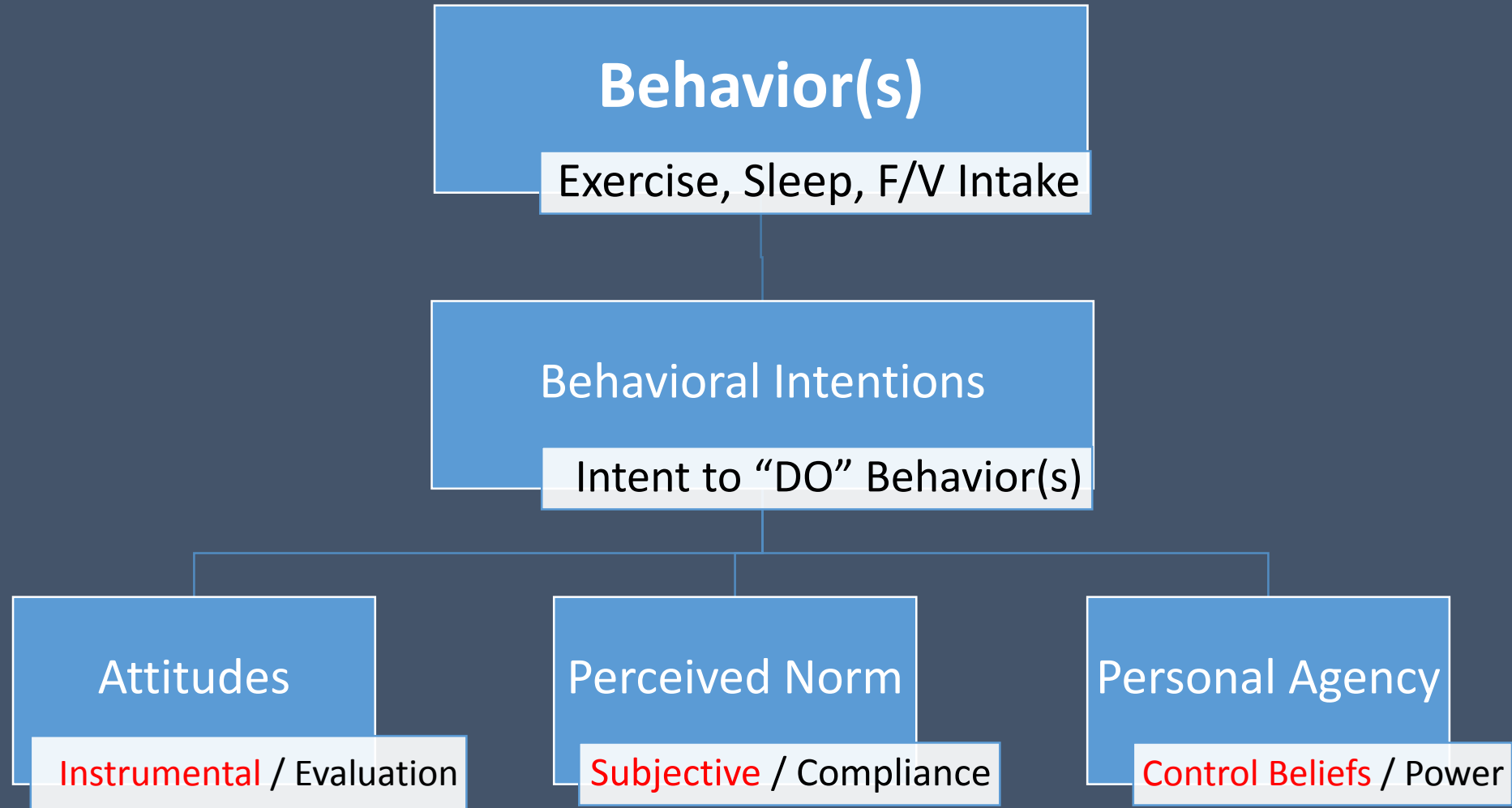
AIMS: Improve Health Promoting Behaviors among AA Men

- The Healthy Eating Activity Rest Together (HEART) Matters Study, was a pilot/feasibility study to:
 - Aim 1) Characterize knowledge, practices, and attitudes regarding **physical activity (PA)**, sleep, and diet among overweight/obese AA men, ages 24 – 75, living in a metropolitan area in the southeastern United States.
 - Aim 2) Determine the efficacy of a health coaching intervention as an approach to reduce metabolic and CVD risk factors among overweight/obese AA men, ages 24 – 75, living in a metropolitan area in the southeastern United States.
- Today's presentation will focus on Aim #1 among participants ages **45 – 75**.

Methods: HEART Matters (HM) Recruitment



Methods: Theoretical Framework | Theory of Planned Behavior

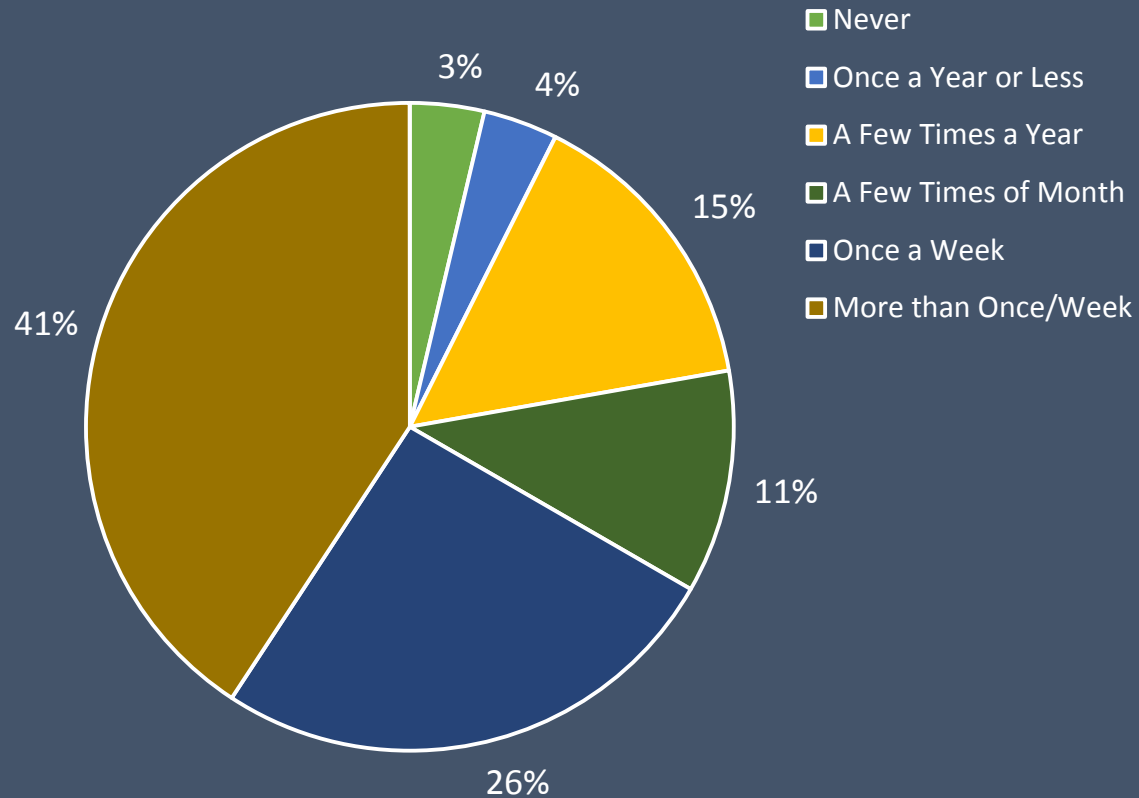


Demographic Characteristics of HEART Matters Participants at Baseline (age 45 – 75), n = 28	
Variable	Measure
Age	55.7 years
Weight	241.6 lbs.
Height	5' 10" (70 inches)
BMI	33.3
Currently Married	75%
Education	
Less than HS	3.6%
HS Degree (GED)	10.7%
College (1 – 3) Years	25.0%
College (4+) Years	60.7%
Employment	
Employed	74.1%
Self-Employed	3.7%
Student	3.7%
Retired	18.5%
Hours Worked Per Week	37.4

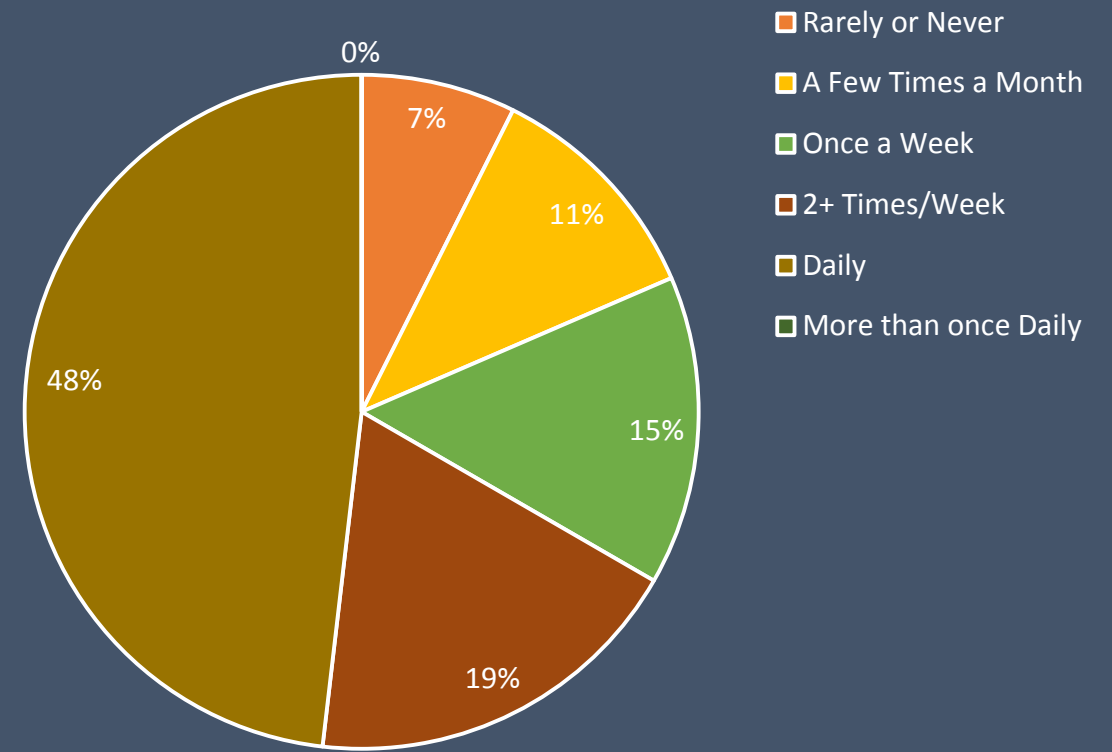
Household Income	
< \$35,000	15.4%
\$35,000 - \$74,999	42.3%
\$75,000 or more	42.3%
Health Conditions	
Reported Hypertension	53.6%
Reported High Cholesterol	42.9%
Reported Diabetes	21.4%
Overweight (BMI)	19.2%
Obese (BMI)	76.9%
Health Behaviors (adapted from BRFSS)	
LTPA Guidelines (150+ minutes / week)	56%
Accumulation of 7 – 9 Hours of Sleep / Nightly	26%
Consumption of 3 – 5 Fruits / Vegetables Daily	26%
Stressors	
Always or Usually worried/stressed about having enough money to pay your rent/mortgage	11.1%
Once a week or greater, worried/stressed about having enough money to buy nutritious meals	23.2%

Religious Characteristics of Participants (n = 28) Items from Duke University Religion Index (DUREL)

Attend Church Religious Meeting



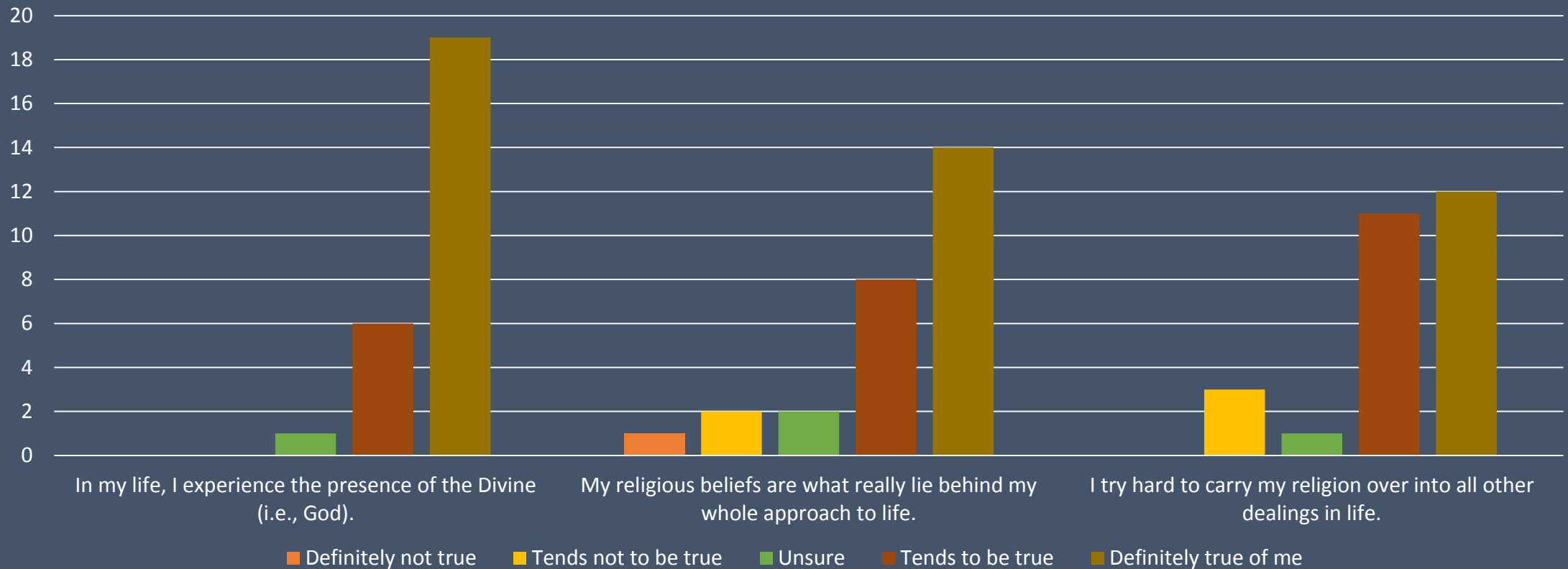
Spend Time in Private Religious Activities



Intrinsic Religious Characteristics of Participants

Items from Duke University Religion Index (DUREL)

Personal religious commitment or motivation



Theory of Planned Behavior Characteristics of HEART Matters Participants, n = 28
Behavior: “Exercising for at least 30, 5 or more days per week, for the next 2 weeks.”

Variable Likert Scale 1 = Strongly Disagree – 5 = Strongly Agree	Measure	SD
Average # of Days Performing 30+ Minutes of Exercise	3.25	1.43
Attitudes (i.e. Useful, Pleasant, Fun)	4.02	0.76
Family Norms for Exercising 30+ Minutes, 5+ Days...	3.71	1.08
Friend Norms for Exercising 30+ Minutes, 5+ Days...	3.54	1.13
Self-Efficacy for Exercising 30+ Minutes, 5+ Days...	4.41	0.62
Behavioral Intentions to Exercise 30+ Minutes, 5+ Days...	4.05	0.74

Theory of Planned Behavior Characteristics of HEART Matters Participants, n = 28
Behavior: “Eating 3 – 5 servings of Fruits/Vegetables daily for the next 2 weeks.”

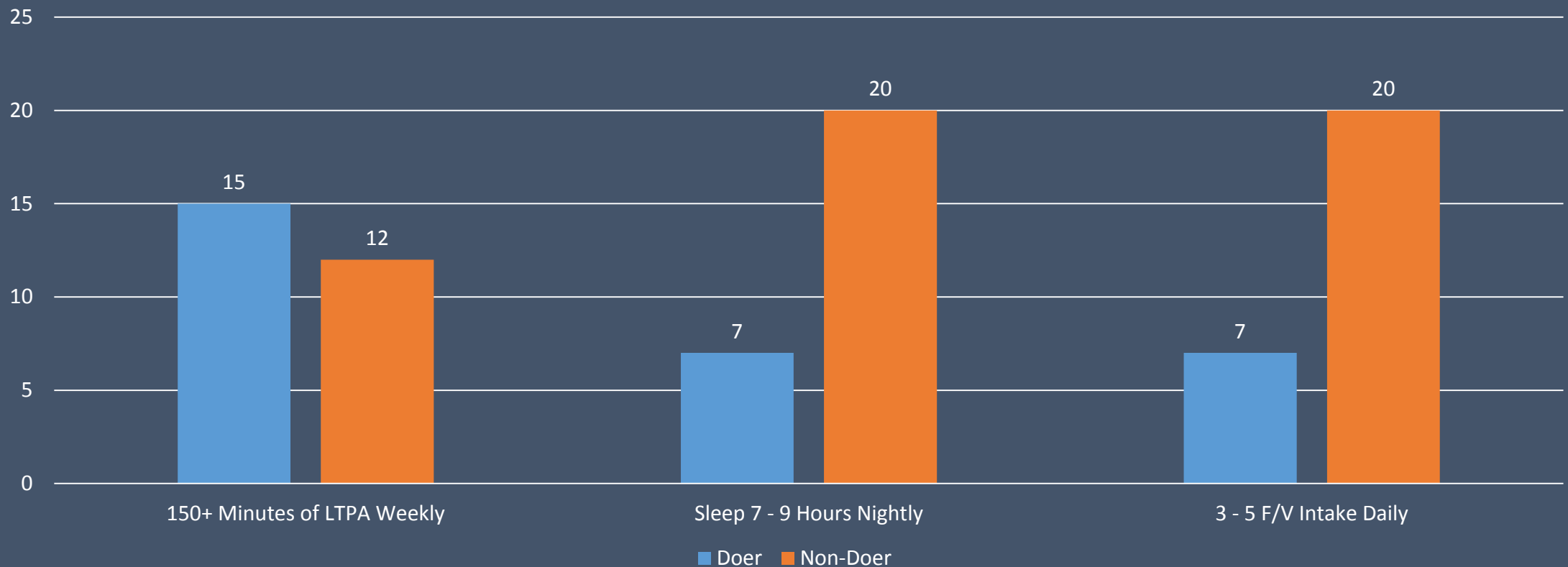
Variable Likert Scale 1 = Strongly Disagree – 5 = Strongly Agree	Measure	SD
Average # of Days Consuming 3 – 5 Fruits/Vegetables Daily	4.36	1.52
Attitudes (i.e. Beneficial, Satisfying, Desirable)	4.37	0.48
Family Norms for Consuming 3 – 5 Fruits/Vegetables...	3.79	1.03
Friend Norms for Consuming 3 – 5 Fruits/Vegetables...	3.32	1.06
Self-Efficacy for Consuming 3 – 5 Fruits/Vegetables...	4.35	0.61
Behavioral Intentions to Consume 3 – 5 Fruits/Vegetables	4.16	0.61

Theory of Planned Behavior Characteristics of HEART Matters Participants, n = 28
Behavior: “Achieve 7 – 9 hours of sleep nightly for the next 2 weeks.”

Variable Likert Scale 1 = Strongly Disagree – 5 = Strongly Agree	Measure	SD
Average # of Days (Nights) Sleeping 7 – 9 hours nightly	3.41	1.62
Attitudes (i.e. Useful, Pleasant, Refreshing) Sleeping...	4.36	0.68
Family Norms for Sleeping 7 – 9 hours nightly...	3.50	1.03
Friend Norms for Sleeping 7 – 9 hours nightly...	3.04	0.75
Self-Efficacy for Sleeping 7 – 9 hours nightly...	3.79	0.82
Behavioral Intentions to Sleep 7 – 9 hours nightly...	3.83	0.71

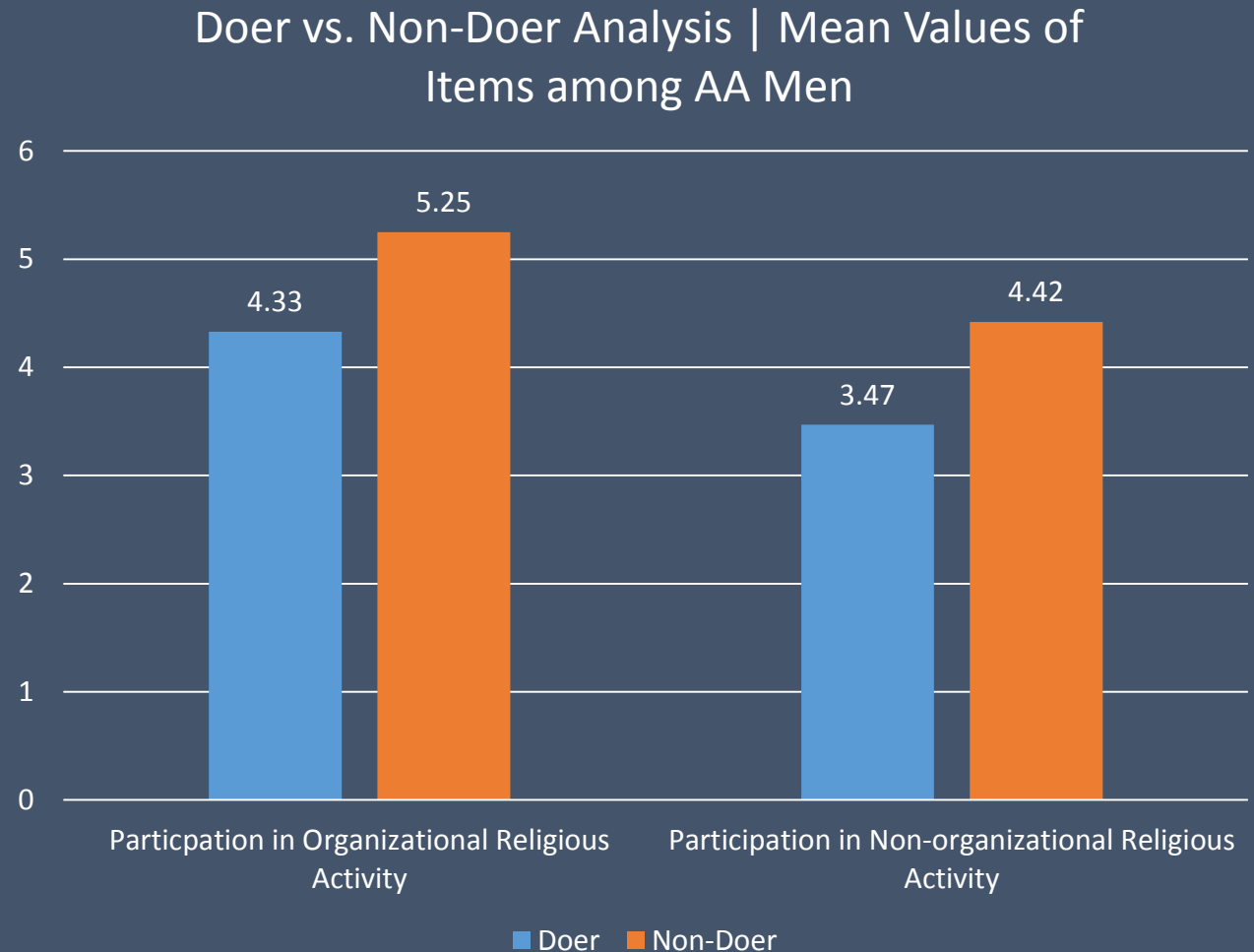
Doers vs. Non-Doers Analysis for HPBs: Physical Activity, Sleep, F/V Recommendations

Self-Reported Doers vs. Non-Doers Categorized by Public Health Recommendations



Difference among Doers vs. Non-Doers Physical Activity (PA)

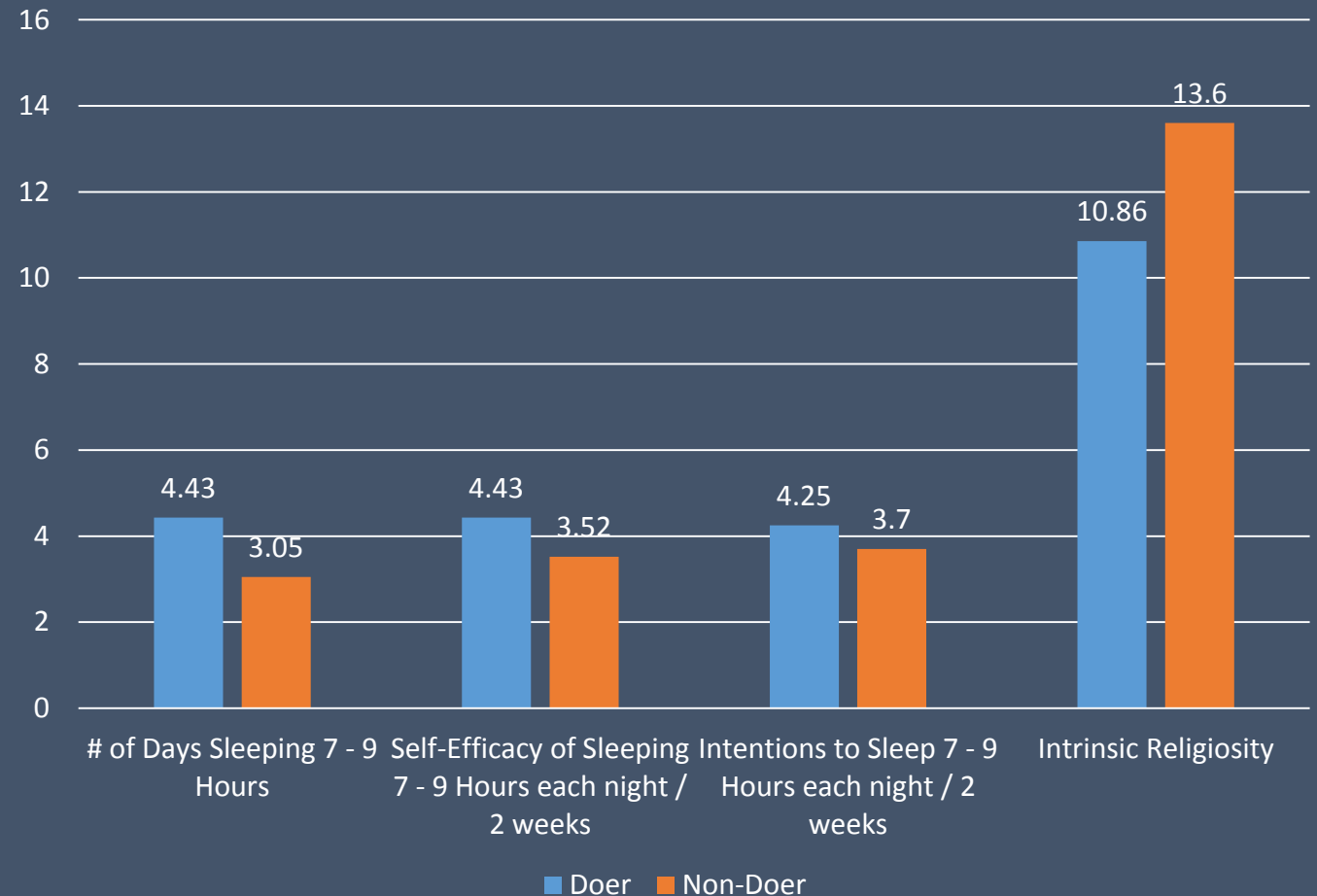
- No demographic or stress measures differed by category.
- Employing an “unconventional” p-value of .10, analysis suggest:
 - Difference in participating in observed Religious Activity, $p = 0.096$
 - Difference in participating in Non-organizational Religious Activity, $p = 0.066$



Difference among Doers vs. Non-Doers Sleep

- No demographic or stress measures differed by category.
- Using an “unconventional” p-value of .10, analysis suggest:
 - Difference in days sleeping 7 – 9 hours nightly, $p = 0.051$
 - Difference in self-efficacy to sleep 7 – 9 hours nightly, $p = 0.057$
 - Difference in intention to sleep 7 – 9 hours nightly, over the next two weeks, $p = 0.095$
 - Difference in “Intrinsic Religiosity” characteristics, $p = .017$

Doer vs. Non-Doer Analysis | Mean Values of Constructs/Items among AA Men



Conclusions

- Similar to previous studies, older AA men have positive attitudes & beliefs regarding engaging in PA.
 - Similarly, older men reported positive attitudes/beliefs related to Sleep & F/V intake.
- Stronger social support may be needed from family/friends in order to improve HPB performance among older AA men.
- Among older AA men, self-efficacy and intentionality may be important characteristics to supporting sleep health.
- Among older AA men, religious activities are important.
 - Findings suggest HPB Non-Doers spent more time in religious activities.

Strengths / Limitations

- Strengths

- Attempt to characterize participants performance of HPBs using a theoretical framework.
 - Theory of Planned Behavior focuses on the intent to perform HPBs, a marker for actual performance.
- Includes a measure of religiosity, significant to study of AA men.

- Limitations

- Limited “power” due to small sample size, results may not be generalizable
- Selection bias, Social Desirability Bias, Recall Bias
- Instrumentation / Administrative Differences
- Situational & Environmental Factors

Next Steps: RCMAR Pilot Grant to Support Older AA Men's Health

- Disseminate research findings, scientific literature
- Continue to refine measures and protocols for next study
 - RCMAR Pilot Grant focused on improving HPBs among older AA men
 - Partnering with two (2) Faith-Based Organization(s)
 - Mixed – method study will utilize health coaching strategies, pre-post testing
- Employing lifestyle modification programs among AA men:
 - Studies recommend hosting outreach programs in churches & community centers (Plowden et al., 2000; Plowden et al., 2006; Griffith et al., 2012)
 - Work with ministry teams to integrate health education into faith-based messaging (Plowden & Miller, 2000)
 - Improve knowledge & skills > Reduce barriers > Form Healthy Habits

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Questions

