

Introduction

- 42% of crop workers are migrant workers¹
- 5% of migrant workers are covered by employer-provided health insurance²
- Migrant farm workers face unique health risks due to occupational hazards and exposures, mobile lifestyle, low socio-economic status, and limited access to healthcare
- Few studies focus on the health of migrant farm workers

Study Purpose:

To evaluate the health status of migrant farmworkers served in the Farm Worker Family Health Program (FWFHP) in Moultrie, GA, and to compare their health status to that of the general U.S. population and Mexican-American population.

Farm Worker Family Health Program:

- Provides health screening services to migrant farmworkers and their families living in South Georgia while serving as an educational service learning experience to students in different health disciplines.
- Run by the Emory University's Neil Hodgson Woodruff School of Nursing in partnership with the Ellenton Clinic, Georgia State University physical therapy department, the University of Georgia College of Pharmacy, and the dental hygiene departments at Clayton State University and Darton College.

Methods

- Set up health screening mobile clinics at 6 different farms and screened 437 migrant farm workers
- Collected height, weight, blood pressure, blood glucose, and hemoglobin measurements
- Administered a HbA1C test in participants found to have a high diabetes risk
- Compared data to that of the general U.S. male population and the U.S. male Mexican-American population using data from the National Health and Nutrition Examination Survey (NHANES)

Results

Chief Complaint
Percentage of Participants (n=413)

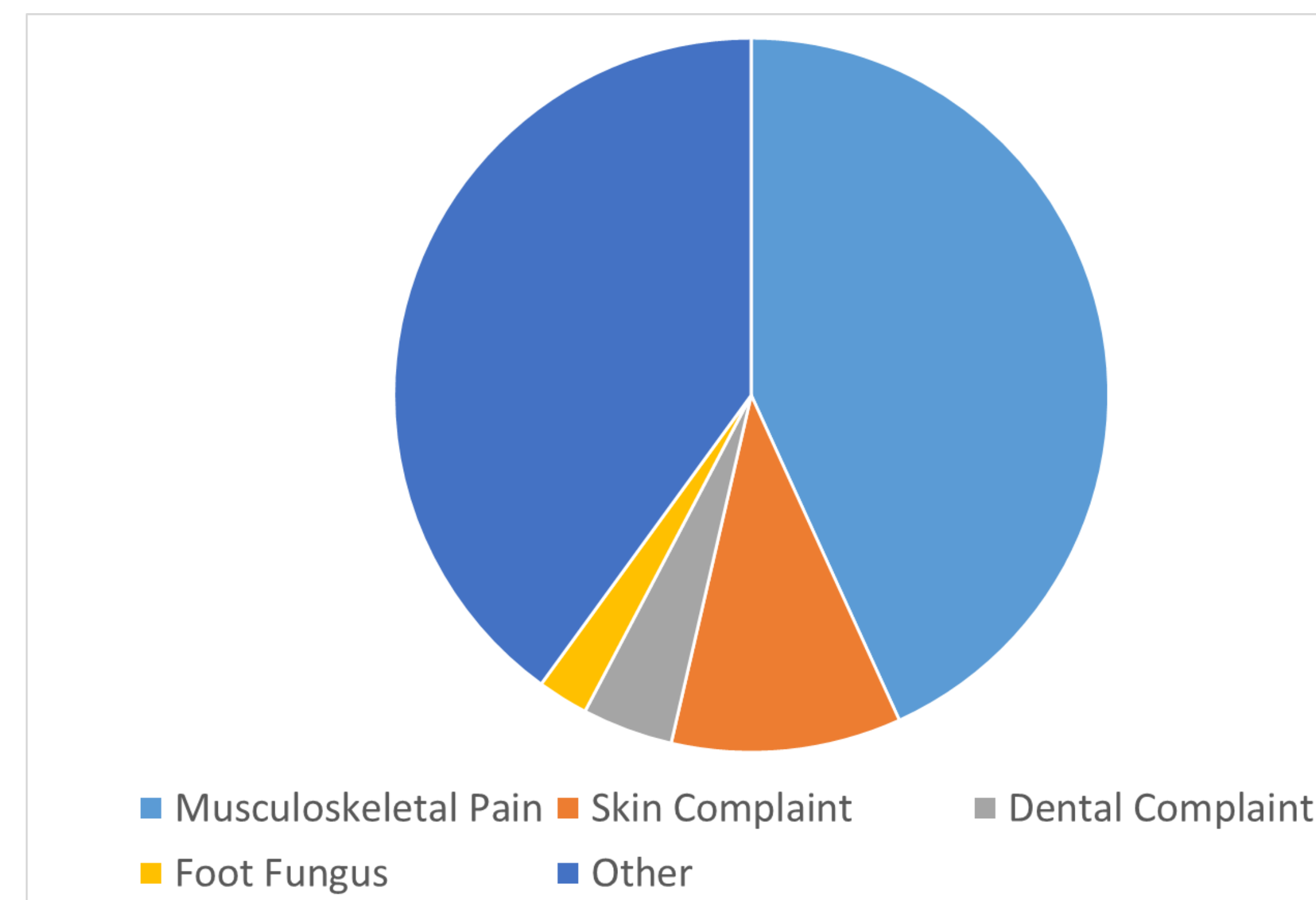
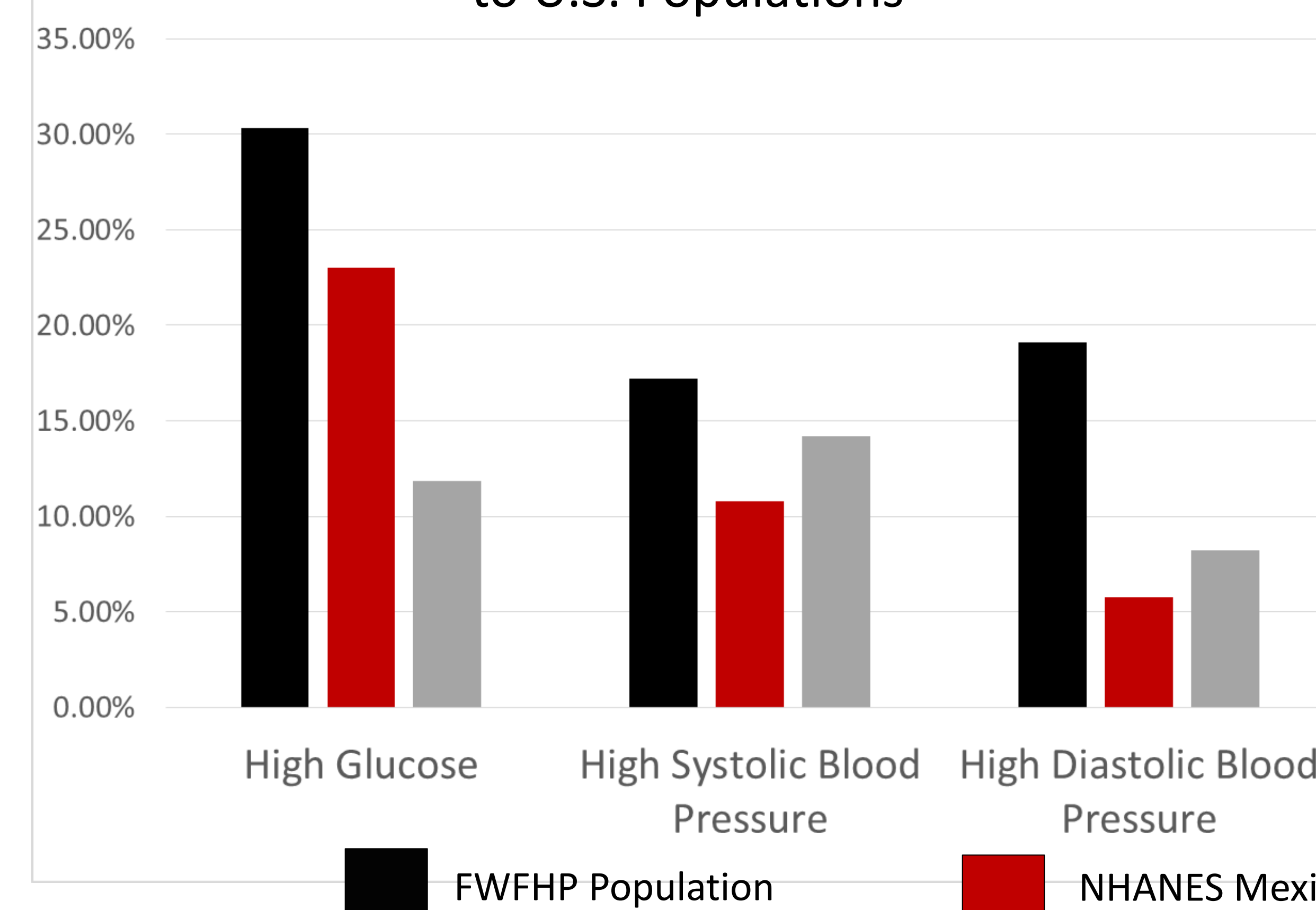


TABLE 2. Logistic Regression Analysis of High Blood Pressure in FWFHP Population*
Outcome: High Systolic Blood Pressure (>=140)

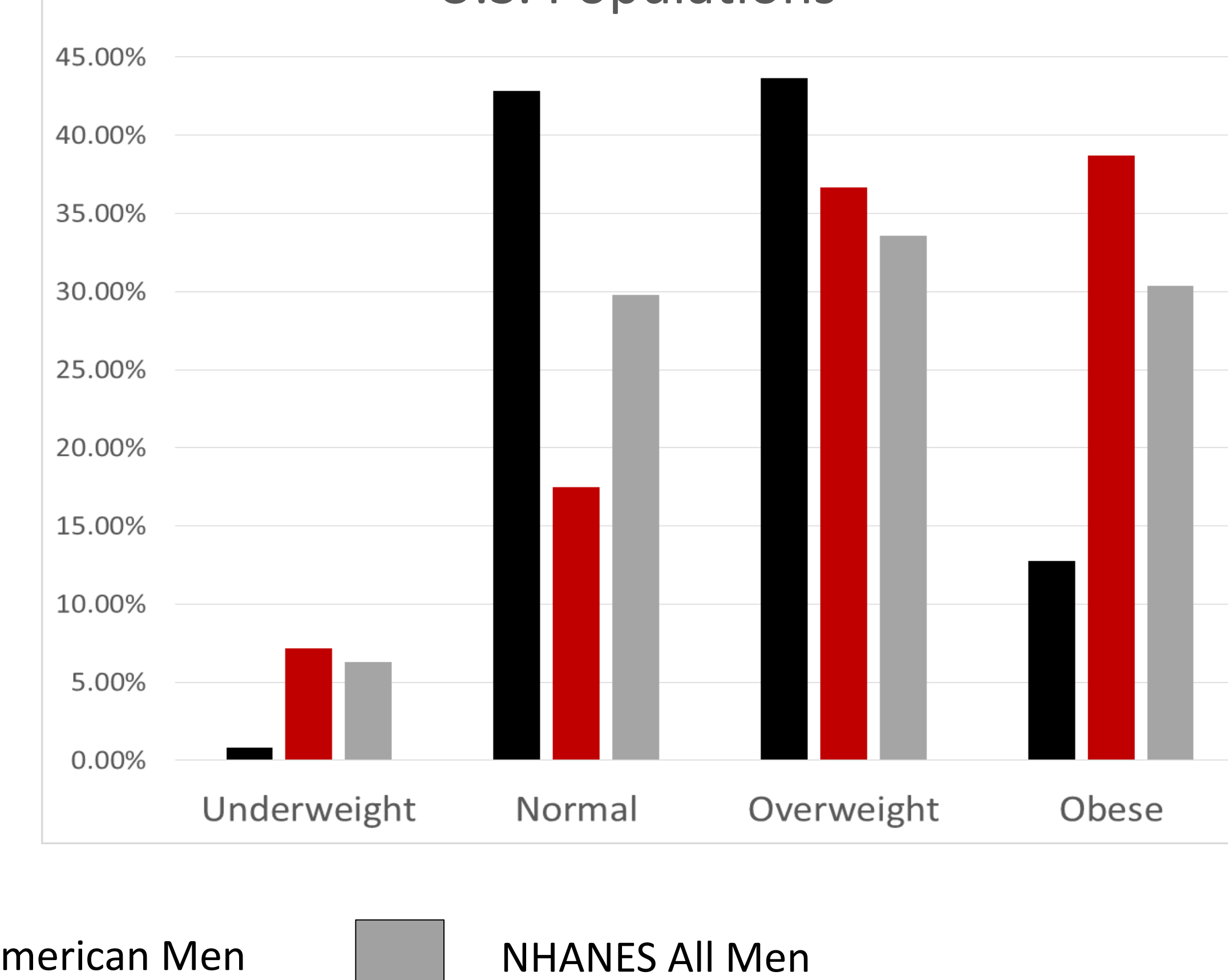
| Covariate | Coefficient | Odds Ratio | Confidence Interval | P-value |
|---|-------------|------------|---------------------|---------|
| **Glucose | 0.5607 | 1.752 | 0.891, 3.445 | 0.12 |
| Age | 0.0270 | 1.027 | 0.992, 1.064 | 0.07 |
| BMI | 0.1632 | 1.177 | 1.080, 1.284 | <0.0001 |
| Outcome: High Diastolic Blood Pressure (>=90) | | | | |
| ***Glucose | -0.00951 | 0.991 | 0.980, 1.001 | 0.06 |
| Age | 0.0741 | 1.077 | 1.040, 1.115 | <0.0001 |
| BMI | 0.1491 | 1.161 | 1.066, 1.264 | 0.0002 |
| Hemoglobin | 0.1512 | 1.163 | 0.950, 1.424 | 0.14 |

* alpha level of 0.15
**Random glucose dichotomized into high (>=126 mg/dL) and normal
***Continuous random glucose measurements

Comparison of Health Indicators from Study Population to U.S. Populations



Comparison of BMIs from Study Population to U.S. Populations



Key findings

- The mean BMI of the study population was 26.1 compared to 28.2 in the all males NHANES population and 29.4 in the Mexican-American NHANES population.
- Migrant farmworkers had higher blood sugars than the comparison populations; 30.3% of the study population had a high random blood glucose level .
- 17.2% of the study population had high systolic blood pressure measurements and 19.13% had high diastolic blood pressure measurements.
- The most common chief complaints were musculoskeletal pain (43.2%) and skin complaints (10.4%).
- Glucose, age, BMI, and hemoglobin were found to be predictors of high blood pressure; the covariates age and BMI had the greatest association.

Conclusions

- The migrant farmworker population had a significantly lower mean BMI and a lower rate of obesity compared to the general U.S. male population and the Mexican-American population.
- Despite having a lower mean BMI, migrant farmworkers were at a higher risk for high blood sugar and high blood pressure.

Aknowledgements

- Students and staff from Emory University's Neil Hodgson Woodruff School of Nursing, the Ellenton Clinic, Georgia State University physical therapy department, the University of Georgia College of Pharmacy, and the dental hygiene departments at Clayton State University and Darton College for implementation of the program and data collection
- Judith Wold, the director of the Farm Worker Family Health Program, for organizing the health screening clinics, providing the data, and support
- Dr. Mark Ebell for supervision, support, and review

References

1. Carroll D, Samardick, R, Bernard, S, Gabbard, S, Hernandez, T, US Department of Labor,. Findings from the National Agricultural Workers Survey (NAWS) 2001-2002. A Demographic and Employment Profile of United States Farm Workers. 2005; http://www.doleta.gov/agworker/report9/naws_rpt9.pdf. Accessed March 27, 2014.
2. National Center for Farmworker Health. Fact Sheets About Farm Workers. 2013.