

## Introduction

- The rapidly increasing overweight and obesity rate in the United States and New Mexico is reaching epidemic levels<sup>1</sup>.
- Seventy percent of adults age 18-64 in New Mexico are overweight or obese<sup>1</sup>.
- Being overweight or obese is a major risk factor in many severe health conditions such as diabetes, stroke, heart disease, and cancer<sup>2</sup>.
- Research has shown that the socioeconomic factors impact both population-level obesity distribution and individual level obesity risk<sup>3</sup>.
- Where people work, play, and live are well recognized as important determinants of health<sup>4</sup>.
- New Mexico, a minority-majority state, has one of the least favorable social and economic rankings in the nation.
- New Mexico has limited research on socioeconomic determinants of healthy-weight issues.

## Methodology

### Data source

- 2017 Behavioral Risk Factor Surveillance Survey (BRFSS) data for adults age 18-64 in New Mexico<sup>1</sup>

### Sample

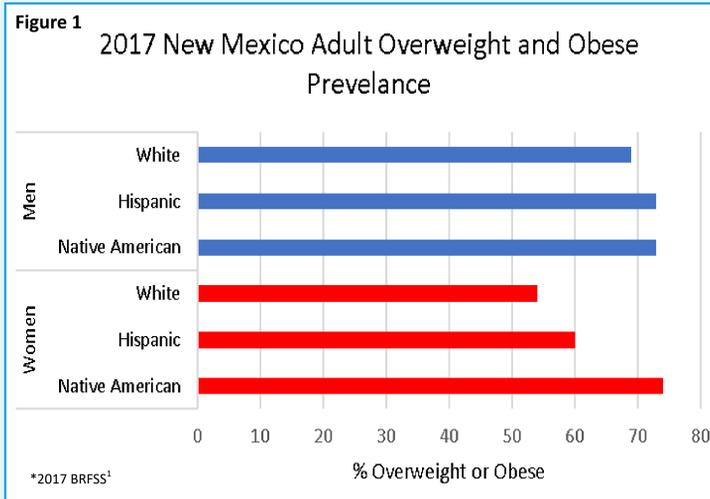
- Sample size: 3759 individuals
- 1729 whites, 1528 Hispanics, and 554 Native Americans
- Overweight: 25≤BMI< 30 Obese: BMI≥30

### Analysis

- Logistic regression to determine the effects of socioeconomic variables and other health measures on overweight and obese prevalence by race and gender.
- Independent Variables: gender, race, education, income, age, household size, physical activity, healthcare coverage, employment, smoking, Spanish-speaking, marital status, residential area
- Descriptive statistics of socioeconomic variables were calculated.
- P-value <0.1 for significance.

## Results

- The prevalence of overweight and obesity, as well as the social determinants of weight, were not uniform by population groups.
- Men (71%) had higher rates than women (59%).
- Native American women had the highest proportion (74%) while white women have the lowest (54%).
- Logistic regression results indicate prevalence of overweight and obesity generally increases with age and declines with more education attainment.
- Many social determinants were associated with an increase in overweight and obese proportions. (See Table 1)
- The impact of social determinants was not uniform by race and gender.
- Hispanic women had more significant social determinant variables than other groups.



**Table 1** Significant Socioeconomic Determinants

Variables	Male			Female			Total
	White	Hispanic	Native American	White	Hispanic	Native American	
Income <20k	+	0	0	0	0	+	2
Employment	+	0	0	0	0	0	1
Married	+	+	0	+	+	0	4
Household Size	0	0	-	0	-	0	2
Health Coverage	0	0	+	0	+	0	2
Physical Activity	0	+	0	-	0	+	3
Smoking	0	0	0	0	+	0	1
Spanish Speaking	N/A	-	N/A	N/A	0	N/A	1
<b>Total</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>2</b>	

(+): Positive Association (-): Negative Association (0): No Association (N/A): Not in Model  
(Total): Number of Significant Social Determinant Variables

## Discussions

- The diversity and rural nature of New Mexico presents large public health challenges when attempting to address the rising BMI proportions.
- Social determinants affect the likelihood of having a healthy body mass index. Not uniform by gender, race, or the intersectionality of gender and race.
- Social determinants more readily explain the prevalence of overweight and obesity for Hispanics—irrespective of gender—and white men.
- Minority populations are at highest risk for adverse health outcomes due to healthy weight issues as a result of socioeconomic determinants of health.

## Research Objectives

- Advance the research of overweight and obese working-age adults within New Mexico.
- Examine the distribution of overweight and obese in New Mexico by race and gender.
- Study how social determinants affect the working-age population in New Mexico by the intersectionality of race and gender.
- Investigate the health and socioeconomic variation of understudied minority populations in New Mexico: Hispanics and Native Americans.

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## Conclusion

To most efficiently and effectively solve the obesity epidemic, greater understanding of which populations are at highest risk as well as the social determinants such as education, employment, income, marital status, and physical activity that put them at risk need to be better understood by health professionals and policymakers.

## References

- <sup>1</sup>Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [2017].
- <sup>2</sup>Adult Obesity Causes & Consequences. (2017, August 29). Retrieved from <https://www.cdc.gov/obesity/adult/causes.html>
- <sup>3</sup>Kelly, E. Bowie, J. Griffith, D. Bruce, M. Hill, S., & Thorpe, R. (2016). Geography, Race/Ethnicity, and Obesity Among Men in the United States. *American Journal of Men's Health*, 10(3), 228-36
- <sup>4</sup>Obesity Expert Panel 2013. Managing Overweight and Obesity in Adults; Systematic Evidence Review. 2013. *National Heart, Lung, and Blood Institute*.
- <sup>5</sup>New Mexico Population 2020 (Demographics, Maps, Graphs). (n.d.). Retrieved April 5, 2020