

Demographic Profiles of Patients Who Report Receiving Lifestyle Counseling For Diabetes Prevention Data from NHANES 2015-2016

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Introduction

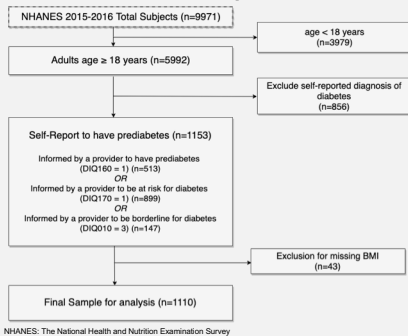
- More than 33% of adults in the US have prediabetes yet only 11% report having been diagnosed with the condition.¹
- Programs combining nutrition and physical activity are recommended to disrupt disease progression for people with prediabetes or who are at increased risk for developing type 2 diabetes.²
- **Healthy People 2020** initiatives³ include increasing the proportion of physician visits that provide counseling about nutrition or diet and physical activity.

Objective

To evaluate the prevalence of lifestyle counseling for diabetes prevention among adults who have self-reported prediabetes and to determine if there are demographic associations with type of counseling they received.

Methods

Flow Chart for Sample Selection

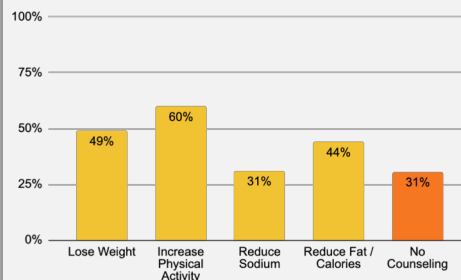


Demographics are summarized for lifestyle counseling outcomes: weight loss, physical activity and nutrition recommendations. Multiple logistic regression models were used to predict association between outcomes and demographics: BMI, race/ethnicity, insured status, poverty level, and gender and age. Survey weights were applied for the analysis.

Descriptive Statistics

Demographic	Total Weighted %
Gender	
Female	60.3%
Poverty Level	
>200%	56.8%
Health Insurance	
Insurance	88.5%
Race/ethnicity	
Mexican American	8.5%
Other Hispanic	6.7%
White	62.5%
African American	11.7%
Asian	5.7%
Other	4.9%
Age	
18-24	8.4%
25-34	17.6%
35-44	17.9%
45-54	19.8%
55+	36.3%
BMI	
Underweight (<18.5)	3.6%
Reference range (18.5-24.9)	16.5%
Overweight (25-29.9)	28.3%
Obese (>30)	51.7%

Types of Lifestyle Counseling Received by People with Prediabetes



Results

Odds Ratios for Type of Counseling Reported by Characteristics of Sample

	Lose Weight	Increase Physical Activity	Reduce Sodium	Reduce Fat & Calories
Gender (Reference: Female)				
Male	0.8 (0.5, 1.2)	0.7 (0.5, 1.1)	1.3 (0.9, 1.9)	1.3 (0.9, 1.9)
Poverty Level: (Reference: >200%)				
<=200%	0.9 (0.6, 1.3)	1.2 (0.8, 1.7)	2 (1.4, 2.8)	1 (0.6, 1.6)
Race/ethnicity: (Reference: White)				
Mexican American	0.8 (0.5, 1.2)	1.1 (0.8, 1.6)	2.7 (1.7, 4.2)	1.6 (1, 2.4)
Other Hispanic	0.9 (0.6, 1.4)	1 (0.8, 1.3)	1.3 (0.8, 2.2)	1 (0.7, 1.5)
African American	0.8 (0.6, 1.2)	1.1 (0.8, 1.5)	3.3 (2.5, 4.5)	1.3 (1, 1.8)
Asian	0.8 (0.4, 1.6)	1.4 (0.9, 2.4)	1.5 (0.8, 2.9)	1.5 (0.9, 2.6)
Other	1.4 (0.4, 4.6)	1.7 (0.7, 4.1)	1.6 (0.6, 4.1)	1.2 (0.4, 3.9)
Age				
	1.02 (1, 1.03)	1.01 (1, 1.03)	1.03 (1.02, 1.04)	1.02 (1, 1.03)
BMI: (Reference: 18.5-24.9)				
Underweight (<18.5)	0 (0, 0)	0.1 (0.03, 0.5)	1.6 (0.4, 6.5)	0.4 (0.1, 2.6)
Overweight (25-29.9)	4.9 (1.7, 14.2)	1.9 (0.94, 3.9)	2 (1.2, 3.2)	2.5 (1.1, 5.5)
Obese (>30)	20 (7, 57.5)	4 (2, 7.8)	4.4 (2.7, 7.4)	5.7 (2.9, 11)

Bolded orange indicates significant odds ratio (95% Confidence Limits)



"To lower your risk for certain diseases, during the past 12 months have you ever been told by a doctor or health professional to:

... control your weight or lose weight?"

... increase your physical activity or exercise?"

... reduce the amount of salt in your diet?"

... reduce the amount of fat or calories in your diet?"

Interview questions from the NHANES 2015-2016 Medical Conditions Interview: MCO356a, MCO360b, MCO363c, and MCO365d

Conclusion

- Rates of lifestyle counseling for the self-reported prediabetes population range between 31%-60%.
- Frequency of reported physical activity counseling was nearly twice that of counseling to reduce sodium.
- Probability of having any of the types of counseling increased with age.
- Those who live below 200% poverty level were more likely to receive counseling to reduce sodium than those > 200% poverty level.
- Mexican-Americans and African Americans were more likely to receive dietary counseling to reduce sodium, fat and calories than Whites.
- BMI was associated with all counseling outcomes, with obesity being the largest predictor of provider counseling about weight loss, increasing physical activity and reduction of sodium, fat and calories.

Future Research

- Better understanding provider perspectives about making lifestyle recommendations and referrals for chronic disease support programs is needed.
- Targeted interventions to empower providers and patients to have meaningful discussions about lifestyle topics while considering barriers, nature of disease risk, cultural relevancy and social determinants of health may increase their prevalence.

References

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