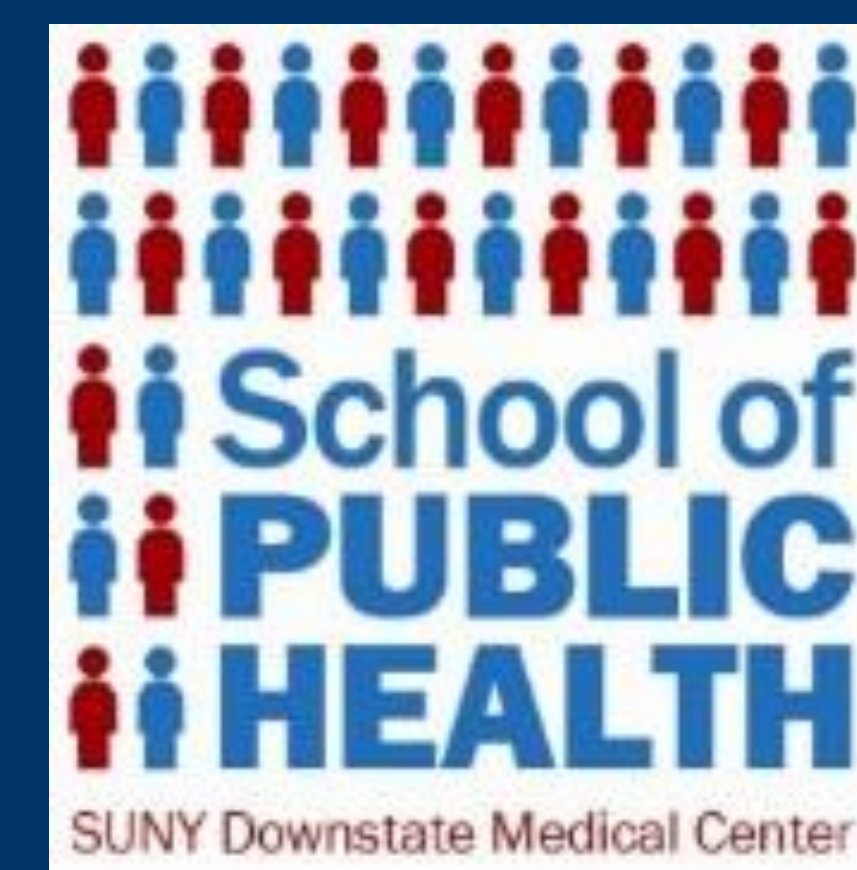


The Effect of Nativity Status (U.S. Born vs. Foreign-born) on Self-Reported Diabetes in NYC from 2009-2012



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Introduction

Diabetes currently affects 10.5% of the U.S. population, or 34.2 million people

- It was the seventh leading cause of death in the United States in 2017 costing the nation \$327 billion.
- Both prevalence and incidence is growing in the United States

Diversity determinants such as nativity status, region of birth, and years in immigrated country has been shown to have a significant effect on diabetes prevalence.

Previous research examined the relationship between nativity and diabetes via country for specific groups.

Objectives

The objectives of the study were to:

- Determine if foreign-born New Yorkers are more likely to have increased diabetes prevalence than U.S. born New Yorkers
- Determine the influence of demographic, socioeconomic, lifestyle, health-related and contextual factors on diabetes prevalence

NYC Health Community Health Survey (CHS)

A city-wide cross-sectional survey administered annually via phone to city residents 18+ since 2002 by the New York City Department of Health and Mental Hygiene.

- Surveys were collected using a computer-assisted telephone interviewing (CATI) system in English, Spanish, Russian, Chinese

Study Sample

- 13,509 participants from 2009-2012
- 1,890 foreign-born diabetics
- 2,212 diabetics lived 10+ years in U.S.

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Results

Four Years of Combined Characteristics Associated with Self-Reported Diabetes in NYC from the 2009-2012 Community Health Surveys			
Variable:	Odds Ratio	95% CI	p-value
Nativity:			
U.S. Born	(Ref)	(Ref)	(Ref)
Foreign-born	0.58	(0.43, 0.77)	<0.01
Race:			
White	(Ref)	(Ref)	(Ref)
Black	1.94	(1.41, 2.68)	<0.01
Hispanic	1.27	(0.83, 1.96)	0.27
Asian/PI	2.44	(1.64, 3.63)	<0.01
Other	1.19	(0.58, 2.41)	0.64
General Health Self-Perception:			
Excellent	(Ref)	(Ref)	(Ref)
Very Good	1.34	(0.83, 2.16)	0.24
Good	2.52	(1.64, 3.88)	<0.01
Fair	4.52	(2.89, 7.08)	<0.01
Poor	5.87	(3.67, 9.40)	<0.01
Hypertension:			
No	(Ref)	(Ref)	(Ref)
Yes	0.38	(0.31, 0.47)	<0.01
Sugar Intake:			
Does Not Drink 2+ Sodas a Day	(Ref)	(Ref)	(Ref)
Drinks 2+ Sodas a Day	1.99	(1.14, 3.48)	0.02
Age:			
18-24	(Ref)	(Ref)	(Ref)
25-44	2.51	(1.04, 6.08)	0.04
45-64	7.57	(3.15, 18.20)	<0.01
65+	8.02	(3.36, 19.16)	<0.01
Sex:			
Female	(Ref)	(Ref)	(Ref)
Male	0.67	(0.56, 0.81)	<0.01
Years in U.S.:			
<5 years	(Ref)	(Ref)	(Ref)
5-9 years	1.55	(0.82, 2.90)	0.18
10+ years	1.93	(1.14, 3.26)	0.01
Language Spoken at Home:			
English	(Ref)	(Ref)	(Ref)
Spanish	0.89	(0.23, 2.01)	0.50
Russian	1.03	(0.20, 1.88)	0.89
Chinese	0.32	(0.23, 2.17)	<0.01
Indian	1.46	(0.08, 0.63)	0.49
Other	0.74	(0.17, 1.51)	0.12
Education:			
Less than HS	1.42	(1.08, 1.86)	0.01
High School Graduate	1.19	(0.93, 1.53)	0.17
Some College	1.07	(0.81, 1.40)	0.64
College Graduate	(Ref)	(Ref)	(Ref)
Weight Category:			
Underweight	1.12	(0.65, 1.94)	0.67
Normal	(Ref)	(Ref)	(Ref)
Overweight	1.42	(1.13, 1.77)	<0.01
Obese	2.15	(1.69, 2.74)	<0.01
Smoking:			
Never	(Ref)	(Ref)	(Ref)
Current	0.69	(0.50, 0.96)	0.03
Former	1.01	(0.81, 1.25)	0.93
Alcohol:			
Does Not Drink	(Ref)	(Ref)	(Ref)
Drinks	1.48	(1.23, 1.79)	<0.01
Employment Status:			
Employed	(Ref)	(Ref)	(Ref)
Unemployed	1.26	(0.91, 1.76)	0.16
Not in Labor Force	1.60	(1.26, 2.03)	<0.01
1 Unit Increase in Survey Year	1.08	(1.01, 1.16)	0.03

Methods

Predictors: Nativity Status

Covariates:

- Demographic:
 - Sex, Age Group, Race, Educational Attainment, Employment Status, Poverty Status, Years Lived in the United States, Language Spoken at Home, Weight Category
- Lifestyle-related:
 - Alcohol Drinking, Cigarette Smoking, Regular Exercise, Soda Drinking
- Health-related:
 - Health Insurance Status, Hypertension, Medical Care Access, Self-Perceived Health Status

Outcome: Self-Reported Diabetes

Statistical Analysis:

- Associations between variables were examined using the chi-square statistic.
- Multivariable logistic regression was used to estimate odds ratio with 95% confidence intervals.
- Sensitivity Analysis: Cox Proportional Hazard Model
- Used SAS University Edition 2.8.1 9.4 M6.

Discussion

- Nativity status was a significant predictor for a decreased risk of diabetes for the full adjusted model with an OR of 0.58 with 95% CI (0.43, 0.77) at p<0.01.
- Years in country for people who spent 10+ years in the U.S. had an increased risk of diabetes for the full adjusted model with an OR of 1.93 with 95% CI (1.14,3.26) at p=0.01.
- Significance remained after sensitivity analysis.
- Associations varied in significance each year throughout the four years.
- Associations should be further evaluated with a more representative sample set.