

Prevalence of Hypertension in the Dominican population: US vs. the Dominican Republic

Claudia R. Loyola Amador MS2; Katrina Swett MS; Donaldo A. Collado Damián MD; Carlos J. Rodriguez MD, MPH.
Wake Forest School of Medicine Division of Public Health Sciences

Introduction

- Hypertension is the most preventable and modifiable risk factor for cardiovascular disease and stroke.
- The overall prevalence of hypertension in Hispanics/Latinos living in the US is highest among Dominicans (32.6%) and the lowest among South American men (19.9%).¹
- Few studies have examined the health of immigrant groups in the US compared to their country of origin.

Objective

The objective of this project is to analyze and compare the prevalence and distribution of hypertension and its associated risk factors of Dominicans living in the US, with Dominicans in their native Dominican Republic (DR).

Methods

Data was analyzed from ENPREFAR HAS 17 International Database and the Hispanic Community Health Study/Study of Latinos (HCHS/SOL).

- ENPREFAR HAS 17 includes a representative sample from the nine DR national regions (N=2,016)
- A sample of US Dominicans from HCHS/SOL were selected for overall comparison (N=1,473)

Descriptive analysis was performed to compare the prevalence and distribution of hypertension.

- Hypertension was defined as a blood pressure recording of $\geq 140/90$ mmHg.
- Prevalence was analyzed according to categories of age, gender, BMI, cigarette use, alcohol use, physical activity and level of education as a proxy for SES.
- Chi-square tests were conducted.

Results

	DR	US
Total	1990	1473
Gender: Male	988 (49.65%)	510 (34.62%)
Female	1002 (50.35%)	963 (65.38%)
Education Completed:		
Less than HS	559 (28.09%)	616 (41.82%)
HS or Equivalent	1008 (50.65%)	303 (20.57%)
Greater than HS	423 (21.26%)	554 (37.61%)
BMI:		
Below 25	766 (38.49%)	296 (20.10%)
25.0-29.9	660 (33.17%)	564 (38.29%)
30.0 and above	550 (27.64%)	604 (41.00%)
Current Smoker:		
Yes	221 (11.11%)	155 (10.52%)
Current Alcohol Use:		
Yes	1080 (54.27%)	751 (50.98%)
Diabetic:		
Yes	128 (6.43%)	283 (19.21%)

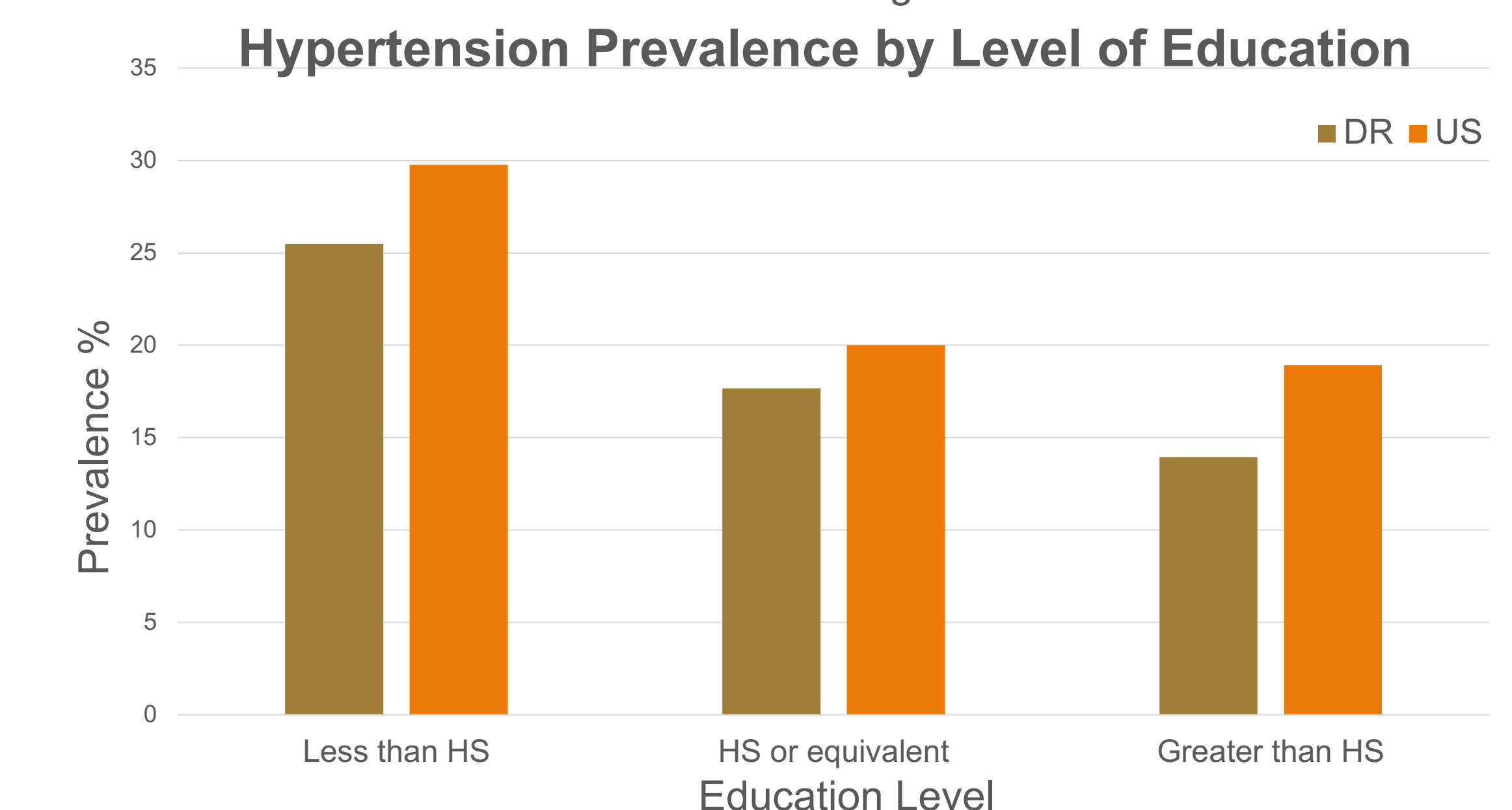
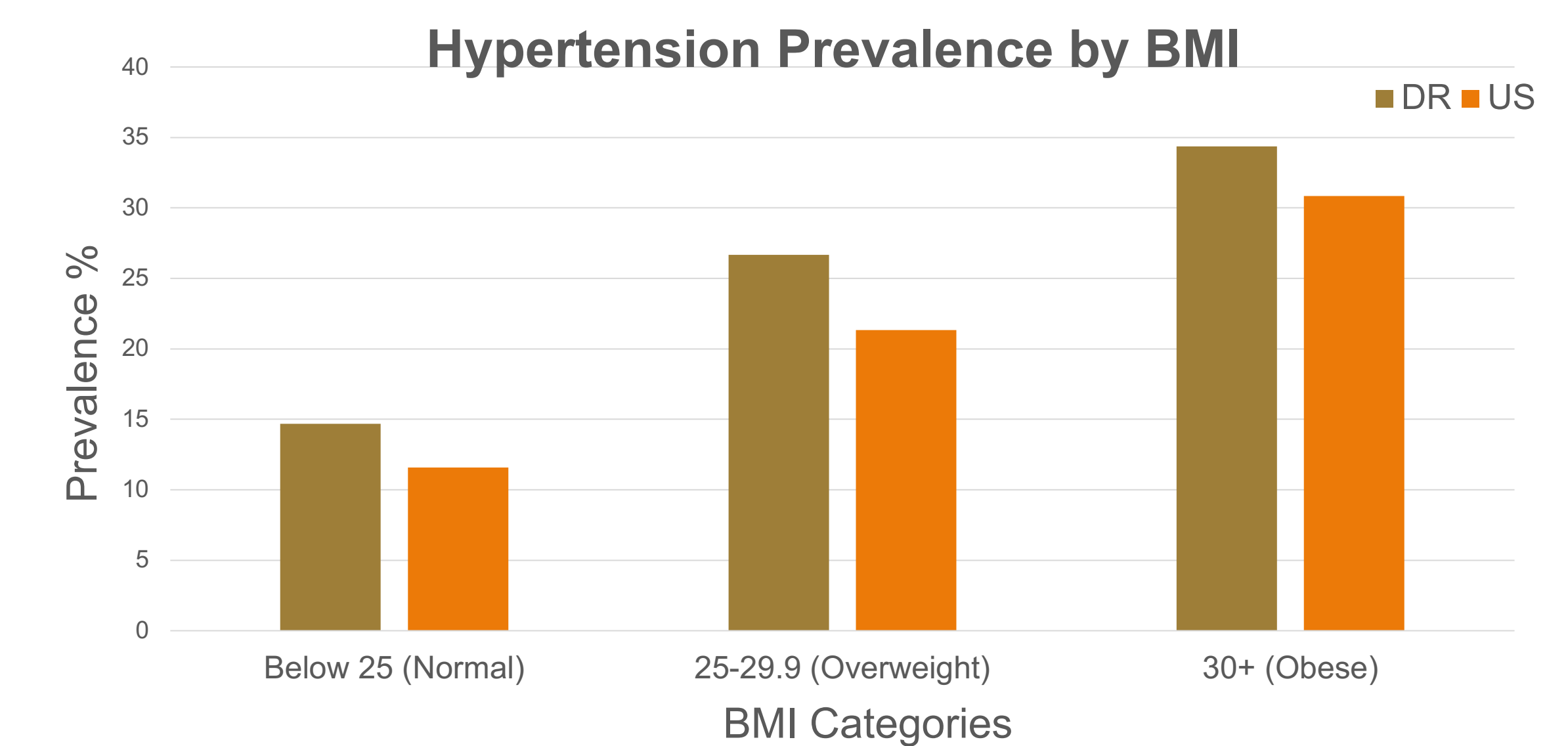
- Preliminary results indicate that the prevalence of hypertension in Dominicans in the DR is 24.07% and in the US is 23.17%.
- Females in the DR have a higher prevalence of hypertension, while males in the US have a higher prevalence.

	DR	US
Females	29.24%	21.12%
Males	18.83%	26.30%

- In the DR, Dominicans living in rural settings have a hypertension prevalence of 21.43%. The prevalence in urban settings is 24.90%.
- The prevalence of hypertension in Diabetics in the DR is 54.90% and in the US is 67.97%.
- Current cigarette and alcohol use in the DR and the US not correlated to a higher hypertension prevalence.

	DR	US
Current Smokers	27.15%	18.62%
Alcohol Use	14.72%	20.10%

- In both the DR and the US, the prevalence of hypertension increases with respect to an increase in BMI and decreases with respect to level of education.



Conclusion & Implications

- A comparison of the hypertension associated risk factors between the DR and the US may help healthcare providers in the treatment and control of hypertension among Dominicans.
- The overall prevalence of hypertension in Dominicans is relatively similar in the US and in the DR.
- As immigration from the Caribbean to the US increases, it is crucial to have a full understanding of life in these countries and the cultural factors that play a role in healthcare there.
- As Latin America becomes more 'Americanized' we may also see trends of hypertension in developing countries approach that seen in the US.

References

- Pabon-Nau LP, Cohen A, Meigs JB, Grant RW. Hypertension and Diabetes Prevalence Among U.S. Hispanics by Country of Origin: The National Health Interview Survey 2000-2005. *Journal of General Internal Medicine*. 2010;25(8):847-852.