COMMENTS AND RESPONSES

Prevalence and Control of Diabetes and Impaired Fasting Glucose in New York City

Response to Thorpe et al.

We read the article by Thorpe et al. in *Diabetes Care* (1) with great interest. We would like to advocate for reporting on the differential prevalence of cardiovascular risks within the Hispanic population. New York City Hispanics represent four regions (North America, Central America, the Caribbean, and South America), with people from over 12 countries but primarily Puerto Rico (33.3%), the Dominican Republic (25.8%), Mexico (12.4%), Ecuador (8.6%), and Columbia (4.7%) (2). This heterogeneous population is influenced by a wide spectrum of genetic and environmental factors, and each group potentially contributes to the overall prevalence of diseases such as diabetes and hypertension in a unique way.

To begin to understand this differential, we conducted a survey from 2003 to 2004 (Diabetes Among Dominicans in New York) using a convenience sample in a neighborhood in northern Manhattan, where the majority of the Hispanic population comprises first-generation Dominicans (3). The prevalence of diagnosed and undiagnosed diabetes, impaired fasting glucose (IFG), impaired glucose tolerance (IGT), hyperlipidemia, hypertension, and obesity was alarmingly high (3).

This pattern for Dominicans did not conform to the national patterns, as reported in the National Health and Nutrition Examination Survey (NHANES) 1999–2000 and NHANES III (IGT data), which primarily sampled Mexican Americans (3). Dominicans compared with Mexican Americans had higher rates of diagnosed diabetes (13 vs. 10.4%, respectively), undiagnosed diabetes (3.4 vs. 3.0%), hypertension (30.8 vs. 19.1%), and obesity (58.2 vs. 34.4%); a similar rate of IGT (18.5 vs. 20.2%) among those aged ≥40 years; and lower rates of IFG (16.7 vs . 31.6%) and hypercholesterolemia (44.1 vs. 49%) (3). Rates for Dominicans with diabetes, IFG, or hypercholesteremia were closer to the national rates for African Americans than those for Mexican Americans, whereas risk of obesity and hypertension was higher among Dominicans than among African Americans (3). When compared with the citywide rates reported by Thorpe et al., Dominicans had a higher rate of diagnosed diabetes (13 vs. 9.0%) but a similar rate for undiagnosed diabetes (3.4 vs. 3.3%) (3).

Although a degree of this variability might be explained by the differences in sampling, blood pressure measurements and criteria, and laboratory evaluation of lipids and glucose, the Hispanic rubric includes subgroups who carry nonuniform cardiovascular and metabolic risks. It is possible that part of the resemblance in rates with African Americans represents the influence of a shared genetic link between African Americans and Dominicans (Dominicans have a higher proportion of African ancestry than Mexican Americans). However, conditions such as obesity and hypertension, which are dictated by genetic predispositions, were much more prevalent among Dominicans than among either Mexican Americans or African Americans. This illustrates that disease manifestation is a complex interplay of genetic, environmental, and behavioral influences, which should be sorted out in national and local studies for effective implementation of public health programs.

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