OBSERVATIONS

Diabetes and Associated Risk Factors Among Asian American Subgroups in New York City

The diabetes burden is disproportionately experienced by minorities in the U.S., particularly diverse Asian American subgroups. National age-adjusted diabetes rates range from 4.0% among Koreans to 14.2% among Asian Indians (1). In New York City (NYC), foreign-born South Asians have an age-adjusted diabetes prevalence nearly twice as high as foreign-born "other Asians" (13.6 vs. 7.4%) (2). Existing studies on Asian Americans are hampered by a lack of generalizability or inability to distinguish between Asian subgroups (2,3). Our study builds upon the existing literature by examining diabetes prevalence rates and risk factors among three of the largest Asian American subgroups in NYC.

The current analysis uses combined data from three waves of the Racial and Ethnic Approaches to Community Health across the U.S. (REACH U.S.) Risk Factor Survey (2009–2011). An address-based sampling frame method was used to oversample Asian Americans while reducing the bias of traditional random-digit dialing; further details on methodology are described elsewhere (4).

Our sample included 2,246 Chinese, 408 Koreans, and 277 Asian Indians. Logistic regression was performed to predict a diabetes diagnosis outcome among the sample, using all variables found to be significant in bivariate analyses as well as variables with prior significance. Analyses were performed using SAS 9.3, and SAS-callable SUDAAN accounted for sampling weights.

The age-adjusted prevalence of a self-reported diabetes diagnosis among the sample was 10.3%; Asian Indians were most likely to report a diagnosis (20.9%) compared with Koreans (10.0%) and Chinese (9.1%). The majority of the sample (86%) was foreign-born, 71% did not speak English at home, and 84% had health care coverage. When using recommended Asian BMI standards, 41% were overweight and 13% obese; 74% of Asian Indians were overweight or obese (5).

Logistic regression controlled for sociodemographic and health-related variables. When adjusting for all factors in the model, Asian Indian ethnicity, employment, hypertension, BMI (Asian), and self-reported health were significantly associated with a diabetes diagnosis. Asian Indians were 3.9 times more likely to report a diabetes diagnosis compared with Chinese ($P < 0.001$). Obese individuals were 2.7 times more likely to have been diagnosed with diabetes compared with normal/underweight individuals ($P < 0.001$). Individuals reporting a hypertension diagnosis were 2.4 times more likely to report a diabetes diagnosis than individuals who had not reported hypertension ($P < 0.001$). Individuals self-reporting fair/poor health were 3.6 times more likely to have been diagnosed with diabetes compared with individuals self-reporting excellent/very good health ($P < 0.001$).

This is the first NYC study that has used representative data to distinguish diabetes rates among three distinct Asian American ethnic subgroups. Our findings demonstrate a wide variation in diabetes rates among Asian American subgroups; Asian Indians experienced a significantly higher risk than other groups. There exists a critical need for data collection systems to be designed and implemented in a manner that recognizes the heterogeneity among Asian Americans. Our findings support the need to develop intervention efforts among Asian Indians to address diabetes. Obesity prevention and weight reduction will continue to be important clinical and programmatic goals in Asian American communities.

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