

Diabetes Ups Mortality Risk Across Ethnicities

Kate Johnson | Sep 17, 2013

Diabetes increases the risk of all-cause, cardiovascular, and cancer death in postmenopausal women by 2 to 3 times regardless of ethnicity, according to a new analysis of the [Women's Health Initiative \(WHI\)](#) published online September 17 in the *American Journal of Epidemiology*.

"To our knowledge, our study is the first to show that the hazard ratios for mortality outcomes were not significantly different between racial/ethnic subgroups according to diabetes status in postmenopausal women," write Yunsheng Ma, MD, PhD, MPH, from the University of Massachusetts Medical School, Worcester, and colleagues.

"Once you have diabetes, the mortality outcome is the same, regardless of race," Dr. Ma told *Medscape Medical News*. "Therefore, diabetes prevention is key to reducing diabetes-related mortality disparities. I think this is our unique contribution with this study."

But because diabetes is much more prevalent among certain racial groups, the effect of preventing diabetes will be most dramatic among black and Hispanic populations, which face the highest rates of this condition, she added.

"Rather than emphasizing aggressive use of antidiabetic medications in postmenopausal minority women, we should focus on educating them about preventing diabetes," she notes.

Coauthor JoAnn Manson, MD, from Brigham and Women's Hospital, Boston, Massachusetts, agrees. "We and other researchers have shown that 80% to 90% of diabetes cases may be preventable by lifestyle modifications, such as being physically active, maintaining a healthy weight, and having a healthful diet. This seems to be true across all racial/ethnic groups," she stresses in a University of Massachusetts statement.

WHI: A Unique Opportunity to Look at Race and Mortality

Dr. Ma and colleagues note that data from the WHI "provide a unique opportunity to examine racial/ethnic disparities on rates of overall, cardiovascular, and cancer mortality among postmenopausal women with and without diabetes."

Using data from 158,833 women who participated in the WHI from 1993 to 2009, of whom 84.1% were white, 9.2% were black, 4.1% were Hispanic, and 2.6% were Asian, they compared mortality rates between ethnicities among those with diabetes at baseline or who reported developing diabetes up to 2009 (n = 21,584) and those without (n = 137,249).

"In general, women who reported diabetes had higher baseline body mass indexes [BMIs] and worse dietary quality scores, were less active, and had more medical conditions, including hypertension and high cholesterol, than did women who did not report having diabetes," the authors report.

Diabetes was self-reported, so the researchers did not distinguish between type 1 and type 2 diabetes. However, they note that, given the population, most of the diabetes reported would have been type 2, although the possibility of late-onset type 1 diabetes "cannot absolutely be eliminated," they observe.

After adjustment for multiple variables, the researchers found that the hazard ratio for all-cause mortality with diabetes was similar for all races: 2.12 for Asians, 2.11 for blacks, 2.3 for Hispanics, and 2.2 for whites (compared with those without diabetes for all races).

However, the prevalence of diabetes varied significantly across ethnicities, affecting 27.1% of blacks, 20.8% of Hispanics, 15.9% of Asians, and 11.7% of whites.

Combining both the prevalence and mortality risk of diabetes for each ethnic group, the researchers calculated a

population-attributable risk percentage (PARP) of 23.2 for Hispanics, 19.4 for blacks, 12.9 for Asians, and 11.1 for whites, showing a significant ethnic disparity.

"The death rate due to diabetes is much higher in blacks and Hispanics, because the diabetes prevalence rates are much higher in these populations," Dr. Ma explained.

"Our study suggests that efforts to eliminate racial and ethnic disparities in the rate of death from diabetes should focus on prevention of type 2 diabetes mellitus," she and her colleagues reiterate.

The authors have reported no relevant financial relationships.

Am J Epidemiol. Published online September 17, 2013. [Abstract](#)

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Cite this article: Diabetes Ups Mortality Risk Across Ethnicities. *Medscape*. Sep 17, 2013.