## The Prevalence of Type 2 Diabetes Mellitus in a Wisconsin Hmong Patient Population

Kevin K. Thao MD, Primary Care Research Fellow University of Wisconsin School of Medicine and Public Health Department of Family Medicine

Brian Arndt MD, Faculty
University of Wisconsin School of Medicine and Public Health
Department of Family Medicine

Lawrence Hanrahan PhD MS, Director of Public Health Informatics Wisconsin Department of Health Services

# Aman Tandias MS, Public Health Informatics Specialist Wisconsin State Laboratory of Hygiene

## Context:

The Wisconsin Hmong population may be at high risk for type 2 diabetes, however there are few population-based studies investigating the prevalence of diabetes in this population.

# Objective:

To compare the prevalence of type 2 diabetes in the Hmong subpopulation of the University of Wisconsin Department of Family Medicine ambulatory care population to non-Hispanic white patients.

# Setting:

This study investigated data from the University of Wisconsin Department of Family Medicine/Public Health Information Network data Exchange pilot study (PHINEX), a data extraction project that merged electronic medical record data with public health databases.

### Design:

Hmong clinic patients were identified when they self-reported Hmong as their primary language. The proportion of Hmong patients diagnosed with diabetes was compared with the prevalence of diabetes in non-Hispanic white patients. Stepwise multivariate logistic regression was used to control for the differences in age, sex, BMI, and health insurance between the two populations.

#### Results:

The total prevalence of type 2 diabetes in the Hmong population was 6.7% compared to 4.8% in the white population (P=0.03). The prevalence of type 2 diabetes in the Hmong adult population was 11.6% compared to 6.0% in the white adult population (P=<0.01). Compared with non-Hispanic whites, the odds ratio (95% Cl's) for type 2 diabetes, adjusted for age, sex, BMI, and insurance was 1.7 (1.2-2.5) for Hmong patients.

## Conclusion:

Despite being one of Wisconsin's newest immigrant populations, who came from an area of the world with low rates of diabetes, the adjusted risk of type 2 diabetes in this clinic sample of Hmong patients is 72% higher than their non-Hispanic white counterparts. The results of this clinic-based study support previous findings that Hmong Americans may be at significantly increased risk for developing type 2 diabetes.