Lifecourse Epidemiology of Adiposity & Diabetes (LEAD) Center

colorado school of public health

Trainee Profile: Kendra Vehik, PhD (2007)

Dr. Kendra Vehik studied type 1 diabetes increases in Colorado using the former Insulin Dependent Diabetes Mellitus (Type 1) (IDDM) Registry and the current SEARCH for Diabetes in Youth Registry, as well as changes in high-risk genetic predisposition to type 1 diabetes.

Published Research

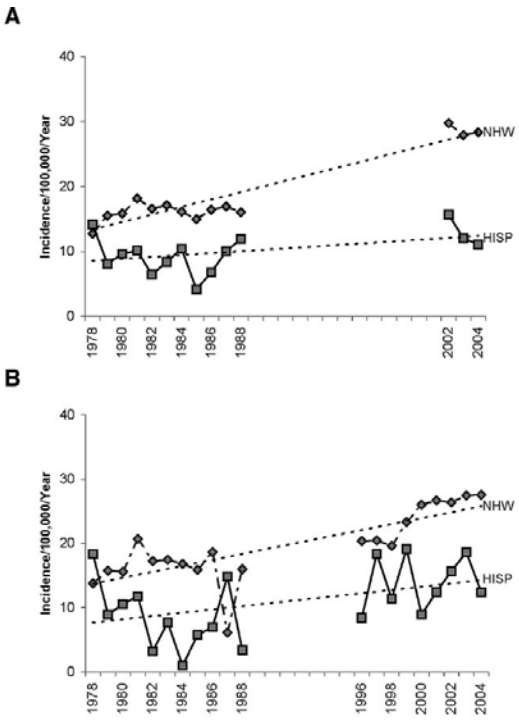
Vehik K, Hamman RF, Lezotte D, et al. Increasing incidence of type 1 diabetes in 0- to 17-year-old Colorado youth. *Diabetes Care.* 2007;30(3):503-509.

Kendra and her co-authors found that the incidence of type 1 diabetes in youth living in Colorado from 1978 to 2004 increased by 2.3% (1.6–3.1) per year (P<0.0001). The increase in incidence was significant for both non-Hispanic white (2.7% [95% CI 1.9–3.6] per year (A), P<0.0001) and Hispanic youth (1.6% [0.2–3.1] per year (B), P <0.013). (See Figure)

Vehik K, Hamman RF, Lezotte D, et al. Trends in high-risk HLA susceptibility genes among Colorado youth with type 1 diabetes. *Diabetes Care.* 2008;31(7):1392-1396.

Kendra's research also determined that the prevalence of high-risk genotypes for type 1 diabetes had decreased over the same period, indicating that environmental factors were likely operating on lower genetic risk youth to increase their risk of diabetes.

Vehik K, Hamman RF, Lezotte D, Norris JM, Klingensmith GJ, Dabelea D. Childhood growth and age at diagnosis with Type 1 diabetes in Colorado young people. *Diabetic Med.* 2009;26(10):961-967.



Figure—Incidence of type 1 diabetes in Colorado 1978–1988 and 2002–2004 (A) and Denver metropolitan area youth 1978–1988 and 1996–2004 (B). HISP, Hispanic; NHW, non-Hispanic white.

Examining the role of growth on type 1 diabetes, Kendra found that age at diagnosis decreased by 9.6 months over time ($P = 0.0002$). Mean BMI standard deviation score (SDS), weight SDS and height SDS increased over time ($P < 0.0001$). Increasing height over time accounted for 15% ($P = 0.04$) of the decreasing age at diagnosis with T1D.

Contact us about training opportunities:

Dr. Dana Dabelea
Colorado School of Public Health
Phone: 303.724.4414
Email: dana.dabelea@ucdenver.edu

Ms. Lisa Testaverde, MA
Center Administrator
Phone: 303.724.7700
Email: lisa.testaverde@ucdenver.edu