

## SEARCH for Diabetes in Youth Study: Diabetes on the rise

The prevalence of type 1 and type 2 diabetes rose from 2001 to 2009 among adolescents in the US, as indicated by the SEARCH for Diabetes in Youth Study.

Since 2000, the University of South Carolina (USC) and five other clinical study sites were funded nationally to collect data on type 1 and type 2 diabetes among adolescents under age 20.

Drs. Anwar Merchant, Angela Liese, and Robert Moran, researchers from the Arnold School of Public Health and Affiliated Scholars of the Center for Research in Nutrition and Health Disparities, are collaborators on the SEARCH study.

### Key Points

- Since 2000, USC and five other clinical study sites were nationally funded for the SEARCH for Diabetes in Youth study.
- The SEARCH study is the nation's largest and most comprehensive study on diabetes.
- The prevalence of type 1 and type 2 diabetes rose from 2001-2009 among US adolescents. The prevalence of type 1 diabetes increased 23% and prevalence of type 2 rose 21%.
- SEARCH is receiving federal funding through 2015 to study diabetes-related complications in children.

Funding for SEARCH, the nation's largest and most comprehensive study on diabetes to date, comes from the Centers for Disease Control and Prevention and the National Institute of Diabetes and Digestive and Kidney Diseases. Faculty and staff from the Center for Research in Nutrition and Health Disparities, the Arnold School of Public Health, and Department of Pediatrics in the USC Medical School also provide support to the study.

"USC has been involved in this federally funded multi-center effort since its inception. This is a very important national effort and our site contributes valuable data because of the race/ethnic diversity of our population," said Liese, Director of the Center for Research in Nutrition and Health Disparities.

At a press briefing at the American Diabetes Association (ADA), SEARCH investigators reported that from 2001 to 2009 the prevalence of type 1 diabetes increased 23% and prevalence of type 2 rose 21%.

Liese said, "We now have confirmation that the US is affected by increasing trends of diabetes in youth, which have been observed in many countries world wide for the past decade."

Significant increases of type 2 diabetes were observed in boys and girls in younger (10-14 years) and older (15-19 years) age groups, and in Hispanic and non-Hispanic White youth. For type 1 diabetes, there was an increase for most ethnic groups, with the exception of Native Americans, who overall had a low prevalence.

The explanation of the rise of type 2 diabetes runs parallel to the trends of the increasing rates of obesity. However, reasons behind the increase of type 1 diabetes are not as clear.

The researchers also noted several early complications in these populations, including nerve, kidney, and cardiovascular risk.

Almost 12% of type 1 diabetic children and 26% of those with type 2 disease showed signs of neuropathy, which could put them at higher risk of lower limb amputations in the future, highlighting the need to develop primary and secondary prevention efforts.

SEARCH is receiving federal funding through 2015, which will allow researchers the opportunity to study diabetes-related complications occurring in young adulthood, as many of the participants entered the study during their childhood.