

Diabetes Surveillance in Connecticut — Past, Present, and Future

By Margaret Hynes, PhD, MPH, Epidemiologist — Connecticut Department of Public Health

Background

Surveillance of diabetes is a key objective of the Connecticut Diabetes Prevention and Control Program (DPCP), a Centers for Disease Control and Prevention-funded and directed program that is housed in the Department of Public Health (DPH). One of DPCP's responsibilities is to define the burden of diabetes in the state for the purpose of informing public health decision-making. Tracking of diabetes rates and identifying those who are at high risk are essential parts of reducing the disease burden, formulating health care policy, and evaluating our state's progress in preventing the disease.

The first comprehensive statewide assessment of diabetes was published by DPH in 2000. Since that time, updated information on the burden of diabetes has been made available through a series of fact sheets, data tables, public presentations, and topical reports, which are currently available on-line via the DPCP Diabetes Surveillance webpage:
<http://www.dph.state.ct.us/PB/HISR/CDSS.htm>

Current Surveillance of Diabetes in Connecticut

An estimated six percent of the Connecticut adult population, that is, 157,600 adults 18 years and older, have diagnosed diabetes. An additional 63,000 Connecticut adults are estimated to have undiagnosed diabetes. Diabetes is the seventh leading cause of death and a major cause of disability (Connecticut Department of Public Health, 2005). It is a leading cause of blindness among working adults, a major cause of kidney failure, and the cause of more than 60% of lower limb amputations. Diabetes is also a significant risk factor for cardiovascular disease (Department of Health and Human Services, 2003).

About 1.25 million Connecticut adults are at increased risk of developing diabetes because they are overweight, have a sedentary lifestyle, or have a history of gestational diabetes, all of which are known risk factors. About \$1 billion was billed for diabetes-related hospitalizations in 2002 (Connecticut Department of Public Health, 2005). Lower socioeconomic status is also a risk factor for diabetes. Among Connecticut adults with household incomes under \$15,000 per year, diabetes prevalence rates are estimated at 13.3%, while only 3.5% of adults with incomes over \$50,000 per year are estimated to have diagnosed diabetes (Connecticut Department of Public Health, 2005).

African Americans and Latinos in Connecticut are at greater risk for the health complications of diabetes compared with white residents. African Americans have a 2.6 times higher risk of death due to diabetes compared with white, non-Latino residents. They have almost four times the risk of hospitalization due to diabetes, and four times the risk of lower-extremity amputation hospitalizations due to diabetes compared with white, non-Latino residents (Connecticut Department of Public Health, 2005).

Latino residents of Connecticut have 1.6 times higher risk of death due to diabetes compared with white, non-Latino residents. Latinos have about twice the risk of being hospitalized due to diabetes, and twice the risk of lower-extremity amputation hospitalizations due to diabetes compared with white, non-Latino residents (Connecticut Department of Public Health, 2005).

Gaps in Current Knowledge

Although DPH can provide relatively precise statewide estimates of diabetes prevalence, risk factors, morbidity, and mortality, we recognize that there are gaps in our knowledge of diabetes within local communities and in subpopulations within the state. The Behavioral Risk Factor Surveillance System (BRFSS), a state-based system of telephone health surveys sponsored by the CDC, is the main source of information about the prevalence of diabetes and its associated risk factors in Connecticut; however, in general the survey sample is not large enough to produce stable estimates for many substate populations, such as towns. DPH increased the sample size for the 2005 survey and oversampled in geographic areas with a greater proportion of minority populations in order to get a better representation of African Americans and Latinos.

Little is currently known about diabetes prevalence and risk factors in the youth and young adult populations in Connecticut, but national data indicate that it is a serious and growing issue. The Connecticut School Health Survey (comprised of the Youth Tobacco Survey and the Youth Behavioral Risk Factor Survey) asked diabetes-related questions in 2005. Results from these surveys, available in the spring of 2006, will provide important information about diabetes prevalence and its risk factors among Connecticut youth.

Future Efforts

In 2005, DPH created a statewide Diabetes Data and Surveillance Working Group, whose purpose is to improve diabetes prevention and control surveillance efforts in our state. Future surveillance of diabetes includes a focus on collaborative partnerships among the state, local communities, health care providers and organizations, advocacy groups, and academic institutions to ask relevant questions and provide appropriate levels of technical assistance related to diabetes surveillance. It will also identify other potential sources of information on diabetes care in Connecticut, such as Community Health Centers and health plans. The DPH — CEHDL partnership is key to establishing this network of support for diabetes surveillance in Connecticut.

References

Connecticut Department of Public Health, Health Information Systems and Reporting Division. 2005.

Diabetes Prevalence in Connecticut, 2002-2004.

1999-2001 Connecticut Resident Mortality Summary Tables by Gender, Race, & Hispanic Ethnicity.

2002 Connecticut Resident Hospitalizations Summary Tables by Gender, Race, & Hispanic Ethnicity.

Connecticut Diabetes Fact Sheet, 2005. <http://www.dph.state.ct.us/PB/HISR/CDSS.htm>.

Department of Health and Human Services, Centers for Disease Control and Prevention, 2003.

National Diabetes Fact Sheet, United States. Revised June 2005.
<http://www.cdc.gov/diabetes/pubs/factsheet.htm#contents>