

Trends in Hospitalization for Diabetes-Related Nontraumatic Lower-Extremity Amputation in Connecticut, by Age, Gender, and Race and Ethnicity, 1999-2009

Hartford – Data from the Connecticut Department of Public Health show that while the rates of hospitalization for diabetes-related nontraumatic lower-extremity amputation (abbreviated here as “NLEA”) have been declining in Connecticut since 1999, these changes differed somewhat by age, gender, and race and ethnicity. Age-adjusted diabetes-related NLEA hospitalization rates declined 36.4 percent among Connecticut adults 40 years and older between 1999 and 2009. Nationally, age-adjusted diabetes-related NLEA hospitalization rates declined 21.4 percent among adults in the same time period.ⁱ

Diabetes-related NLEA hospitalization rates differ by age. The rates of diabetes-related NLEA hospitalizations were lowest among adults aged 40 to 64 years old between 1999 and 2009. Adults 75 years old and older had the highest diabetes-related NLEA hospitalization rates throughout most of the time period. While the diabetes-related NLEA hospitalization rates declined in all age groups from 1999 to 2009, the decrease was significantly greater among Connecticut adults aged 75 years and older compared with adults aged 65 to 74 or 40 to 64 years (Table 1). Similarly, the decrease among Connecticut adults aged 65 to 74 years was significantly greater than the decrease among adults 40 to 64 years.

Among Connecticut adults 40 years and older, diabetes-related NLEA hospitalization rates also vary by gender. While males had significantly higher diabetes-related NLEA hospitalization rates compared with females from 1999 to 2009, the rates declined for both males and females (Table 1). The decrease was significantly greater among females compared with males.

Among racial and ethnic subgroups, Black, non-Hispanic (abbreviated here as “Black”) Connecticut adults 40 years and older had the highest rates of diabetes-related NLEA hospitalizations from 1999 to 2009, followed by Hispanic, and then White, non-Hispanic (abbreviated here as “White”) adults. Between 1999 and 2009, the rates of diabetes-related NLEA hospitalizations declined significantly among White, Black, and Hispanic Connecticut adults (Table 1). The decrease did not differ significantly by race and ethnicity.

Diabetes is the leading cause of NLEA. Between 1999 and 2009, approximately 70 percent of NLEAs among Connecticut adults 40 years and older were attributable to diabetes. Nerve damage, circulation problems, and foot infections resulting from poorly controlled diabetes and other modifiable risk factors (ex. high blood pressure and high cholesterol) lead to an increased risk for NLEA. National experts believe that improved control of blood sugar, high blood pressure, and high cholesterol, along with improvements in foot care among people with diabetes have contributed to the decline in diabetes-related NLEA hospitalization rates. Future work to decrease the rates of diabetes-related NLEAs should focus on evidence-based interventions to

prevent or delay the onset of diabetes and other NLEA risk factors. Special emphasis should be placed on offering these interventions to residents in subpopulations at higher risk for diabetes and diabetes-related complications.ⁱⁱ

The Connecticut Diabetes Prevention and Control Program works with partners to decrease the rates of diabetes and diabetes-related complications by:

- increasing access to diabetes self-management education and the Chronic Disease Self-Management Program;
- increasing access to evidence-based lifestyle interventions to prevent or delay onset of type 2 diabetes among people at high risk (ex. Diabetes Prevention Program); and
- improving quality of clinical care for populations with greatest diabetes burden and risk to improve control of A1C, blood pressure, and cholesterol, and to promote tobacco cessation.

For more information visit www.ct.gov/dph/diabetes and www.ct.gov/dph/diabetesdata.

Table 1 – Hospital discharge rates and Annual Percentage Changes (APC) of diabetes-related NLEA among adults aged ≥ 40 years: CT, 1999-2009ⁱⁱⁱ

Demographic	Rates*		APC†
	1999	2009	
Connecticut‡	75.5	48.0	-4.1
Age (years)			
40-64	38.3	32.3	-2.2
65-74	152.6	84.8	-4.5
≥75	178.4	86.9	-6.5
Gender‡			
Male	108.1	74.3	-3.4
Female	50.6	26.5	-5.8
Race & ethnicity‡			
White	63.9	37.5	-4.9
Black	223.7	123.2	-4.6
Hispanic	135.3	86.1	-3.1

*Per 100,000 population. †For all APCs in this table, P value <0.05. ‡1999 and 2009 rates are age-adjusted based on the 2000 U.S. standard population for this demographic.

ⁱ Centers for Disease Control and Prevention (CDC). (2012). Diabetes Data & Trends. Retrieved June 21, 2012, from <http://apps.nccd.cdc.gov/DDTSTRS/default.aspx>.

ⁱⁱ Li, Y., Ríos Burrows, N., Gregg, E. W., Albright, A., & Geiss, L. S. (2012). Declining Rates of Hospitalizations for Nontraumatic Lower-Extremity Amputation in the Diabetes Population Aged 40 Years or Older: U.S., 1988-2008. *Diabetes Care*, 35:273-277.

ⁱⁱⁱ Connecticut Department of Public Health (DPH). (2012). Acute Care Hospital Inpatient Discharge Database (HIDD). CT DPH, Hartford, CT.