

# The Impact of Obesity and Diabetes on LTC Disability and Mortality: Population Estimates from the National Long Term Care Survey

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## **Abstract**

**Purpose:** To estimate the impact of obesity and diabetes on disability and mortality for those older than 65 using the 2004 National Long Term Care Survey (NLTC) with disability based on the Health Insurance Accountability and Portability Act (HIPAA) Activities of Daily Living and Cognitive Impairment triggers.

**Methods:** Obesity and diabetes were assessed using self-reported medical conditions and health care-provider reported medical diagnoses from Medicare files linked to the NLTC. Obesity was also assessed using self-reported height and weight in the NLTC detailed community interview to construct measures of body mass index (BMI) at three time points: currently, at age 50 and one year prior to the NLTC interview. Standard BMI cut-points were used to define obesity (BMI of 30 or more) and nonobesity (BMI of less than 30) for use in comparisons with self-reported and health care-provider reported obesity.

**Results:** Current obesity was associated with large increases in diabetes, nonsignificant increases in disability and substantial decreases in mortality among the elderly. Obesity at age 50 was associated with large increases in diabetes and disability and nonsignificant increases in mortality among the elderly. Diabetes was associated with large increases in disability and mortality among the elderly. Obesity at age 50 and diabetes were both associated with large increases in disability among the elderly; tests of the interaction between these risk factors did not rule out either additive or multiplicative models.

**Conclusions:** The effects of obesity and diabetes were consistent with a complex multistage/multipath disablement process involving separate and joint effects of obesity and diabetes as initial or intermediate stages in a multistage process leading to disability and death.