Cognitive impairment has been associated with increased mortality. Most studies, however, have only included small numbers, if at all, of the very old. In a large nationwide survey of all Danes born in 1905 and still alive in 1998, where the baseline examination was conducted, we examined the impact of cognitive impairment on mortality over a 2-year period. No cognitive impairment was defined as a score of 24-30 points on the Mini Mental State Examination, mild cognitive impairment was defined as a score of 18-23 points, and severe impairment was defined as a score of 0-17 points. Cox regression analysis was applied to adjust for a number of known and suspected factors known or suspected of being associated with cognition and mortality (e.g. sociodemographic factors, sex, smoking, alcohol consumption, depressive symptoms, and physical abilities), and yielded hazard ratios (95% confidence interval) of 1.24 (1.00-1.55) for mildly impaired and 1.73 (1.37-2.20) for severely impaired Danes compared to individuals with no impairment. Cognitive impairment predicts mortality among the very old, even after controlling for most known predictors of mortality.