Some 17% of the U.S. population is currently over 60 years old, a proportion that is expected to increase substantially over the next few decades. Research has shown that older adults have the highest risk of suicide in the nation. The authors of this study try to understand the correlates of suicide in older adults in LTC and identify potential avenues for preventing suicide in this group, the socio-demographic characteristics and methods used by suicide cases in LTC facilities; and compare them with those of older adults in the wider community. The trend in suicide risk in these two groups over the 15-year period from 1990 to 2005 was also evaluated.

### Key Concepts/Context

Few studies have examined the intersection between suicide risk and residency in long term care settings. This study attempts to describe the characteristics associated with suicide in older persons residing in long-term care (LTC) facilities, to compare the characteristics of suicide cases in LTC with those of cases in the community, and to evaluate trends in suicide in these settings over the past 15 years.

### Methods

The Office of the Chief Medical Examiner (OCME) reviews the suicide deaths in New York City (NYC), which are coded in medical charts. All cases of suicide deaths in NYC from 1990-2005 were identified through abstraction of medical files at the OCME. Data regarding demographic characteristics, means of suicide, location of death, and toxicology were collected. Suicides in older persons in LTC and community-dwelling older adults were compared in terms of demographic characteristics and method used. Trends in suicide rate ratios (RRs) were examined using statistical measures such as zero-inflated Poisson regression.

### Findings

Over the study period, there were 1,771 suicides among NYC residents aged 60 and older; 47 in LTC and 1,724 in the community. Cases in LTC tended to be older (P<0.02) but did not differ from community cases in terms of race or sex. Suicides in LTC were significantly less likely to be due to firearms and 2.49 times as likely to be due to a long fall as community cases. Over the 15-year period, there was a significant decrease in the relative rate of suicide in community-dwelling adults, but no change in residents of LTC.
Limitations

Some of the limitations to this study were as follows:

- The authors found information only on completed suicides, not attempts or ideation. Thus it might be possible that residents who complete suicide have different demographic characteristics than the ones who attempted.
- Although medical examiner data are highly accurate for violent deaths, with sensitivities of more than 95% for homicide and suicide, some types of suicide may be more prone to under-detection by the OCME (e.g., self-starvation), and as a result, misclassification of some cases may have occurred.
- The authors did not review the qualitative aspects of the individual’s death such as suicide notes, police reports, and personal and psychiatric histories that would have allowed details of any individual’s experience, such as whether the suicidal act was premeditated or impulsive to be studied directly.
- This study could not address the role of many factors that potentially influenced suicide risk over the study period, such as the increased use of antidepressants, although there is evidence that use of these medications, particularly selective serotonin reuptake inhibitors, may reduce suicidal ideation in older adults.
- Finally, as the study was set in an urban setting, the results may not be generalizable to rural or suburban settings.

Design Implications

This study adds to the limited literature on suicide risk in nursing homes and LTC facilities by comparing 15-year trends in suicide risk of LTC-residing and community-living older adults. Suicide risk in community-dwelling older adults has declined over the past 15 years but has not changed in LTC facilities. This suggests that prevention efforts may not be reaching this population effectively.