NYC suicide rate 29 percent higher at economy's nadir vs. peak

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New evidence on the link between suicide and the economy shows that the monthly suicide rate in New York City from 1990 to 2006 was 29% higher at the economic low point in 1992 than at the peak of economic growth in 2000.

The study, conducted by researchers at Columbia University's Mailman School of Public Health, the McGill Institute for Health and Social Policy, the University of California San Francisco School of Nursing, and Weill Cornell Medical College, appears in the February 22 American Journal of Epidemiology and is available online.

"The reasons behind an individual's decision to take his or her life are often complex and difficult to understand, even for family and friends," observes senior author Sandro Galea, MD, DrPH, Gelman Professor and Chair of the Department of Epidemiology at the Mailman School. "It is usually a combination of forces with, for example, economic stresses on top of a strained relationship. Economic hardship can hurt a person's self-worth and limit the availability of social resources, including mental health care."

White men under the age of 45 were the driving force of the association between economy activity and suicide, according to the study. Dr. Galea says that while the reasons are not fully understood, this may be because white men are in occupations that are more exposed to economic vagaries than those of nonwhites and women.

While broader economic conditions were shown to affect suicide, Wall Street volatility was not. First author Arijit Nandi, PhD, assistant professor of Epidemiology at the McGill Institute for Health and Social Policy and a former student of Dr. Galea's at the Mailman School, says the finding was surprising because it goes against the archetype of the despairing stockbroker on the window ledge. The bigger picture, Dr. Nandi says, is more complex. "The causes of individual cases of suicide, such as losing money in the stock market, may be distinct from the causes of suicide rates, which are defined at the population level and may reflect a multifactorial causal mechanism." Another complicating factor: some investors profit as the market tumbles.

Suicide statistics were sourced from the Office of the Chief Medical Examiner of New York City. The economic picture was provided by the New York State Index of Coincident Economic Indicators (ICEI), which accounts for private sector employment, unemployment, working hours of manufacturing workers, and sales tax collections. Stock market volatility was calculated using prices of stocks on the New York Stock Exchange.

The data, the researchers say, is unusually robust and allowed for a month-to-month analysis; most previous research in this area compared yearly data. This refinement allowed them to account for seasonal variability in suicide (counter-intuitively, more suicides happen in the summer than any other time of year). They also used a statistical technique called generalized additive models (GAMs) to "smooth" other unmeasured confounding factors like changing budgets for mental health.

The monthly rate of suicide ranged from a low of 0.42 per 100,000 residents at the economy's peak in 2000 to a high of 0.54 per 100,000 residents during the economic low in 1992—a difference of 29%.

Future studies will explore how individual or neighborhood socioeconomic status may moderate the effect of an economic downturn. And as more data become available, a picture of the recent economic downturn will emerge.

If there is overall message from the new findings, Dr. Galea says, it is that when governments face budget shortfalls, they should think twice before cutting mental health services. "At times of economic stress, people need help."

Provided by Columbia University

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