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## Study shows 19 percent of young adults have high blood pressure

### NIH-funded analysis indicates higher risk for young adults than previously believed

Roughly 19 percent of young adults may have high blood pressure, according to an analysis of the National Longitudinal Study of Adolescent Health (Add Health), which is supported by the National Institutes of Health.

The researchers took blood pressure readings of more than 14,000 men and women between 24 and 32 years of age who were enrolled in the long-running study.

The analysis was conducted by Kathleen Mullan Harris, Ph.D., principal investigator of the study, and colleagues at the University of North Carolina at Chapel Hill. The study's first author was Quynh C. Nguyen, of the University of North Carolina Gillings School of Public Health.

The findings were published online in *Epidemiology*.

The findings differ from those of the [National Health and Nutrition Examination Survey \(NHANES\)](#), which reported high blood pressure in 4 percent of adults 20 to 39 years of age.

The study authors were unable to pinpoint any reasons for the difference between the two studies.

"The Add Health analysis raises interesting questions," said Steven Hirschfeld, Associate Director for Clinical Research for the NIH's Eunice Kennedy Shriver National Institute of Child Health and Human Development, which provides major funding for the study. "Investigations into the reasons underlying the reported differences between the Add Health and NHANES findings will no doubt yield additional insight into the measurement of high blood pressure in the young adult population."

The Add Health study defined high blood pressure (hypertension) as 140/90 millimeters of mercury or greater. [High blood pressure](#) is a serious condition that can lead to coronary

heart disease (also called coronary artery disease), heart failure, stroke, kidney failure, and other health problems.

Along with funding from the NICHD, the [Add Health](#) study also receives funding from 23 other federal agencies and private organizations.

"We explored several possible explanations for the difference between this study and NHANES, including participant characteristics, where they were examined, and the types of devices for measuring their blood pressure," Dr. Harris said. "None of these factors could account for the differences in estimates between the two surveys."

For the analysis, all 15,701 respondents to the most recent Add Health interview were asked whether they had been told by a health care professional that they had high blood pressure. After the interview, respondents remained seated for five minutes and study technicians took three readings of their blood pressure. The study technicians checked the accuracy of each reading and the average of the last two readings was entered into the study database. The Add Health researchers attempted to collect blood pressure readings on all of the study's participants, including those in prisons and in the military.

High blood pressure was more prevalent among the Add Health respondents (19 percent) than in the NHANES respondents (4 percent). The study authors noted, however, that the proportion of respondents who reported they had been told by a health care provider that they had high blood pressure was similar: 11 percent for Add Health and 9 percent for NHANES.

The study authors wrote that many young people are unaware that they have high blood pressure. In such screenings of a large number of participants, it is expected that more participants would be found to have high blood pressure upon examination than would report that they had high blood pressure in the past.

The Add Health survey results fit this expected pattern, with 11 percent saying they had earlier been told they had high blood pressure, and 19 percent later having been found to have high blood pressure upon examination. This pattern was reversed for NHANES, with 9 percent reporting they had high blood pressure, and 4 percent measured with high blood pressure upon examination.

About the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD): The NICHD sponsors research on development, before and after birth; maternal, child, and family health; reproductive biology and population issues; and medical rehabilitation. For more information, visit the Institute's Web site at <http://www.nichd.nih.gov/>.

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