Association of Isolated Diastolic Hypertension as Defined by the 2017 ACC/AHA Blood Pressure Guideline With Incident Cardiovascular Outcomes.

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Abstract

Importance: In the 2017 American College of Cardiology (ACC)/American Heart Association (AHA) guideline, the definition of hypertension was lowered from a blood pressure (BP) of greater than or equal to 140/90 to greater than or equal to 130/80 mm Hg. The new diastolic BP threshold of 80 mm Hg was recommended based on expert opinion and changes the definition of isolated diastolic hypertension (IDH).

Objective: To compare the prevalence of IDH in the United States, by 2017 ACC/AHA and 2003 Joint National Committee (JNC7) definitions, and to characterize cross-sectional and longitudinal associations of IDH with outcomes.

Design, Setting, and Participants: Cross-sectional analyses of the National Health and Nutrition Examination Survey (NHANES 2013-2016) and longitudinal analyses of the Atherosclerosis Risk in Communities (ARIC) Study (baseline 1990-1992, with follow-up through December 31, 2017). Longitudinal results were validated in 2 external cohorts: (1) the NHANES III (1988-1994) and NHANES 1999-2014 and (2) the Give Us a Clue to Cancer and Heart Disease (CLUE) II cohort (baseline 1989).

Exposures: IDH, by 2017 ACC/AHA (systolic BP