

HYPERTENSION AND CHRONIC KIDNEY DISEASE: KEEP AND NHANES

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Prevalence and incidence of hypertension are rising, and they correlate with the chronic kidney disease (CKD) rate in the United States. Early identification and achievement of blood pressure goals may improve CKD outcomes.

In this cross-sectional study, subjects were participants in the Kidney Early Evaluation Program (KEEP), a voluntary screening administered by the National Kidney Foundation, and the National Health and Nutrition Examination Survey (NHANES), administered by the National Centers for Health Statistics. All individuals in both databases were US residents aged ≥ 18 years. We evaluated clinical characteristics in the KEEP database for 2000-2006 and NHANES for 1999-2004.

While distribution of hypertension was similar between databases, prevalence of cardiovascular risk factors was higher in KEEP than in NHANES. The proportion of African Americans was 3-fold higher in KEEP. Associations with increased prevalence of hypertension were declining estimated glomerular filtration rate by increments of 10 mL/min per 1.73 m², increasing age, obesity, African American race, and microalbuminuria. In the KEEP database (but not NHANES) participants aged < 46 years were more likely to have achieved goal blood pressure.

Several elements were identified by both registries as risk factors for linearly associated worsening of hypertension. In addition to the traditional risk factors age, race, and geographical residence, novel markers such as microalbuminuria may also increase the risk.