Background
Hypertension is a common medical condition and a major risk factor for cardiovascular diseases. The aims of the current study were to estimate the diagnosis prevalence of hypertension in Germany and to assess temporal trends and regional variations in hypertension prevalence giving special attention to the influence of regional socioeconomic status.

Methods
Annual raw and age-sex standardized diagnosis prevalence of hypertension was estimated for Germany and on the level of regional Associations of Statutory Health Insurance Physicians based on a full sample of ambulatory claims data from the years 2009 to 2018. Patients diagnosed with hypertension in at least two quarters of a given year were considered as prevalent cases (M2Q criterion). The association of regional socioeconomic status and hypertension diagnosis was examined using age-sex stratified multilevel poisson regression.

Results
In 2018 19 million insurants were diagnosed as having hypertension, corresponding to a raw diagnosis prevalence of 26.3%. Annual diagnosis prevalence rose from 2009 to 2016, but decreased in the two following years. The age-sex standardized prevalence in 2018 was 6 percentage points higher in East Germany than in West Germany. In contrast to men, women exhibited a higher raw (27.4% vs. 25.1%) but a lower age standardized prevalence (women: 24.2%, men: 26.1%). Among East German residents in the age group 20 to 49 years the risk of prevalent hypertension increased markedly with decreasing regional socioeconomic status.

Conclusion
Considerable regional variation of hypertension prevalence underscores varying demands for the allocation of ambulatory healthcare services. An elevated risk of hypertension among young and middle aged East German adults living in regions with low socioeconomic status should be addressed in community-based public health interventions.

Keywords
Diagnosis prevalence, hypertension, risk analysis, socioeconomic deprivation