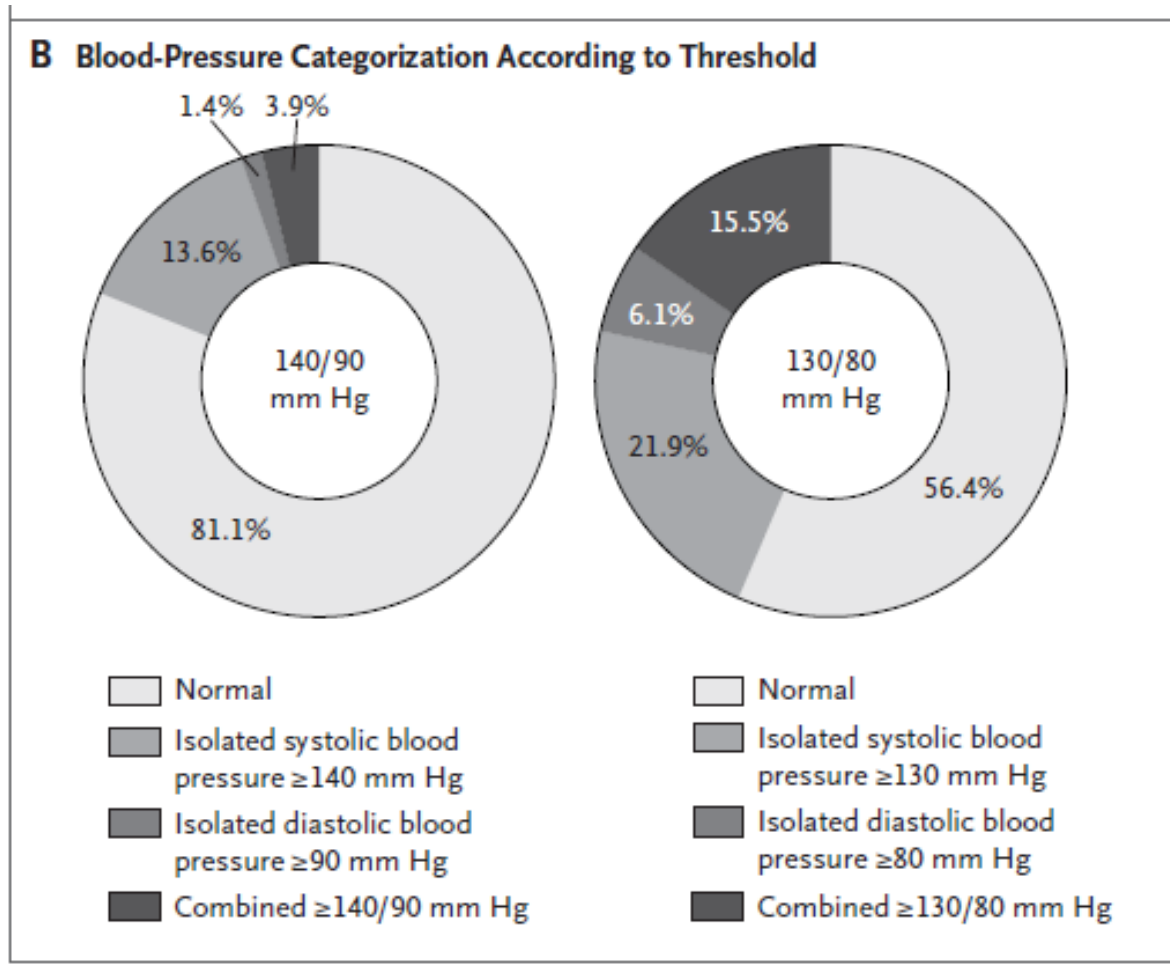


高血圧の分布



130/80とすると正常者は約半数になってしまいます。

年齢分布

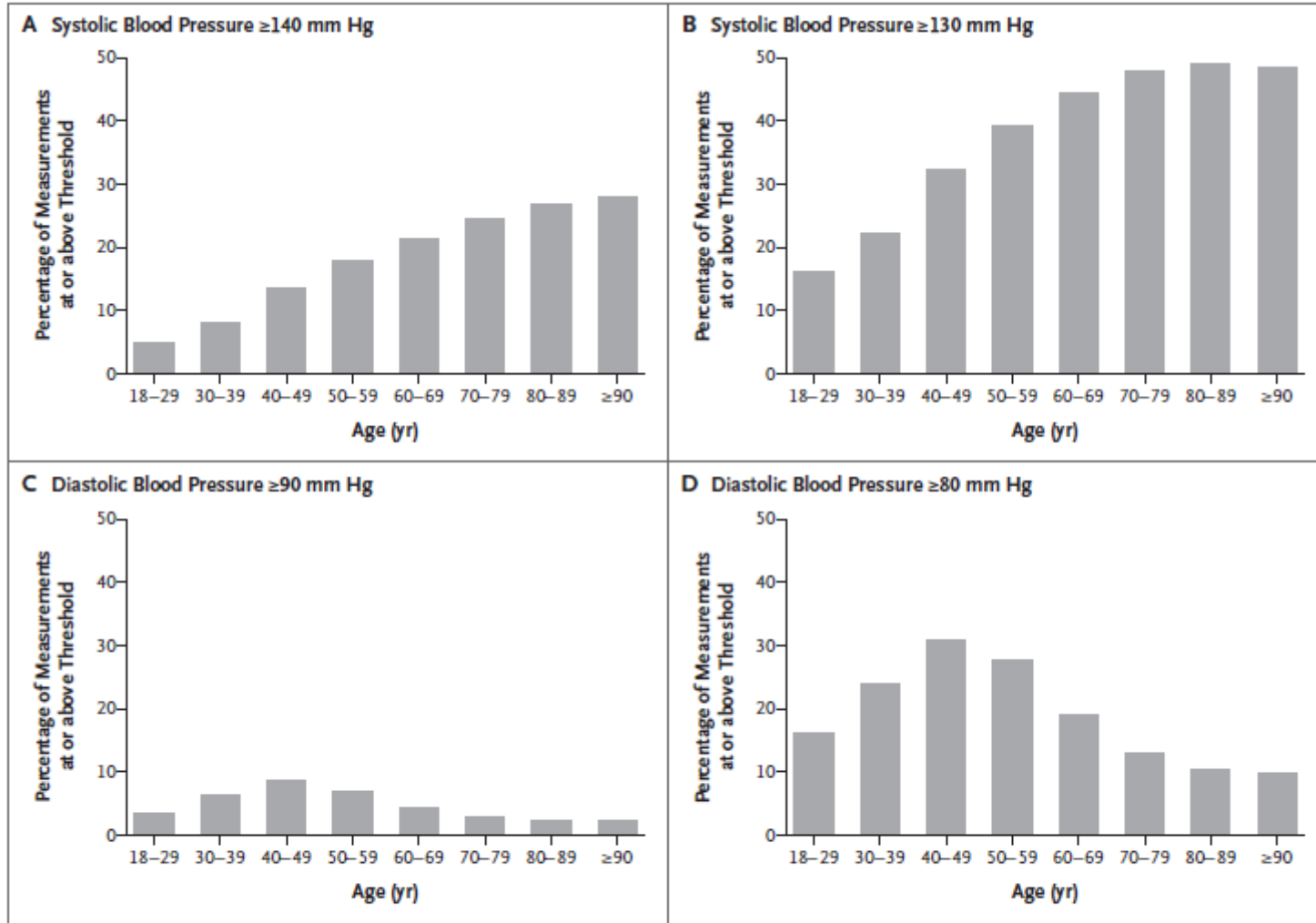
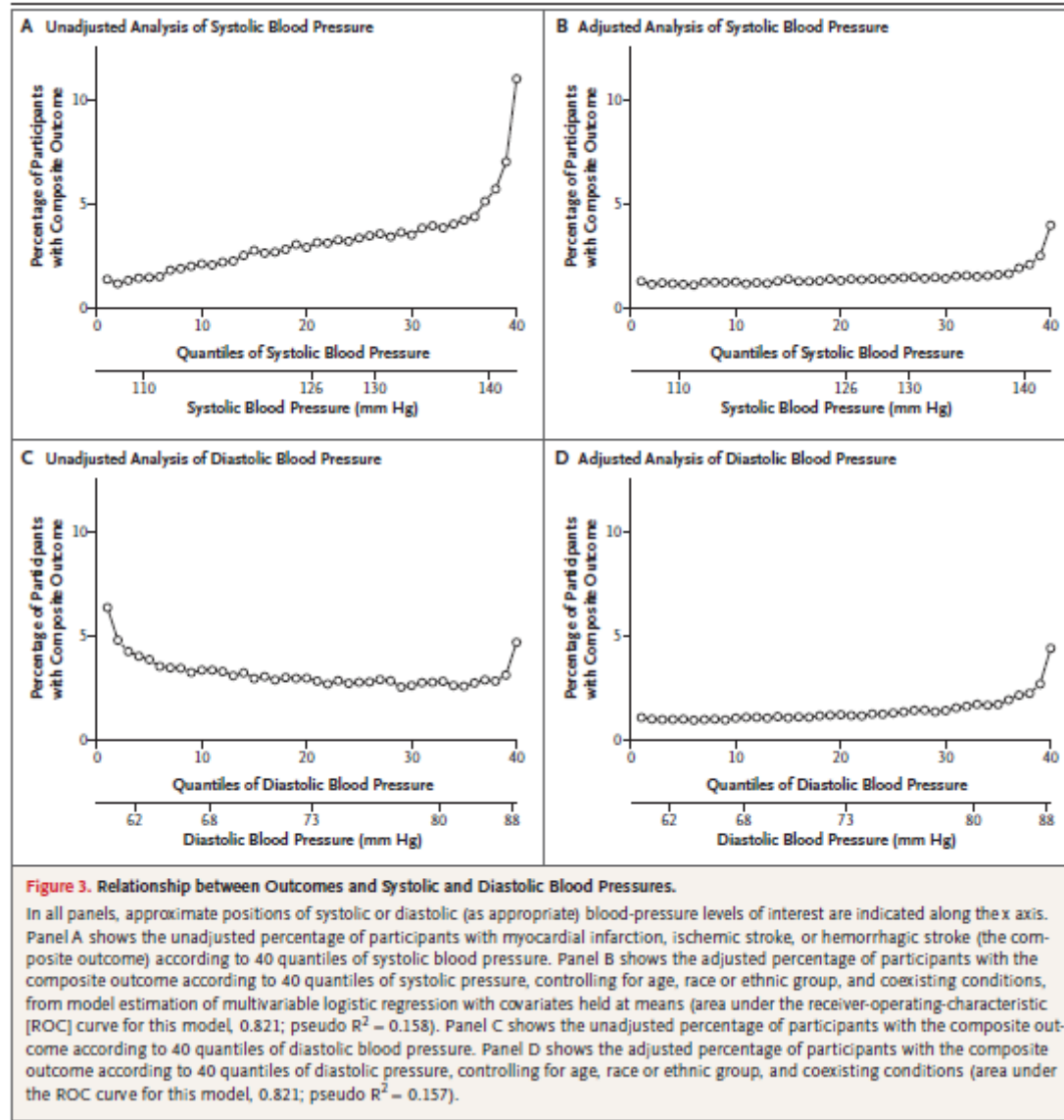


Figure 2. Relationship between Age and Blood-Pressure Elevation in Individual Measurements.

Shown is the distribution of blood pressures as a function of age, at the level of individual blood-pressure measurements, according to thresholds for systolic and diastolic blood pressures.

拡張期高血圧は40~50歳がピークです。60歳上での拡張期血圧には注意が必要です。

血圧と疾患発生率



統計処置前のC表を見ますと拡張期圧はJ-カーブです。

統計処置後

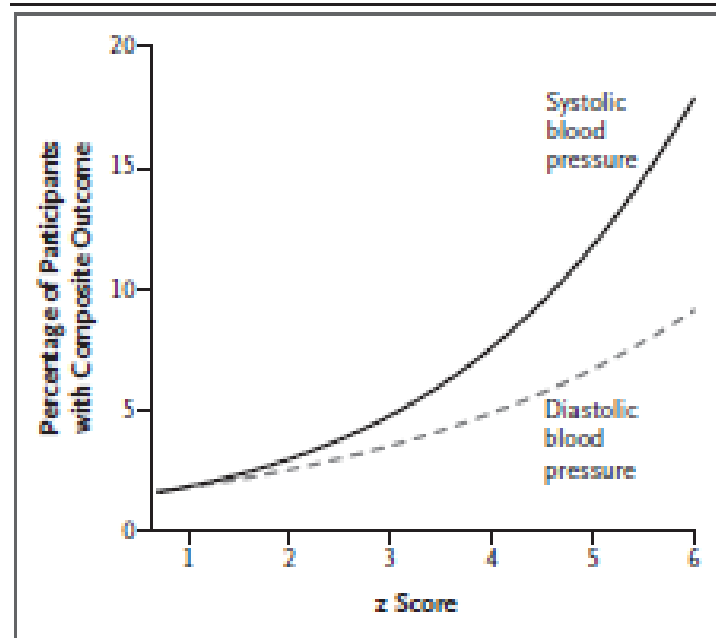
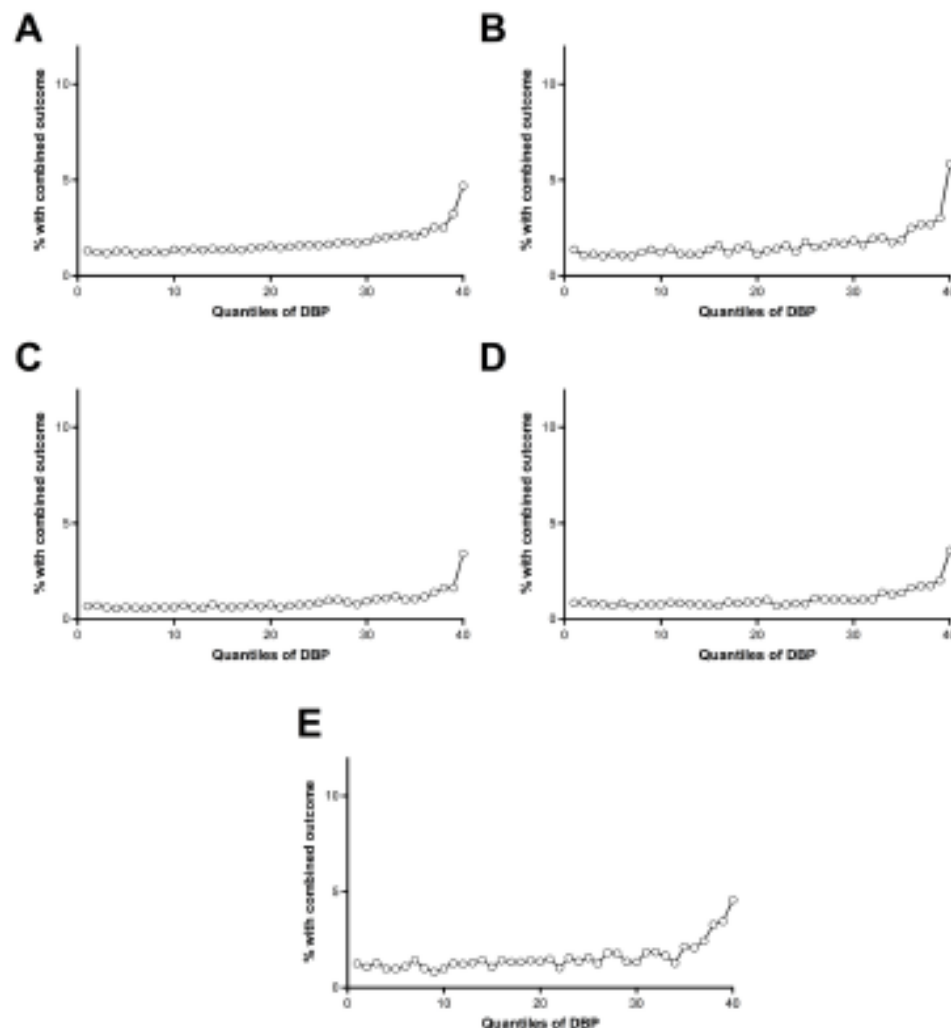


Figure 4. Multivariable Modeling of Adverse Cardiovascular Outcomes.

Shown is a model estimation of the relationship between systolic blood pressure (solid line) and diastolic blood pressure (dashed line) z scores and the risk of the composite outcome among participants above the 75th percentile for systolic blood pressure (>133 mm Hg) or diastolic blood pressure (>78 mm Hg). The analysis was conducted with the use of multivariable logistic regression with control for age, sex, race or ethnic group, and coexisting conditions (area under the ROC curve for this model, 0.795; pseudo $R^2 = 0.144$).

統計処置をしますと収縮期も拡張期も低ければ低いほど良いとの結論です。

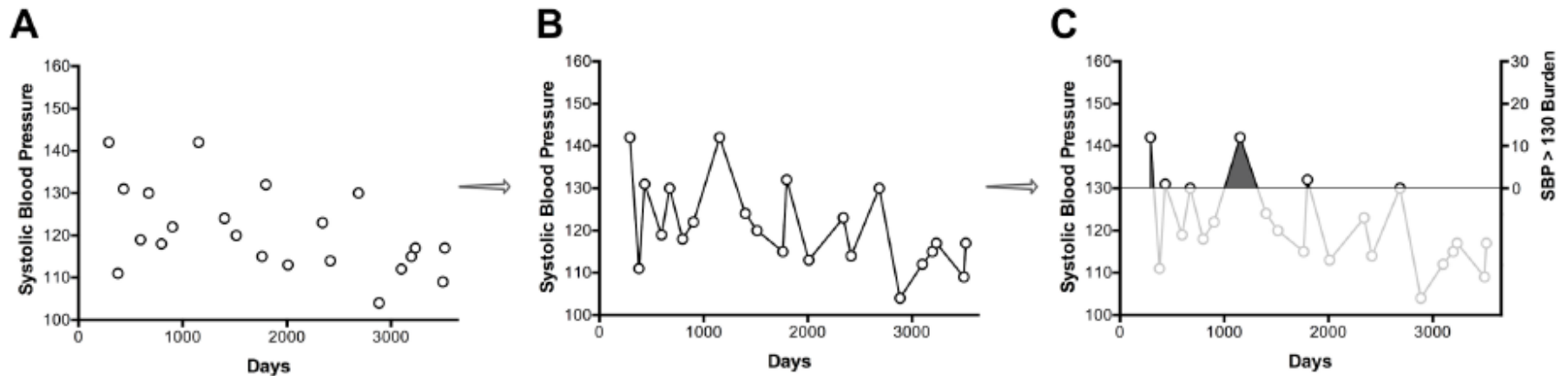
Figure S6: Relation of diastolic blood pressure to outcomes, stratified by race/ethnicity



Each panel shows percentage of participants with the composite outcome according to 40 quantiles of diastolic blood pressure (DBP), controlling for demographics and comorbidities, from margins estimation of multivariable logistic regression with covariates held at means. For each panel, the overall cohort is stratified by race/ethnicity, with race/ethnicity = White shown in (A), race/ethnicity = Black shown in (B), race/ethnicity = Hispanic shown in (C), race/ethnicity = Asian shown in (D), and race/ethnicity = Other/Unknown shown in (E). As seen with the overall cohort (Figure 3), no J-curve relation is seen between diastolic blood pressure and outcomes in adjusted analysis in the different subsets of race/ethnicity. Receiver-Operator Characteristics area under the curve (C-statistic) is 0.809 for the model in (A), 0.812 for (B), 0.851 for (C), 0.832 for (D), and 0.824 for (E). Pseudo R^2 is 0.1449 for the model in (A), 0.153 for (B), 0.188 for (C), 0.164 for (D), and 0.1636 for (E).

登録者の血圧決定方法

Figure S3: Determination of time-weighted average blood pressure and hypertension burden



Stepwise process for determining time-weighted average of blood pressure and hypertension burden using a threshold. In (A), an example of 22 anonymized systolic blood pressure values from a patient are shown across the 10 year study period. In (B), linear interpolation is performed to connect the measured values in time. The arithmetic mean is calculated for all of the measured and interpolated values over the period, yielding the time-weighted average blood pressure. In (C), the systolic hypertension burden of systolic blood pressure above a threshold is determined by re-zeroing the interpolated pressure values at the threshold (in this example, 130 mm Hg, as shown on the right Y-axis), such that values above the zero point have positive values but values below the zero point are set to zero (as these 'normal' pressures do not contribute to the burden of hypertensive pressures). The burden of systolic pressure > 130 mm Hg is then calculated as the arithmetic mean of all of the measured and interpolated values over the period after this zeroing procedure.