This study examined data from the National Longitudinal Mortality Study of 431,657 adults aged 50–74 in 48 USA states followed for 11 years. State per capita social spending (total, welfare, education, health) and income inequality (Gini coefficient) were explored as predictors of individual mortality (all-cause, cardiovascular, cancer) using linear probability models. To reduce bias, models incorporated state and time fixed effects and instrumental variables, and controlled for state- and individual-level covariates.

**Results** Total public spending and spending on welfare and education, but not healthcare, predicted lower probabilities of death from coronary heart disease (CHD) (per $250 per capita spent on welfare: $beta = -0.016, p<0.03$) and all causes combined (per $250 per capita spent on welfare: $beta = -0.031, p<0.03$). There were weaker associations for colon cancer and no associations for stroke. A higher Gini coefficient predicted a higher probability of CHD mortality but not all-cause mortality. Stratified models suggested stronger effects among those aged 45–59 and with incomes < $250,000/year.

**Conclusion** Higher state social spending outside the healthcare sector may reduce one’s chances of dying from heart disease and all causes combined, particularly for low-income, middle-aged adults. Policies promoting economic equality may further lessen CHD disparities.

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**Background** Social status is associated with cardiovascular disease (CVD) prevalence and incidence. We aimed to study relationships between i) socioeconomic position (SEP) and common CVD biomarkers; cholesterol, LDL/HDL, ApoB/ApoA1 and adiponectin ii) SEP and CVD mortality in a Swedish-population-based sample, and to assess if these associations changed with age.

**Design** A longitudinal cohort study of men born 1920-24 with clinical measurements, blood samples, questionnaire data and register-based information on SEP and cause of death.

**Methods** Of 2322 men that participated in an investigation at age 50, 1221 attended a reinvestigation at age 70. SEP was measured as occupational class and educational level. Linear regression (adjusted for age, body mass index and physical activity) was used to study associations between SEP and CVD biomarkers. CVD mortality over 36 year’s follow-up was analysed by Cox regression.

**Results** At age 50: We found significant inverse associations of education and occupational group with mean cholesterol levels, whereas LDL/HDL ratio was associated with education only. These were statistically significant after adjustment for covariates. No significant associations were found between either measure of SEP and ApoB/ApoA1 ratio. At age 70: No significant associations were found between either measure of SEP and any biomarker studied. Men classified as highest educated and non-manual had decreased risk for CVD mortality during follow-up.

**Conclusions** Associations of SEP with cholesterol levels and LDL/HDL ratio that exist at age 50, are no longer found in the same group of men at age 70. We found no significant association between SEP and adiponectin levels at age 70.

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**Introduction** Government spending on public goods (eg. education) and social assistance (eg. cash transfers) provides plausible investments in the social determinants of health. Among rich nations, countries with higher social spending and lower income inequality show longer life expectancies. However, studies of both factors have been limited by bias from residual confounding and reverse causation.

**Methods** This study examined data from the National Longitudinal Mortality Study of 431,657 adults aged 50–74 in 48 USA states followed for 11 years. State per capita social spending (total, welfare, education, health) and income inequality (Gini coefficient) were explored as predictors of individual mortality (all-cause, cardiovascular, cancer) using linear probability models. To reduce bias, models incorporated state and time fixed effects and instrumental variables, and controlled for state- and individual-level covariates.

**Results** Total public spending and spending on welfare and education, but not healthcare, predicted lower probabilities of death from coronary heart disease (CHD) (per $250 per capita spent on welfare: $beta = -0.016, p<0.03$) and all causes combined (per $250 per capita spent on welfare: $beta = -0.031, p<0.03$). There were weaker associations for colon cancer and no associations for stroke. A higher Gini coefficient predicted a higher probability of CHD mortality but not all-cause mortality. Stratified models suggested stronger effects among those aged 45–59 and with incomes < $250,000/year.

**Conclusion** Higher state social spending outside the healthcare sector may reduce one’s chances of dying from heart disease and all causes combined, particularly for low-income, middle-aged adults. Policies promoting economic equality may further lessen CHD disparities.