INSURANCE STATUS IS AN INDEPENDENT PREDICTOR OF ALL CAUSE AND CARDIOVASCULAR MORTALITY: INSIGHTS FROM NHANES III

ACC Poster Contributions
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Background: Universal health insurance is a major goal of current national health policy. We address the impact of health insurance status on cardiovascular mortality in a nationally representative cohort with long term follow up.

Methods: All adults (>18 years) in the publicly available dataset of the National Health and Nutrition Examination III (NHANES III) survey between 1988-1994 were analyzed (n=14646). Appropriate sample weights were used for calculating estimates so that they were representative of civilian, non institutionalized US population. Insurance status was assessed by self report. The insured group, n= 12012 (82%) included those with Medicare, Medicaid, employer based or private coverage within the preceding 1 month. The uninsured group n= 2634 (18%) included patients who responded to not having above mentioned forms of coverage for the preceding month. End point was cardiovascular mortality up to December 2006 which was available using national linkage records and death certificates. Cardiovascular mortality was defined using as ICD-10 codes I00-I99. Univariate and multivariate analyses were carried out using SAS 9.1. Baseline differences in traditional cardiovascular risk factors, CRP and insurance status were adjusted in multivariate Cox proportional hazard regression. Lipid parameters included total cholesterol, HDL and triglycerides.

Results: In our overall cohort, 46% were males, 24.5% were smokers, mean age was 48.2 years, 8.4% were diabetics, 28% were hypertensives. On cox hazards analysis, insurance status was associated with significantly lower cardiovascular mortality (HR 0.963, 95% CI 0.958-0.967, p < 0.001, n=773 deaths) and all cause mortality (0.749, 0.747- 0.750, <0.001, n= 1745 deaths) on follow up. Inclusion of lipid parameters did not change this relationship.

Conclusion: Presence of health insurance is inversely associated with cardiovascular mortality and all cause mortality in a nationally representative cohort of US adults on long term follow up. Universal health insurance may help achieve ACC/AHA goal of “reducing deaths from cardiovascular diseases and stroke by 20%” by 2020.