Unhealthy lifestyle only explains small part of health inequity in US adults UK and
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Unhealthy lifestyles alone only explain a small proportion of the socioeconomic inequity in health in both US and UK adults, suggest data from two large studies published by The BMJ today.

The findings show that the poorest individuals with the least healthy lifestyle are 2.7 to 3.5 times more at risk of death than the most affluent people with the healthiest lifestyle.

While healthy lifestyles play an important role in reducing disease burden, the researchers warn that healthy lifestyle promotion alone “might not substantially reduce the socioeconomic inequity in health, and other measures tackling social determinants of health are warranted.”

It is well known that disadvantaged socioeconomic status (the measure of a person’s social and economic standing) and unhealthy lifestyles are linked to poor health.

Lifestyle factors are commonly viewed as mediators between socioeconomic status and health, but it’s not clear to what extent healthy lifestyles might alleviate the socioeconomic inequities in health.

To explore this further, an international research team used data from the US National Health and Nutrition Examination Survey (US NHANES) and UK Biobank to evaluate the complex relations of lifestyles and socioeconomic status with death and heart disease.

Their findings are based on 44,462 US adults aged 20 years or older and 399,537 UK adults aged 37-73 years.

Socioeconomic status was defined using family income, occupation or employment status, and education level in both groups, and health insurance in US participants. A healthy lifestyle score was derived using information on smoking, alcohol consumption, physical activity and diet.

Medical records were then used to track deaths from any cause (“all cause mortality”) among both US and UK adults, as well as cases of cardiovascular disease (CVD) and CVD deaths in UK adults.

Over an average follow-up of 9-11 years, US NHANES documented 8,906 deaths and UK Biobank documented 22,309 deaths and 6,903 CVD cases.

Among adults of low socioeconomic status, age adjusted risk of death was 22.5 and 7.4 per 1000 person years in US NHANES and UK Biobank, respectively, and age adjusted risk of CVD was 2.5 per 1000 person years in UK Biobank.

The corresponding risks among adults of high socioeconomic status were 11.4, 3.3, and 1.4 per 1000 person years.

Compared with adults of high socioeconomic status, those of low socioeconomic status had consistently higher risks of mortality and CVD, and lifestyle factors only explained 3% to 12% of the excess risks.

The highest risks of mortality and CVD were seen in adults of low socioeconomic status and with the least healthy lifestyles.

For example, compared with adults of high socioeconomic status and three or four healthy lifestyle factors, those with low socioeconomic status and no or one healthy lifestyle factor had 2.09-fold to 3.53-fold higher risks of mortality and CVD.

This is an observational study, so can’t establish cause, and information on socioeconomic level and lifestyle was self-reported, so may not have been completely accurate. Nevertheless, strengths
included the large sample size from two well-established nationwide databases, and results were similar after further analyses, suggesting they are robust.

Unhealthy lifestyles mediated a small proportion of the socioeconomic inequity in health in both US and UK adults; therefore, healthy lifestyle promotion, although essential, alone might not substantially reduce the socioeconomic inequity in health, and other measures tackling social determinants of health are warranted, say the researchers.

They call for government policies "to tackle upstream social and environmental determinants of health" but also point out that healthy lifestyles were associated with lower mortality and CVD risk in different socioeconomic groups, "supporting an important role of healthy lifestyles in reducing disease burden."


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