

問題 2 以下の文層を読んで、設問(1)、(2)に答えなさい。

Smoking and inequalities

Smoking is a modern scourge. (1)The WHO global burden of disease study suggested that, in developed countries, 26% of male deaths and 9% of female deaths could be attributed to smoking-the single most important risk factor. We must consider not just aggregate effects but social distribution. In many countries the likelihood of smoking is linked to socioeconomic position- lower status, more smoking. Hence, among other evils, smoking contributes to social inequalities in mortality. The size of that contribution is considerable. In today's Lancet, Prabhat Jha and colleagues estimate that at least half of socioeconomic differences in mortality in men aged 35-69 years can be laid at the foot of smoking.

An estimate of more than half of social differentials caused by smoking is larger than previous estimates. In the Whitehall study of British civil servants, a combination of smoking and other coronary risk factors accounted for 27% of the inverse social gradient in mortality from coronary heart disease. The British Regional Heart Study reached a similar conclusion- 24% of the higher all-cause mortality in manual compared with non-manual workers could be attributed to smoking.

(a)To put it differently- in the Whitehall II study, in which fewer than 20% of people smoked, there was still a clear social gradient in disease in people who had never smoked.

The study by Jha and colleagues confirms previous findings that smoking is an important contributor to socioeconomic differences in mortality. Does it really matter if smoking is responsible for a quarter or a half of the excess? Well, yes, it might. Consider two positions—exaggerated to make a point.

The social gradient in mortality is the result of differences in the social circumstances in which people live and work.. Reduction of the health disadvantage of those in lower social positions will require action to improve those circumstances throughout the life course. This, indeed, was the conclusion of Acheson's report *Inequalities in Health*.

If, however, at least half of social differences in adult mortality are the result of differences in smoking, the conclusion might be to forget social conditions, neighbourhood deprivation, employment conditions, early childhood and subsequent adult disease;8 just focus on getting the smoking rates down in people of low status.

The size of the estimate might, therefore, matter, which means it is worth pausing to consider how the current estimates are derived. Because of the scarcity of Whitehall-type cohort studies that can yield direct estimates of the contribution of smoking to social disadvantage in health, we need methods to make up the gap. (b)The indirect method Jha and colleagues use takes lung cancer mortality of a population as a proxy measure of exposure to smoking. The method uses absolute lung cancer rates in various social strata to indicate the proportion of smoking-attributable deaths from certain other diseases. These proportions are based on the Cancer Prevention Study-II Cohort done by the American Cancer Society, and

are assumed to apply universally.

(2)Mackenbach and colleagues used a variant of this indirect method to ask, in ten European countries, how much of the higher mortality associated with low education could be attributed to smoking. They pointed out that lung cancer mortality rates in non-smokers probably differ between countries and educational groups-thus violating the assumption that the American cohort data can simply be applied universally. The estimates of the contribution of smoking to socioeconomic differences in mortality must, of necessity, be crude when this indirect method is used.

In the Mackenbach study, the contribution of smoking to excess death in men with less education varied from about 30% in England and Wales to under 5% in Madrid. In women, the contribution was less.

The fact that smoking's contribution to excess disease in the socially disadvantaged might be less than a half does not detract from the essential importance of Jha and colleagues' study. If smoking were eliminated, average health would improve and socioeconomic differences in adult mortality would be less although still substantial. There are, then, two important public-health and scientific questions. How can we reduce social inequalities in smoking? And how can we take action on the other major social causes of inequalities in health? Both questions are actively being considered by the Commission on Social Determinants of Health.

設問 1 下線部(1)、(2)を和訳しなさい。

設問 2 下線部(a)(b)の内容を日本語で簡潔に説明しなさい(200字)