

Relevant points to include in the answers:

Question 1

a) DALY from this condition/cause/disability =

YLL = sum (number of deaths from this condition at age a multiplied by remaining life expectancy in a fictitious low-mortality population) over age a .

+ YLD from this condition = number of individuals with this condition multiplied by disability weight.

Reasonable to divide by population size to compare the two countries.

b) Many violent deaths and CVD deaths + higher mortality from some other causes. Not only because of alcohol. Unhealthy lifestyle also otherwise (diet, smoking among men), poor hygienic conditions (in the past), and low quality of health care, reflecting the economic situation and the priorities made. (Not mention factors that operate entirely through alcohol)

Question 2

Differences are a result of biological factors and lifestyle, broadly defined (may also be partly linked to biology). The latter include such as smoking. When it becomes generally less common to smoke, one would expect smaller differences between the sexes. Such a development is also what we have seen over some decades.

Question 3

Such a statistical relationship seen. Could be selection: health in childhood, intellectual resources, self-discipline, parental education/income (course paper about that) affect both education and later health/mortality. The course paper checking selection by considering a school reform found no effect, but that was at the lower level (and with no implications for the credentials)

High education: knowledge about health, general analytical skills, job with fewer occupational hazards, higher income (-> less worried about the economic situation, cfr ideas about psychosocial stress and low relative income, afford healthy food, health care, but the latter less of an issue in Norway), educated men more likely to be married (little about that in the course readings), neighbours/friends/colleagues/spouse/children also tend to have high education.

Question 4

Two reasons.

1: A diminishing benefit of higher income as income increases → average mortality higher where there are many poor and many rich, compared to a situation where all are at the average (to go to the extreme). So higher inequality → higher average mortality

2: May be effect of income inequality on mortality for everyone, regardless of own income.

Reasons: higher average score on relative deprivation (difficult point). A person's health may be influenced by his/her feeling of relative deprivation, with possible implications for everyone. Differences in lifestyles/opportunities because of differences in income, plus overall strong feeling of deprivation, may undermine social cohesion in society, with implications for everyone. There is a course paper on what social capital/cohesion is, and the conclusion of the review is that there is not clear evidence on health effects. Some diffuse ideas in the literature about undermining acceptance for public spending, including on health.

Also, always a possibility that there is selection (for ex more inequality linked to more urban)

Question 5

- a) Parenthood affects people's lifestyle – but not necessarily in the same way for women and men. Childbearing also affects women's mortality through biological pathways.

Selection: those who are childless are particularly likely to be and have been single, which may affect mortality for a number of reasons. (But it actually runs both ways because childbearing → marital/cohabitation status).

Resources, values, health affect fertility - and partly through marital status. Such factors also affect later health. Only partly controlled for by education and place of residence.

- b) Those who end up with many may have started early. Having started early is linked to mortality because: causal effect on lifestyle/opportunities (above and beyond education which is controlled for) and biological effects (especially breast cancer), plus selection (early first birth is an indicator of various other factors not controlled for, such as problematic family background). When we consider all-cause mortality: early first birth is linked to high mortality. If that variable is included, the effect of having only one child will be larger, because those with one child typically started late, which is linked to low mortality, but cannot expect the students to have a good understanding of that.

Question 6

Examples of man-made environment: quality of health care, sports grounds, traffic/noise.

Examples of unchangeable physical environment: distance from city, climate, sun exposure, distance to sea

Some of this is linked to for ex education and income and therefore part of the ¾, but cannot expect that the students see that. Apart from that, the man-made environment is a result of local/national policies and the unchangeable physical environment.

Question 7

The course literature describes some effects of maternal age on certain diseases for the child and the child's education. Some of this could, in theory, affect the chance of accidents, but

more importantly high maternal age is linked to high birth order (the students should be able to see that). High birth order is linked to high mortality – most clearly violent deaths and lung cancer among men.

Pathways: always competition with siblings, other expectations from parents, bad influence from older siblings(?), lower IQ; these may affect mortality in part through education. Possible biological effects of high birth order also (don't expect students to know these).

If the relationship is entirely the result of birth order, i.e. no net effect of maternal age, the answer to the last question is 'no' (this may be difficult, bonus for everything that makes some sense).