

Measuring Health Inequalities by an Approach Unaffected by the Overall Prevalence of the Outcomes at Issue

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Over the last three decades considerable resources have been devoted to the study of demographic inequalities in health and healthcare in the United Kingdom and elsewhere. The principal conclusion of such research, as most recently expressed in a report of the Health Committee of the House of Commons, is that while health has improved for all socioeconomic groups, health inequalities have been increasing.

All health inequalities research, however, has been crucially flawed by the failure to recognize the ways measures of differences between rates of experiencing favourable or unfavourable outcomes are affected by the overall prevalence of an outcome. The most notable of these tendencies is that, the rarer an outcome, the greater tends to be the relative difference between rates of experiencing it and the smaller tends to be the relative difference between rates of avoiding it. Absolute differences and odds ratios also tend to be systematically affected by the overall prevalence of an outcome, though in a more complicated way. As an outcome increases in overall prevalence from being rare to being relatively common, absolute differences between rates tend to increase; as the outcome further increases to the point of being nearly universal, absolute differences between rates tend to decrease. Differences measured by odds ratios tend to change in the opposite direction of absolute differences. Differences between life expectancies, whether measured in relative or absolute terms, also tend to change solely as a result of overall changes in life expectancy rates, though in less systematic ways than the other measures.

This presentation would illustrate these tendencies with actual and hypothetical data and explain the problems the tendencies create for the interpretation of the size of health inequalities in different settings, including at different points in time. The presentation would then explain a method of measuring differences between rates of experiencing health and healthcare outcomes that is unaffected by the overall prevalence of an outcome. It would also apply that method to recently cited data on health inequalities in the United Kingdom.