On Measurement and Interpretation of Health Inequalities:

An Application in Indian Context

Abstract

'[The] preservation of health is ... without doubt the first good and the foundation of all the other goods of this life.'

- René Descartes, 1637

Increasing global evidence on health inequalities across various socioeconomic groups is a major concern among the international development community and has prompted many of the national and sub-national governments to incorporate reduction of health inequalities as one of the key policy objectives. However, to proceed with their intent, these interventions require considerable information on the magnitude and varied dimensions of health deprivation. In this regard, quantitative estimates of the magnitude, direction, and rate of change of health inequalities play a crucial role in creating and assessing policies aimed at eliminating such misfortune.

Measurement of health inequality has two fundamental objectives; one, to compare the distribution of the health status of individuals within a well-defined socioeconomic group; and two, comparison of distribution of different socioeconomic groups. It must be noted that most of the available measures of health inequality provide different estimates when we assess inequalities in terms of attainment (for example, institutional delivery) and shortfall (for example, non-institutional delivery). If we perceive that these are two different types of inequalities then, their relationship in terms of estimates and directionality may be allowed to vary. However, an attainment distribution is also the flip side of a shortfall distribution, and vice versa. In view of such issues, it is important that we present estimates of health inequality which is sensitive to such concerns and are based on robust measurement techniques. A related issue here is to examine whether the levels of health inequality respond to the level of the phenomenon or are a consequence of the adopted social and economic policies.

A second problem in measurement is that most health inequality indicators adopt a standard 'individualistic' approach (inter-individual differences or individual-mean comparisons) to assess the distribution of health and, often, overlook the 'group' dimension (inter-group differences). Since health deprivations, in part, are consequences of generalized deprivations in fairly basic requirements among certain disadvantaged groups and, therefore, attention needs to be drawn towards group assessments which hitherto have remained a neglected aspect of development.

It may as well be emphasised that understanding of the sources of inequality should be the first step to formulate equity enhancing policies. An approach that emphasizes and identifies important social and economic dimensions of health inequalities can, invariably, offer better policy inferences for ensuring equity enhancing resource allocation. In addition to the above concerns, measurement of achievement or progress in health should be suggestive of the nuances involved in inter-temporal comparison.

This study contributes to the literature on measurement of health inequality by advancing alternative methods, including regression-based techniques, to produce the inter-individual health inequality estimates for different rank based indices. This study suitably adopts distinct but inter-related approaches to examine the inter-group health inequalities and suggests policymakers to view groups as a combination of multiple characteristics and identities. The study identifies an analytical device - Group Poverty Lorenz Profile - which is an interesting alternative to examine inter-group inequalities. It corresponds well with famous Concentration Curve that graphically illustrates the burden of socioeconomic rank related health inequality. The group poverty Lorenz profile is suitably adopted here as a graphical device to depict group health Lorenz profile. Application of the group health Lorenz profile facilitates the derivation of group analogue of Gini coefficient where - unlike the inter-individual Gini coefficient - each population subgroup is weighed according to its share in the total population. From an analytical perspective, this study provides one of the first empirical decomposition of the corrected concentration index. Furthermore, this study argues that, while progressing towards targets - say, for example, Millenium Development Goals - policy appraisals should not sightlessly allow unadjusted level comparisons. On this count, the study further contributes by advancing an indicator of progress assessment that incorporates concerns pertaining to equity and base-level differentials. The progress assessment index, developed here, satisfies certain basic properties and succeeds in viewing health achievements (or failures) in a realistic manner to develop a comprehensive vision regarding social and economic progress.

The two approaches to measure health inequality - inter-individual and inter-group - are empirically illustrated with the help of National Family Health Survey (NFHS), 2005-06, data on child undernutrition India. The empirical illustrations presented here are exploratory and indicative in nature. The empirical illustrations is effective in exposing the stark inequalities in the distribution of child health in India and at the same time is indicative of some of the potential child health issues which warrant rigorous policy research and action. The empirical component enhances our understanding of the health inequalities in India, particularly in the case of child undernutrition and child immunisation. This study identifies India as one of the unconvincing performers by unravelling the huge inequalities in the distribution of child health which is regarded as a fundamental right of the children. The illustrations recognize maternal nutrition, education, household hygiene and sanitation as key policy factors to improve child health. In this context, the study visualises a clear need for promotion of general living standards among the deprived population subgroups. It argues for devising health policies and programmes that can help to reduce deprivations particularly, among the females, the rural poor and the SC/ST population.

In a nutshell, this study - based on the empirics - conveys the message that health inequalities are perhaps the result of the policies adopted for advancing health. Whether we adopt an inclusive health policy or focus on strategies that are not supportive of wider participation is very much a part of actions that influence health inequality.