

Equity-informative health technology assessment – a commentary on

Ngalesoni, Ruhago, Mori, Robberstad & Norheim

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Leading health commentators have called for health equity to be made a measurable endpoint of health technology assessment (HTA) (Daniels, Porteny, and Urritia 2016; Horton 2013). Nowhere is this more important than in low income countries on the path to universal health coverage, where reducing inequalities in health care, health outcomes and protection from the financial risks of ill-health are central policy concerns (Norheim et al. 2014; World Health Organization 2015). A practical toolkit of methods now exists for providing decision makers with useful quantitative information about the equity implications of health technologies (Asaria, Griffin, and Cookson 2016; Johri and Norheim 2012; Verguet, Kim, and Jamison 2016). As this study by Ngalesoni and colleagues (Ngalesoni et al. 2016) on cardiovascular disease prevention in Tanzania illustrates, these methods can now be applied in low income country settings to generate useful policy insights and are becoming increasingly methodologically sophisticated. Studies of this kind will hopefully help pave the way for a new wave of applied research and methodological refinements in this area. If researchers and research funding bodies grasp this mettle, in the not too distant future the HTA evidence presented to decision makers will routinely address the health equity concerns that are so essential to achieving fairness on the path to universal health coverage.

Who gains and who loses from a cost-increasing health programme depends on differences between people across a number of factors, including health risks, uptake of services, adherence to treatment and capacity to benefit. All of these factors may vary systematically by equity-relevant variables such as socioeconomic status, ethnicity, gender and geographical location. The overall impact on health equity also depends on how the programme is funded and who bears the largest opportunity costs of diverting scarce resources from other uses – which again may vary by social group. Careful quantitative analysis of these factors is becoming increasingly feasible as datasets and methods continue to improve, allowing analysts to gather more accurate information about patient heterogeneity rather than focusing on the mythical “average” patient.

The tools available for equity-informative HTA include “extended cost-effectiveness analysis” (ECEA) (Verguet, Kim, and Jamison 2016) and “distributional cost-effectiveness analysis” (DCEA) (Asaria, Griffin, and Cookson 2016), both of which bring together two hitherto disparate streams of literature on cost-effectiveness analysis and health equity measurement. ECEA has now been applied to the study of about 20 policy interventions in different low- and middle-income countries, producing breakdowns of costs, health benefits and financial risk protection benefits by socioeconomic quintile group (Verguet S and Jamison forthcoming). DCEA goes a step further than ECEA, by producing summary measures of health inequality impact and quantifying any trade-offs between increasing total health – the objective underpinning conventional HTA – and reducing health inequality. DCEA was developed for use in high-income countries with universal health systems and fixed health budgets, but the paper by Ngalesoni and colleagues shows that it can also fruitfully be applied to low-income countries in a simplified form.

The present paper finds that an age-differentiated approach to delivering CVD medication is not only more cost-effective but also delivers a greater reduction in overall inequality in life expectancy than the non-age-differentiated approach recommended by the European Society of Cardiology and the World Health Organisation. This is what we might call a “win-win” case – a policy that is better for

both total health and health equity. In some cases, however, there are trade-offs between cost-effectiveness and health equity. The objective of reducing social inequality in health may clash with the objective of improving total health, for example, when delivering services effectively to socially disadvantaged communities requires additional cost. The objective of prioritising the severely ill may also clash with the objective of improving total health, as when preventive care for relatively healthy people delivers larger health gains than care for the severely ill. One way of analysing equity trade-offs is to count the cost of fairer but less cost-effective options, in terms of health foregone (Cleary, Mooney, and McIntyre 2010). Another approach is to explore how much concern for equity is required to choose fairer but less cost-effective options, using equity weights or equity parameters within social welfare functions – of the kind used in the present study (Asaria, Griffin, and Cookson 2013; Cookson, Griffin, and Nord 2014).

A number of methodological challenges remain. For example, little evidence is available on the social distribution of health opportunity costs in different contexts. This will depend crucially on how the programme is funded – for instance, raising funding by diverting resources from government or donor budgets for health, education and welfare programmes is likely to have a different distributional impact than raising funding from general taxation. DCEA cannot yet incorporate financial risk protection benefits into the equity trade-off analysis. This is an important limitation in low-income countries, though less of a drawback in high-income countries like England where relatively few citizens suffer financial catastrophe due to health care costs. And although costs and benefits can often be broken down by different social variables in isolation – for example, by socioeconomic status, gender and location – data limitations can make it hard to pin down how these different dimensions of social disadvantage overlap and interact to generate differential costs and benefits. Despite these challenges, it is now clear that equity-informative health economic evaluation is now a viable option.

For too long the area of incorporating health equity impacts into HTA has been an arcane field, mired by inward looking ideological disputes within and between different academic disciplines, and not focusing outwardly on how to deliver useful, practical information and insights to decision makers. This is now starting to change, and the paper by Ngalesoni and colleagues makes clear that evaluation of health equity impacts and trade-offs is now a viable option in low-income country contexts. Practical methods now exist that can be applied to deliver useful policy insights to inform real decisions, and it is time to raise awareness of these methods beyond the narrow community of methodologists with a focus on equity. Practitioners of health economic evaluation, decision makers and research funders need to wake up and smell the coffee: health equity impacts and trade-offs matter, and practical methods of health technology assessment now exist for analysing them.

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