

**The National Institute for Health and Care Research (NIHR)  
Manchester Biomedical Research Centre (BRC) and  
NIHR Manchester Clinical Research Facility (CRF):  
Inclusive Research examples**



<b>Case Title</b>	Understanding the current use of equity-informative methods in cost-effectiveness analysis of healthcare interventions
<b>BRC Cluster(s)</b>	Advanced Diagnostics and Therapeutics Catalyst, Cancer, Under-researched Conditions, and Inflammation.
<b>BRC Theme(s)</b>	Next Generation Therapeutics, Next Generation Phenotyping and Diagnostics, Cancer Prevention and Early Detection, Advanced Radiotherapy, Cancer Precision Medicine and Living With and Beyond Cancer, Hearing Health, Mental Health, Rare Conditions, Rheumatic and Musculoskeletal Diseases, Respiratory Medicine, Dermatology, Integrative Cardiovascular Medicine
<b>Inclusive Research Element</b>	Methodological: literature review
<b>Rationale for case study</b>	To understand how consideration of equity has been incorporated in cost-effectiveness analyses (CEAs) and to identify applied examples relevant to the Manchester BRC's themes.
<b>Background</b>	<p>Current CEAs aim to measure the healthcare costs and health consequences of a new intervention compared with the current standard of care. The impact of equity consideration is generally ignored in CEAs. The need to understand whether the introduction of a new healthcare intervention is cost-effective for all members of the population is becoming increasingly important.</p> <p>It is well-established that equity in healthcare can be reflected in various aspects, including access to healthcare services and the distribution of health benefits and harms. Unfair determinants of health, such as education, income, and geographical location, have been identified in the literature as contributing factors to jeopardise equity.</p> <p>Equity-informative CEA is a suite of methods that allow the analyst to consider and measure equity in the cost-effectiveness of healthcare interventions by quantifying the trade-offs between efficiency and equity and analysing the distribution of health benefits and costs within the general population by equity-relevant social variables such as ethnicity and socioeconomic status.</p>
<b>What we did</b>	<p>Identified relevant published applied examples of CEAs that have used equity-informative methods, such as distributional cost-effectiveness analysis (DCEA) and extended-CEA (ECEA) to evaluate healthcare interventions from three existing systematic reviews.</p> <p>Summarised the different methods used to capture the impact of equity consideration on the cost-effectiveness of healthcare interventions.</p> <p>Mapped the identified applied examples with the key healthcare themes included in Manchester BRC.</p> <p>Created a list of key evidence gaps that show areas of promise for future studies to produce equity-informative CEAs of new healthcare interventions relevant to the themes within Manchester BRC.</p>





<b>What the outcome(s) is/are</b>	<p>104 studies were pooled from the three existing published systematic reviews. Of these, 76 studies were eligible to be included in this review. Reasons for exclusion included study type (systematic literature review, commentaries and methodological studies were excluded).</p> <p>Of the included studies, 35 studies used an equity-based weighting method, 23 studies used distributional cost-effectiveness analysis and 18 used extended cost-effectiveness analysis.</p> <p>Of the 76 studies, 67 could be mapped onto the following BRC themes: Respiratory Medicine; Cancer Prevention and Early Detection; Integrative Cardiovascular Medicine; Mental Health; Living With and Beyond Cancer; Dermatology; and Rheumatic Musculoskeletal Diseases. The most common BRC theme across the included studies was Respiratory Medicine (n=24), followed by Integrative Cardiovascular Medicine (n=17) and Cancer Prevention and Early Detection (n=16).</p> <p>No studies could be mapped onto the following BRC themes: Rare Conditions, Hearing Health, Next Generation Therapeutics, Next Generation Phenotyping and Diagnostics, Cancer Precision Medicine and Cancer Advanced Radiotherapy.</p>
<b>Conclusions</b>	<p>There is a widespread interest and an emerging literature that reports on methods that allows the analyst to measure the impact of equity consideration on the cost-effectiveness of healthcare interventions.</p>
<b>Recommendations</b>	<p>Accounting for equity in cost-effectiveness analyses is vital for policymakers and healthcare leaders to better understand how to allocate resources to improve health outcomes for disadvantaged populations and promote greater equity in healthcare.</p>
<b>Future work</b>	<p>Select a case study that is relevant to one of the BRC themes and conduct an equity-informative CEA where equity is considered in cost-effectiveness of an exemplar emerging healthcare intervention.</p>

