

To access or not to access: could that be the question?

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Approximately 1.5 million people undergo cardiac surgery every year around the world.¹ In high-income countries, where the cardiac surgical capacity is largely sufficient, the ability to undergo and benefit from cardiac surgery in time is influenced by a range of factors, importantly including patients' social determinants of health, which are "the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life."² Lai *et al*³ evaluate access to cardiac surgery in England between 2010 and 2019, finding that female sex, Black ethnicity and socioeconomic deprivation were associated with poorer utilisation of cardiac surgery and higher mortality within 1 year after surgery.

ACCESS TO CARDIAC SURGERY IN ENGLAND

The authors are to be applauded for their novel work, which provides a first glimpse into variations in cardiac surgical volumes and mid-term outcomes across England. Using comprehensive data from the Hospital Episode Statistics and UK Office for National Statistics, the authors were able to study all relevant admissions within the National Health Service. The authors also used a more granular metric for deprivation with the area-level Index of Multiple Deprivation, which is a weighted measure reflecting area-level income, employment, education, health, crime, housing and living environments, thereby accounting for factors beyond only income. The study was methodologically robust and provides benchmark findings for future research.

Several limitations and questions do, however, remain. The authors defined access to care strictly as healthcare utilisation, being the rate of patients with a condition receiving surgery, and fitting logistic regression models to account for comorbidities, frailty and year of surgery. This is appropriate and a first look into

the rates of surgery in specific populations. However, other measures of access to care, including diagnostics, referrals and time to surgery, and the appropriateness of (no) care, were not and perhaps could not be evaluated. Furthermore, conditions were restricted to ischaemic and valvular heart disease, rather than other cardiovascular diseases or types of valvular disease, and procedures were only able to be evaluated as coronary artery bypass grafting or valve surgery with minimal procedural detail. Thus, further study is required to better understand these findings. Lastly, the authors evaluated some intersectional disparities by assessing the effects of ethnicity and deprivation by sex, finding that women in deprived areas or with Black ethnicity were less likely to undergo surgery than men from deprived areas or with Black ethnicity. In reality, however, the intersectionality of individuals' multiple identities is more complex due to the combination of more than two individual sociodemographic characteristics, resulting in a highly heterogeneous set of realities people experience, each

with better or worse access to care even with a shared set of some characteristics.⁴

ACCESS TO CARDIAC SURGERY IN UNIVERSAL HEALTH COVERAGE MODELS

In today's day and age, access to cardiac surgery in high-income countries with universal health coverage is generally assumed to be favourable. However, increasing evidence suggests remaining gaps that are understudied drivers of poor healthcare access and, as a result, outcomes. Across the continuum of cardiovascular care for patients living with cardiac surgical conditions, there are potential gaps in access to care because of social determinants of health. In Canada, access to care varies in great part as a result of distance to care, socioeconomic status and Indigeneity, among other sociodemographic factors.⁵ In England, female sex, Black or South Asian ethnicity, and higher deprivation have previously been established as factors associated with reduced odds of receiving aortic valve replacement for patients living with aortic stenosis.⁶ Similar realities are likely in other high-income countries, although consistently poorly defined. Meanwhile, in the United States, where universal health coverage is lacking, the availability of comprehensive health insurance and the ability to pay

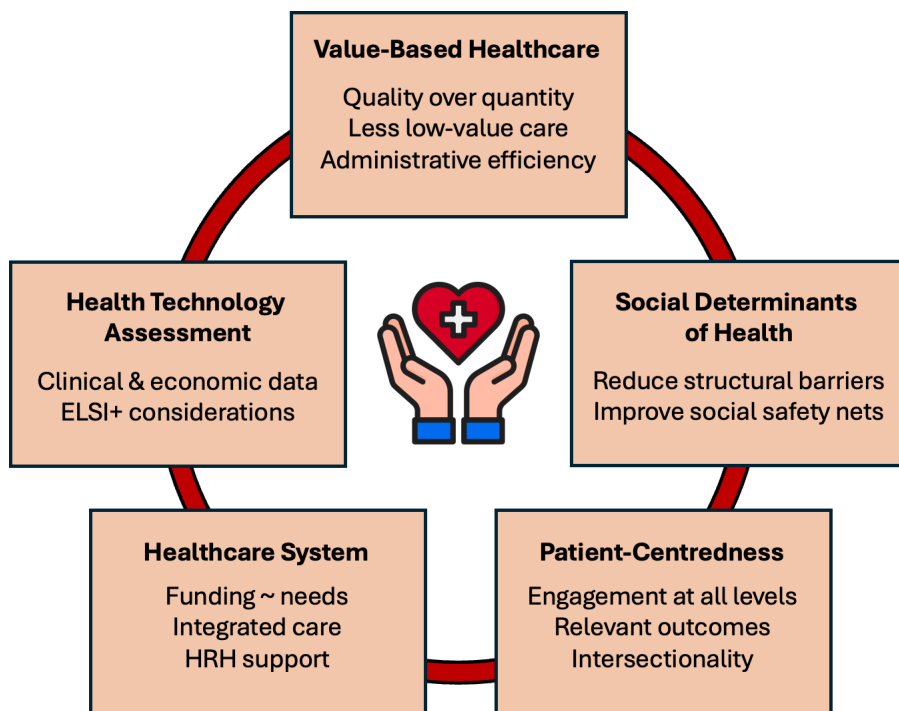


Figure 1 Opportunities to improve access to care for patients living with cardiac surgical conditions. ELSI+, ethical, legal and social issues, and patient experiences; HRH, human resources for health.

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(partially) out of pocket are important confounders.

IMPROVING EQUITABLE ACCESS TO CARDIAC SURGERY

Identifying inequalities and inequities in access to cardiac surgical care is essential for health systems to understand which patients might be left behind. Health services research with a focus on health-care utilisation, health equity and patient-centredness must, therefore, be supported.

If disparities are observed, action must be taken to improve access to cardiac surgery (figure 1). First, inequities and inequalities often arise as a result of differences in social determinants of health, which might or might not be structural or systemic. Efforts to mitigate factors increasing disease burdens or reducing opportunities for prevention, diagnosis, referral and treatment of care are paramount, requiring multidisciplinary action.⁷ These particularly include tackling conscious and unconscious biases, improving built environments and strengthening social safety nets.

Second, health technology assessment (HTA) is an important aspect of health-care in universal health coverage models to ensure appropriate evaluation of the clinical and economic evidence of technologies, interventions and public health programmes. While social aspects may already be considered in some countries' HTA processes, increased efforts to emphasise health equity in both HTA methodologies and frameworks are necessary.⁸ This is particularly pertinent in England, as the National Institute for Health and Care Excellence, responsible for HTA, places more emphasis on cost-effectiveness thresholds compared with, for example, Canada, which gives greater consideration to social, ethical, legal issues and patient matters.

Third, quality of care must be incentivised within health systems. Remuneration in various countries still follows fee-for-service models, whereby increased health services, rather than quality, are rewarded. Meanwhile, other countries have adopted bundled payments to

reimburse hospitals a single global sum for a given hospital admission diagnosis, regardless of the outcomes or additional services provided (eg, to manage complications). A continued shift towards value-based healthcare can ensure that low-value health services and poor quality of care are discouraged, whereas efficiency and high-value and high-quality care are rewarded, ultimately benefiting patients and health systems.

Fourth, publicly funded health systems, such as the National Health Service, are commonly strained owing to insufficient funding, workforce shortages and associated long waiting lists. Solving this is not an easy task but will require, at a minimum, increased funding, strengthening of integrated care, reduced administrative burdens and improved stakeholder consultation to empower and support healthcare professionals across health systems.

Lastly, it is essential to recognise that patients, families and communities are at the heart of healthcare; attempting to eliminate disparities must ensure community engagement at all stages of research, programme planning and implementation. Maintaining an intersectional, patient-centred lens when developing health systems or public health interventions can ensure that gaps are not exacerbated but rather disproportionately benefit those historically marginalised. To do so, patient-family organisations ought to be consulted, community-based participatory research pursued and patient-oriented and patient-defined outcomes prioritised.

The road to cardiac surgical health equity is one that needs to be traversed, starting with important research as conducted by Lai *et al.*³ Pushing the frontiers of cardiac surgical innovation will remain needed; however, this cannot forego honest introspection into the current realities in which we operate. Whether different populations can or cannot access cardiac surgical care, especially in countries with universal health coverage, should not be a question. If it is, it is up to all of us to ensure that the answer is unanimously favourable.

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Contributors DV: conceptualization, writing, review, approval.

Funding DV is supported by the Canadian Institutes of Health Research (CIHR) Vanier Canada Graduate Scholarship.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Commissioned; internally peer reviewed.

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To cite Vervoort D. *Heart* Epub ahead of print: [please include Day Month Year]. doi:10.1136/heartjnl-2024-324647



► <http://dx.doi.org/10.1136/heartjnl-2024-324292>

Heart 2024;0:1–2.
doi:10.1136/heartjnl-2024-324647

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