Beyond equity of access to equity of outcome

Andrew W Hamer, Andrew J Kerr

Equity of access to cardiac services in New Zealand is essential if we are to improve outcomes. The National Cardiac Surgery Network was established in 2009 to lead the implementation of the recommendations of the Cardiac Surgery Services Development Working Group Report.¹

A key issue of concern was the geographic inequity in access to cardiac surgery in New Zealand. District Health Boards (DHBs) with high cardiovascular mortality tended to have lower levels of cardiac surgery. The increased funding for cardiac surgery was therefore distributed across all DHBs with a target of all moving to a rate of at least 6.5/10,000 (SDR adjusted) cardiac operations. This aimed to improve the geographic equity of delivery of cardiac surgery. The Central Region required a 28% increase, Canterbury a 25% increase and the Northern Region a 15% increase. Good progress towards these goals continues.

The lack of access was most notable in the Midland Region where a 68% increase in cardiac surgery was required to achieve equity. This remarkable increase has been achieved.² As access to cardiac surgery improved low referral rates from some DHBs made it evident that equity of access to broader cardiac services varied significantly between DHBs. The developing regional cardiac clinical networks identified the need to target “the inequalities in access to cardiac services” as a key objective.³

In May of 2011 every regional cardiac surgical and cardiology clinical director attended a national meeting, along with the Chair of the Cardiac Society and the Medical Director of the Heart Foundation. The Chairman of DHB CEOs, the Directors of Nursing representative, and directors of the National Health Board and the National Health IT board were also in attendance, along with other key ministry stakeholders. The meeting debated the best way to “network the networks”.

The New Zealand Cardiac Network was formed. At the end of the meeting the Director General and the Minister of Health joined the meeting to be presented with the proposed structure and goals of the network. The principle goal is “equity of access to high quality cardiac services for all New Zealanders.”

It was agreed that the first national initiative should be the development of registries for acute coronary syndrome, cardiac surgery and interventional cardiology to “develop a body of evidence to support evidence based approaches to improving the quality of care and the equity of access to care”. When combined with linkage of these registries to New Zealand’s national outcomes and pharmaceuticals datasets there is an exciting opportunity to support continuous quality improvement in cardiac care. In collaboration with the National Health IT Board, a business case for funding of the registries was developed. It is extremely pleasing to have the national funding for these registries now approved.
The article by Ellis and colleagues, in this issue of the *Journal* \(^4\) clearly demonstrates the need for such outcome-linked continuous quality improvement registries. Their retrospective analysis of all patients presenting with a cardiac or vascular condition, found that the most deprived Auckland City Hospital patients are 10 years younger and have a 50% increased age adjusted mortality at median 2.4 years after discharge from hospital.

They propose possible reasons for this difference in three main categories; differences in presentation, different treatment during inpatient admission, and differences in follow-up, lifestyle changes or adherence to medication. Whilst there is convincing data for variation in care both pre-hospital\(^5\), in-hospital and post-discharge\(^6,7\) the picture is incomplete and much further study is needed. A key aim of the cardiac registries initiative is to better understand this variation in care across the continuum of primary and secondary care and use the combination of registry and linked national data to drive improvement in evidence-based care.

In a related development, to support post-discharge care, the national datasets have been used by the Northern Regional Cardiac Network to develop key performance indicators for secondary prevention medicine adherence. On request of the leadership group of the New Zealand Cardiac Network, the Northern network has expanded this continuous reporting to the whole country, and in a collaboration between the Northern Cardiac Network and the School of Population Health at the University of Auckland and the Health, Quality and Safety Commission—this work has now been developed into a national medication adherence report as the first phase in development of a National Vascular Atlas of Healthcare Variation. This is currently in the evaluation phase. These reports will facilitate design and evaluation of quality improvement initiatives to improve cardiac medication adherence.

In the post-discharge phase medication adherence is just one of the goals of cardiac rehabilitation programmes. Lifestyle change after a cardiovascular event is harder to monitor than medication adherence but is very important, as much of the socioeconomic disparity in the prevalence of cardiovascular disease relate to lifestyle factors, including higher rates of tobacco use and obesity\(^8\).

It is essential that cardiac rehabilitation programmes are made relevant and accessible to poorer New Zealanders and to those from different ethnic backgrounds. To support this we need better processes for tracking cardiac rehabilitation attendance. Lifestyle change also needs to be supported by public health programmes.

In New Zealand it is planned to increase the tax on cigarettes by 10% a year for the next 4 years to support the goal of a Smokefree New Zealand by 2025. However, should consumption not fall as predicted, a 20% yearly tax increase or a one-off 40% increase may be warranted. There is also potential to influence New Zealanders’ dietary choices in a way that goes beyond simple educational campaigns. Incentives for both the food industry and consumers is a potentially powerful tool to improve diets and subsequent cardiovascular outcomes for poorer New Zealanders.

With the establishment of the national cardiac registries and National Vascular Atlas the type of valuable data provided by Ellis et al will become routinely and regularly available. Most importantly, regular reporting of national data will facilitate continuous quality improvement by allowing rapid identification of variation in
cardiovascular care and supporting evaluation of the effectiveness of any changes made to the delivery of this care. 

Pilot programmes can be performed in different regions and outcomes compared with national trends. The potential for accelerating improvements in patient care for the entire country is exciting. The integration of data from the national cardiac registries with existing national outcomes data is expected to then move us beyond equity of access to equity of outcome for all New Zealanders.

**Competing interests:** None declared.

**Author information:** Andrew W Hamer, Cardiologist and Chairman of the Cardiac Society of New Zealand, Cardiology Department, Nelson Hospital, Nelson; Andrew J Kerr, Cardiologist, Dept of Cardiology, Middlemore Hospital, Otahuhu, Auckland

**Correspondence:** Andrew Hamer, Cardiology Department, Nelson Hospital, Private Bag, Nelson Email: Andrew.Hamer@nmhs.govt.nz

**References:**


4. Ellis CJ, Pryce A, MacLeod G, Gamble G. The most deprived Auckland City Hospital patients (2005–2009) are 10 years younger and have a 50% increased mortality following discharge from a cardiac or vascular admission when compared to the least deprived patients. N Z Med J 2012;125(1357). http://journal.nzma.org.nz/journal/125-1357/5236


