LOVE THY NEIGHBOUR

A VISIONARY AND PHILANTHROPIST TAKES CARDIOLOGY SERVICES TO FIJI, AND A MACQUARIE UNIVERSITY HOSPITAL CARDIOLOGIST JOINS THE TEAM TO OFFER HER EXPERTISE AND GENEROSITY.

By Dr Fiona Foo, General and Interventional Cardiologist

Heart Care Centre, Macquarie University Hospital Sydney Cardiology Group

A COMPARATIVE LOOK AT CARDIOLOGY SERVICES IN AUSTRALIA AND FIJI

Fiji conjures up images of a tropical island paradise, white sandy beaches, turquoise blue water and palm trees. However, despite the island nation being only a few hours flight from Australia, our health systems are worlds apart. We used to think infectious/communicable diseases were the main problem in the Pacific Islands. However, non-communicable diseases (NCDs) have now become the number one health problem.

According to WHO 2008 estimates, NCDs account for 77 per cent of all deaths in Fiji, with cardiovascular disease (CVD) accounting for 42 per cent of the total. Similarly, in Australia, NCDs are estimated to account for 90 per cent of total deaths, with 35 per cent due to CVD. There is also a similar prevalence of metabolic risk factors.

However, our Fijian neighbours have a much lower life expectancy, with a greater percentage of deaths from NCDs under the age of 60, a greater percentage of CVD deaths, and more than three times the age standardised death rate per 100,000 from CVD and diabetes compared to Australia. Significantly, the amount spent per capita as a percentage of GDP is significantly lower in Fiji. The total number of cardiologists in Fiji is zero and, up until recently, they had no cardiac catheter theatre or echo machine.

Nowadays, it would be unimaginable in large towns and cities across Australia not to have access to a cardiac catheter theatre if you were having a myocardial infarction or intractable angina. Similarly, not having access to an echo machine to look for structural heart disease or left ventricular dysfunction after presenting with heart failure or worsening shortness of breath on exertion, would seem incomprehensible. But this is the reality in countries like Fiji, where cardiology services are needed the most.

A VISION BECOMES A REALITY: BRINGING CARDIOLOGY SERVICES TO FIJI

I was fortunate to become involved in bringing cardiology services to Fiji. This happened through Dr Vijay Kapadia, an interventional cardiologist working on the Gold Coast, originally from Fiji, who has undertaken the provision of cardiology services to the Pacific nation.

This project is non-profit with no formal funding arrangement. In Bill Gates' paraphrased words, Dr Kapadia is a true philanthropist, someone who gives without expecting any personal gain. Through Dr Kapadia's vision, dedication and persistence, he managed to acquire a second-hand cardiac catheter theatre, which was finally assembled in 2009. This is in the Colonial War Memorial (CWM) Hospital in Suva. Since then, several teams from New Zealand and Australia, and other countries, have given their time to perform angiograms and angioplasties/stents for the growing list of patients who have coronary artery disease.

When I visited Fiji in February 2013, Kumaran Kumar (chief cardiac catheter radiographer at Macquarie University Hospital) also came and provided invaluable teaching and technical support to the local staff.

One thing that can be gained from an overseas aid trip is an appreciation of what you have in Australia. Running a cardiac catheter theatre is not easy. Despite not being used everyday, it needs to be activated daily, kept cool (in prevailing warm and humid conditions) and maintained regularly. There are a huge number of consumables needed to perform a single angiogram, not to mention the cost of angioplasty balloons and stents. How can a country that only spends a few hundred dollars per capita on health afford to pay for one coronary stent that can be worth almost $1000? Fortunately, during my trip we had generous support from companies such as Boston Scientific who provided us with much-needed angioplasty balloons and stents.

As with any overseas medical trip, there are a number of 'hurdles'. Ours started with obtaining consumables and then getting more than 80kg of equipment to Fiji, going through customs and then transporting it to the CWM Hospital on the other side of the island.

Hurdles continued from day one in the lab with significant delays due to availability of basic haemodynamic monitoring equipment. Gathering the essentials was akin to attending a garage sale in many ways and a baptism of fire regarding the limitations of working in the Pacific Islands – and how compromise is the key.

They try not to resterilise much equipment at CWM, since they have been able to obtain significant amounts of sterilised disposables, though they do need to resterilise items that would be strictly single use only in the developed world. We narrowly avoided a major hiccup, in noticing the fluid in a resterilised inflation device was a fluorescent yellow. Even availability of sterile gowns caused delays in starting cases – and we realised that it would be worth taking disposable gowns next time (as much as they contribute to landfill).

FACING CHALLENGES, BUILDING CAPACITY

The cardiac pathology I saw in Fiji was quite severe. Going through patients' files, many patients had repeat myocardial infarcts, often within a year of their first one, as well as repeated presentations in heart failure. Even after meeting the first few patients, it became clear I would have to start considering everyone to be biologically 20 years older than their actual age. I was seeing coronary disease in much younger Fijians, and in older Fijians the disease was far more severe compared with similarly aged Australians. Diabetes was common, and if they were diabetic and Indian Fijian, they were almost definitely going to have coronary artery disease.

We had three patients develop contrast-induced acute pulmonary oedema during or just after their procedures, indicative of the severity of their coronary artery disease and left ventricular dysfunction. One outpatient, after five minutes of lying flat on the cath lab table, started coughing – the first sign that she had developed acute severe pulmonary oedema. I tried to do as many procedures via the radial approach as I could. However, I also encountered quite severe radial artery spasm.

Unfortunately, coronary artery bypass surgery is not available in Fiji. Indicative of many cases in Fiji was one young male with critical left main stenosis of 99 per cent, who ultimately needed CABGs and had to be left on a heparin infusion until we decided where he could go for surgery. Although this year a cardiothoracic team from India did make one visit, patients are otherwise sent to India for their surgery, or New Zealand if they are insured. The Fiji health department often helps those with financial difficulty to get their surgery. One problem with long international flights is the potential compromise of the patient's condition.

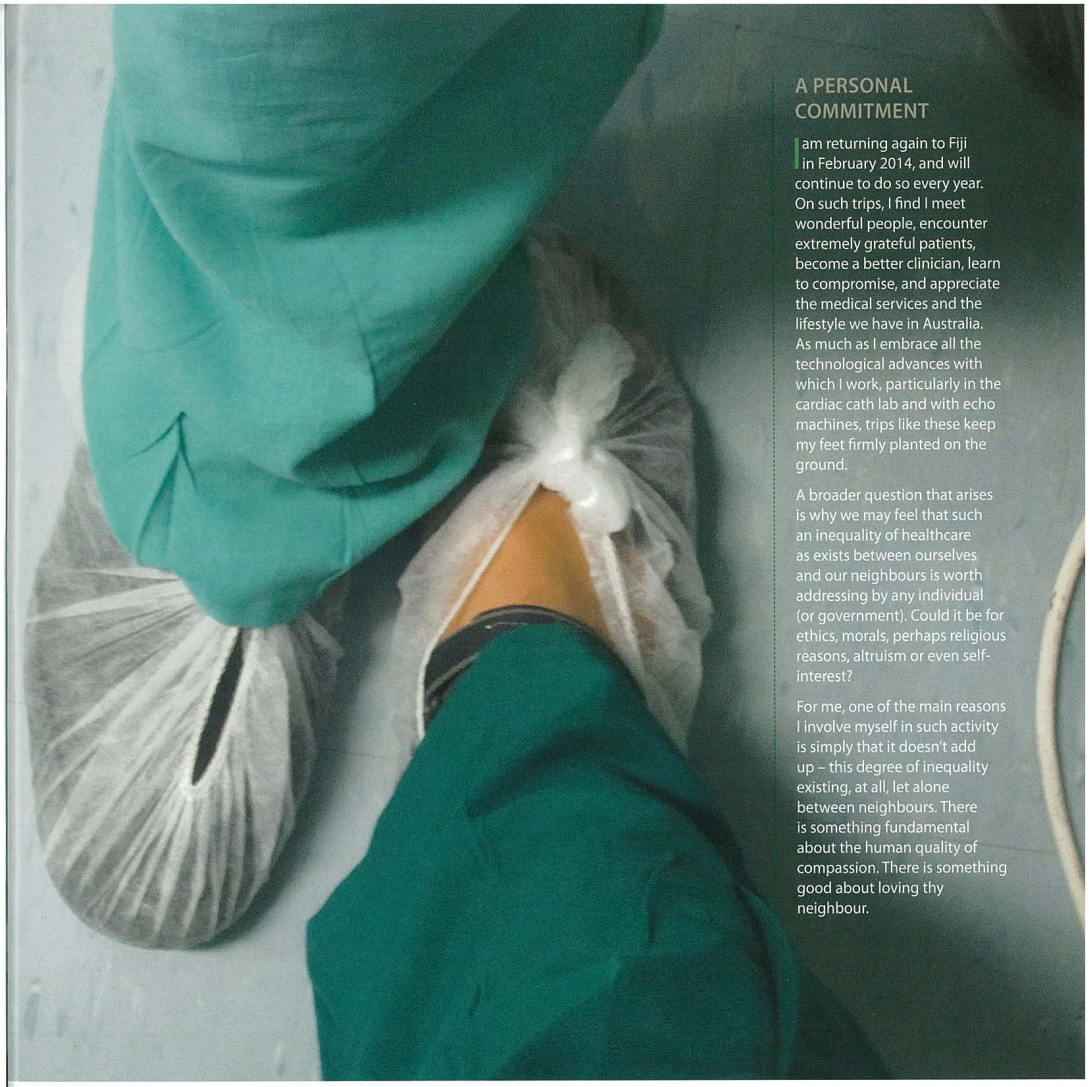
It is amazing how much the Fijians with CVD put up with in their day-to-day life. People significantly limit how far they walk because of chest pain or shortness of breath. One patient I saw was having so much chest pain, they used up a bottle of GTN spray a week. The Fijian patients we treated were all so appreciative and grateful.

The staff there were also fantastic and warmly welcomed me from the first day. Apart from doing procedures, the other purpose of these visits is capacity building with local personnel, so that they are able to perform investigations and procedures themselves. Dr Shahin Nusair is training in cardiology there and was extremely dedicated, as were the other technical staff, ultrasonographers and nurses who were all eager to learn.

Apart from the cardiac catheter theatre, CWM Hospital does have a few much-needed echo machines. The population is plagued by rheumatic heart disease. While there, a young female presented with a massive stroke, and an echo confirmed severe mitral stenosis with a severely dilated left atrium and clot swirling around the atrium.

With the help of some overseas visitors and tutorials from Queensland, several ultrasonographers have been trained. Of course, an echo machine is not cheap and they all have an 'expiry' date. You really take for granted the quality of images you get with up-to-date machines in Australia. I would like to acknowledge the generous support of Phillips and of Sydney Cardiology Group, who will be providing another much-needed echo machine to replace a machine that has breathed its last.

I have seen how coronary heart disease causes significant morbidity and mortality in Fijians. The ability to perform early diagnostic coronary angiograms to guide subsequent intervention such as angioplasty/surgery will help prevent repeat myocardial infarctions and the development of heart failure – and thus improve quality of life and life expectancy, as well as DALYs (disability adjusted life year outcomes). However, having a cardiac catheter theatre is only one element of the fight against cardiac disease. Increasing public awareness of cardiac disease, primary prevention including risk factor management, pharmacotherapy, and ongoing management of patients with heart disease are all important.



A PERSONAL COMMITMENT

I am returning again to Fiji in February 2014, and will continue to do so every year. On such trips, I find I meet wonderful people, encounter extremely grateful patients, become a better clinician, learn to compromise, and appreciate the medical services and the lifestyle we have in Australia. As much as I embrace all the technological advances with which I work, particularly in the cardiac cath lab and with echo machines, trips like these keep my feet firmly planted on the ground.

A broader question that arises is why we may feel that such an inequality of healthcare as exists between ourselves and our neighbours is worth addressing by any individual (or government). Could it be for ethics, morals, perhaps religious reasons, altruism or even self-interest?

For me, one of the main reasons I involve myself in such activity is simply that it doesn't add up – this degree of inequality existing, at all, let alone between neighbours. There is something fundamental about the human quality of compassion. There is something good about loving thy neighbour.






Dr Fiona Foo, Kumaran Kumar, Dr Shahin Nusair and the team at the cardiac catheter theatre in CWM hospital, Fiji.