

Cardiology in Brazil: a country in development

Prevention is the biggest priority for Brazil, where cardiovascular disease is the biggest killer.



Sugarloaf mtn sunset Rio

Brazil is a country of continental proportions. It takes the same amount of time to fly between the UK and France as it does to fly across just one state in Brazil. With a population of around 185 million, Brazil is the sixth most populous country in the world after China, India, the USA, Indonesia, and Russia.

Brazil is one of the BRIC countries—Brazil, Russia, India, and China—which have fast growing developing economies. In the last 8–10 years, the country's economic profile has improved and become more stable, partly due to its production of oil.

Like all other countries in development, there is the problem of big differences in class. There are many poor people and there are also very wealthy people. But in the last 10 years, there has been a transformation in the middle class, which has grown and begun to make purchases of things like soap and other personal hygiene products.

In such a big country, there are also regional differences. The southeast of the country is very well developed, whereas the north is still developing and has more areas with very poor people.

One of the big challenges for the future of Brazil is health. Cardiovascular disease represents the most important cause of death in Brazil, at 32%.

'Our figure is very similar to the figure of several countries in Europe and also the USA', says Prof. Antonio C.P. Chagas, MD, FESC, FACC, Professor of Medicine at the Heart Institute, University of São Paulo, Brazil, and past president of the Brazilian Society of Cardiology.

There is a high prevalence of cerebral vascular incidents because of the poor control of hypertension, many people are obese, there is poor control of dyslipidaemia, and diabetes is a common problem.

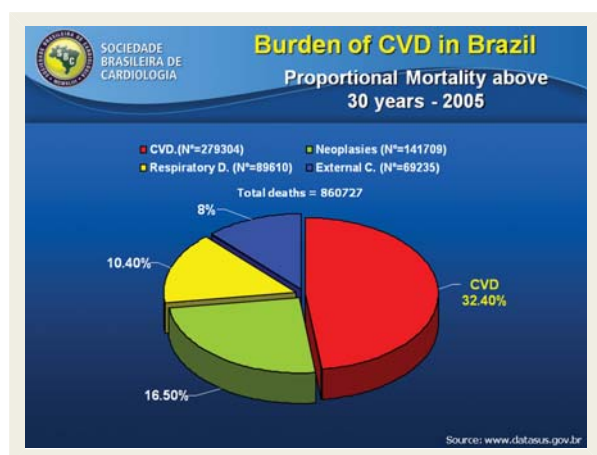
Coronary heart disease is the principal disease but Brazil still has some kinds of valvular heart disease. In poor areas, for example, there is rheumatic fever, and still several people have mitral regurgitation or mitral insufficiency developed through rheumatic disease. In the past 2 years, the Brazilian Society of Cardiology has made a plan to prevent rheumatic disease.

Another important problem in cardiovascular disease is Chagas' disease, a heart disease caused by the protozoan *Trypanosoma cruzi*. Chagas says: 'We are doing a lot to prevent and also to treat patients with Chagas' disease'.

Although Brazil is a country in development, Chagas says that the standards of interventional procedures like angioplasty, and of cardiac surgery, are comparable to the USA and the UK. Cardiac surgery and angioplasty are available in the large majority of the Brazilian states, from the south to the extreme north, but there are a few areas where they are not available. Chagas estimates that all facilities are available in around 80% of the country.

The most important hospitals are in the southeast but very good hospitals also exist in the north, and new hospitals are being developed in the interior of the country.

About 25–30% of the Brazilian population is covered by private money or private insurance. The remaining majority have their health-care funded by the government. This includes, for example, cardiac revascularization, bypass, angioplasty, electrophysiology, pacemakers, cardiac defibrillators, and paediatric cardiology procedures.



As in the UK and the USA, Brazil needs to see more progress on prevention. Chagas says: 'We were very good in terms of prevention of smoking but we need to be as successful in terms of control for hypertension, dyslipidaemia, and also diabetes'.

Economic development has brought its own problems. As the country has developed, people have moved from the rural areas to the big cities, and subsequent to the move, they become obese. The big cities have particular problems with obesity, since people eat too much fatty food, spend a lot of time on public transportation, and do not take time to exercise. 'It's the price that you pay for development, unfortunately', says Chagas.



Overview of Brazil risk factors

Brazil has achieved a large reduction in smoking. Today, there are more people in the country who have quit smoking than people who are currently smokers. The success has been possible through the efforts of the Brazilian Society of Cardiology, the Brazilian Lung Society, and the government.

The state of São Paulo kicked off restrictions on smoking in public places and it is forbidden to smoke in restaurants, hospitals, and offices. Other states are starting to implement the same restrictions.

When it comes to other aspects of prevention, several programmes are underway using various methods of communication such as TV, the Internet, and also the medical community, who explain the risks for cardiovascular disease and that it continues to be the number one killer in the country.

Such campaigns are run by the medical societies in cooperation with the government. During Chagas' period as president of the Brazilian Society of Cardiology, the society started to work closely with the Ministry of Health.

The Brazilian Society of Cardiology has 12 000 members, of which 8000 are board certified as a specialist in cardiology by the society and by the Brazilian Medical Association.

But 8000 cardiologists is not enough for the country, says Chagas. The large majority of cardiologists live in big centres or medium-sized communities. In areas with few people, it is difficult to have a specialist. In several areas, patients are first seen by general physicians and then referred to a specialist.

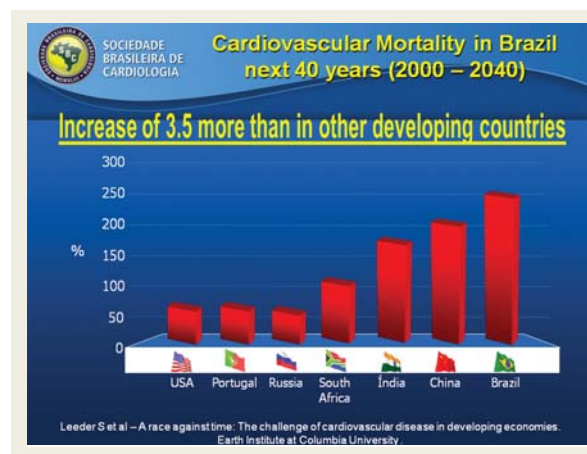
The Brazilian Society of Cardiology, www.cardiol.br, was founded in 1943 and was affiliated with the European Society of Cardiology in 2009. It is an active society, with several programmes of teaching and self-learning, along with regional and national meetings for developing knowledge in new areas of cardiology.

Brazilian Cardiology Archives, the society's official scientific journal, is published in Portuguese, Spanish, and English.

In the last 2 years, the society has made a big push to get not only the federal but also several state governments and the universities involved in a plan for the future of cardiovascular disease research.

The plan will see funds from the society, federal government, state governments, and private foundations used to develop young scientists and to help the career of established investigators in the country. 'We need to get more people involved in research and also to have more opportunity', says Chagas.

His vision for the cardiology profession in Brazil is one where cardiologists have a very good education and strong knowledge about the disease. And because cardiovascular disease will continue to be the number one health problem in the country, more cardiologists will be needed to address the problem.



He says: 'For such a condition we need to have more research, more people teaching cardiology [and] more people doing the primary care in cardiology because we need to be the winner of this cardiovascular disease war in our country'.

J. Taylor, MPhil