The World Health Organization estimates that by the end of the decade noncommunicable diseases will be as prevalent as communicable diseases in Africa. Professor Bongani Mayosi, President of the Pan-African Society of Cardiology, paints a picture of the novel activities cardiologists in this region are undertaking in their united effort to battle cardiovascular disease.
AS THE PLANET undergoes rapid urbanisation and globalisation, noncommunicable diseases (NCDs) – once contained largely to developed countries – are now becoming a major concern for developing nations as well. In fact, of the 38 million deaths that happen every year as a result of NCDs, the World Health Organization (WHO) estimates that seven out of 10 will occur in low- or middle-income countries. Moreover, of these 38 million, nearly half will meet their demise due to a cardiovascular event.

THE PURPOSE OF PASCAR
Since 1981, the Pan-African Society of Cardiology (PASCAR) has been working to improve the cardiovascular health the African population. The idea of PASCAR was conceived by a small group of African cardiologists during the late 1970s who felt isolated at world cardiology meetings, as the topics discussed were often orientated towards cardiovascular conditions affecting people in developed countries. These cardiologists held the first PASCAR meeting in May 1981; over 120 clinicians and scientists from 15 African countries attended, fostering understanding between historically separated groups.

At this event, cardiovascular workers discussed their challenges, successes and research discoveries, and exchanged ideas as never before. They noted that the task ahead of PASCAR was monumental because, in those days, local ministries of health generally believed that Africans had a ‘built-in protection’ against heart disease and that hypertension and other cardiac risk factors would never become epidemic on the continent. Thus, out of this inaugural meeting, the organisation set four goals that still guide its activities today.

AIMING FOR A CURE
PASCAR’s first goal focuses on preventing and treating cardiovascular disease (CVD) in Africa, to which end the organisation is helping the continent grapple with several problems. First, it is looking for ways to effectively prevent and treat ‘old’ diseases, such as rheumatic heart disease (RHD), which are no longer an issue in developed countries because of socioeconomic development and access to primary healthcare. It is also undertaking activities to tackle the continent’s emergence of ‘new CVDs’, such as hypertension, which are arising due to trends that include urbanism and increased standards of living.

Additionally, PASCAR is pushing for the integration of infectious and non-infectious disease treatment. In other parts of the world, people discuss communicable diseases and NCDs as though they exist in silos, but these diseases are indivisible; we do not have the luxury of classifying them into camps. For example, a cardiologist may see a patient who has heart failure caused by pericardial tuberculosis; that cardiologist needs to deal with both conditions in an integrated way.

A SPIRAL OF LEARNING
The Society’s second goal is concerned with the training of health professionals to combat CVD and to bring about the improved health systems that the continent so desperately requires. In Africa right now, there is a perfect storm where old and new heart diseases are colliding with infectious diseases in a context of great need. What do I mean by that? I mean a context in which the health systems are not strong enough to deal with the challenges they face. We are working to increase training, improve health facilities and increase access to drugs, diagnostic tests and surgery using novel tools and methods.

Consider how cardiologists learn their trade. In many parts of Europe and North America, cardiologists train for many years before they go into practice. Initially, we followed a similar ‘Big Bang’ approach, but we found that it did not deliver the results we desired. For example, we would take people from Sierra Leone, bring them to Cape Town, South Africa, and train them for several years in all aspects of cardiology. However, when we had finished, we had trained them beyond their usefulness for Sierra Leone, and when these people finished their courses, they often moved abroad.
Therefore, PASCAR now offers ‘spiral training’ in which people are educated according to the needs of a particular country as well as the capacity of that country. People can apply for fellowships to go to a centre and work on developing their skills through a modular method. Take Sierra Leone as an example again. Up until 2005, the country desperately needed an echocardiographic service, as there was not a heart scanning service at the time. So what did we do? We trained someone from Sierra Leone in echocardiography and cardiac intensive care and then, after a year, the person went back to Sierra Leone and set up a service, introducing cardiology to the region. Moreover, that individual was useful to the region because they were trained in the context of the country’s resources. Later, that person is able to apply for another fellowship in order to train in a different aspect of cardiology; it is quite a unique model that we developed to meet the conditions of society.

INSPIRATION THROUGH IMPROVED EDUCATION

We are not only educating the next generation of cardiologists using innovative techniques; we are also educating the public about CVDs and how they can be prevented in fresh ways. Take RHD as an example. Currently this disease disproportionately affects children living in the developing world, especially where poverty is widespread. In Africa, for instance, it is estimated that at any given time, up to 1 per cent of school children show signs of the disease. The depressing part of this statistic is that RHD is completely preventable.

We are engaged in education activities across the continent to help prevent RHD. For example, we have named the first week in August Rheumatic Heart Disease week. Through this educational week, we have become involved in several kinds of public outreach projects, from commissioning pieces on the radio to holding meetings with patients.

A novel aspect of our public engagement work is done in conjunction with the Kenyan-Heart National Foundation. I am referring to the ‘Kenyan-Heart Talking Walls’, where messages about RHD are painted on the sides of the walls surrounding schools, since children between the ages of five and 15 are most vulnerable to acquiring the disease. The aim of the ‘talking walls’ is to spread the message of RHD prevention through early detection of a strep-sore-throat followed by prompt and correct treatment. Through these walls, we are raising awareness in the minds of parents, caregivers and the children themselves that they need to go to a clinic at the first signs of a strep infection.

PERFORMING AND SHARING RESEARCH

The fourth leg of our work is to invest in CVD research on the continent. PASCAR firmly believes that in order to study and treat diseases unique to Africa in the best way possible, there needs to be an increase in studies initiated and carried out by Africans themselves. And, for the first time in the history of the world, there are large-scale studies arising on the continent, providing evidence on conditions that are prevalent in Africa.

For example, PASCAR is part of a multinational, multicentre study of pericardial tuberculosis that is one of the first ever to be conducted in history, as well as one of the largest. Pericardial tuberculosis is the most common pericardial disease in sub-Saharan Africa, accounting for 50-70 per cent of cases. Though the results of the investigation did not point to an effective therapy for the disease, PASCAR considers this concerted effort one of its great research achievements in terms of hosting such a large clinical trial.

In addition to carrying out CVD research, PASCAR holds regular events to encourage people to share their activities and results. For example, on 3-7 October 2015, PASCAR will hold a congress in conjunction with the Tunisian Society of Cardiology and Cardiovascular Surgery for health professionals, policy makers and students who are concerned about CVD in Africa. At this congress, we will explore the latest information on the diagnosis and treatment of CVD, and equip practitioners with the latest knowledge, so that they can go back to their home countries, institutions and clinics to implement best practices.

BEATING CARDIOVASCULAR DISEASE

A major target that PASCAR has set for the continent is to align itself with WHO’s global objectives. Within this, we are aiming to slow the death rate from CVD and stroke by 25 per cent by the year 2025. PASCAR believes that the best way to achieve these targets for the heart is hand in hand. As such, the organisation is currently collaborating with national societies in 36 African countries, and by 2020, we want national societies in all 54 countries on the continent to be united under the PASCAR banner. Once each country is represented, CVD prevention and treatment in Africa will truly be possible.

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