

## The burden of cardiovascular disease in sub-Saharan Africa

**To the Editor:** In the article “The burden of cardiovascular disease in sub-Saharan Africa” by Anthony Mbewu (SA Heart Summer 2009) the hidden epidemic of children with heart disease in Africa is significantly underplayed.<sup>(1)</sup> There is no evidence that the incidence of rheumatic heart disease (RHD) is decreasing, and its incidence is generally underestimated. The World Health Organisation suggests an incidence in sub-Saharan Africa (SSA) of 5.7 per 1 000 population,<sup>(2)</sup> while reports based on auscultatory screening of school children give incidences of 2.7 to 20 per 1 000.<sup>(3,4,5)</sup> In contrast, reports based on echocardiography give higher incidences; using echocardiography to study 2170 school children in Mozambique, Marijon and colleagues found an incidence of 30.4 per 1 000.<sup>(6)</sup> It would appear that the true incidence of RHD in SSA is much higher than was previously thought, and there is an urgent need for prevention programs.

Congenital heart disease (CHD), the commonest lethal congenital defect and most significant non-communicable disease in SSA,<sup>(7)</sup> will become increasingly prominent if the epidemiological transition becomes a reality for children. CHD is also underestimated by Mbewu, who gives an incidence of 2.0 per 1 000, with ventricular septal defect, atrial septal defect, patent ductus arteriosus, and Fallot's Tetralogy making up 85% of the cases – data taken from a study of 13 322 school children in Sudan.<sup>(8)</sup> However, school populations give low CHD estimates, because without treatment many die early,<sup>(9)</sup> and survivors are often unable to attend school.<sup>(9,10)</sup> Most studies agree on an incidence of “significant” congenital heart disease (i.e. what will require cardiological care) of about 1% of live births or slightly less,<sup>(11,12,13,14)</sup> with eight common lesions making up 85% of all CHD.<sup>(13)</sup> With only minor variations, CHD incidence is constant worldwide, irrespective of socio-economic conditions.<sup>(11,13,15)</sup> Thus, of the approximately 50 million children born live annually in Africa,<sup>(16,17)</sup> as many as 500 000 have significant CHD, with an additional pool of older children and adults who have survived the early years.

It is important that we work with an accurate understanding of the burden of childhood cardiovascular disease, so as to establish

appropriate research, increase awareness of the burden, and develop effective strategies to deal with it in this vulnerable population.

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