Commentary: Cardiac surgery in underdeveloped countries—The cart before the horse?

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It was a pleasure to read the article in this issue of the *Journal* by Forcillo and colleagues. The global prevalence and mortality related to cardiovascular diseases, including congenital, rheumatic, and coronary heart disease, remain an immense public health dilemma for developing countries, including the African countries. Despite valiant efforts, access to cardiac surgery is significantly limited in most of these countries. In their article, Forcillo and colleagues describe their preliminary effort to study in depth the variables important for developing and growing a thriving cardiac surgery program in a granular approach with an assessment tool composed of detailed surveys and interviews. The purpose of this initiative is then to use the assessment tool capable of analyzing the strengths and deficiencies of an individual program; define standardized needs of a cardiac surgery program; highlight initiatives, solutions, and opportunities from existing programs; and disseminate the findings for other programs in the African countries to adopt. Forcillo and colleagues are to be commended for initiating a challenging and promising line of inquiry. Although informative, the study provides excessively generalized descriptive information about the countries' health care priorities, deficient governance, inadequate financing, lack of health system administration, and absence of structured educational and research programs. The absence of important health care system components is not unexpected. It would have been preferable had the assessment tool and the study been designed to obtain data during a defined period, for example, 5 years, to allow meaningful analysis of the national trends in the capacity to deliver cardiovascular care, individual cardiac surgery program clinical quality data, quality improvement initiatives, and strategies to promote capacity growth, and then to report preliminary effectiveness of transferrable cost-effective solutions. Compared to minimum cardiac surgery program needs proposed by Forcillo and colleagues, all 3 countries demonstrate significant variability in available vital human and nonhuman resources. Forcillo and colleagues provide neither validated data nor a model for the proposed minimum infrastructure needs, which are contrary to well-established quality programs in the United States and many other countries with far fewer human resources. Currently, surgical treatment in the countries surveyed is primarily limited to congenital and rheumatic heart disease, which overshadows the most important cause of death in adults, ischemic heart disease. The health care policies, financial commitments, and health system infrastructure in most of the resource-constrained countries face competing priorities, with a focus primarily directed at communicable diseases as the leading cause of mortality. Similarly, it would be prudent to intensify efforts to eradicate rheumatic heart disease, which is likely to be far more cost-effective, with more lives saved long term than by expensive cardiac surgery programs that serve a few patients for many decades. Eradication of rheumatic heart disease can be achieved in resource-limited countries. Prevention strategies to reverse the increasing incidence of ischemic heart disease mortality should be an equally important priority, with cost-effective, lifesaving percutaneous intervention providing greater return than expensive surgical procedures serving a fraction of the population. Comprehensive cardiology practice growth and robust intensive care unit capabilities are more likely to bolster future cardiac surgery growth. The assessment tool and future investigations will likely require refinements to organize and disseminate reproducibly cost-effective...
solutions applicable to most of the cardiac surgery programs within the framework of their unique health system infrastructure.

References


