

Moving forward: the introduction of specialist cardiovascular nurses in Zambia

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The concept of universal health coverage requires that all people have access to a continuum of essential healthcare services, including health promotion, prevention, treatment, rehabilitation and palliative care, without financial hardship (World Health Organization (WHO), (2025). Nurses are key to achieving this because they are found at every step of the patient journey.

However, it is a cause for concern that in many low- and middle-income countries, which previously had a prevalence of communicable diseases, there has been an increase in the incidence of non-communicable diseases. The latest data show that cardiovascular conditions are now among the leading causes of death worldwide, accounting for more than 80% of all premature non-communicable disease deaths (WHO, 2024).

This may be compounded by the unavailability of appropriate medication and interventions in many regions of the world (Harrison, et al, 2023). If not addressed by 2030, non-communicable diseases are set to overtake communicable, maternal, neonatal and nutritional diseases combined as leading causes of mortality in Sub-Saharan Africa (Bigna and Noubiap, 2019).

Additionally, many countries in the region have high numbers of individuals with HIV, the treatment for which increases the risk of non-communicable diseases such as cardiovascular diseases (CVD), diabetes and cancer (McCombe et al, 2022). However, the provision of cardiac care remains underdeveloped in terms of services and human resources. This underscores the importance of developing cardiovascular nursing services in the countries of Sub-Saharan Africa.

There has been much debate on the provision of cardiac services in low-income countries (Fredericks et al, 2020; Hasan et al, 2023). This has included the ethics of providing a high-cost, complex specialist service within already overstretched health systems (Fenton, 2022).

International literature tends to focus on cardiac surgery, with some research showing that the availability of alternative approaches to managing cardiovascular conditions – namely medical management and chronic disease management – remain variable

(Awuah et al, 2023; Leith et al, 2025). Failure to address the lack of these alternatives may hinder progress towards universal health coverage. To keep pace with changes in disease burden and healthcare provision, it is therefore crucial that the nursing profession in Sub-Saharan Africa adapts and responds to changing healthcare needs in the region.

In our experience of supporting the development of nursing specialties such as emergency and trauma, and critical care, there must always be a pathway to escalate care to a higher level. This prevents situations whereby a patient's needs are recognised but cannot be addressed, for example if an individual has had a myocardial infarction, but there is no access to percutaneous coronary intervention or thrombolysis through their local health services.

In consequence, service development needs to begin at secondary care level, with the introduction and build-up of specialist cardiac services. Once these specialist services have been established, the aim would be link up and embed these services within primary healthcare strategies to ensure the provision of an integrated referral network throughout the healthcare system. Such a comprehensive model to cardiovascular care would strengthen the patient pathway between primary and specialist care services: it would encompass elective and emergency interventional cardiology and cardiac surgical services, which would contribute to achieving universal health coverage.

Globally, there is an increasing trend for the specialisation of health professionals. However, in Sub-Saharan Africa nurses have had fewer similar opportunities for specialisation, due to limited education opportunities and resources (WHO, 2020; World Bank Group, 2020). Consequently, there has been a greater emphasis on task shifting, wherein 'tasks' usually carried out by a doctor are transferred to other health professionals (WHO, 2008).

This model has been accepted as offering solutions in the provision of HIV, maternal and child care, and it has the potential for the delivery of set community-based CVD interventions (Mbouamba et al, 2023). Nevertheless, the term 'task' implies a low level, procedure-based activity rather than one that facilitates the critical thinking and decision-making needed for the management of CVD in the community.

Additionally, a systematic qualitative review of task-shifting in Sub-Saharan Africa (Mijovic et al, 2016) suggested that this approach may negatively impact an individual health professional's sense of agency, resulting in a perceived loss of professional identity, and limiting career progression and development.

Furthermore if nurses are expected to take on more tasks, who will then deliver nursing care? Given the complexities of cardiovascular care, it could be argued that an educational approach that has the aim of developing specialist nursing practice should be adopted alongside other strategies to develop cardiovascular services

Although, regionally, there remains a reliance on international cardiac missions to support the development of, and increase in, the delivery of cardiac surgery, there is an urgent need to develop the local workforce to deliver a range of preventive and specialist cardiac interventions. It is worth noting that many high-income countries have seen a drop in cardiac surgery to manage CVD, which is due to a move for medical and surgical teams to work together in harmony to implement joint cardiac interventions (Zilla et al, 2020).

Zambia's approach was to open a national heart hospital in 2021, which provides both medical and surgical interventions for patients across the whole country. It is recognised that demand for cardiac interventions exceeds availability. Consequently, the country needs to build capacity across both medical and surgical cardiac care to maintain pace with the changing international approach.

There has been a deliberate focus on developing the skills of local doctors and surgeons, who are helping to build and embed this new model of specialist care (Ahadzi and Gaye, 2023). However, nurses have not had access to formal higher education in cardiovascular nursing that would enable them to provide specialist care. Although short training courses may increase nurses' knowledge, this may not lead to the development of a sustainable highly skilled workforce in the longer term. Therefore, there is an urgent need to develop context-specific specialist education programmes.

Zambia's Ministry of Health (2022) recognised the need to develop cardiovascular nursing as set out in its 2022-2026 National Strategic Health Plan. Consequently, the Ministry of Health, together with key stakeholders, such as universities and colleges of nursing and midwifery (including the University of Zambia), professional regulators, professional associations and international partners from Birmingham City University (BCU), is supporting the development of higher education opportunities in cardiovascular nursing through the delivery of local programmes.

For example, the University of Zambia's MSc in Cardiovascular Nursing is supported through a grant from the Burdett Trust for Nursing, which is ready for implementation by 2026 [AQ4 would 'within the next year' be better?], with imminent plans to develop a BSc in cardiovascular nursing.

These new programmes will focus on the continuum of cardiovascular care – from health promotion and prevention to treatment, rehabilitation and palliative care. They will also focus on developing researchers, managers and strategic leaders in cardiovascular nursing. It is worth noting that all stakeholders recognise that, to ensure these programmes are sustainable, it is crucial to have in place a faculty of nurse educators to teach them.

As such, alongside this project, BCU will contribute to strengthening the capacity of the local nursing workforce. This approach contributes to building a sustainable, locally led and context-specific programme, thereby removing reliance on international

partners. However, as Vervoort et al (2021) pointed out, this takes time and cannot be achieved in a short-term fixed period.

Cardiovascular nursing is an internationally recognised post-basic specialist nursing field of practice, which spans all aspects of CVD. It is therefore, crucial to develop the local nursing workforce across Sub-Saharan Africa to achieve universal health coverage and reduce mortality due to CVD.

Zambia and countries in the wider region are at a crossroads as they move forward with the rapid development of their cardiac services. To deliver care to patients with CVD requires a specialist nursing workforce. This is a relatively new specialty in Zambia, but it is here to stay. The development and implementation of a new specialist workforce to manage CVD provides nurses in Zambia with a unique opportunity to pioneer the development of this nursing specialty and to offer a model for others in Sub-Saharan Africa to follow.

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