

## ***Covid-19 One year on: The challenge for low-middle income countries***

History has shown that epidemics are a story of inequalities [1]. In early 2020, the World Health Organisation (WHO) described the Covid-19 pandemic as a public health emergency of international concern [2]. In many countries this meant the demand for critical care services has exceeded availability in terms of workforce, resources and equipment. Since the start of 2021, there has been a significant increase in infections in Africa, with new and different variants of SARS-CoV-2. However, little has been published on the impact of Covid-19 in low-resource settings and role of critical care nurses and services. This critical commentary is partly based on our reflections as members of a health partnership in Zambia, to capacity build Emergency, Trauma and Critical Care Nursing and also utilises current available evidence.

The focus, worldwide, has been on the numbers of cases and numbers requiring critical care services. However, in countries with a limited critical care workforce and resources, it only takes a few cases to overwhelm the healthcare system. For example, oxygen is classed as an essential drug by the WHO; however, it remains limited in many low middle income countries' (LMIC) hospital settings [3]. Now, one year on since the start of the pandemic, the WHO still identifies access to oxygen in LMIC as limited due to cost, infrastructure and logistical barriers [4]. This is a cause for concern as hospitals that are unable to provide a continuous supply of oxygen or electricity to run oxygen concentrators may result in unnecessary loss of life.

Critical care services are an essential, integral service needed for the provision of comprehensive healthcare systems and should be seen as essential to achieving universal access to healthcare [5]. However, critics argue that specialist services such as critical care do not necessarily significantly decrease overall mortality; therefore, the development of these services in low-resource settings is unrealistic and instead investment should focus on primary healthcare projects [6]. Prior to the pandemic, the limited number of emergency, trauma and critical care staff were responding to the 'silent epidemic' of rising trauma, communicable and non-communicable disease and the need to provide safe surgery [7-9], with little recognition or support. In addition, the reality is that often emergency, trauma and critical care nurses are the only trained specialists within many LMIC hospital settings, due to the limited numbers of doctors. Therefore, they are expected to provide guidance and support across the hospital, as well as deliver critical care nursing. For many countries the short, medium and long-term impact of Covid-19 has arisen not only from the virus itself but from funding being diverted to provide immediate and essential pandemic services. Sadly, the hard won reductions in communicable and non-communicable diseases are in danger of being reversed, and we do not know the longer term impact on an exhausted and over-extended workforce. Then too, in many LMICs

the situation is compounded by the economic damage which includes a high inflation rate with the rising cost of food and increased unplanned expenditure in terms of illness and funerals causing emotional stress and anxiety [10].

International support through a Health Partnership is one way in which a long-term institutional relationship between countries can aim to improve healthcare services and systems through the joint sharing of knowledge, skills and experience [10]. Since the start of the pandemic many health partnerships have had to rapidly move to virtual remote learning and this has determined how we have moved forward as a partnership in terms of project management and activities [11, 12]. Funding organisations see virtual volunteering as a way to engage more professionals to support projects and reduce the need for travel during the pandemic [13]. Nevertheless, it is important to point out that there are several critical limitations to this approach that need to be considered. Virtual teaching may not be fully utilised due to poor internet connectivity and often the majority of students and nurses cannot afford the cost of buying internet bundles, or have smart phones, therefore reducing access to resources. It is important to recognise that, until this situation is redressed, virtual learning will be useful, but cannot totally replace face-to-face learning. In addition, assessing competence via a screen is somewhat challenging. As a result, our health partnership has continued with mutual exchanges, using very careful protocols to protect teams.

Some High Income Countries (HIC) are starting to see the impact of successful vaccination campaigns and governments have started to provide roadmaps to recovery [14]. However, for LMIC countries, the vaccination timeline is unclear and remains a dream for many. For many living in remote and rural settings, providing comprehensive vaccination programmes, maintaining the necessary cold storage and providing credible and acceptable information to counter misinformation are some of the issues that still need to be addressed.

The recent announcement of the UK government's decision to reduce the UK Research and Innovation (UKRI) Overseas Development Assistance (ODA) funding is disappointing and a real cause for concern, particularly as the UK Prime Minister had announced at the UN General Assembly in 2020 that 'no one is safe until we are all safe' [15, 16]. Many of the projects identified for reduction or even termination, were designed to provide vital support to vulnerable global communities impacted by Covid-19 [17]. In one example, Birmingham City University is partnering with Lusaka and Ndola Colleges of Nursing, to help improve the clinical decision making of nurses in Zambia, helping them to respond appropriately to the pandemic and prevent healthcare systems from becoming overwhelmed. Work has commenced, yet now the future is uncertain.

We all recognise the world has changed, with resources universally reduced, as we now live and work in the 'new norm', but for nurses in resource-limited environments the potential loss of support means the future remains even more uncertain. For health partnerships such as ours, the challenge is how to continue to support partnerships with these limitations and uncertainty regarding funding.

This short critical commentary, has been written to raise awareness of the challenges and to highlight the difficult situation facing critical care nurses. It stresses the need for maintenance of international partnerships striving to support their international peers as we move into the second year of the pandemic. The need for solidarity is now more important than ever.

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