Statement on COVID-19 and the training of healthcare professionals in Africa

November 2020
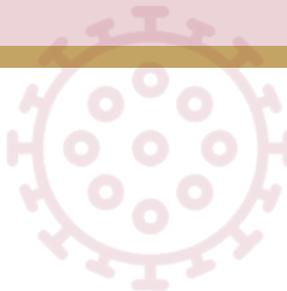
Governments around the world are implementing measures to contain the spread of COVID-19, which are complimented effectively with clinical care. Healthcare professionals have emerged as national heroes on account of the perceived COVID-19 risk they face daily in carrying out their duties at healthcare facilities or in the communities. Several healthcare professionals have lost their lives after contracting COVID-19 in the line of duty[1]. At the same time, careers in the health sciences have become exceptionally attractive on account of high chances of employment, job security and prestige.

Healthcare workforce development is critical to meeting Sustainable Development Goal 3 (SDG3) and other health-related SDGs and to achieve universal healthcare coverage (UHC)[2(p3)] in Africa. The COVID-19 pandemic further compounds the already ill equipped, under-staffed strained, and over-stretched healthcare system which has struggled in the past to provide adequate, quality healthcare for the populace[3]. The pandemic has increased the demand for services by healthcare professionals and constrained the supply of essential and often limited commodities. Training of new healthcare workers has been constrained by the public health outbreak control policies and healthcare workers who contract COVID-19 are forced to isolate for a period. This complex constraint will likely to continue for the unforeseen future with negative impact on the health of the population, as healthcare workers in Africa continue to be exposed to SARS-COV-2.

Studies around the world have shown a direct correlation between availability of health workers, coverage of health services and population health outcomes[4]. There are also some indirect effects of the coronavirus pandemic such as maternal and child health related issues, cancer management complications, and increased requirement for general surgery, diabetes and hypertension clinics which are experiencing declining patient

numbers[5]. We must anticipate the resulting "hidden sick", which will ultimately further strain the health system. Efforts to recover from the losses with regard to health indicators after the outbreak will require even more healthcare workers[6]. As the pandemic runs its course, the health and education sectors will be severely impacted, with rippling effects that may have dire consequences for population health outcomes.

Training of healthcare professionals is especially challenged by the pandemic. With medical schools temporarily closed and the increasing use of online schooling, medical students miss out in skills and competencies that are best gained through physical interactions with patients, teachers, peers and biological materials in the classroom, clinical and laboratory environments. Several healthcare training programmes have suspended activities because of the pandemic, especially those programmes that require clinical rotations, internships and laboratory practicums as part of training in real-life situations. Countries, especially those in Africa, have to grapple with how to address the widening gap in the need for professional healthcare personnel[7–10].

This conundrum calls for swift transformative change in the healthcare training/ educational sector: a sector that has been very conservative and accultured to change slowly. The huge financial implications for such changes also underscore the need for innovative and creative approaches, one of which is the deliberate harmonized healthcare worker training across Africa. There is a need to plan for risk-managed training to close the gap in healthcare worker coverage for future epidemics like COVID-19 which may disrupt medical training programmes. The COVID-19 pandemic, therefore, provides a precursor to evolution in the training of healthcare professionals and their learning experiences in the future.

Africa CDC, therefore, makes the following recommendations for the training of healthcare professionals in higher institutions in Africa:

1. Prioritize clinical rotations, internships, laboratory practicums for healthcare professionals in their final year of training before the terminal examinations.

2. Institute innovative measures to minimize teacher-student-patient contacts, including physical distancing, use of personal protective equipment, frequent handwashing, and use of hand sanitizers.

3. Invest in digital and simulation infrastructure for skills building, which will reduce the need for physical interaction.

4. Prioritize the reorientation and re-skilling of faculty staff on the use of information and communications technology (ICT) and new educational training tools and techniques.

5. Invest in telemedicine and the use of artificial intelligence to improve efficiency of the healthcare system while reducing human contacts. The use of drones for delivery of samples in Ghana and Rwanda as well as the use of robots in COVID-19 facilities in Rwanda are examples of good practices in Africa.

6. Recruit healthcare workers to mitigate the risk of stifling quality training over the next five years.
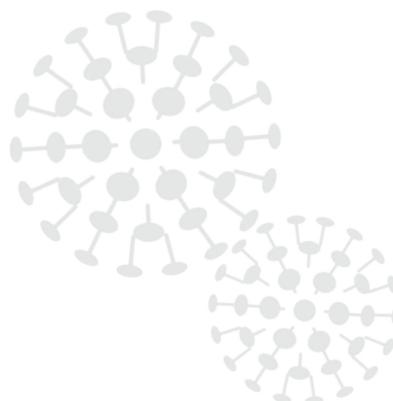
Specific actions which may be considered by Member States, in line with World Health Organization's guidelines on digital education for healthcare workforce education and training include:

1. Formulate appropriate and enabling strategies, policies and standards for accreditation of healthcare professional training institutions on the conduct of digital education and examinations.

2. Set up digital teaching and examination platforms, including the use of virtual reality and virtual patients, and provide active support for students who cannot afford the interface, i.e. the cost of devices and data.

3. Adopt dynamic healthcare professional curricula and supportive learning environments such as the use of ICT tools not only for teaching and learning but also for testing and grading. ICT tools can be used for oral and written examinations in the form of case studies, clinical scenarios and patient management problems.

4. Increase capacity and competencies by partnering with technology companies to develop and improve the digital infrastructure in educational institutions in a non-intrusive, ethical and cost-effective manner which takes into consideration acceptable standards for data protection.

5. Forge strong multilateral commitment for coordinated and innovative action to share digital resources across healthcare professional training institutions in Africa and beyond.

6. Adjust curricula for delivery of a combination of online and in-person practical modules, where in-person modules are stretched out over a longer period than normal to allow for appropriately reduced student-teacher ratios. Also explore the use of other currently non-accredited facilities in other sites for practical training to reduce congestion in teaching hospitals.

7. Develop a risk-based approach in the training curricula, which will enable learners to acquire the necessary skills while staying safe. For example, allow teaching and examinations on those skills which need to be in-person to be conducted over an extended period to allow for physical distancing.

8. Carry out tiered screening for COVID-19 among students and faculty presenting for in-person teaching/examinations and, where possible, create bubbles in student hostels with quarantine periods pre- and post-examinations while instituting adequate passive surveillance systems.

9. Provide high-risk, if not all, students with government-sponsored personal protective equipment and medical insurance.

Implementation of these recommendations will require substantial financial investment in ICT, but the increased demand for internet access can help reduce prices, as the cost of infrastructure investments by service providers would be recouped within a shorter time. However, this cannot be achieved without high-level negotiation and perhaps legislation.
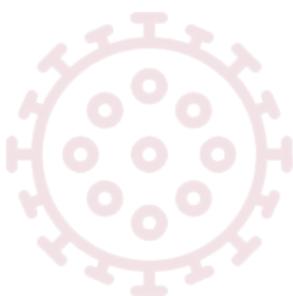
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