

UN High Level Commission on Health Employment and Economic Growth Case Study: Republic of South Africa & Cuba collaboration for training doctors

Background.

This Commission was appointed in response to a United Nations General Assembly resolution (A/70/L.32) recognizing that investing in new health workforce employment opportunities may add broader socio-economic value to the economy and contribute to the implementation of the 2030 Agenda for Sustainable Development. A remit for the Commission is: *“To make recommendations on the revision of education and training models and the development of the range of skills in the health and social sector, to facilitate the production of qualified health personnel, especially in the poorest countries and in disadvantaged geographical areas (rural physicians, community nurses, etc.), and to ensure that health worker competencies are in line with priority health services and the health needs of populations”*. Case studies provide part of the evidence from which better policies and practices may be developed.

Health and health care in South Africa

South Africa faces many health challenges - high maternal and child mortality; high prevalence of HIV – 40%; poor primary health care coverage in rural and deprived urban areas; and difficulties in recruitment and retention of health workers in these areas. [1] South Africa also has a policy commitment to achieving Universal Health Coverage [2]. While the financial challenges can likely be overcome through a national health insurance scheme, the human resources for health are a critical pathway for health improvement. Unfortunately, South Africa is lagging behind other middle income countries. [3]

The situation for South Africa is exacerbated by the massive global shortage of health workers which is resulting in out-migration of skilled health workers, particularly doctors, from South Africa.[4] South Africa has 28,000 doctors, giving a per capita ratio <5 doctors per 10,000 population. Between 2002 and 2010, 11,700 doctors were trained but only 4403 were employed in the public sector. Although 43% of population live in rural areas, only 12% of doctors work there. Of the 1,200 annual graduates only 35 a year go on to work in rural areas long term.

The Cuban medical training programme

The Cuban medical education model emphasises disease prevention and population level health promotion as well as primary care/family practice and management of chronic disease, and has very strong social responsibility and ethics components.[5] These characteristics are much less prominent in conventional models of medical education, which prioritise specialisation, technology, individual patient level responsibility and curative medicine. Whilst the Western medical model trains all doctors to a certain level at which they can choose their specialty, primary care being one of these, the Cuban model trains all doctors to become primary care/community practitioners first, before they decide whether to take up further specialisation in a hospital specialty (or not). The Cuban model's characteristics are especially relevant in low income countries where there is a commitment to Universal Health Coverage under limited financial and human resources.

Health system strengthening and building stronger human resources for health in Africa is a major focus of the Cuban system. Over the past 50 years, the Cuban Medical Cooperation programme has worked in over 100 countries. In 2013, over 50,000 Cuban healthcare professionals (19,000 of them medical doctors) were present in 66 countries around the world, mostly in rural and remote areas where local doctors refuse to serve. Since its establishment in 1999, the Latin American School of

Medicine (ELAM) has trained over 20,000 doctors from Latin America and the Caribbean as well as Africa and Asia, offering full free scholarships to its students coming from rural/remote and low income families.[6,7]

Over the last decade, over 200 medical students from USA have enrolled in ELAM. On their return, most who applied for medical residencies got them and two-thirds work in areas with a lack of medical staff or services, and the rest are working with the public sector in marginalised communities.[8]

Medical training in South Africa

The South African government led by Nelson Mandela, recognising the maldistribution and lack of trained doctors and the potential of the Cuban approach, established a programme to train medical students in Cuba in 1997. Initially about 100 black students from rural and disadvantaged urban communities were selected for training each year, many of whom are qualified and back in South Africa. In 2005, the scheme was expanded with a target of training 2000 medical students in Cuba with the first large batch expected in 2018.

In parallel with this programme, South African medical schools increased their intakes by a third, enrolling more black and female students from 2000. Despite an increase of about 20% in graduates, the ratio of doctors to population has not changed and is failing to keep pace with population growth. [9] Furthermore, few graduates from South African medical schools see their future working in rural and underserved urban communities. New medical schools have been established since 2000 with a stronger mission to recruit students from rural and disadvantaged communities and have borrowed from the Cuban approach. However, the numbers graduating are not capable of meeting the increasing need for doctors and replacing those that are emigrating.

Potential impact of the South Africa Cuba programme

In addition to the objective of increasing the number of doctors, and addressing the inequitable distribution of the medical workforce, the Cuban training programme has important social objectives: By selecting students from poor black communities and including willingness to return to serve those communities on completion of medical education as a selection criteria, both the objectives of increasing health care coverage for under-served populations and the social objective of helping to drive positive social change may be realised. Increasing numbers of black and female doctors from poor backgrounds can provide much needed role models for populations previously excluded for a variety of reasons from such professional roles. The importance and value of sending positive messages about employment opportunities for groups previously disadvantaged in applying for respected professional roles needs to be evaluated. It is anticipated that there will be benefits to rural communities, increased investment in health care and better access to health services for previously deprived populations. It is hoped that these benefits will translate in to better productivity, increased amenities in rural areas and ultimately improved economic growth.

The need for evaluation

A MoU between UK Department of Health and RSA Ministry of Health exists under which it has been proposed that an exploration of the South Africa Cuba experiences should be conducted. A team comprising Human Sciences Research Council South Africa, Pan American Health Organisation Cuba, National Institute for Health & Care Excellence (NICE) International, Public Health England, and London School of Hygiene & Tropical Medicine has been working on this since 2014, funded by the UK Department for International Development (DfID).

Several questions have been posed: Does the Cuban system of medical education impact positively on the delivery of care and the wider health systems in Sub Saharan Africa? And if so, how do specific impacts occur? Does the Cuban training provide an appropriate set of skills and competencies for the intended role of the trainees (i.e. is the training fit for purpose?). How do the quality of teaching, competencies of graduates in their role as primary care practitioners, and the cost of training at Cuban Medical Universities overseas, compare with Universities following the Western training model in Sub Saharan Africa?

The research is producing cost data and will link this to an assessment of impact which should help identify the rate of return of the investment, and by building a picture of where Cuban doctors ultimately work, should help to demonstrate that the programme can make a significant contribution to meeting South Africa's need to expand access to primary care physicians in rural areas throughout South Africa.

The research is also looking at the policy context and commitments that South Africa has made to strengthen primary care and consider how the returning Cuban trained doctors might be most effectively used in order to strengthen primary care provision.

Consultation meeting Liliesleaf, Gauteng, South Africa

A meeting of senior medical school faculty, researchers and health policy makers was held to explore the strengths and weaknesses of the Cuban training model and refine these in to a set of research questions to inform a health technology assessment of this innovative and radical shift in South Africa's approach to medical education. The consultation concluded that there is huge potential value to be realised from the Cuban training and its strong focus on primary care, and every effort should be made to assess the potential contribution of this influx of doctors in support of South Africa's ambitions to strengthen and re-engineer primary healthcare. It was recognised however that there are a number of barriers to the Cuban trained doctors contributing fully to South Africa's primary care ambitions. There has been significant resistance from some within the medical establishment to the Cuban model of education and criticism of the relevance of the training to South Africa. Whilst considerable efforts have been made by Cuba to add to their curriculum to meet specific needs identified by South Africa, the process of welcoming back the Cuban trained doctors and integrating them in to the health system has not always been smooth.

Given the significant investments made by both South Africa and Cuba in supporting this radical and new approach to meeting South Africa's health care needs, it is important that both the process and the impact of the approach are assessed, in order to better understand how to maximise the return on investment through a more effective approach to re-orientation and integration of the Cuban trained doctors in to a re-engineered South African health system. The meeting concluded that linking efforts to strengthen family medicine training to the re-integration of returning Cuban trained doctors could provide an important opportunity to improve health in South Africa.

Experiences of returning Cuban-trained doctors

The consultation included testimonies and case histories from returned Cuban trained doctors. Impressive personal histories were provided by doctors who had been selected from rural and deprived urban areas who are now working in South Africa serving those communities. It was clear that some of those doctors who return from Cuba return with high levels of motivation, actively

applying their primary care training and represent great potential for improving rural health service coverage (see Box).

Cuban training creates doctors that have had significant exposure to working at community level and who are more 'hands-on' in managing patients. Whilst their experience of some of the major health problems which are common in South Africa, such as TB, HIV and trauma has been limited, the adaptations to the programme and inclusion of some orientation to the South African context has helped identify and address gaps in knowledge, skill and competencies. There was also anecdotal evidence that many of the doctors drawn from under-served communities have strong motivation to return, provide better services and built up their communities. These were also examples given which illustrate that some of these doctors have leadership and management skills, together with a primary care and public health orientation which, given the opportunities, will allow them to make a major impact in the delivery of universal health care.

However, in contrast from some of these strong, positive impressions of returnees, significant numbers of those returning have also had negative experiences on their return. The need to repeat final years of medical education in South Africa, and difficulties transitioning in to a different system of medical education has left some feeling marginalised under-valued and insufficiently skilled, with a feeling that integration in to the South African system focuses on the knowledge and skills that they are considered to lack, rather than recognising the primary care skills and competencies that are their strength. Questions about the extent of pastoral care, including mentoring, need to be asked in order to understand how best to maximise the potential of the returnees.

Changing the narrative of the Cuban program based on a much better understanding of the strengths of the programme and any gaps in training can be most constructively addressed will be needed before the real value of South Africa's brave commitment to re-think medical education can be fully determined.

It is apparent that the traditional model of medical education in South Africa has not managed to meet the needs of its population in an equitable way. [9]. It is now time to analyse whether and how the Cuban model of medical education might shift the balance of the health care system in South Africa towards primary care, and increase health coverage to the poorest and most marginalized. This review of the approach that South Africa has taken will generate important lessons for all those countries that are struggling to meet the changing health needs of their populations and to overcome inequity in service provision. Most countries are struggling to cope with ageing populations and a demographic and epidemiological transition which is placing a strain on already over-stretched and under-staffed health services. The Lancet Commission on Medical Education, in 2010, called for a radical re-think in our approach to medical education, and South Africa's collaboration with Cuba in support of the re-engineering of primary health care will generate important lessons on our approach to medical education and employment, and the extent to which a change in approach can contribute to both health and social and economic objectives.

Conclusions

Evidence on the impact that Cuban train doctors have on health is crucial. This will also aid in government buy-in to create a policy that encourages Cuban trained students and doctors to work in South African PHC settings. The government would then be seen to be meeting basic population

health needs and improve universal coverage. Doing this will require the development of community training platforms which will be facilitated by the large numbers of returning Cuban graduates from 2017/2018. The dominant issue now is that from 2017 about 900 Cuban-trained doctors will return to South Africa each year until 2020/1 but plans for their deployment are only at a sketchy stage.

South Africa has made a serious investment in training their students in Cuba. The lessons that can be learnt by evaluating this experiment should be of great value in transforming medical education to achieve universal health care. The links between better human resources for health and better health care as drivers of economic growth will require further long-term follow up of this case study.

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Box. Cuban-trained doctors make a difference in under-served communities



There is no health centre in this deprived urban community but this Cuban-trained doctor has no problem with using the pavement as his clinic.

Another Cuban-trained doctor has established an NGO for volunteers who support health literacy among his rural community. This provided a small income for the volunteers, increased local understanding of the causes, prevention and care of common diseases, and reduced his workload as he now has patients who are in control of their health care needs.