Human Resources for Health and Economic Growth - Learning from the Cuban experience in Medical Education. Department for International Development Policy Research Project 2013-2017

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Shah Ebrahim, London School of Hygiene and Tropical Medicine

Background

The Republic of South Africa has been sending black South Africans to study medicine in Cuba since 1998. This programme is now returning around 600 to 900 5th year medical students a year. When the programme started, the numbers of black students from poor rural and underserved urban areas was negligible. The barriers for black students to get into South Africa's prestigious medical schools after the apartheid era were simply too high: school grades of black school leavers were too low for entry; costs of education were too high; the social and geographic distance between poor black communities and the universities were too far.

Nelson Mandela and Fidel Castro implemented a plan that had worked in many other African countries: train students in Cuba, they return and build up health system capacity, medical schools are established with Cuban assistance, returned Cuban-trained doctors teach and practice medicine in medical faculties closely linked with rural and urban-underserved areas, a sustainable medical school and improved health system is created in the country.

In the 1960s and 70s, this plan worked well for Angola, Cape Verde etc. but in more recent times, Cuba's medical internationalism has been les welcomed by medical establishments, particularly in countries which are now considered 'developed'. For example, the Brazilian Cuban *Muchas Medicos* programme in rural areas of Brazil has been damned by medical professional interest groups and in South Africa, the Cuban programme is viewed with dismay. Returning students are subjected to 1 to 3 years of additional training – some of them effectively pushed down to 3rd year medical students, to ensure that they are fit for South African uses.

Against this background a DfID policy research project has been studying the effects of the South Africa-Cuba programme from a health technology assessment perspective. In a final end-of-project meeting colleagues from Cuba, South Africa and United Kingdom[1] met to discuss the findings of the research, concerns and issues associated with medical education, and to explore future collaborations that maximise the support for promoting healthy workforce and universal health coverage among the stakeholder countries.

Health systems in Cuba and Republic of South Africa

The Cuban health system aims to meet people's health needs and combat "social illnesses" such as poverty, overcrowded housing, difficult access to health facilities, and the resulting high infant and child mortality rates. The emphasis is on primary health care and an interdisciplinary approach, strong

[1] Imperial College (UK), London School of Hygiene & Tropical Medical, Public Health England, Royal College of General Practitioners (UK), Tropical Health & Education Trust (UK), Human Sciences Research Council (South Africa), MEC for Health (South Africa), Cuban trained doctors returned to South Africa, University of Cape Town (South Africa), and Cuban representatives (MOH and PAHO/WHO).

community participation, an internationalist focus, and a health workforce of sufficient size and skills. The Cuban system is popular and successful in improving population health and has achieved universal health care. By contrast the health system in South Africa is speciality-dominated, remains inequitable with maldistribution of resources and is fragmented. Many challenges exist: workforce shortages, emigration of doctors, and skills-mix imbalances. A private health sector is buoyant, catering for the wealthy minority, but spends about 60% of the 8.4% of GDP spent on health. Access to and quality of health care in rural and disadvantaged urban populations remains a serious problem. Universal health coverage is talked about but does not exist. A National Health Insurance scheme is being rolled out as a means of achieving universal health coverage.

What is Cuba doing that South Africa is not?

Cuban medical education is different. The medical school is an integral part of the health system and is the responsibility of the Ministry of Health which enables academic outreach to community health services providing early linkages with community/family/patients for students. The objectives are to: 1) recruit and train socially committed students; 2) match what is learned to the health needs of Cuban communities and other countries where these future doctors may serve; 3) scale up training to meet the needs of the whole population. The Cuban doctors have multiple roles: care-giver, decision maker, communicator, manager, community leader, and teacher.

South Africa has a long heritage of British medical education traditions and aims for academic excellence, selection of the brightest students, and is strongly specialised. In the last two decades steps have been made to focus on primary health care, move teaching out of hospitals and into communities, and improve access for black and disadvantaged students. Medical schools have been established outside of the major cities and provide education for predominantly black students.

South African students training in Cuba are drawn from poor black communities and spend their first year on premedical bridging training and become proficient in Spanish. Two years are spent on studying basic medical sciences followed by three years of clinical sciences at one of three collaborating Cuban medical training facilities. After these six years of university training in Cuba, the students join one of nine South African medical schools for a period of orientation which is at least a year, and often longer. These returning students are viewed as unfit for the South African system partly because they have no experience of diseases such as HIV/AIDS, TB and malaria that no longer exist in Cuba. But the other part has more to do with their social and political outlook. During this time the students become familiar with the South African health care system and complete their training as required to practise as an intern in South Africa.

Are Cuban-trained students different from South African-trained students?

A collaborative Cuba/UK/RSA project aimed to gather evidence to explore the value of Cuban training for South Africa. Field work for this study became almost impossible due to political unrest on university campuses so fewer than anticipated participants were recruited. Nevertheless, several important findings on comparisons between Cuban trained students and South African students' experience of medical education were identified.

Cuban trained participants reported significantly higher confidence in a range of clinical skills without supervision than South African trained participants. Cuban trainees reported stronger aspirations for community engagement, rural experience, social change, creativity initiatives, and ability to make a difference. South African trainees indicated the importance of high income potential and stable futures

among their career goals. More Cuban trainees plan to work in underserved areas and in primary health care (90% and 79% respectively) vs. South African trainees (24% and 21%). Although the study has several limitations, including small sample size, it demonstrates that Cuban medical education instils a strong focus on primary health care. Importantly, the aspirations of Cuban trainees to work in underserved and rural areas can contribute towards meeting the shortages of health care providers in the public health sector in South Africa by retaining more doctors in these underserved areas, and providing large scale and rapid increase in doctors' numbers.

What happens to Cuban trained students returning to South Africa?

These students experience personal, academic and structural challenges when they return to continue studying in South African Medical Schools. For example, duration and content of orientation programmes differed between the schools; language difficulties made studying difficult (thinking in Spanish, and poor English), and cultural adjustment after 6 years away was needed. They had to adapt to more hospital and "rescue" medicine emphases. They experienced difficulties with an exam system with which they were unfamiliar.

Discrimination was a dominant experience and in addition their medical knowledge was assumed to be inferior and the 'default' perception was that they are failures. Their interactions since returning to South Africa have been influenced by these stigmatizing experiences. Not surprisingly, they identified resilience (achieved by supporting each other) as important factor in overcoming these difficulties.

After the re-orientation of 1 to 3 years, Cuban-trained South African doctors are now working and leading the community health centres in Kwazulu-Natal Province of South Africa where they are welcomed by the Minister of Health. They are proud to serve the communities from which they have come.

What are South African medical schools doing?

The major problem for medical schools is accommodating the much larger numbers of returning Cuban-trained students. Expansion and recruitment of more rural and urban underserved training sites are high on the list of 'must-dos'. University of Kwa-Zulu Natal requires its graduates to show competence as communicators, collaborators, leaders, health advocates, scholars and professionals, and have proficiency in and commitment to working in all South African contexts. These attributes mirror several of the Cuban medical education goals which is not surprising given the maturity of the Cuban-South African programme and influence of Cuban-trained doctors in the province and medical school. Walter Sisulu University medical school has demonstrated over 25 years that innovative, community orientated curricula can be conducted and has relied on Cuban medical faculty to initiate and sustain the changes in learning and teaching.

For the traditional South African medical schools, what appears to be at first sight a simple matter of reintegrating South African students trained abroad has morphed into a crisis of opportunity requiring revolutionary change in medical education, internship and the way health is delivered to the population. Not surprisingly, advocates of change within medical schools are met with inertia and conservatism, and the "hidden" curriculum that favours hospital specialisms, rewards academic excellence and downgrades public health, health promotion and prevention.

The current health system in South Africa faces workforce shortages, skills-mix imbalances, maldistribution of health resources and health workforce. Students should be trained in "real" environment and make a real commitment to primary health care. This would mean distributing a significant proportion of training outside the major centres to smaller regional hospitals, district hospitals and community health facilities.

The path to achieving a South African medical curriculum that is fit for purpose is going to long and hard. But progress is being made in training a cadre of family medicine doctors as leaders of primary care teams, working in collaboration with UK Royal College of General Practitioners and partnerships across medical schools and more broadly in Sub Saharan Africa through the Family Medicine Leadership, Education and Assessment Programme (FaM-LEAP).

What are the policy levers for change?

The High-Level Commission on Health Employment and Economic Growth was established by the UN Secretary-General in March 2016. The mission is to build a sustainable, needs based, fit for purpose, social and global health workforce. This will require the creation of at least 40 million new jobs in the health and social care sectors, and reduce the projected shortfall of 18 million health workers by 2030. It is important to align public and private investments to boost global security against outbreaks and other emergencies, and help countries achieve the 2030 Agenda for poverty elimination, good health and well-being, quality education, gender equality and decent work and inclusive economic growth.

Based on this, there is now a five-year plan to implement the agenda (agreed at the World Health Assembly in May 2017) to facilitate and scale up country-driven action and investments in the health and social workforce through social dialogue, research and analysis, normative guidance, evidence-based policy advice, technical assistance, and institutional capacity building.

The role of Cuban-trained doctors in achieving Universal Health Coverage

South Africa needs contributions from doctors trained as family practitioners, yet few South African trained doctors want to make a career in family medicine. Therefore, improving the quality and quantity of Family Physicians (FP) is critical for South Africans ability to achieve UHC. Cuban trained doctors can contribute towards meeting the shortages of doctors in the public sector and are more likely to work in underserved areas long-term. A large scale and rapid reorientation and increase in South African medical school output is needed but will take a decade to materialize. The large increase in Cuban-trained doctors returning to South Africa over the next 5 years provide a major resource for re-engineering of the primary health care system to focus on preventive care and promote UHC.

The role of UK agencies in supporting UHC

A diverse range of UK agencies have programmes of relevance to South Africa. These include Royal College of General Practitioners, Faculty of Public Health, Public Health England, Tropical Health & Education Trust, DfID, and Foreign & Commonwealth Office. A memorandum between Department of Health England and South African Ministry of Health has provided a basis through which further educational activities could be conducted. The Science and Innovation Network of the FCO focuses on health security, policy influence, and development. To underpin this work a cross-ministry Prosperity Fund has been set up with a budget of £1.3bn. The Health Education England funded Global Health Fellows Africa Placement Scheme might help South Africa build a primary care training platform to help re-orientate those trained in Cuba on their return.

Recommendations from the final dissemination meeting, April 2017

- Improving induction, support and re-integration medical education programmes for cohorts training in Cuba, including mentoring;

- Deployment of returning Cuban trained doctors in 2017 and beyond: distribute a significant proportion of training outside the major centres, and re-direct a significant proportion of training to smaller regional hospitals, district hospitals and community health facilities;
- Curriculum innovation: community-centred, integrated and longitudinal curriculum could be supported by Cuban inputs;
- Training fit-for-purpose, and socially and culturally appropriate;
- Training students more often in community and district clinic settings and making a real commitment to PHC could be supported by expanding RCGP collaborations
- Investment of new resources for medical training in South Africa;
- Systematic data collection of health-related students and graduates to enable monitoring of careers, quality of education, long term comparisons and benchmarking;
- Future research should focus on the political economy of medical education to understand the challenges, agents for change and examples of success that can be expanded.