ejpmr, 2017,4(3), 155-159

SJIF Impact Factor 4.161

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article

ISSN 2394-3211

EJPMR

LESSONS LEARNED DURING ESTABLISHMENT OF THE COLLEGE OF HEALTH SCIENCES OF THE UNIVERSITY OF ZIMBABWE 1995-2001

Professor Jacob Mufunda*[1], Christopher Samkange[2], Dr. Lynette Sigola[3] and Dr. Reginald Matchaba-Hove[4]

[1]WHO Zambia Country Office, Lusaka.
[2]University of Zimbabwe College of Health Sciences.
[3]Douglas College, British Columbia, Canada.
[4]Midlands State University Faculty of Medicine, Gweru, Zimbabwe.

***Corresponding Author: Professor Jacob Mufunda**
WHO Zambia Country Office, Lusaka.

Article Received on 09/01/2017 **Article Revised on 29/01/2017** **Article Accepted on 19/01/2017**

ABSTRACT

Background: The five year training of medical doctors has been conducted through the Faculty of Medicine of the University of Zimbabwe since 1963 in two physical sites in Harare; Mount Pleasant Campus for Basic Sciences and Mazowe Street Campus for Clinical Sciences. Annual student enrolment has gradually increased from less than 30 in the early stages to 200 currently. The continuing brain drain of doctors from the country necessitated the Government to instruct the Faculty of Medicine to double its student intake by enrolling a new student intake within three months to address this shortage. **Methods:** This descriptive longitudinal study is largely complemented by desk review and reflections from the authors who oversaw the evolution of the Faculty into the College. Authors experienced the transition of the institution over most of the study period and shared first-hand information. **Results:** Instruction from Government was used as an opportunity to develop. The Faculty of Medicine developed and began implementation of its inaugural five year strategic plan 1995-2001. The key tenets of the plan were to be a semi-autonomous institution (in relation to the University of Zimbabwe) comprising five Faculties with a designated teaching hospital under joint administration with Government where academicians were to receive similar emoluments. Clinicians were entitled to additional remuneration from Government for the clinical work delivered. The infrastructure was expanded to accommodate 200 medical students annually at the two sites. A government loan secured from the Spanish Protocol was used to purpose build the Health Sciences Building and equipment to accommodate and equip the five faculties. **Discussion:** The directive by Government to double medical student intake in order to address the doctor shortages was used as opportunity to address some of the Faculty of Medicine's academic needs, including infrastructure, professional development and additional academic provisions in line with international trends. The realization of some of the outcomes is on course with the exception of ownership of a teaching hospital, autonomy of the College from the University and additional emoluments for clinicians from government, which are work in progress.

KEYWORDS: Medical education; upgrading from Faculty of Medicine to College of Health Sciences; ownership of teaching hospital; strategic plan.

INTRODUCTION

Health systems can be defined as the organization of health care workers, institutions, resources and tools to address both preventive and rehabilitative health services for a population according to global guidelines. Effective provision of quality health interventions depends on the interplay of six pillars of health systems, namely leadership and governance, service delivery, human resources for health, health systems financing, health information systems and access to essential medicines.[1] Human resources for health continue to be the bottleneck of the six pillars of health systems in developing countries.[2]

The global declarations pronounced to focus on attainment of improved health outcomes in developing countries have centred on addressing the human resource challenge as a critical component.[2] The Alma-Ata Declaration blueprint on primary health care, followed by the Health For All by 2000, and the just ended Millennium Development Goals, have led to improved health outcomes but collectively they have not attained the desired set targets.[3]

Minimum health worker to population ratios were set to guide optimal health outcomes among populations. For doctors, for example, a minimum of 1 doctor per 1,000 people was considered the World Health Organization benchmark.[4] The brain drain of health workers has

added to decimating the health worker population in most developing countries and therefore this benchmark of 1 doctor per 1000 people has not been attained. There has been a new call for universal health coverage which recommends at the absolute number of individual health professionals per population. This minimum number of 23 health workers, comprising medical doctors, nurses and midwives, for a population of 10,000 was determined as necessary to provide quality health services. The majority of countries in Southern Africa are far off this target.[6]

Elite medical graduates from Southern Africa have been enticed to migrate to developed countries for specialist training since that training was often not offered in developing countries. Even if medical specialist training was available in developing countries, it was considered less marketable and deemed less lucrative, than those qualifications obtained from abroad. To diminish the loss of these graduates to developed countries, post graduate training was formulated and implemented in African Medical schools, with the University of Zimbabwe as one of the pioneers.[7-10]

The Global Health Workforce Alliance, sponsored by the World Health Organization, has recognized the human resource crisis and its appropriate resolution, as a critical success factor for realization of the Millennium Development Goals.[11,12] The crisis of health professionals' provision for the service areas is mirrored in shortages of trainers in the medical schools. Apart from the African continental shortage of basic science teachers, individual countries have had difficulties in establishing new medical schools when central hospitals in their capital cities have reached saturation levels in the number of medical students.

The Faculty of Medicine of the University of Zimbabwe responded to the call by Government to double medical student intake by producing its inaugural five-year strategic plan. The plan addressed the annual increase of enrolment, expansion of physical infrastructure, as well as other pending institutional issues such as ownership of the teaching hospital and five Faculties.

This report is designed to document how the Faculty of Medicine of the University of Zimbabwe responded to the brain drain and to the Government's pronouncement to increase student intake as a perceived panacea for the challenges posed by decreasing numbers of human resources in the health sector in Zimbabwe.

METHODS

This study is a descriptive longitudinal study, desk review and reflections from some of the University of Zimbabwe Faculty of Medicine. Reflections and inputs through solicited interviews of senior and administrative staff who have directly participated in the transformation of the Faculty of Medicine into the College of Health Sciences during the period 1995-2001, during their employment as faculty with the University of Zimbabwe were analysed and incorporated. Some of the documents reviewed were the inaugural five-year strategic plan of the Faculty of Medicine and proceedings of the University of Zimbabwe sub-committee on the upgrading of the Faculty of Medicine to the College of Health Sciences.

RESULTS

The annual enrolment of medical students at the Faculty of Medicine of the University of Zimbabwe has slowly increased from less than 30 before Independence in 1980 to about 80 in 1985. The peak intake of 300 in 2011, proved to be beyond capacity. Most of the graduates at the time of Independence largely practised in the urban areas with very few working in the rural areas. Most new graduates were offered opportunities to write examinations in the United Kingdom which helped them to conduct internship and post-graduate training abroad.

The beginning of the nineties saw junior doctors taking industrial action in response to poor conditions of service and often inadequate equipment and supplies necessary for optimal health provision. When government health workers were on strike at teaching hospitals where clinical training was provided, the ensuing dysfunction negatively impacted the quality of medical training. On a number of occasions the internship period was extended to address the impact of these work stoppages on the clinical experience of interns.

The directive by the Government of Zimbabwe in 1995 to double medical student intake from 80 to 160 was initially met with resistance by an overstretched faculty, but later it was used as an opportunity to address the professional and institutional development needs of the Faculty of Medicine by upgrading it into a College of Health Sciences.

Committee tasked with formulation of the Faculty of Medicine Inaugural Strategic Plan 1995-2001

The Faculty of Medicine established a committee to develop its inaugural five-year plan. The committee included members of the Dean's Advisory Committee (composed of chairpersons of the 16 Departments of the Faculty under the Chairmanship of the Dean) and included the Secretary (Chief Administrative Officer) to the Faculty of Medicine.

Initially the Committee considered the prevailing situation in the country and they consulted Faculty Departments to determine their perceived priorities, both professionally and academically, over the next 5 years. The committee members solicited and compiled opinions and facts on the above topics from the professional organizations for consideration and incorporation by the committee.

The vision formulated for the Faculty of Medicine during the development of the strategic plan was to be seen as a

leading semi-autonomous College of Health Sciences with a teaching hospital and five Faculties representing the professional health dispensations.

The major features of the plan were:

1. A semiautonomous College of Health Sciences with five Faculties of Medicine and Dentistry, Nursing, Pharmacy, Rehabilitation and Continuing Health Education
2. Joint administration and ownership of the teaching hospital
3. Infrastructure for expanded student intake on Mount Pleasant campus and at Mazowe campus
4. Introduction of Dental Surgery degree programme and other profession specific degrees
5. Purpose built Health Sciences Building at the Mazowe Street to accommodate all the Faculties
6. Group private practice conducted in sections of the designated teaching hospital to augment the income of the College so as to finance its operations, including support of the indigent populations necessary for teaching services.
7. State of the Art IT and library facilities for staff and students
8. Equipment and supplies for provision state-of-the-art clinical diagnostics and treatment facilities
9. Equalisation and provision of attractive remuneration packages for all academic staff in the College of Health Sciences
10. Provision of additional remuneration to clinical staff from the Public Service Commission

The Faculty of Medicine set up a Committee to drive the process. The crux of the plan was to expand the infrastructure for lectures, laboratories and offices at the University's Mount Pleasant campus and similarly at the Mazowe Street campus, while concurrently developing the training programmes to a higher level. The Committee looked internally at how best to address the depleted human resources for health education in each discipline and also recognized nine critical entry level (undergraduate) programmes. Intensive meetings were held internally, consultation was held with the other Faculties in the University of Zimbabwe, the Ministry of Health and with regional medical education bodies.

The plan envisaged streamlining all salaries in the College, with all faculty members receiving a retention allowance of 50% of the base university salary paid at that time in 1995. The Faculty proposed an additional remuneration for clinicians providing hospital service from the Government's Public Service Commission. These strategies were used to recruit and retain faculty members and thus help to address the significant faculty vacancy rate.

The outcome of these intensive discussions culminated in a University of Zimbabwe Senate resolution to upgrade the Faculty of Medicine to a College of Health Sciences. Plans were made to expand the infrastructure at both the Mount Pleasant and Mazowe Street campuses. Construction of a five storey stand-alone College of Health Sciences to house the five new Faculties at the Mazowe Street campus was rapidly implemented.

The Spanish Protocol provided a facility for US$100 million for several projects targeted in response to the five-year strategic plan. The New Health Sciences Building was constructed from this money. Seventeen million United States dollars used to procure a broad range of necessary equipment and supplies related to teaching and learning in the College of Health Sciences, including computers and laboratory equipment, together with dental chairs and related supplies for the introduction of dental surgery as well as a fleet of vehicles for use during community attachments for all students.

The desired expansion in postgraduate specializations in medicine and other disciplines progressed as designed. By the end of 2000, the University of Zimbabwe was offering 11 Masters in Medicine degree programmes, in addition to Public Health training and postgraduate training in the laboratory disciplines, Pharmacology and Physiotherapy. The degree programmes were introduced in consultation and in accordance with guidance from the appropriate health professional associations. The proposed satellite campuses to be established in selected provincial hospitals to strengthen them as junior doctor internship sites are yet to be implemented as envisaged.

DISCUSSION

In 1995, the Government of Zimbabwe directed the Faculty of Medicine to double its annual enrolment of medical students in an effort to address the chronic shortage of doctors, especially in rural areas. The Faculty of Medicine took this request as an opportunity to address its desires and previously unstated targets and aspirations, such as becoming an autonomous College with an initial five Faculties and ownership of a dedicated teaching hospital. The five-year strategic plan paved the way for expansion of health worker training in Zimbabwe as well as for medical academic development in the country. The Government responded to the five-year plan by providing resources for the requisite buildings and acceded to funds for equipment and supplies from the Spanish Protocol.

The brain drain of health workers that was gripping the country in all areas had come to a point where the rural areas were most affected leading to poor service delivery.[14] This trend was not unique to Zimbabwe alone but to other developing countries in Sub-Saharan Africa as well as beyond this region. The brain drain did not just affect new graduates but also lecturing staff, thus compromising the quality of graduates from the Faculty of Medicine.[15]

The gesture from Government was given rather late as the interventions introduced were unlikely to be a

panacea for challenges facing the health sector. Delayed responses from government to challenges have been reported to be delayed in many other settings in regional countries.[16-18]

Joint administration of medical school with teaching hospitals has been done in other institutions in Africa with good results in some settings but by no means universally.[19] The driver for ownership of the hospital was the expressed need by the Faculty to have continued clinical teaching even when government staff were on industrial strike, an occurrence which was happening more often than acceptable, disrupting teaching and the conduct of professional examinations of future graduates. Disruption of clinical instruction at government hospitals has been reported in other settings elsewhere in response to adverse standards of employment and other financial difficulties.[20]

Universities are known for empire building so they can develop professional diversity and clout.[21] Autonomy of budding institutions is rarely accepted. The University has previously benefited from spill over of increase in salaries for clinicians in the Faculty of Medicine as this overflowed to the rest of the University faculty. The Business School in the Faculty of Commerce attempted to become semi-autonomous from the University without much success, especially regarding financial matters.[20] The University was therefore reluctant to let go of any of her "cash cows".

Advancement of professional health associations was one area which received significant progress with expansion of post graduate training and increased numbers thereof. This growth was further strengthened by sub regional accreditation processes and harmonization of trainings to enable cross country recognition of the diverse specialties. Indeed the Dentistry program was established within the Faculty of Medicine following guidance from the related professional association.[21]

Retention of workers in any setting is influenced by financial and non-financial strategies.[22] The acquisition of internationally recognized professional development was cited as the second most frequent reason for migration of health workers.[23,24] In Zimbabwe, postgraduate training was at its initial stages of development and was perceived to local but not international recognition, thus making it less enticing for young graduates. The perception of limited supervision from experts was another factor attributed to demotivation and general poor performance. Strained communication among various staff groupings and their government and regulatory authorities led to disharmony among the relationships.[9]

A significant benefit of this process has been the recognition of the health professional associations in the country. Empowerment of professional associations and their leadership role in steering professional developmental in line with international trends was a virtue which will bodes very well for the continued development of these professions. At the Faculty of Medicine of Level, the associations were represented by the departments and their chairpersons. All professionals were given the freedom to plan and think globally and act within the local Zimbabwe context.

Some lessons learned and described in this report, from the process of formulating the inaugural five-year plan and establishing the University Of Zimbabwe College Of Health Sciences may be of value to other medical schools facing similar challenges as they formulate and implement their strategic plans. It is appropriate to recognize that for every challenge there is usually an even bigger opportunity that is best addressed and harnessed through a collective approach. We also note that strategic planning and implementation for health education in developing nations do not occur in a vacuum, as these will falter if prevailing social and economic conditions become too challenging.

CONCLUSIONS

Strategic innovations to espouse health professional associations to advocate for government resources strengthened health education institutional arrangements to exceed international benchmarks at University of Zimbabwe. The achievement of all staff being paid according to same salary grades irrespective of their professions was a strong rallying point that propelled speedy implementation as the staff were in unison. Continued negotiation for additional remuneration for clinicians providing after hours service and ownership of a teaching hospital were received as recognition of their expertise and sustainability while still viewed as work in progress.

Declarations

1. Ethics approval and consent to participate: Not Applicable
2. Consent for publication: Not Applicable
3. Availability of data and material: Not Applicable
4. Competing interests: None
5. Funding: Not applicable
6. Authors' contributions
   - JM drafted plan and was directed to double student intake and drafted manuscript
   - CS co-authored the strategic plan and reviewed the manuscript
   - LS co-authored the manuscript and provided support during implementation of plan
   - Co-authored the plan and implementation and reviewed the manuscript
7. Acknowledgements: Not Applicable

REFERENCES

1. WHO. WHO Health Systems Strategy. 2007.
2. Semeels P, Lindelow M, Montalo JG, Barr A. For public service or money: understanding

geographical imbalances in the health workforce. Health Policy Plan 2007; 22: 128-38.
3. World Health Organization. Health for All by year 2000. World health Report 1998.
4. WHO. Global Health Observatory. Density of physicians (total number per 1000 population, latest available year).
5. Mills EJ, Schabas WA, Volmink J, Walker R, Ford N et al. Should active recruitment of health workers from Africa be viewed as a crime? Lancet 2008; 371: 685-8.
6. WHO. Key recommendations for high level expert group on universal health coverage. 2011.
7. Eastwood JB, Conroy RE, Naicker S, West Pa et al. Loss of health professionals is from sub-Saharan Africa: the pivotal role of the UK. Lancet 2005; 365: 1893-900.
8. Mullan F. The metrics of the physician brain drain. N Eng J Med 2005; 353: 1810-8.
9. Mufunda J, Chatora R, Ndambakuwa Y, Samkange C, Sigola L, Vengesa P. Challenges in training the ideal doctor for Africa: lessons learnt from Zimbabwe. Med teach 2007; 29: 878-81.
10. Marley JO, Hudson CN. Training specialist in the developing world ten years on, a success story for West Africa. Br J Obstet 1999; 106: 91-4.
11. Frehyot S, Mullan F, Payne PW, Ross H. Compulsory service programmes for recruiting health workers in remote and rural areas: do they work? Bull World Health Organ 2010; 80: 364-70.
12. WHO. Global Health Workforce Alliance. 2014.
13. Omer MI. Can medical education rise to the challenge of the African crisis? Ann Trop Paedriatr 2005; 25: 227-41.
14. Igumbor EU, Kwizera EN. The positive impact of rural medical schools on rural intern choices. Rural Remote Health 2005; 5: 417.
15. Hadley GP, Mars M. Postgraduate medical education in pediatric surgery: video conferencing – a possible solution for Africa. Ped Surg Int 2008; 24: 223-6.
16. Dovlo D. Using mid-level cadres as substitutes for internationally mobile health professionals in Africa. A desk review. Human Resours Health. 2004; 2: 7.
17. Broadhead RI, Muula AS. Creating a new medical school in Malawi problems and achievements. BMJ 2002; 325: 384-7.
18. Dovlo D. Wastage in the health workforce: some perspectives from African countries. Human Resours Health, 2005; 3.
19. Mwangu MA1, Mbembati NA, Muhondwa EP, Leshabari MT. Management and organization reforms at the Muhimbili National Hospital: challenges and prospects. East Afr J Public Health. 2008; 5: 94-102.
20. Korn M. Once Cash Cows, University Hospitals Now Source of Worry for Schools. The Wall Street Journal. 22 April, 2015.
21. Taichman RS, Parkinson JW. Where is Leadership Training Being Taught in U.S. Dental Schools? J Dent Educ. 2012; 76: 713–720.
22. Ndambakuwa Y, Mufunda J. Performance Appraisal System Impact on University Academic Staff Job Satisfaction and Productivity. Performance Improvement Quarterly. 2006; 19: 117-126.
23. Russell S., Galukande M, Luboga S, Kijambua S. Improving recruitment of surgical trainees and training of surgeons in Uganda. East Afr Med J 2006; 11: 17-24.
24. Astor A, Tasleem A, Matallana VM, Olowu FA, Tallo V, Lie RK. Physicians' migration: views from professionals in Colombia, Nigeria, India, Pakistan and the Philippines. Soc Sci Med 2005; 61: 1750-60.