Performance of Medical Graduates Within and Outside Nigeria

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SUMMARY

The objective of this report is to provide a summary of the outcome of Nigerian Medical Graduates globally. Since the establishment of the first medical school at the University College Hospital, Ibadan, at least four generations of medical schools have been created. With approximately 306 health training institutions and ~26 medical schools, www.who.int/hrh/wdms/media/Nigeria.pdf, Nigeria graduates approximately 2300 medical doctors each year.

Nigeria has one of the largest stocks of human resources for health in Africa comparable only to Egypt and South Africa. In 2005, there were about 39,210 doctors and 124,629 nurses registered in the country, which translates into about 39 doctors and 124 nurses per 100,000 populations as compared to the Sub-Sahara African average of 15 doctors and 72 nurses per 100,000 populations[2]. Between 2005 and 2007 requests for certificate of good standing (a surrogate for migration), were 2,341, 2,989 and 3,567 respectively. While many graduates remain in-country, migration occurs in a significant percentage. Based on one study, the most common country of migration is the U.S.A (20%), United Kingdom (9%) and Ireland (5%). In the U.S. most Nigerian physicians in clinical practice, are in a private practice, whereas a small minority is engaged in academic medicine. Curriculum reform in medical schools will be important to adequately prepare medical graduates for practice within and outside Nigeria.

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INTRODUCTION

In the six decades since formal medical education commenced in Nigeria, much has changed in the number of doctors, practice patterns, disease burden and training. The 50th Anniversary of the Nigerian Medical Association, NMA provides a timely opportunity to examine the trajectory of medical education in Nigeria, highlight the successes and examine causative factors that have prevented the full accomplishment of the stated goals of medical education. This self examination will hopefully lead to the development of successful strategies for improving medical education in Nigeria.

As the World's population has continued to increase dramatically, so has the need for medical care. Improved sanitation, universal vaccination and widespread screening successfully altered the burden of disease in Western countries to predominantly chronic diseases. Life expectancy also increased significantly leading to a focus on medical technology designed to manage those disease. However these benefits have not been uniform globally. The health sector in many low and middle income countries (LMIC) in sub-Saharan Africa has regressed. This in part because of socio-political adversity, and a tremendous burden of new diseases such as HIV/AIDS. These challenges have ravaged many low and middle income country (LMIC) economies and resulted in terrible indices of human development.

As one of the most populous countries in Africa, Nigeria enjoys the benefits of a large population. Nigeria's human resources including doctors are abundant. The relative absence of civil war during the last 4 decades also allowed the country to continue training medical doctors to provide care for its population. As a result, the country has one of the largest numbers of doctors in the region. Unfortunately poor funding in the healthcare sector, migration of skilled health workers, the lack of healthcare infrastructure development and maintenance and poor leadership have all contributed to a failed healthcare sector. However, a recovering economy, growing GDP and increased focus on the healthcare sector suggest that recovery is possible and indeed probable. This will require significant and sustained investments in medical education, curriculum reform and novel techniques in medical education.

Physician output

With a population of 140 million people, Nigeria has one of the largest healthcare workforces in Africa. The country graduates approximately 2300 medical doctors each year from about 26 accredited medical schools (21 recognized by IMED). There were 52, 408 Nigerian Doctors on the medical register as at December 2007, however only 14,000 doctors paid the annual practicing licensing fee for that year. This list may include physicians who died or migrated[2]. In 2005, there were about 39,210 doctors and 124,629 nurses registered in the country, which translates into about 39 doctors and 124 nurses per 100,000 populations as compared to the Sub-Sahara African average of 15 doctors and 72 nurses per 100,000 populations (WHO, 2006).

Despite these large numbers, healthcare and development indices in the country remain at the bottom of the list. Specifically, life expectancy at birth is 44 years, infant mortality is 100 per 1000 live births and maternal mortality is over 800 per 100,000 live births, under five mortality is 201 per 1000 live births[3]. There

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are several factors that continue to contribute to this disparity, namely, underfunding of the healthcare sector, maldistribution of healthcare workers and migration. The country spends a total health expenditure of 5.45% of GDP on healthcare services. Unfortunately most (69%) of this expenditure is borne by the private sector. Furthermore public funding is concentrated in the tertiary levels of health care delivery. Additionally most health workers are poorly distributed and in favor of urban, southern, tertiary health care services delivery, and curative care. Approximately 60% of the states in Nigeria provide rural incentives to health workers that volunteer to serve in the rural areas, while others make rural service a condition for some critical promotion. Finally, migration significantly erodes the physician workforce.

Migration

Estimates suggest that Nigeria loses between 10% and 15% of its healthcare workforce to high income countries. In fact it is one of the countries experiencing a critical shortage of health service providers as determined by the WHO. Between 2005 and 2007 requests for certificate of good standing (a surrogate for migration), were 2,341, 2,989 and 3,567 respectively. While many graduates remain in-country, migration occurs in a significant percentage. A recent study reported that 52% of doctors graduating in 3 consecutive years from a Nigerian medical school migrated overseas. The most common country of migration was the United States of America (20%), followed by the United Kingdom (9%), and Ireland (5%)[4]. Ten medical schools in Africa account for 86% of the doctors who migrate from Africa to the United States. Five of those ten medical schools are in Nigeria. These include the University of Ibadan (643), University of Lagos (429), University of Nigeria (349), University of Benin (183) and University of Ife (156). In fact the University of Ibadan is the third largest donor of sub-Saharan African doctors to the United States of America.

Factors which increase HRH migration have been well studied in Sub-Saharan Africa and Nigeria is no exception. These factors include massive underfunding of the health sector, civil conflicts, and targeted recruitment from high-income countries[5,6]. While Nigeria has avoided a major war during the past 3 decades, the healthcare sector has remained significantly underfunded. This has prevented upgrading of necessary infrastructure and worsened working conditions for all healthcare workers. Migration of Nigerian medical graduates is further encouraged by the significant shortfall of doctors projected in the U.S. An aging population that lives longer, combined with a minimal increase in the number of medical schools and graduate medical education training programs is projected to cause a shortfall of 124,000 to 312, 000 doctors over the next 15years in the U.S alone. This has already resulted in the fact that 25% of active physicians in practice in the United States are International Medical Graduates (IMGs)[7]. IMGs also constitute 27% of the physicians in training residents and fellows, further supporting the concept that the proportion of IMGs in the United States is likely to increase. Meanwhile the healthcare system in low income countries such as Nigeria continues to suffer under the burden of rising demand for health care services related to an increasing incidence of HIV/AIDS, malaria and other communicable disease.

Strategic Solutions

Many of the challenges in physician workforce have developed over decades and are likely to require multipronged solutions. Commitment by various stakeholders in this process will be necessary to accomplish sustainable change in medical education.

Pre-Service Training

The medical education curriculum in Nigeria is in serious need of reform. First, the curriculum needs to mandate the widespread use of the Objective Structured Clinical Examination (OSCE). OSCE is a modern type of examination used in health sciences to test clinical skill performance and competence in skills. Medical schools worldwide have adopted this technique because it is competency-based and ensures a much more uniform end-product. Similarly, technological advances in disease diagnosis and testing have not been integrated into a new curriculum.

This can be accomplished by introducing modern electronic learning tools such as distance learning and web based self instruction. While these techniques have been shown to be effective for transferring knowledge and skills, they will require a modest investment in infrastructure for information and communications technology (ICT) within each medical school. Similarly, techniques for epidemiology and population studies are much improved and these changes need to be introduced into the curriculum to prepare graduates for entry into the modern healthcare workforce.

Re-introduction of 'outside postings' will also ensure that Nigerian medical graduates obtain a broad-based experience in healthcare. One option would be to insist that these postings are used to expose medical students to research opportunities outside their home medical school including overseas institutions. This will close the huge gap in research instruction in our medical school curriculum. Foreign institutions, international donor agencies (USAID, DFID etc) and diaspora organizations (Association of Nigerian Physicians in the Americas, ANPA, Medical Association of Nigerians across Great Britain, MANSAG, Canadian Association of Nigerian Physicians and Dentists, CANPAD, Nigerians in the Diaspora Organization, NIDO), can certainly facilitate these initiatives. However this initiative is best generated by the local regulatory agencies such as National Universities Commission, Medical and Dental Council of Nigeria and the National Medical Association.

Medical schools and universities should also develop and support medical education as a specialty within their institutions. Creation of Departments or Divisions of Medical Education will facilitate the development of relevant, dynamic and innovative curricula for education in healthcare.

Post-Graduate (In-service) Training

While many medical graduates receive adequate broad-based instruction during medical school, the lack of infrastructure in many public hospitals limits opportunities for continuing

professional development (CPD) after graduation. Fortunately most physicians in practice are self-directed and seek their own opportunities for skills advancement within and outside Nigeria. However, this creates a wide range of knowledge and skill levels among Nigerian physicians. A formalized approach to CPD will greatly eliminate this variability. This is perhaps where organizations such as the Medical and Dental Council of Nigeria, MDCN are most important. The MDCN is to be commended for finally introducing a CPD program. This initiative, if well funded and supported is likely to greatly improve healthcare in the country by providing the framework, guidance, content and regulatory oversight for maintaining knowledge and skills at a high level among healthcare practitioners in Nigeria. Again, technical input from Nigerian physicians in mature health systems overseas can be helpful as a Nigerian CPD program is designed and implemented.

Governmental agencies

The role of government relates to regulation and funding. In general, the strategic health workforce policy document for Human Resources for Health approved at the 50th National Council of Health meeting in Abuja in January 2007 needs to be implemented. This will be crucial if Nigeria is to achieve the Millennium Development Goals. Recent initiatives by the Federal Ministry of Health to ensure that health workers have safe working conditions, adequate compensation, and sufficient levels of medicines, supplies, and equipment is laudable. However more effort needs to be expended at the State and Local Government levels. Many professionals within the latter systems lack the necessary tools and incentives to provide adequate care for their patients. New strategies to increase the number of health professionals in underserved areas ought to be instituted. These could include incentives for health workers in rural areas, such as hardship, housing, and transportation allowances. Students can specifically be recruited from medical schools to specific rural areas by providing financial and non-financial incentives including covering medical school costs, etc. Also the provision of continuous learning opportunities, effective supervision, sound management systems, will go a long way to retaining healthcare personnel. State and local governments can also work legislatively to remove adverse fiscal and monetary policies such as budget and wage ceilings for healthcare workers. The Federal Ministry of Health could also begin to train healthcare leaders and managers at the State and Local level about how to create and strengthen sustainable health systems at the State and local levels.

Nigerian Medical Association (NMA)

At 50 years, the Nigerian Medical Association remains a strong voice in the healthcare sector. The NMA continues to be a powerful advocate for the Nigerian doctor. However, the long term success of these efforts will require expansion of advocacy efforts to include patient advocacy, as well as including non-physician healthcare providers. Furthermore, the organization is likely to be more successful if they demand physician accountability and improved quality of care.

CONCLUSION

While Nigerian medical graduates continue to enjoy professional success within and outside Nigeria, much work needs to be done to broaden the skill set of the graduating Nigerian doctor, limit migration and ensure service delivery at the highest quality. Starting with curriculum reform in our medical schools, providing opportunities for continuing professional development and strengthening clinical service delivery systems, these changes are likely to greatly improve the performance of Nigerian medical graduates and increase the overall population health in the country. Such broad changes require the full engagement of the NMA, MDCN, NUC and the Federal Ministry of Health with input from overseas stakeholders.

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