Abstract

**Background:** The issue of human capital flight has been discussed at different forums with a consensus opinion that it has its merits and demerits to equitable health system. Most often one nation becomes a substantial net exporter of talent, leaving the provider nation at risk of depleting its natural supply of talent. This paper looks into the historical perspective of human capital flight or “brain drain”, and its burden. It attempts to elucidate the various causes and suggested solutions. The paper’s objective is to educate colleagues on the conceptual and contextual imperatives of the issue.

**Method:** Using a convenient sample of key informants who were medical colleagues in Nigeria relevant information was sourced from these colleagues, documents from the postgraduate medical college of Nigeria and the internet on matters relating to human capital flight and brain drain.

**Results:** Every year, thousands of qualified doctors, and other professionals leave Nigeria tempted by significantly higher wages, brighter prospects for employment and education, stability, food security. Conclusions: It appears that the potential exposure to different working conditions, resources and professional environments can be of advantage to the country, should Nigeria be able to recall these professionals. It also appears that necessary economic reforms that make staying at home rewarding, that is - good leadership, and policy planning that seriously looks into rural development, among other issues, are keys ingredients to reversing the trend in order to ensure a more equitable health system.

**Key Words:** Human Capital Flight, Brain Drain, Equitable Health System, Nigeria

INTRODUCTION

Trained and talented individuals are described as human capital. This has made different authors to define human capital flight, a term used interchangeably with brain drain, as an emigration of trained and talented individuals to other nations or jurisdictions, due to conflict, lack of opportunity and/or health hazards where they are living. Others define human capital flight as a situation when qualified nationals of a particular country leave that country to another in search of better opportunities particularly in the areas of employment or loss of trained health professionals from poorer to richer countries, and from rural areas to urban areas of poorer countries. In other words when one nation becomes a substantial net exporter of talent, a brain drain condition is said to occur. This creates a situation in which the provider nation is depleting its natural supply of talent while the receiver nation has a brain gain in which many trained and talented individuals seek entrance into that country.

The term “brain drain” was first used in the early 1950s and to describe the outflow of scientists, engineers, physicians, technologists and other professionals from developing countries to the USA and Canada. In the 19th and early 20th centuries there were great migrations to North America from Europe.

Slave trade appears to be the main form of brain drain before then. Intercontinental slave trade and colonial conquests decimated Africa's indigenous populations during the slave trade era. Africans were forcibly removed from their ancestral homes to supply cheap reliable labour in Europe and the Americas. During the trans-Atlantic slave trade, any able-bodied African was a candidate for capture and exportation to work in the plantations of the New World leaving a small-scale, non-literate, stone-age existence in their homelands. This situation peaked after the scramble for Africa and the Berlin Conference of 1884/85 at which major European powers agreed on how to carve up and share the continent amongst themselves.

After World War II in 1945 colonialism was replaced with neocolonialism; a new arrangement where indigenous populations were granted self-rule while economic control still remained in the firm grip of former colonizers. This is opined to have been due to economic and political task for imperial powers to cater for their cosmopolitan populations as well as retain control of global empires that cut across multiple cultures. Consequently indigenous populations were granted self-rule and the forceful decimation of able bodied African subsised although emigration-by-choice has continued from developing nations to developed nations.
The brain drain problem began in West Africa only in the 1970's. Before then in Nigeria, the vast majority of health professionals returned to Nigeria after post-graduate training abroad. The greatest brain drains have been from rural to urban areas because of the limited facilities that are available in the urban area. This drift has largely continued till date because of the widening difference of development between these two areas.

CLASSIFICATION OF HUMAN CAPITAL FLIGHT

Socio-political and socio-economic conditions lead to human capital flight. Therefore these emigrants can be classified according to the reason behind the emigration.2,8

There are emigrations necessitated by economic factors. Due to lack of employment and low salaries people are tempted to look for employment and better salaries elsewhere. When such employment opportunities are found such emigrants hardly think of returning to their country. Rather they act as focal point for attraction of others into the receiving country.

Some migration occurs due to response to wars, political and social turmoil. These are individuals who may have difficulties because of their ethnic, cultural, religious belongings or being a member of opposition political groupings in their home countries. In Nigeria between 1993 and 1998 those Nigerians who opposed the military government and solicited the return to civil rule were labelled antigovernment, arrested if found and detained while others left the shores of the country for fear of arrest and possible imprisonment.7 There was loss of confidence in the government and future prospects for a better life. This led to massive exodus of talented Nigerians to other nations. Among other African countries political instability has contributed to the human capital flight.2,6,8,9

There is yet another category of emigrants. In Nigeria the national postgraduate medical college training had a deliberate policy of sending the trainees to a hospital abroad for one year to make up for the deficiencies that might have arisen from insufficient facilities while training in Nigeria.10 While abroad these doctors cross-fertilise ideas, improve themselves and acquaint themselves with modern infrastructure that makes them up-to-date in training in that specialty. Some of these doctors returned while some migrated and never returned thus creating this subset of emigrants.

In the final class of emigrants are those who migrate due to lack of information and misguidance.6 Some professionals, doing reasonably well at home, are sometimes sent abroad for further studies or for any other reason. On completion of their mission remain abroad leaving their family and workplace behind despite their good placement at home. While at their home country they had hope of a better life that can be achieved elsewhere. While abroad the expectations are usually not met as hoped; thus, they are obliged to seek economic asylum. These makes them so poor to the extent that they become ashamed of themselves and therefore unable to return home without the envisaged gains.

The Burden of human capital flight

The burden of human capital flight is global but weighs more on developing nations. For instance according to a research report Africa generally loses over 20,000 intellectuals yearly and has lost a third of its skilled professionals in recent decades.3 In an attempt to replace the lost talents it costs the continent $4 billion dollars a year to replace them with expatriates from the west whereas countries like the United States of America have saved a total sum of $26 billion dollars which otherwise should have been spent to train 130,000 highly qualified indigenous physicians. To capture the enormity of the burden it is diagrammatically captured by British Broadcasting Corporation as an African map, with contours of a brain, that has constantly lost its content, with no reverse arrow to show the abatement of the problem. (Figure 1)

Figure 1: Diagrammatic expression of human capital flight from Africa.

Source: BBC World Service

Nigeria seems to have a big portion in loosing their professionals from Africa. It is estimated that there are over 500,000 Nigerians are in USA alone.11 Over 2 million dedicated and talented professional Nigerians are in Diaspora. These Nigerians migrate to all parts of the world (America north and south, Europe, Middle East, Asia, Pacific, and even to other African countries). In the year 2000, when the US Congress announced
that it was raising the annual cap on the number of temporary work visas granted to highly skilled professionals under its H1B visa program, from 115,000 to 195,000 per year this action suggests a high figure for the influx of talent into the United States at that time. Also In the same year the British government launched a £20 million, five-year research award scheme that aimed at attracting the return of the UK's leading expatriate scientists; it also led to the migration of top young researchers to the United Kingdom. In principle while the USA and British governments were brain-gaining, brain drain was being encouraged.

In the Middle-East and Europe and the Pacific, the burden also exists. Iraq is presently undergoing a brain drain due to its political instability while Iran has been ranked highest by the International Monetary Fund in brain drain among developing countries. Russia continues to experience a brain drain in science, business, and culture because many of its Jewish citizens are leaving for the United States of America and Israel because of historical Russian anti-Semitism. In New Zealand, university graduates are lured to neighbouring Australia where wages are generally higher and economic opportunity is more diverse. Brain drain in New Zealand seems to be heavily one-sided as it is mostly New Zealanders who move to Australia while few well-qualified Australians move to New Zealand.

CAUSES OF HUMAN CAPITAL MIGRATION
Many reasons have been adduced for human capital migration. These include globalisation and trade liberalization, limited opportunities for professional discussions with colleagues in medical speciality, growing economic inequalities that exacerbates salaries in rich countries, corrupt leadership, political upheaval and/or civil unrest at home country. In 1984, in Nigeria this author witnessed persecution and humiliation of medical professionals and some were even dismissed from their job positions because of the stand the Nigeria Medical Association took on contextual issues by then. Some of those colleagues that emigrated have still not returned to Nigeria. There are some emigrants that do not have any opportunity to use the specialised training that they had undergone due to poor working conditions. Nurses in particular, though they are in high demand, face poor working conditions and poor pay. They become frustrated and opt to leave to where facilities exist for utilisation of their acquired skills. It has also been reported that in some countries that have a surplus of medical staff and a shortage of postings the affected medical staff leave to where they earn a leaving using their acquired expertise.  

Rurality has also contributed to increase in human capital flight. There are many available posts in the rural areas but the level of income and career development is inhumane.  

Among the richer countries the nationals avoid medical professions because of under-funding by their governments, which in turn have spurred hospitals to aggressively and desperately recruit from wherever they can.

CONTAINMENT OF HUMAN CAPITAL FLIGHT
Solutions to human capital flight are as varied as the causes. These include good governance at the national and international levels among others. This calls for transparency in leadership and maintenance of reasonable security for peoples' lives and property. This will withhold political and economical emigrants, who blame their governments for political unrest and stagnant economic growth. Governments should invest in more research and policy study about the causes of the drain and in educating policy makers about the causes.

It has been suggested that offering higher wages for ‘insiders’ according to their qualifications, instead of over estimating and hiring expatriates, which are more costly will go a long way to address human capital flight. As earlier identified, education plays a powerful role in the growing problems of international migration. Therefore, offering individuals necessary and qualitative education in their home countries, and expanding a better educational infrastructure may prevent emigrants who are seeking a higher education abroad. The various tertiary training institutions in Nigeria, including tertiary health institutions, should have their facilities upgraded to meet the standards set for accreditation for training of specialists.

Also it is suggested that those that had been indigenously trained in their home countries can be taxed if they wish to migrate. This suggestion has the potential of infringing on the right and freedom of the individual to choose the nature and location of work and workplace. For such an alternative there must be an agreement by international community and discussion on how to address the international laws on such human rights. The stakeholders especially the rich and poor nations should go into an agreement to prohibit the later from taking intellectuals of the poorer states. The
return of warranty from the beneficiaries, such as the withholding of academic degrees until the graduates return and are willing to serve the people, can be an alternative if individuals insist on migration. Specifically for medical migration medical students could be contracted to refund the financial investment for their education if they leave the country before a minimum service period. This is reported to be the case at Makerere University Medical School in Uganda, and in Singapore and Malaysia. The richer countries that accept ‘brain drain’ professionals could be made to pay the refund. For the effect of the migration to be minimal the number of graduates produced must be enough to supply both local and international markets.

Still on Education front, some countries have adopted the option of producing graduates whose qualifications are not recognised abroad. The real danger of production of “inferior” qualification is reduction of the number of people who apply for healthcare training in such countries. To avoid such danger it is advisable that there should be an improved access to information and communication: e.g., video conferencing, e-mail, online and CD libraries and provision of training and qualifications that are specific to health issues in poorer countries and rural health service, adapted to local needs.

Professional rethinking of some professions is necessary if the trend seen is to be reversed. For instance the nursing profession needs a serious rethink. There must be adequate compensation for work done, the professionals treated according to their value and better policy planning for meeting the needs of health staff.

To address the rurality issue there has to be improved conditions of service including capacity building, salaries, social infrastructures, networking, and research opportunities.

In 1993 the United Nations in attempting to address the human capital flight problem had formulated the policy of Transfer of Knowledge Through Expatriate Nationals (TOKTEN). The TOKTEN concept is a global UNDP mechanism for tapping on expatriate nationals, who had migrated to other countries and achieved professional success abroad, and mobilizing them to undertake short-term consultancies in their countries of origin, under UN aegis. The approach is regarded as an added dimension of technical cooperation, which contributes to reducing the adverse effects of the brain-drain, with several advantages such as the shared language and traditions, relatively low cost and speed of implementation. The program is based on a spirit of volunteerism, which means that the volunteers are not paid direct salaries but are entitled to roundtrip air ticket and a daily subsistence allowance (DSA). Since 1994, the programme has come under the umbrella of the United Nations Volunteers (UNV) programme. In other words these professionals are brain banks.

Proponents have come up with the few gains and other contextual issues from human capital flight. This is from the point of the concept of globalisation. Globalisation is in a way a modern way of movements of people, goods, services, technologies, and physical and financial assets from one country or continent to another; a pragmatic approach to social de-regulation and simply the practical application of free market economic principles to professionalism that every body seem to be benefiting from. New skills and knowledge are no doubt acquired. Some of those who migrate send money home for development projects. From these perspectives human capital flight is not a bad thing in itself. However, the movements of people one refers to is an unbalanced and unjustified movement of educated and skilled individuals that usually takes place from one country and or continent. In this case there is no equity.

CONCLUSION
Human capital flight seems to revolve around equity, economic and self enhancement issues. The overall impression from various interactions is that if the national wealth were shared equitably, professionals will be more willing to enjoy the comfort of a ‘home’ and work towards its improvement than face the sometimes unwelcome conditions in a strange land. It is pertinent to also address the capability of the poorer countries to absorb the workers if the flight were stopped. Although training of more staff may be a response to reducing human capital flight it might not make economic sense to train more staff with public money than the country can afford to hire. On the other hand there could be loss of foreign currency that is regularly transferred to families back home. Another dilemma is that in the process of seeking foreign currency the local improvement may be hindered because majority of qualified individuals leave for a brighter future, while the home country is left with only the less qualified, or the few qualified individuals who try to make a difference therefore leaving the country poorer, and holding back its development. While movement of trained personnel out of a country may be beneficial, the potential exposure to different working conditions, resources and
professional environments can be of advantage to the said country, should it be able to recall them when the need arises and are used in development otherwise they are useless. Many physicians have been requested to return to their countries of origin so as to bring in the expertise gained as well as return with the social capital that they had gone abroad with.

The clear point is that erecting legal barriers to the emigration of educated professionals will only encourage illegal emigration and discourage bright Nigerians from seeking to better themselves through education in the first place. However enacting necessary economic reforms that make staying at home rewarding for educated Nigerians may cause a reverse. Equally, good leadership and policy planning that seriously look into rural development, among other issues, are necessary to reverse the drain. The last word is in the form of advice: Think well before migrating to where one may become a second class citizen. Constitutional protection makes one not to be a second class citizen in his country.

ACKNOWLEDGEMENT
I thank the National Association of Resident Doctors, NARD, for giving me the opportunity to present the initial paper at their National Annual Scientific Seminar in Calabar on the theme “Managing Medical Migration and Building Equitable Health Systems in Nigeria”. I thank all the colleagues who agreed to volunteer information freely during my interactions with them.

References:
3. Carrington WJ, Detragiache E. How extensive is the brain drain? Finance and Development, 1999: 36 (2) 1-6
5. Torjman S. Is the brain drain to the US a significant problem; How are other countries coping with their brain drain; How can we make the best use of the talent that comes to our country?, Toronto, Canada: Contributions at the Maytree Foundation and St. Lawrence Centre public forum on brain gain, 25th May 2000.
6. Nwosu OR. Brain drain is an euphemism for modern slavery. Available at www.nigerdeltacongress.com/articles/brain_drain_is_an_euphemism_for_.htm