IJEMD-BMCR, 1 (2) (2023), 1 –12 https://doi.org/10.54938/ijemdbmcr.2023.01.2.251

International Journal of Emerging Multidisciplinaries:
Biomedical and Clinical Research

Research Paper
Journal Homepage: www.ojs.ijemd.com
ISSN (print): 2957-8620 ISSN (online): 2960-0731

Push and Pull Factors of Emigration among Physicians in Nigeria

Tensaba Andes Akafa[1*], Anthonia Okeke[2] and Ada Oreh[3]

[1] Department of Community Medicine, Faculty of Basic Medical Sciences, College of Health Sciences, Federal University Wukari, Taraba State, Nigeria
[2] Department of Family Medicine, Federal Medical Centre, Keffi, Nigeria
[3] Federal Ministry of Health, Abuja, Nigeria

**Corresponding author*

Abstract

Physician emigration is escalating in developing countries. In Nigeria, this massive brain drain has gained the popular moniker 'Japa syndrome'. This survey used a cross-sectional design to determined the factors causing physicians' brain-drain from Nigeria. A convenience and snowball sampling were used, and 295/400 attendees of a cardiovascular symposium responded to comprehensive self-administered questionnaires (73.7% response rate). Most participants (79.4%) were aged 20-39 years (Mean 35 years SD ±10.17); female (58.6%); married (58.4%) and a family size below six (73.6%). About 85.8% were employed, and 55.9% worked in private establishments. The top three attractive destinations were UK (50.5%), Canada (43.3%), and USA (37.9%). The most frequent push factors found were low remuneration (71.2%), insecurity (62.7%), and difficult working environments (55.9%). Postgraduate-training frustrations (38.6%), and limited educational opportunities for oneself (37.6%), children (26.4%), or spouse (19.7%) were the least. High earning potential (76.6%), career growth opportunities (70.8%), and high-level equipment/technology (54.9%) were the most frequent pull factors. This practice threatens Nigeria's health system and should be addressed multi-sectorally. To reverse this ugly trend, we have to boost physicians' remuneration, improve work environments and security. Providing innovative education and digital technology would also promote physicians' retention.

Keywords: Brain drain; Emigration; Health work force; Human resource for health; Push and pull factors.

Email addresses: drakafa@yahoo.com (T.A. Akafa), anthonianne@gmail.com (A. Okeke), azoreh@yahoo.com (A Oreh)

1. Introduction

The emigration of health professionals is a common phenomenon in both developing and developed countries. In Nigeria, it is popularly referred to as 'medical brain drain' or "JAPA" syndrome and has increased exponentially over the last decade. This social disaster is worsening in Nigeria especially in recent times of socioeconomic instability, fuel subsidy removal, political and security challenges. The "JAPA" phenomenon has mopped up the health workforce thereby constituting a great challenge to our already fragile national healthcare systems. It is reported that over 10,986 Nigerian doctors have brain-drained placing Nigeria as the country with the third highest number of foreign doctors in this mythical race working in the UK after India (31,979) and Pakistan (18,490) according to GMC website records, March 2023.[1,2] The WHO has warned that this can hamper our economy and hinder progress toward achieving universal health coverage and health security. A 2014 report estimated a global shortage of 7.2 million health workers, with 83 countries facing a health worker crisis (Global Health Workforce Alliance [GHWA], 2014). This rapidly increasing exit of doctors and other skilled health professionals from low-income countries (LICs) to high-income countries (HICs) is especially dreadful because of the enormous burden of both communicable and non-communicable diseases that LICs are faced with. For example, a significant proportion of the world's disease burden is borne by Nigeria. [3-5]

Nigeria is the sixth most populous country in the world and the most populous country in Africa. According to the United Nations Department of Economic and Social Affairs, the global population reached approximately 8 billion in 2022, and with 216 million projected people in Nigeria, the country is home to 2.7 percent of the world's population. Africa's most populous nation is therefore the largest contributor to Africa's migrant population in the diaspora.[6,7] Despite the tedious, time-consuming, and capital-intensive nature of the immigration process, Nigerian professionals continue to emigrate in large numbers. In fact, data from the UK General Medical Council (GMC, 2018) reveals that the number of doctors from Nigeria registered with the Council doubled between 2006 and 2016. Furthermore, in just under two months in 2021, approximately 261 doctors were licenced by the GMC, showing an average of 4.6 Nigerian doctors being licensed per day to practice medicine in the UK.[8] The United Kingdom is not the sole recipient of Nigeria's emigrating doctors, other European countries, the United States of America, Australia, South Africa, and the Middle East are frequent destinations.[1,9]

According to the Nigerian Medical Association (NMA), an estimated 2000 medical workers leave Nigeria each year to developed countries, and cited hostile government policies, poor work conditions, inadequacies in training, poor infrastructure, low wages and difficult living conditions nationally as the main reasons for emigration. [4] An online survey conducted in Nigeria in 2017, revealed that 9 out of every 10 doctors surveyed were seeking work opportunities abroad.[10]

Research into the factors that facilitate migration have referred to them as 'push and pull' factors. [11] Push factors include those situations which drive professionals away from their home countries – unfavourable government policies, postgraduate training challenges, insufficient technology for research and practice, minimal opportunities for career advancement, low wages, poor economic conditions and a desire for a

more promising future for their families.[6] Other factors which hasten the choice to migrate are frequent labour strikes, widespread insecurity, and political corruption.[9]

Conversely, pull factors, such as physician shortages, ageing populations, attractive training opportunities, better welfare package and visa policies lure physicians away from Nigeria. Facilitators such as the ease of integration into the country, and the supportive communal systems are also important.[6,9] Additionally, as undergraduate medicine in Nigeria is taught in English, Nigerian doctors face no language barriers in countries where English is the official language.[9]

Data from the World Health Organization reveals that Nigeria has about 3.8 doctors per 10,000 population, which falls considerably below the recommended minimum threshold of 23 doctors per 10,000 population.[12] Despite the incessant health worker emigration and the dire consequences of human resource insufficiency in the Nigerian health sector, there is little evidence of a concerted strategy to address the factors encouraging the exit of doctors.[1,2]

In order to protect the existing workforce, improve working conditions, and reduce attrition, there is a need for evidence-based data on the factors which motivate physicians to leave Nigeria and seek work outside the country. This study therefore aims to determine the push and pull factors, and the impact of physician migration on the Nigerian healthcare system, from the perspective of doctors practising within Nigeria. And in turn provide evidence-backed recommendations for policies development to strengthen the country's health workforce by reducing brain drain and encouraging brain gain.

Materials & Methods

This was a cross sectional study of about 400 participants registered to participate at the 6th Edition Cardiovascular Symposium. Convenience and snowball sampling methods were utilised, and comprehensive self-administered questionnaires were distributed to all participants. A total of 295 participants consented and participated in the study, indicating a 73.7% response rate.

Data collection: The questionnaire was designed for a cross-section of clinicians, academics and policymakers. The survey featured multiple choice questions that were intended to determine the push and pull factors. A pre-test of the questionnaire was carried out for feedback to identify the questionnaire's reasonableness. The finalised questionnaire was then distributed at the symposium.

Data analysis: Data entry and analysis were performed using SPSS v.26 (SPSS Inc., Armonk, NY). Descriptive statistics were presented as frequency tables and charts, while a thematic analysis was conducted to elicit clear themes for measures to reduce brain drain and increase brain gain.

Ethical considerations: Institutional ethical approval for the study was sought and obtained. Participation was entirely voluntary, and informed consent was obtained from all study participants. Additionally, all responses were anonymised for privacy and confidentiality.

Results

Socio-demographic characteristics of study participants

The average age of the study respondents was 35 with ±10.17 standard deviation. Majority of the participants (79.4%) were within the age bracket of 20-39years age group. Most 58.6%) of the participants were female, married (58.4%) with a family size less than six (73.6%); employed (85.8%) in private establishment (55.9%), earned between N300,000 and N399,999 as monthly income (63.7%) while majority had Bachelor's degree only i.e. MBBS or its equivalent (64.4%). Details are as presented in Table 1 below.

Table 1: Socio-demographic profile of the study participants N=295

Variables	Frequency	Percentage
Age (in years)		
20 – 29	107	36.3
30 – 39	128	43.4
40 – 49	27	9.2
50 – 59	22	7.4
> 60	11	3.7
Min, Max; Mean ±SD; Median (IQR)	20.00, 66.00; 34.85 ±10.17; 31.00 (10.00)	
Gender		
Male	122	41.4
Female	173	58.6
Marital status		
Single	115	39.0
Married	172	58.4
Separated	1	0.3
Divorced	1	0.3
Widowed	6	2.0
Family size		
<6	217	73.6
6 – 10	58	19.7
>10	20	6.7
Educational status		
PhD only	1	0.3
Fellowship only	17	5.8
Master's only	28	9.5
PGD only	12	4.1
Bachelor's Degree only (MBBS or equivalent)	190	64.4
Fellowship plus PhD	1	0.3
Fellowship plus Master's	45	15.3
Primary Employer		
Government health establishment	118	40.0

Private health establishment	165	55.9
Non-Governmental Organisation	12	4.1
Rank		
House officer	14	4.7
Medical officer	189	64.1
Resident	27	9.2
Fellow/Consultant	65	22.0
Average monthly income (in Naira)		
200,000 – <300,000	31	10.5
300,000 – <400,000	188	63.7
400,000 – 500,000	30	10.2
>500,000	46	15.6

Considerations for Emigration

A vast majority of the respondents had considered emigration from Nigeria (99.3%) at some point in their lifetime. While just 0.7% had never considered emigration from Nigeria. Details are shown in Figure 1.

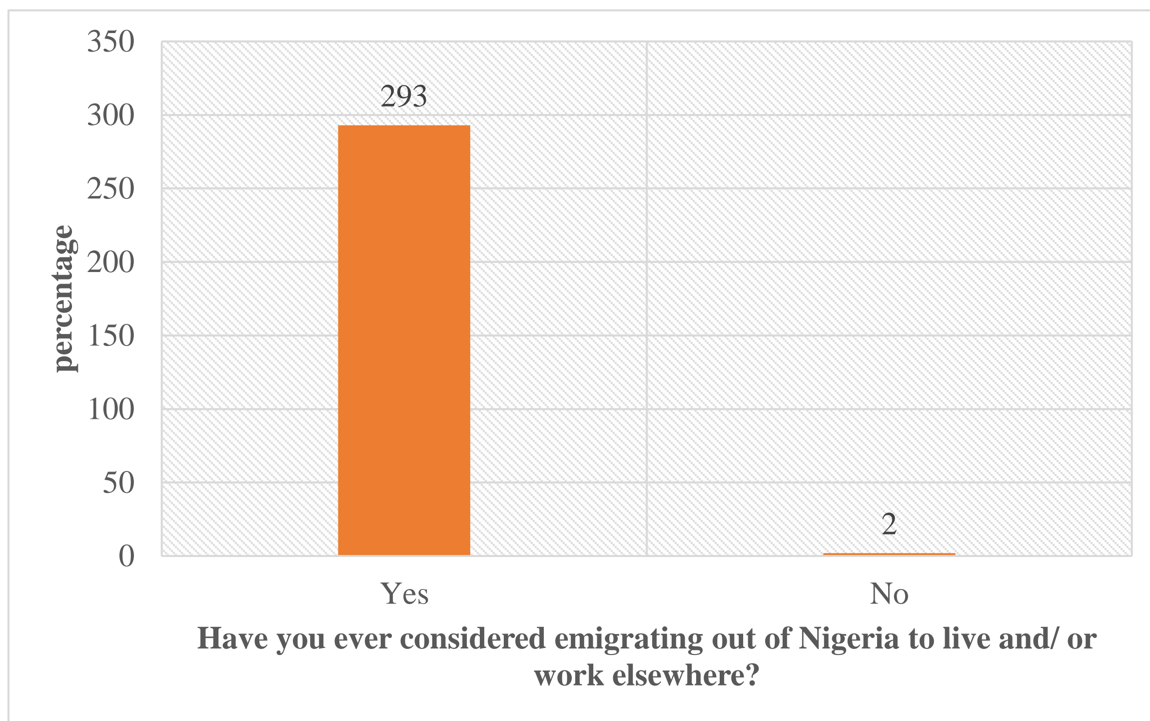

Figure 1: Consideration for emigration.

Countries of consideration for emigration

The respondents had considered multiple countries for emigration. United Kingdom was favoured by 50.5% for emigration while Canada and USA were favoured by 43.3 and 37.9 % respectively. Details are in Table 2.

Table 2: Countries of consideration for emigration.

Country	Frequency	Percent
United Kingdom	148	50.5
Canada	127	43.3
United States of America	111	37.9
United Arab Emirates	46	15.7
Saudi Arabia	45	15.4
Australia	45	15.4
Others	0	0.0

Push Factors of Emigration among the Respondents

There were multiple factors adduced by respondents for considering emigration from Nigeria. Low renumeration of physicians in the country was the major reason for considering emigration among the respondents (71,2%). Insecurity problems were also considered as an important reason for emigration (62,7%); while lack of equipment and technology for health services and unfavourable government policies were considered as reasons for emigration by 52.5% of the respondents. Details are shown in Table 3 below.

Table 3: Push Factors of Emigration

Push Factors	Frequency	Percentage
Low renumeration	210	71.2
Insecurity	185	62.7
Difficult working environment	165	55,9
Poor career opportunities	158	53.6
Lack of equipment and technology for health services	155	52.5
Unfavourable government policy	155	52.5
Unavailability of basic amenities in Nigeria	126	42.7
Frustration with postgraduate training	114	38.6
Limited educational opportunities for self	111	37.6
Limited educational opportunities for children	78	26.4
Limited educational opportunities for spouse	58	19.7

Pull Factors of Emigration among the Respondents

Several reasons have been presented by respondents for considering emigration from the country. Each respondent had multiple factors that determined the countries considered for emigration. More than three-quarters of the respondents mentioned high remuneration potential as the reason for considering emigration (76.6%) while a large proportion of the respondents cited vast opportunity for career growth as the reason for considering emigration (70.8%). Just about a quarter of the respondents considered a network of family and friends as the reason for considering emigration (27.8%). Details are contained in Table 4.

Table 4: Pull Factors of Emigration among the Respondents

Pull Factors	Frequency	Percentage
High remuneration potential	226	76.6
Vast opportunity for career growth	209	70.8
Educational opportunities for self	175	59.3
Educational opportunities for children	165	55.9
High level equipment for technology	162	54.9
Ease of transition to join health workforce	144	48.8
English as official language	126	42.7
Ease of integration into the society	114	38.6
Network of family/friends/colleagues	82	27.8

Discussion

Brain drain had been a silent social monster and is now escalating in developing countries, especially Nigeria.[1] To help policy makers identify the push and pull factors of emigration among physicians so as to implement interventions that can increase the retention of healthcare practitioners in Nigeria is paramount in this discussion. It is reported that 12 doctors are lost each week to developed countries from Nigeria.[9,11,13]

From our findings, a greater percentage (88%) of people with the highest tendency of exiting Nigeria were young men and women between the ages of 34.85 ±10.17 years with females' preponderance. A study expressed that the healthcare sector in Nigeria is in such bad shape that it negatively affects the economy as a whole and as a result of poor governmental participation in strengthening the healthcare sector, many young highly skilled workers in the healthcare sector are leaving Nigeria for better opportunities in developed countries like UK, USA, and Canada.[1,12,13]

The genesis of brain drains among medics in Nigeria are use of obsolete methods of medical training and the lack of amenities needed for satisfactory job functions.[9,13] Africa as a whole and specifically Nigeria is still using the outdated teaching methods even though developed countries have progressed in several areas including specialty training and career development.[13] Our study concurred with their analysis as well.

Those married were more potential emigrants, as well as those in monogamous family settings than otherwise according to our findings. Participants with a Bachelor's degree responded more to emigration likewise those who were gainfully employed. Published data regarding this finding remains extremely patchy, theoretical assumptions is that most of Nigerians seek better life for their families and progenies. The same theory holds true for those with Bachelor degrees as they stand better chance of gaining employment in the country of their destinations than the lower educated folks. According to De Haas, pull-push model is manipulated by ambitions and resources to pay to make this happen.[1,2,14]

Workers in private health establishments tend to brain drain slightly more than their counterparts in Government health agencies revealed by our analysis. From the research of Marie & Hein our finding sound contradictory. They believed that drivers of migration pattern depends on violence, poverty and underdevelopment of the potential emigrants since the impact of these drivers do not select either private or government workers.[2,15,]That the media, politicians and scholars fuel the South-North "exodus" or emigration.[1,2]

Health workers at the rank of medical officer and specialist in training had a higher potential to emigrate than medical doctors who have acquired their fellowship/consultant status. The level of income was an important push factor. Over 60 % of the study participants with income <400,000 naira had a higher interest to exit the country. Individuals who fund their health out of pocket are more prone to leaving Nigeria than otherwise. This is similar to Lokdam et al. study in 2016 that states that any registered emigrant has the right to access all public healthcare services. It is a common knowledge that most westernised settings pay their health expenses via an insurance package and taxations. This practice can attract physicians to exit the Nigeria healthcare system and seek healthcare insurance coverage.

Over 99% of respondents have considered emigrating from Nigeria to live and/or work elsewhere due to the impact of the pull and push factors were 50% of the participants considered emigrating to the United Kingdom. Adebayo & Akinyemi, 2022; Salami & Oreh, 2021 similar to our study found UAE, Canada, USA and South African as frequent destinations for most of our emigrating physicians.

Prominent among the push-factor determinants of emigration were low earnings, insecurity, difficult working environment, and lack of equipment and technology for health services by 71.2%, 62.7%, and 55.9% respectively. This our claim is in tandem with Ihekweazu et al., 2005 and Eze studies which cited hostile government policies, poor work conditions, inadequacies in training, poor infrastructure, low wages and difficult living conditions as their push factors.

Some of the participants mentioned that they lacked motivation because they were poorly paid. The push factor of poor remuneration is one of the most often-cited reasons why many healthcare practitioners migrate to the US according to Omoleke & Taleat (2017).[19] This is in tandem with our study.

On the other hand, prominent among the pull-factor determinants are high earning potential, vast career growth, and educational opportunities for self which account for 76.6 %, 70.8%, and 59.3% respectively. Omoleke and Taleat (2017) expressed that healthcare practitioners in Nigeria are not at par with their counterparts in other parts of the world when it comes to being adequately remunerated.[19] This makes them find ways to leave Nigeria like the participants of our study.

Most skilled Nigerians have emigrated to developed countries due to push factors Onah et al.[14] The numerous problems bedevilling the economy of Nigeria that exacerbate the brain drain include corruption, poor housing, insecurity, poor career opportunities, and lack of equipment and technology for health services. Whereas, others reported that the rich infrastructure in developed countries is what pulls healthcare practitioners from under-developed to developed countries.[10,14,15]

Awire and Okumgba stated that there is a definite correlation between the underfunded education system and brain drain which in turn causes brain drain in the healthcare sector. While Ogaboh et al, showed that funding and good infrastructure are part of the pull factors that dragged Nigerian healthcare practitioners to developed countries.[8,10,14] Various push-pull factors revealed by two studies found that the Nigerian government has also been lackadaisical in its approach to overhauling the healthcare sector.[1,14]
The phenomenon of corruption is present in every institution in Nigeria. The World Bank defined corruption as "the abuse of public power for private gains". Political corruption has three basic dimensions: embezzlement, bribery, and nepotism.[15,17] These impact economic growth and misallocate human talents to rent-seeking rather than productive activities. It lowers the ability to provide for the rule of law. [12,14] Thus, there is a negative relationship between corruption and both investment and growth,[14,15] and these worsens the "JAPA" syndrome.

Conclusion/Recommendations

This research is imperative because potential emigrants are waiting on their turn to migrate out of Nigeria to any developed country of choice. We concur with Atte's 2020 study of the relationship between migration and the role of the government regarding this social monster of brain drain. It is also important to study why physicians are emigrating and what the government can do to retain them back home. Health is wealth according to a popular axiom.
Gross underfunding is a serious social cankerworm devouring the Nigerian health institutions due to the lean budgetary allocation to the health sector. It is our recommendation therefore that the Nigerian health system budget that is below the WHO's Standard of 15% of the total budget be reviewed upwards.[14,16,17,18] Energy should be invested to boast the weak policies and regulations within the healthcare sector.

Nigeria cannot achieve long-term economic growth by transferring its human resources. These professionals are emigrating out of Nigeria with their technical knowledge and managerial skills which is the driver of economic growth. These talented citizens will use their wealth of experience to boost economic growth in the recipient country. Hence their absence increases prevalent poverty and its consequent poor health indices in our homeland.

Banning of corrupt practices and other harsh policies would naturally attract medical doctors of Nigerian origin that had emigrated to Europe and America. Good governance and zero tolerance for corruption and proper investment in the health sector will go a long way to reverse the current trend of brain drain because capital (human and knowledge) and labor (skill) are the major instruments for growth and development.

The two most significant pull factors calling for physicians' exit are high pay potentials and vast career growth opportunities according our study. The Federal Government of Nigeria can immediately tackle these

monstrous practices in order to reverse the ongoing brain lost phenomenon. By so doing the potential emigrants shall be restored their stolen rights to welfare and better life.

Strengths & limitations: This study aims to contribute to the empirical literature on the push and pull factors influencing health worker migration, and its impact on the Nigerian health system in order to provide actionable information for policy makers to reverse the ongoing adverse trend of brain drain in Africa. However, the sample population were physicians that attended the Cardiovascular Symposium, therefore making the survey to rely on information provided by physicians that may not be generalisable to the entire doctor and other HCW population in Nigeria. Some vital differences may lie along the spectrum of income, professional roles, areas of clinical interest, and individual variations. The cross-sectional nature of the study is also another limitation as causal inference could not be made.

Authors contribution details

1. Conceptualization: Akafa A.T, Okeke A and Oreh A

2. Design of study, data collection, analysis & interpretation: Akafa A.T, Okeke A & Oreh A

3. Drafting the article and revising its' intellectual content: Akafa A.T, Okeke A & Oreh A . *All authors read and approved the final manuscript; Akafa A.T, Okeke A and Oreh A. The requirement for authorship has been met and the manuscript represents our honest work.*

Conflicts of interest/ Competing interests - Nil.

Financial support and sponsorship: Nil

References

[1] Adebayo, A. & Akinyemi, O.O. "What Are You Really Doing in This Country?": Emigration Intentions of Nigerian Doctors and Their Policy Implications for Human Resource for Health Management. Int. Migration & Integration **23,** 1377–1396 (2022).

[2] Adeloye, D. et al. Health workforce and governance: the crisis in Nigeria. Human Resources for Health, **15**(1), 32 (2017).

[3] Boniol, M. et al. The global health workforce stock and distribution in 2020 and 2030: a threat to equity and 'universal' health coverage? BMJ Glob Health. **7**(6), e009316. (2022)

[4] Eze, J. & Nwakanma, M.A. Nigeria losing 2,000 medical workers annually.Niger Med J. **36**(2), 76-8 (2000).

[5] GHWA. The Global Health Workforce Alliance. A Universal Truth: No Health Without a Workforce. Retrieved from: https://www.who.int/publications/m/item/hrh_universal_truth (2014).

[6] Ihekweazu, C., Anya, I. & Anosike, E. Nigerian medical graduates: Where are they now? The Lancet, **365**(9474), 1847-1848 (2005).

[7] Isiugo-Abanihe, UC & IOM. Migration in Nigeria: A country profile 2014. Retrieved from: https://publications.iom.int/system/files/pdf/mp_nigeria.pdf (2016).

[8] Tolu-Kolawole, D. Nigerian specialists, 1,540 others practising medicine in UK – GMC. Retrieved from: https://punchng.com/5722-nigerian-specialists-1540-others-practising-medicine-in-uk-gmc/ (2021).

[9] Oreh, A. Code Red: Stopping Nigeria's Medical Brain Drain! Retrieved from: https://opinion.premiumtimesng.com/2019/04/29/code-red-stopping-nigerias-medical-brain-drain-by-adaeze-oreh/?tztc=1 (2019).

[10] NOI Polls. Emigration of Nigerian Medical Doctors. Retrieved from https://noi-polls.com/2018/wp-content/uploads/2019/06/Emigration-of-Doctors-Press-Release-July-2018-Survey-Report.pdf

[11] Shrestha, M. Push and Pull: A Study of International Migration from Nepal. Policy Research Working Paper; No. 7965. World Bank, Washington, DC. Retrieved from: https://openknowledge.worldbank.org/entities/publication/9e1cddb7-c95c-5546-a4b1-c8b535fe3873 (2017)

[12] WHO. Global Health Observatory Data Repository. Retrieved from http://apps.who.int/gho/data/node.country.country-NG.2019 (2019).

[13] Salami T, Oreh A. Medical Brain Drain: Time to Stop the Bleeding. Per Second News. Retrieved from: https://persecondnews.com/2021/04/16/medical-brain-drain-time-to-stop-the-bleeding/2021 (2021).

[14] Onah, C.K. et al. Physician emigration from Nigeria and the associated factors: the implications to safeguarding the Nigeria health system. *Hum Resour Health*. **20**(1), 85(2022).

[15] United Nation DoEaSA, Statistics Division. Indicator: health worker density and distribution. Retrieved from: https://unstats.un.org/sdgs/metadata?Text=&Goal=3&Target=3.c (2021).

[16] United Nations Population Division. World Population Prospects 2022: Summary of Results. Retrieved from: https://www.un.org/development/desa/pd/content/World-Population-Prospects-2022 (2022).

[17] WHO. Achieving the health related MDGs. It takes a workforce! Retrieved from: https://www.who.int/hrh/workforce_mdgs/en/ (2017).

[18] WHO. World Health Statistics, Monitoring Health for the Sustainable Development Goals (SDGs). Geneva: World Health Organization; 2017. Retrieved from http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1.2017b (2017).

[19] Omoke, J.I. & Taleat, G.A. Physicians' emigration from Nigeria: a threat to health care in developing countries. Niger Med J. **58**(2), 114-20 (2017).