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COVID-19 Pandemic: The Medical Tourism and its Attendant Outcome for Nigeria

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Abstract

Medical tourism has been the order of the day prior to COVID-19 in Nigeria. A viable health care system depends on the availability of capable human resources for health, adequate funding, ardent health research, standard framework, and good government that recognizes and addresses the health care needs of the people. The coronavirus has however exposed the weak healthcare system of Nigeria, as both facilities and workforce in the health sector of the country remain scanty and cannot combat the demands of the virus leading to the death of high-profile individuals due to the absence of medical tourism. The reason for the poor healthcare system in the country could be attributed to medical tourism which is encouraged by the high class in the country. Medical tourism is driven by factors such as inadequate budgetary allocation to healthcare, limited workforce, poor and underequipped health facilities, shortage of essential drugs and supplies, inadequate access to health care, absence of an integrated system for disease response, prevention, surveillance, and treatment; high user fees and inadequate health care providers, and lack of confidence in the nation's health. Medical tourism in the country will be minimized and the healthcare system of the country revitalized if all aspect of healthcare is improved and maintained after COVID-19 pandemic.

Keywords: COVID-19, Pandemic, Weak health system, Medical Tourism, Nigeria

JEL Classification: Z32

Introduction

The health sector of a country constitutes the spine for its economic growth and development (Anyika, 2014). Several countries across the world view health care development as having to do with their citizens, institutions and the legal framework created to integrate resources for effective and efficient health management for the prevention and care of diseases, injuries and illnesses. A viable health care system depends on the availability of capable human resources for health, adequate funding, ardent health research, standard framework and good government that recognizes and addresses the health care needs of the people. Health systems around the world are experiencing common challenges. Long wait times, tightening eligibility restrictions, narrowing service offerings, fiscal and human resource shortages, and changing demographic profiles and disease burdens have made it difficult for governments to effectively meet the healthcare needs of citizens. The failure of any government of a country to efficiently meet the healthcare needs of her citizens, will result in a situation where the citizens will seek medical help elsewhere either temporary or permanently and this is referred to as medical tourism.

Medical tourism is the practice of patients travelling out of their country of origin or residence for the purpose of getting access to medical care services abroad. Medical tourism has emerged as one of many solutions, made possible by transnational mobility of information, ideas, expertise, people and capital, and growing consumerism in healthcare. Lack of a robust health workforce operating in stable delivery infrastructures undermines effective domestic health systems and global public health interventions. This is particularly true in resource-poor countries ravaged by disease and suffering from poor environmental and social determinants of health (Chen *et al.*, 2004). Strengthening and investing in the global health workforce is important to achieve health equity in these countries as well as health related United Nations Millennium Development Goals (MDGs) (Marchal and Kegels, 2003). The use of medical tourism as a welfare and developmental strategy is nonetheless contested. Its role in bridging health system deficiencies, improving healthcare standards and stimulating local economies has been long recognized, but there is increasing awareness in recent years of the ways in which it can burden public resources and deepen health inequities, often at the cost of marginalized populations (Johnston *et al.*, 2010). Medical tourism is therefore an important action arena for policymaking, necessitated not just by the need to encourage the industry, but also to minimize its socioeconomic discontents, and to address its ethical and legal challenges, both in countries from which medical tourists originate, and in those they seek healthcare (Chen and Flood, 2013).

The emergence COVID-19 pandemic has overwhelmed the capacity of some domestic healthcare systems, highlighting the need to allow scarce healthcare resources to move, including across borders, to where outbreaks emerge and are worse. The Nigerian situation in the current COVID-19 situation is likened to statement made by Anne (2010) that “Epidemics Reveal the Truth about the Societies they Hit” (Anne, 2010) and this is very true about health services in the country especially with the medical laboratory services where Directorate of medical laboratory service is missing in the federal ministry of health (FMOH) and in most states of the country. COVID-19 for the first time stopped the rich men and the political class from flying from one point to the other within and outside the country. They can easily be admitted into same rejected hospitals in their past life and medical tourism with capital flight was put to a

halt. Construction of international hospitals and modern laboratory facilities by Nigerian government within a shortest time could be a lesson that Nigeria would learn from China that transported sample to Beijing from Wuhan for testing before deploying mobile biosafety laboratory for testing and subsequently build some laboratories close to the people with BSL-2 systems (NCDC, 2020; Wang *et al.*, 2020). There is urgent need to use the experience of COVID-19 to build health systems for Nigerians not minding one's class. Such developments should be backed up by enabling laws and other matters related to them like prohibition of medical tourism. Because of the economic impact of COVID-19 on Nigeria, China, EU, IMF have come to the rescue of Nigeria by providing some financial and material assistance.

COVID-19

Coronavirus is as old as virus in its entirety. Coronavirus just like other viruses are surrounded by lipid envelope that is used to bind to plasma membrane of target cells by attaching to specific proteins on the cell surfaces (Robert, 1984). History of coronavirus is traced to Great Flu Pandemic and have lasted 102 since discovery and documented evidence of 1918 (Brown, 2020). The pandemic claimed 50 - 100 million lives worldwide, including 675,000 in the United States and 454988 in Niger Area (Nigeria) where Southern Province was 255663 and Northern Province was 199,325 and could be a benchmark for the current coronavirus outbreak. The name "coronavirus" was coined in 1968, because of the "corona"-like or "crown" -like morphology in the viruses when observed in the electron microscope during a study. The International Committee on the Taxonomy of Viruses in 1975 came up with Coronaviridae family. Also, in 2005 the International Nidovirus Symposium in Colorado Springs, divided the Coronaviridae family into two subfamilies, the coronaviruses and the toroviruses. The toroviruses of enteric diseases found in cattle and sometimes in humans, with the Arteriviridae and Roniviridae families, form the order called Noroviruses (Susan and Navas, 2005).

Coronaviruses has three genera I-III with human and animal types inclusive. Human coronavirus has two prototype - OC43 and 229E, which are found in common cold. The SARS-COV, where COVID-19 belongs has been the cause of SARS that have been noticed in humans as serious illness of coronavirus. The type of pneumonia (bronchiolitis and conjunctivitis) found in a child (7-month old) in group 1 coronavirus called HCoV-NL63 and in elderly is group 11 called HKU 1 (Susan and Navas, 2005). Coronaviruses can be narrowed down to Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) based on severity or place of origin and the molecular make up. Coronavirus is in the family of RNA viruses that infect birds and many mammals including humans. The viruses cause illnesses that range from common cold to more severe respiratory diseases and rarely gastroenteritis. COVID-19 is caused by an emerging strain of SARS-COV-2 that is novel in humans, though, belongs to severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), for which can be referred as zoonotic in transmission and person-to-person transmission (Cheng *et al.*, 2007).

Coronavirus (COVID-19) is currently ravaging the countries of the world, Nigeria inclusive. COVID-19 was traced to Hunan Seafood Market of Wuhan city in the Hubei Province of China as declared by China CDC and Chinese Health Authority

while WHO first declared *SARS-COV-2* as a Public Health Emergency of International Concern (PHEIC) on January 30, 2020 (Novel, 2019). *SARS-COV-2* (coronavirus disease) fondly called by many people as China disease was officially renamed *COVID-19* on 11th February 2020 (Nassiri, 2020). The extremely rapid spread of this novel coronavirus, since the first case occurred in Wuhan, led to a significant reduction in almost all human activities (Folinas & Metaxas, 2020).

Transmission of the novel virus *COVID-19* is human to human though said to have started from animals and can be direct in transmission from respiratory droplets produced by an infected person while coughing or sneezing or indirect transmission by touching a surface or object that has the virus on it and then touching their own mouth, nose, and eyes (NCDC, 2020). WHO (2013) posits that the source of the virus was not very clear, though thought to have originated from animals; the human to human transmission has been documented on multiple occasions. There are several possibilities that exist which includes direct contact with an infected animal, which could be either the reservoir species or an intermediate host species; contact with or consumption of unprocessed animal products; contact with the environment where an infected animal has recently been; or consumption of a food or beverage which has been contaminated by animal excreta thereby implicating coronavirus as zoonotic infections. Game animals, Dogs, Camel, Cat, etc. have been suggested as intermediate host (Yuen *et al.*, 2020) though not confirmed especially with the current *COVID-19* pandemic. An encounter with *COVID-19* patient can easily lead to cross infection from one person to another in absence of personal protective equipment for example: Masks, gown, goggles, boots, gloves etc.

Nigeria had the index case of *COVID-19* on 27th February 2020 as announced by the Federal Ministry of Health (FMOH) (FMOH, 2020). The index case was an Italian that works in the country. Majority of the cases are Nigerians coming back from an endemic country.

In line with WHO, the FMOH (2020) and Obeta *et al.* (2020) advised Nigerians for their good hand and respiratory hygiene with necessary precautions on personal, respiratory and Hand hygiene including; physical distancing (least 5 feet), avoidance of crowd, adequate disposal of the used tissue or infected materials; avoidance of self-medication and contact of proper authority and staying informed through official channels of FMOH and NCDC. As a way to ensure adequate precautions and quality good medical laboratory practice during *COVID-19*, NCDC (2020) provided some guides to Medical Laboratory Scientists and other professionals working in *COVID-19* testing centers. Coronavirus (*COVID-19*) Specimen Collection Guide deals with adequate labeling, Virus Transport Media (VTM) tube and any other sample tube standard packaging procedures as required by the NCDC with regards to *COVID-19* sample site collection, adequate personal protection equipment and hand hygiene.

The best testing methodology of *COVID-19* is real time reverse transcription - polymerase chain reaction (RT-PCR) as recommended by WHO (Yu and Hailan, 2020) and implemented by NCDC (Cheng *et al.*, 2007). This method could be well positioned at the geopolitical centers while lesser and cheaper methodologies could go on at the state and local government public health laboratories thereby bringing the test closer to the people. This could be achieved with Rapid Detection and Point-of-Care Diagnostics for *COVID-19* (NCDC, 2020). The testing protocol is however dependent on the

NCDC and WHO guidelines in Nigeria. For COVID-19 diagnosis, the samples involved are nasal secretions, blood, sputum, and bronchoalveolar lavage (BAL). The samples are subjected to specific serological and molecular tests specific for COVID-19 for laboratory diagnosis. Serological tests employ enzyme linked immunosorbent assay (ELISA) or Western blots that detects specific COVID-19 proteins. Molecular approaches are based on Real Time-PCR (RT-PCR) or Northern blot hybridization with target of specific COVID-19 genes (NCDC, 2020). Viral antigens present in the clinical specimens can also detected by using direct immune fluorescent assay (IFA) and Anti gen / Antibody reaction testing (BGI, 2020).

There is a management guideline by WHO globally as adopted by NCDC for use in Nigeria (NCDC, 2020). COVID-19 currently do not have a confirmed treatment though management is ongoing with various clinical trials with hope of developing / discovering vaccine as soon as possible. Many have been treatment and reported negative in various countries. Various trials made so far includes: Japan flu drugs, antiviral drug - Favipiravir or Avigan, Chloroquine and hydroxychloroquine, failed Ebola drug - remdesivir, HIV drug combination- combination of lopinavir and ritonavir, An immunosuppressant and an arthritis drug - Actemra, or tocilizumab with interleukin 6 (IL-6) i.e. cytokine, sarilumab or tocilizumab, blood pressure drug- Losartan, and possible use of large dose of Vitamin C. (Wang *et al.*, 2020). Though, Zhi (2020), started a clinical trial in Zhongnan Hospital, China from 11th February, 2020, with some countries looking the other way in the issue of Vitamin C infusion (DoH Australia, 2020), idea presented by Ohanube and Obeta (2020) on the use of Vitamin C for the treatment of COVID-19 could be another breakthrough.

UNDP (NCDC, 2020) posits that the growing COVID-19 pandemic may threaten developing countries like Nigeria. The pandemic may not only be as a health crisis in the short term but there seems to be a looming and devastating economic crisis that may affect social and private lives for months and years to come. “This pandemic is a health crisis. But not just a health crisis. For vast swathes of the globe, the pandemic will leave deep, deep scars,” as noted by Achim Steiner, Administrator of the United Nations Development Programme (UNDP). Also, “Without support from the international community, we risk a massive reversal of gains made over the last two decades, and an entire generation lost, if not in lives then in rights, opportunities and dignity.” Furthermore, the consequences of the novel coronavirus for the economy are the most disastrous in comparison with any other crisis in the recent history Gretzel *et al.*, 2020; Hall *et al.*, 2020, Folinias *et al.*, 2020).

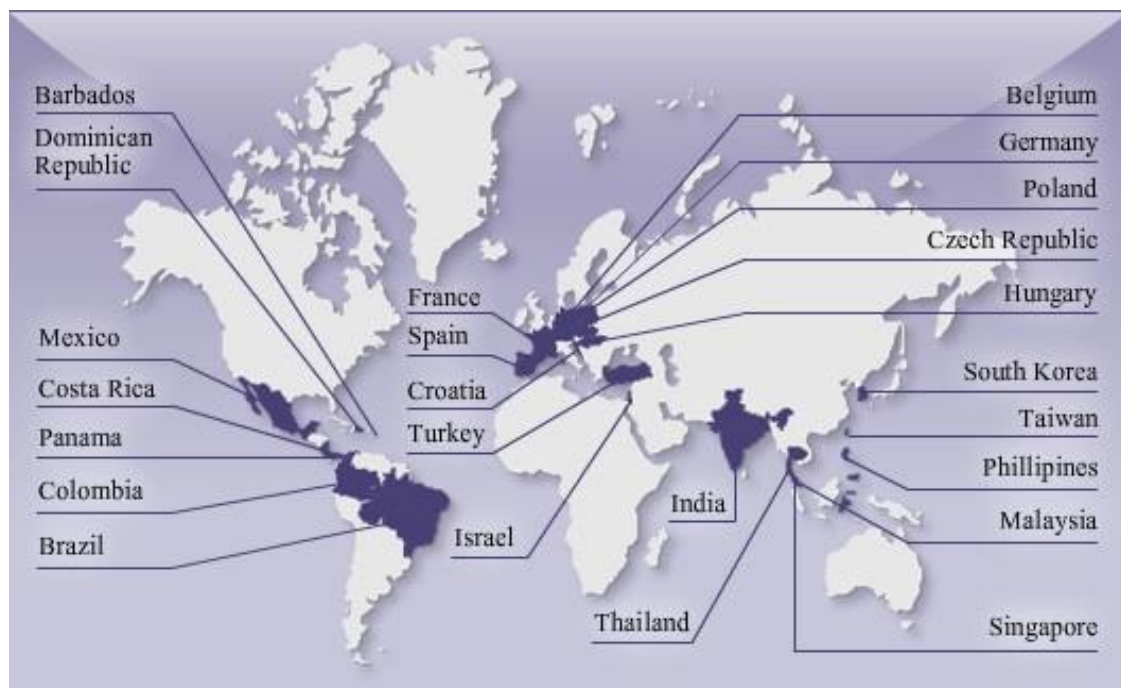
Medical Tourism.

A viable health care system depends on the availability of capable human resources for health, adequate funding, ardent health research, standard framework and good government that recognizes and addresses the health care needs of the people. Health care services cannot be extricated from the innumerable wants of human beings. Globalization has advanced medical technology, capital funding and consumerism across national borders, giving rise to the production and consumption of health care services over many decades with the rapid growth in the flow of patients and health professionals. The World Trade Organization (WTO) acknowledgement of free movement of goods and services has furthered the liberalization of the business in

health care services with the use of bilateral and regional trade agreements amongst nations. Lunt *et al.* (2011) opined that health care services, as a global commodity is predominantly a service industry that is traded and has brought about rapid changes to health care delivery.

There is no harmonious agreement on the definition of medical tourism. Definition varies substantially as a result of the methods applied by countries (Kelley, 2013). Noree (2015) posits that most definitions of medical tourism concentrate on health services selection ranging from health checkups, dental care and reproductive interventions and organ transplants, raising concerns about the safety of the patient cum ethical considerations. In some countries, foreign patients are counted as they visit hospitals whilst on the contrary others count individual patients as they make entry into the country. Medical tourism is the habit of patients leaving their home country to other developing or developed countries with the aim of obtaining medical care (Samir and Karim, 2011, Snyder *et al.*, 2011) but does not include patients/individuals who require emergency medical care while on vacation in another country, long-term residents in a foreign country or those who travel as a result of bilateral agreements (Epundu *et al.*, 2017).

Figure 1: Most popular medical tourism destinations for people from the US, Canada and UK.



Source: Med Journeys, 2021

Medical tourism showcases the role of the industry, issues of advertising, supplier-induced demand and extends beyond the notion of “willingness to travel”. Medical tourism is the practice of patients travelling out of their country of origin or residence for the purpose of getting access to medical care services abroad. Medical tourism is therefore an important action arena for policymaking, necessitated not just by the need to encourage the industry, but also to minimize its socioeconomic discontents, and to address its ethical and legal challenges, both in countries from which medical tourists

originate, and in those they seek healthcare (Chen and Flood, 2013).

As well as the vast majority of national economies in the world are based on, either quantitatively or entirely, the development of tourism forms with reciprocal benefits (Metaxas & Folinas, 2021), the medical tourism industry is a booming industry worldwide. In 2006, McKinsey and Company estimated that the worldwide medical tourism industry generated roughly US\$60 billion and projected that it would reach US\$100 billion by 2012 (Herrick, 2007). Annually, almost 60,000 people (with an average of 5,000 every month) travel abroad for different forms of treatment which could have been conducted in Nigeria (Abubakar, Basiru, Oluyemi, Abdulateef and Atolagbe, 2018). About US\$1 billion is spent annually on medical tourism by Nigerians on an array of health care needs with 60% reported to be across four key specialties: oncology, orthopaedics, nephrology and cardiology due to insufficient investment in the Nigerian health care sector (Okafor, 2017; Phillips Consulting, 2017; PricewaterhouseCoopers (PwC, 2016). The cost of medical tourism is about 20% of the total spend on public cost of predominant care programs like malaria, HIV/AIDS and mother/child care, and operating and capital costs of all the healthcare facilities nationwide. Medical tourism cost is not an insignificant amount of money departing sector and overall economy (PwC, 2016).

Table 1: *Medical procedure prices (in USD) in selected countries for 2011.*

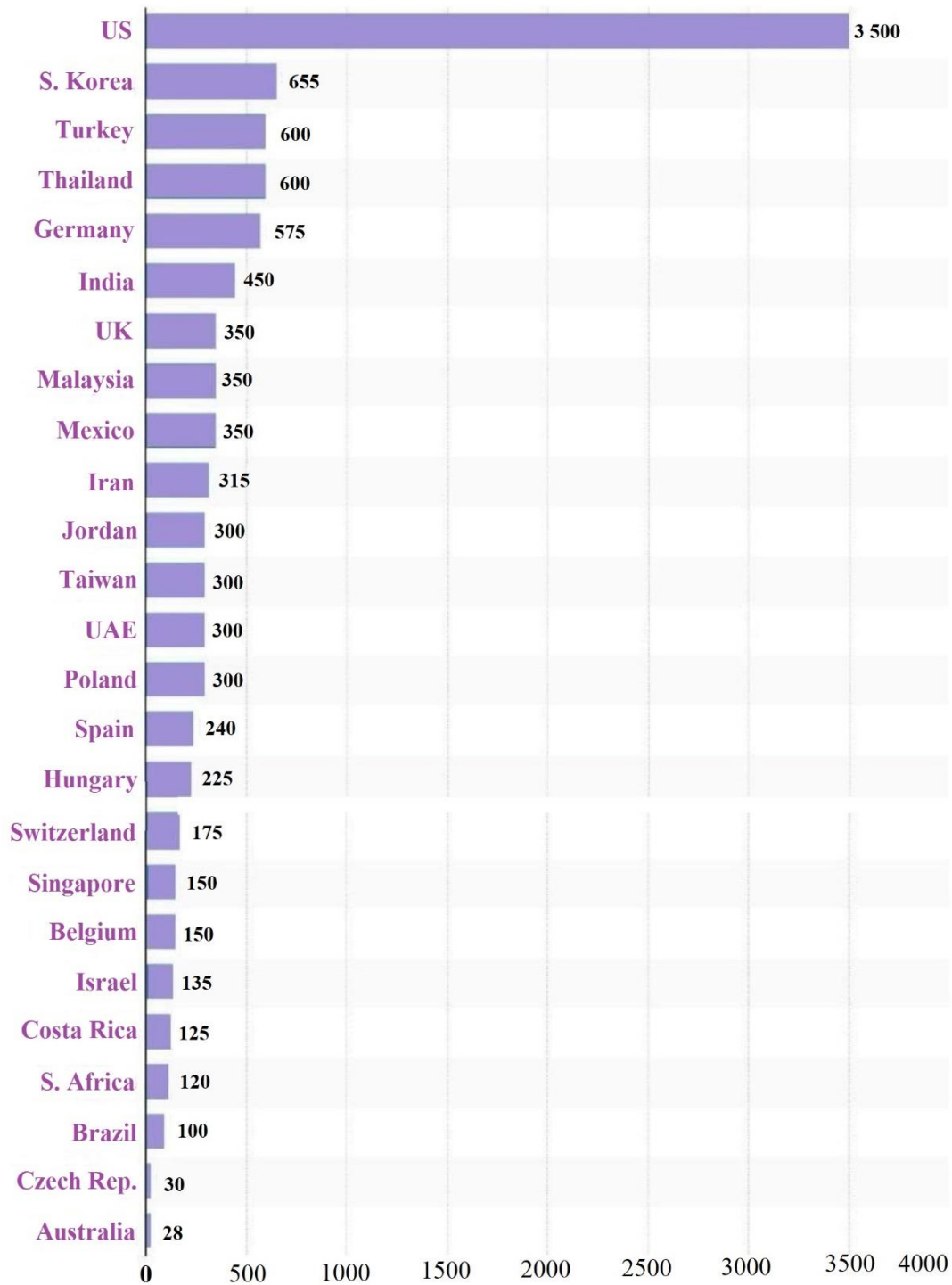
Med. Procedure	US	India	Thailand	Singapore	Mexico	Cuba
Heart bypass	113 000	10 000	13 000	20 000	3 250	-
Heart Valve	150 000	9 500	11 000	13 000	18 000	-
Angioplasty	47 000	11 000	10 000	13 000	15 000	-
Hip replacement	47 000	9 000	12 000	11 000	17 300	-
Knee replacement	48 000	8 500	10 000	13 000	14 650	-
Gastric bypass	35 000	11 000	15 000	20 000	8 000	-
Hip resurfacing	47 000	8 250	10 000	12 000	12 500	-
Spinal fusion	43 000	5 500	7 000	9 000	15 000	-
Mastectomy	17 000	7 500	9 000	12 400	7 500	-
Rhinoplasty	4 500	2 000	2 500	4 375	3 200	1 535
Tummy Tuck	6 400	2 900	3 500	6 250	3 000	1 831
Breast reduction	5 200	2 500	3 750	8 000	3 000	1 668
Breast implants	6 000	2 200	2 600	8 000	2 500	1 248
Crown	385	180	243	400	300	-
Tooth whitening	289	100	100	-	350	-
Dental implants	1 188	1 100	1 429	1 500	950	-

Source: Lunt *et al.*, 2011

The key factors affecting the aggregate Nigeria health care system development and responsible for Nigerians to become medical tourists include inadequate health facilities and equipment, poor human resources management, lack of motivation and remuneration, corruption, poor health care financing, decreased expenditure on health by the government, political instability, shortage of essential drugs and supplies, inadequate access to health care, absence of integrated system for disease response,

prevention, surveillance and treatment; high user fees and inadequate health care providers, and lack of confidence in the nation’s health sector (Obansa and Orimisan, 2013).

Table 1: Value of the leading medical travel destinations worldwide as of 2018 (in million U.S. dollars).



Source: Statista, 2021

The crisis has led to the timely response of external agencies, including multilateral and bilateral donors (Onyibocha *et al.*, 2014); however, they have still not translated into improved health status and overall quality of life of the Nigerian masses (Anyika, 2014). Nigeria is faced with the challenge of ineffective and inefficient use of past opportunities to develop a sustainable health care system. However, more resources should be injected into the health care system of Nigeria in order to reduce the rate of medical tourism in the country, which is alarming.

Nigerian Health System Decay and COVID-19 Exposition.

Vibrant workforce is indispensable for a successful health intervention. Human resources for health serve as the cornerstone of the health system of every nation. In the year 2000, the World Health Organization (WHO) ranked Nigeria 187 out of 191 countries in its world health systems ranking (WHO, 2000). It is pathetic to realize that neighboring countries such as Togo, Ghana, Niger and Mali ranked higher than Nigeria. Although, Nigeria health care sector comprises of the public and private sectors, the recent mass exodus of Nigerians for treatment and health professionals (doctors and nurses) in search of regions that are more favourable is disheartening. Currently, the doctor-to-patient ratio is 1: 2,000 while the nurse-to-patient ratio is 1: 20,000 (Philips Consulting, 2017). The President of the Healthcare Federation of Nigeria, Clare Omatseye, claimed that Nigeria has about 37,000 doctors in diaspora, with about 30,000 doctors in the United States of America, and over 5,000 in the United Kingdom of Great Britain and Northern Ireland (Okafor, 2017).

The National Strategic Health Development Plan (NSHDP, 2010-2015) identified the main categories of human resource in the Nigerian healthcare system. The categories include doctors, nurses, midwives, laboratory staff, public health nurses, public health nutritionists and the community health and nutrition officers. According to NSHDP (2010), there are about 39,210 doctors, 124,629 nurses and 88,796 midwives registered in Nigeria. The aggregate of these numbers does not exhibit a large variation between states or geo-political zones. Since the year 2009, Nigeria has been losing an average of 700 doctors annually to Europe, America, Australia and South Africa. It has been reported that 864 doctors migrated abroad from Nigeria in the year 2012 (Anthonia and Anne, 2013). In the year 2013, 699 doctors requested for letters of good standing out of whom the highest number (243) went to the United Kingdom, 147 went to Canada, 81 went to South Africa, 71 to Australia and 47 immigrated to the United States. The peak of 3,500 emigrations of Nigerian doctors was recorded in 2007. Doctors are not the only health professionals emigrating: nurses and midwives left the country in droves, with emigration peaking at over 5000 departures annually between the year 2002 and 2005, when Nigeria lost more nurses than it produced. The massive brain drain, dropped gradually to about 1000 annually in the year 2011.

Nigeria's human resources for health management face several major challenges to the development of the health sector in the country. The reasons for these challenges include limited production capacity, negative attitude to work, poor supervision and motivation, migration within and outside the country, work

environment and remuneration. NSHDP (2010) estimated that about an average of 2,500 doctors, 5,500 nurses and 800 pharmacists graduate from health training institutions and enter the health sector every year. Omoluabi (2014) compared Nigeria to South Africa taking into consideration the number of people who seek the health resources. Nigeria has a population over three times that of South Africa which indicates that her human resources for health management should be over three times that of South Africa to have a significant comparison of both countries.

However, the emergency of the full blown of COVID- 19, has really exposed the poor healthcare system of Nigeria, as at the time of the index case of the virus, there were only two functioning molecular laboratories in the country. Again, the virus has really revealed the limited and inadequate availability of healthcare personnel in the country, the number of doctors, medical laboratory scientists, nurses and others are far below expected ratio with population. More so, some states of the federation were unable to train these hand full of medical personnel, thereby exposing most of them to the dangers of the virus, including death. COVID- 19 also left Nigerian healthcare system in a skeleton, as most low budgetary allocation to the system affecting the system, revealing that most healthcare workers were not being paid their basic salary as at when due and hazard allowance was in no way available to the workers, this and many more we believe is the major reason for the migration of the healthcare givers. The Secretary to the government of the federation (SGF) could not hide his feelings about the decay in health sector during his outburst in the heat of COVID-19. Such decay was the reason of frequent medical tourism by the political elites before the pandemic.

COVID-19: The Game Changer for Better Health Services in Nigeria

The death of Chief of Staff to the Nigerian President and some other highly placed personalities in the Nigerian hospitals due to inability to travel abroad during COVID-19 for medical reasons was an eye opener to the political class. There is no doubt that COVID-19 pandemic overwhelmed the capacity of some domestic healthcare systems, highlighting the need to allow scarce healthcare resources to improve, including across borders, to where outbreaks emerged and even worse. The Nigerian situation in the current COVID-19 situation is likened to statement made by Anne (2010) that “Epidemics Reveal the Truth about the Societies they Hit” (Anne, 2010) and this is very true about health services in the country especially with the medical laboratory services where Directorate of medical laboratory services missed in the federal ministry of health (FMOH) and in most states of the country. COVID-19 for the first time stopped the rich men and the political class from flying from one point to the other within and outside the country. They can easily be admitted into same rejected hospitals in their past life and medical tourism with capital flight was put to a halt. Construction of international hospitals and modern laboratory facilities by Nigerian government within a shortest time could be a lesson that Nigeria would learn from China that transported sample to Beijing from Wuhan for testing before deploying mobile biosafety laboratory for testing and subsequently build some laboratories close to the people with BSL-2 systems (NCDC, 2020; Wang *et al.*, 2020). There is urgent need to use the experience of COVID-19 to build health systems for Nigerians not minding one’s class. Such developments should be backed up by enabling laws and

other matters related to them like prohibition of medical tourism. Because of the economic impact of COVID-19 on Nigeria, China, EU, IMF have come to the rescue of Nigeria by providing some financial and material assistance.

COVID-19 shows acute and dramatic impact on Nigerian economy and healthcare systems to the extent that many top government officials could openly admit the rot nature of health system in Nigeria as the case of Boss Mustapha, the Secretary to Government of the Federation. The effect of COVID-19 is highly noticeable that government that depends on oil for running government budget like Nigeria as oil price falls, is thinking of borrowing, merging ministries and agencies, cutting down budget and lean economy. The economic experience in Nigeria and all over the world is not funny as both the rich and the poor is immensely affected. In Nigeria, un-budgeted fund is been released in the face of borrowing, while every product is going up in prize, the petrol prize at international community is going down. It is instructive to note that the Nigerian medical laboratory scientists have the capacity to reactivate the vaccine laboratory for the production of vaccines that could stop COVID-19 if supported by the Federal Government of Nigeria.

More so, the emergency of COVID 19 has made possible the building and upgrading of hospitals and molecular laboratories in all the 36 states and federal territory, as well as procurements of standard medical equipment. This Obeta *et al* (2021) described as “from grass to grace” with regards to improvement of health system in Nigeria during COVID-19 though wonders if such system would be sustained after the pandemic. COVID-19 has also reduced the medical tourism out of Nigeria, mostly during the lock down. Importantly, COVID 19, have made some healthcare workers to gain adequate training in combating different viruses, including COVID 19.

Medical Tourism to Nigeria is Possible.

Nigeria is well known not as a tourist destination for public health care but serves as a vital source country to destination countries such as India, Turkey, South Africa, Saudi Arabia, the United States, the United Kingdom, and Germany among others for procedures such as cardiology, oncology, orthopedic surgery and nephrology (Nigerian Health Sector Market Study Report, 2015). The Nigerian health sector maintains a multi-dimensional health care delivery system including private health care, public health care, nongovernmental and faith-based organizations and traditional health care. The onus of the provision of health care in the country lies majorly in the hands of the three-tiers of government: the federal, state and local government. The primary health care system is operated by the 774 local government areas as well as private medical professionals while the secondary health care system is managed by state ministries of health. The tertiary health care system is provided by teaching hospitals, specialist hospitals and federal medical centres. The secondary and tertiary levels also collaborate with voluntary, nongovernmental organizations, faith-based organizations as well as private professionals in order to deliver medical care (Adeyemo, 2005).

In 2005, an estimated total of 23,640 health facilities was given by the Federal Ministry of Health. 85.8% are primary health care facilities, 14% secondary and 0.2% tertiary. It was also estimated that 38% of these facilities are owned by the private health sector. These we believe helped improved the healthcare system. However, medical

tourism to Nigeria is possible if most of the tourism driven factors are tackled in Nigeria. For instance, if the health workforces in Nigeria are paid very well, immigration of the most doctors and other nurses from Nigeria to other countries will be minimized, hence, good health service will be obtained and this may attract foreigners. Okafor (2016) argued that the budgetary allocations to Nigeria's health sector are still far below the recommendation of 11% by the World Health Organization (WHO) of a country's Gross Domestic Product (GDP) and 15% allocation of countries' annual budget by the African Union (AU) has not been visible in Nigeria. Okafor presented statistics from the Central Bank of Nigeria Statistical Bulletin which showed that the percentage of public health expenditure to total government expenditure stood at 7.05%; 4.22%; 6.41%; 4.3% and 4.4% in the mid-1990s, 2000, 2005, 2009 and 2010 respectively and concluded that less than 6% of Nigeria's total budget was allocated to the health sector between the year 2011 and 2015. Hence, if the annual budget to the health sector is improved, health care services will also be improved, as more equipment and materials can be acquired. More so, if proper training is giving to our health personnel routinely, health care seekers will be convinced that there is a change in the system, hence, medical tourism to Nigeria will be possible.

In addition, if other factors such as shortage of essential drugs and supplies, inadequate access to health care, absence of integrated system for disease response, prevention, surveillance and treatment; high user fees and inadequate health care providers, and lack of confidence in the nation's health sector are been given proper attention, medical tourism to Nigeria especially during and after COVID-19 according to Obeta *et al* (2020) is possible. Hence, Nigerian government at all levels should consider health care as the basic dividend of the citizen in order to make medical tourism to Nigeria is very possible.

Conclusion

The coronavirus has exposed the weak healthcare system of Nigeria, as both facilities and work force in the health sector of the country remains scanty and cannot combat the demands of the virus. The reason for the poor healthcare system in the country is medical tourism encouraged by the high class in the country. The medical tourism is driven by factors such as inadequate budgetary allocation, limited work force, shortage of essential drugs and supplies, poor equipment, inadequate access to health care, absence of integrated system for disease response, prevention, surveillance and treatment; high user fees and inadequate health care providers, and lack of confidence in the nation's health. However, it is believed that if these factors are improved, medical tourism in the country will be minimized and healthcare system of the country revitalized, thereby reversing the trend of medical tourism both in management of COVID-19 and other healthcare issues from other parts of the world.

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