

Practice and Determinants of Medical Tourism in Nigeria

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Abstract:- For a nation that seeks economic growth and development including improvement in the health outcomes of its population, it is a tragedy for medical tourism to become a norm that is even supported by the government. This study sought to assess the practice and determinants of medical tourism in Nigeria. A cross sectional survey design was employed for this study. This was done through a questionnaire designed on Google Sheet and was shared to participants who gave consent across the nation. Our team pre-tested the questionnaire and found it to be valid and reliable before it was adopted for the study. The instrument has 19 items divided into four sections – socio-demographics of respondents, practice of medical tourism, determinants of medical tourism and recommendation needed to make Nigeria a hub for medical tourism. Six data collectors from the six geopolitical zones of Nigerian were trained on how to collect data from respondents after consent was seek and obtained. The process of the data collection including the pre-test took upto three months before the target population for the study was actualized. The data collected was download into Excel Sheet and thereafter reviewed, thematically transcribed before using SPSS windows version 26 to analyzed and obtain descriptive and inferential statistics for the study. The result revealed that a total of 440 respondents across the six geopolitical zones in Nigeria participated in the study. The mean age was 38.7±4.5 with a male to female ratio of 1.4:1. 43(9.8%) of the respondents have gone for treatment abroad, 383(87.0%) have not and 13(3.0%) did not respond to the question. Among those that went for medical tourism, 5(11.6%) experienced a complication, 20(46.5%) had a successful experience, 15(34.9%) had a very successful experience while 3(7.0%) did not respond. The drivers of medical tourism in our study are 107(46.1%) was due to high quality of care provided at the destination country, 81(34.9%) was due to the availability of experts using current innovations in medicine in the destination country, 23(9.9%) was personal undisclosed reasons, 7(3.0%) was because it was sponsored by Government/Donor, 7(3.0%) was due to a tourist package, 3(1.3%) low cost of care, 2(0.5%) was due to the presence of health insurance, 1 (0.3%) was as a result of availability of adequate information and marketing of services they provide, and 1(0.3%) was due to poor attitude of healthcare workers in Nigeria. The common conditions Nigerians seek abroad are: 13(34.2%) routine medical check-up, 4(10.5%) was due to heart condition, 3(7.9%) due to breast and prostate cancer, 2(5.3%) due to

Childbirth, 1(2.6%) due to appendix, 1(2.6%) due to ulcer, 1(2.6%) due to fracture, 1(2.6%) due to kidney failure while 12(31.6%) due to undisclosed (other) reasons. At 95% Confidence Interval (CI), Difference (Df = 8), Chi-square (X²) = 23.978, P = 0.0023, there was a statistically significant relationship between practice of medical tourism and wealth quintile of participants. The impact of medical tourism to Nigeria is enormous and therefore calls for a collective effort from all stakeholders to address this menace.

Keywords:- Medical Tourism, Government, Medical Care and Treatment, Abroad.

I. INTRODUCTION

The term medical tourism refers to the practice of seeking medical services for emergency and non-emergency purposes outside one's country for the sole purpose of improving health and wellbeing of the individual (Bulatovic & Iankova, 2021). It is an aged long practice which dates back to 15th century in Europe when elites in the region travel for spas and mineral baths in Mediterranean countries to improve their health and wellbeing (Maheshwari et al., 2012). In the 21st century, countries that have been able to industrialize and market their medical expertise have been able to develop a market that is worth Billions of Dollars while those that have been consuming without providing services to the global economy have been remitting to these other countries where the expertise for highly sought after specializations abound (Cortez, 2008; Johnston et al., 2010). In Nigeria, medical tourism is fast becoming a culture that has adversely impacted on the health system of the country as well as the nation's economy (Abubakar et al., 2018; Epundu et al., 2017). In low and middle income countries like Nigeria, medical tourism is funded usually through out-of-pocket payments and sometimes by government or a donor agency (LMIC) like Nigeria (Lunt, & Carrera, 2010; Adeoye, 2023). These payments are often in foreign currency and places the outborn country in economic deficit while the destination country often benefits from the tourism. Beladi et al. (2017) noted that medical tourism became a booming business in 2008 after the global recession that made countries to search inwards into opportunities to boost their economies. Since then, the business has become a multi-billion-dollar venture with some countries such as Taiwan, United Kingdom, Canada, United States of America, India, , Costa Rica, Cuba, Japan, Dubai, Hungary, Singapore, Israel, Jordan, Malaysia, Malaysia, South Africa, growing exponentially and

attracting customers from both developed and developing nations (Euromonitor, 2015; Abubakar et al., 2018). Conversely, countries mostly in Africa such as Nigeria have persistently travel abroad for health care using government funds which has raised concern in destination countries like the United Kingdom who moved to ban Nigeria politicians frequently visiting the country for medical care and treatment (Beladi et al., 2017; Abubakar et al., 2018). Unlike nations depending on the health care system of foreign nations, successful nations took deliberate steps to become hubs for medical tourism. According to the Euromonitor International (2015), various initiatives have been taken to promote the medical industry in several Asian countries and other parts of the globe where medical tourism thrives. The outcome is the great economic returns they experience which also enable them to invest heavily on health despite some challenges the industry pose. Currently, Thailand's medical tourism industry has become the largest in the world, generating revenue of approximately US\$340 million in 2010 and US\$622 million in 2013—representing an average annual growth rate of at least 20%. Conversely, the Adejero et al. (2023) noted that Nigeria has spent an estimated \$ 3 billion in three years on medical tourism and the World Bank (2021) reported that the country economy has shrank by 1.8% which is the deepest decline and recession it experienced since 1983. In addition, the already weak healthcare system is facing brain drains following the relatively poor remuneration healthcare workers receive from the government (Adeoye, 2023).

Globally, non-communicable diseases are the leading cause of death and reports from the World Bank shows that low- and middle-income countries are experiencing an increasing morbidity with highest mortality from these conditions (World Bank, 2014). In Nigeria, four specialties (non-communicable diseases) are often considered for medical tourism and this include orthopedic, nephrology, cardiology and cancer disorders (PWC, 2021). The existing healthcare despite having some of the innovations needed for quality healthcare, still experience challenges of patronage due to a lack of trust for the system, lack of state-of-art equipment, lack of certain sought-after specialities amongst other reasons that have made Nigerians seek for treatment and care abroad.

Even though medical tourism is a problem that has affected the countries economy and health systems, there is inadequate information on the proportion of Nigerians involved in medical tourism (Akande, 2015).

This study therefore sought to determine the practice and determinants of medical tourism in Nigeria which is key towards policies aimed at strengthening the healthcare system, creating jobs in the country and improving the health outcomes of both poor and wealthy Nigerians in the country.

II. METHODS

A population based cross sectional survey design was employed for this study which assessed the practice and determinants of medical tourism in Nigeria. The study employed the STROBE Statement to guide the implementation, data analysis, and presentation of results from the study. The link to the STROBE Statement is herein: <https://www.strobe-statement.org/checklists/>. For the purpose of achieving the target population, the researchers employed an online survey approach for the implementation of this research. This involved the design of the instrument for data collection (questionnaire) on Google Sheet. This approach was adopted because of the challenges in delivering one-on-one hard copies of the questionnaires to study participants across Nigeria. The target population for the study was estimated using an online sample size calculator and the minimum sample size was found to be 385 based on estimates of persons aged 18years and above in Nigeria in 2023. Factoring in a 10% attrition rate, the minimum sample size for the study was 424 for which 440 Nigerians aged 18years and above were included in the study. The link to the sample size calculation is herein: <https://www.calculator.net/sample-size-calculator.html?type=1&cl=95&ci=5&pp=50&ps=125%2C289%2C677&x=Calculate>

The study location is Nigeria which is the most populous black nation in the world located in West Africa situated between the Sahel to the north and the Gulf of Guinea to the south in the Atlantic Ocean. It has a landmass of 923,769 square kilometres (356,669 sq mi) with an estimated 218,541,212 population which makes it the most populous country in Africa and the sixth in the world (Federal Republic of Nigeria, 2006; Nigeria, the World Fact Sheet, 2023). For administrative purpose, the country has six geopolitical zones with 36 states and the Federal Capital Territory Abuja (Nigeria, CIA World Fact Book, 2023; Mann, 1990). Both elites and non-elites in the country go for medical tourism (Adeoye, 2023) and this makes it proper to determine the proportion of Nigerians that seek medical care and treatment abroad. Figure 1 below shows the map of Nigeria with the six geopolitical zones.

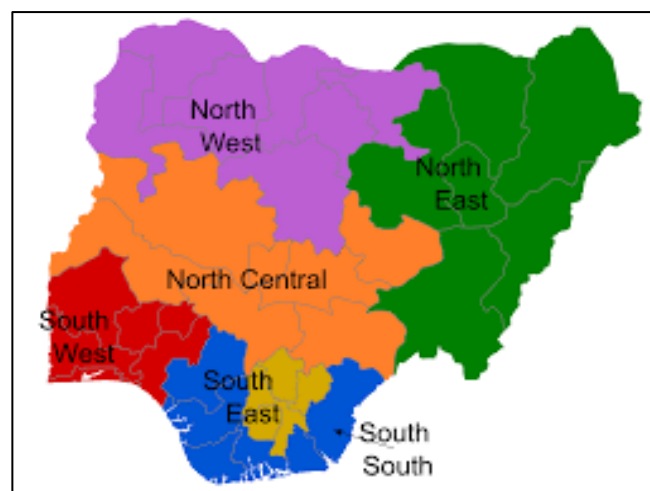


Fig 1 Map of Nigeria with the Geopolitical Regions

Prior to the design of this questionnaire, a survey monkey with the same contents was designed on 6th of October, 2023 and was shared to twenty (20) volunteers as pre-test to ascertain the ability of the instrument to collect adequate information on the subject. This was done for a period of two weeks and the responses were collected for which the instrument was shown to be valid and reliable for the study. Following validation of the tool, the Google Sheet form was created after two weeks and recruitment of six focal persons (data collectors) across the six geopolitical zones of Nigeria was done. The questionnaire consists of nineteen (19) items divided mainly into three (3) sections - socio-demographic distribution of respondents, practice and determinants of medical tourism in Nigeria, and opinion of Nigerians on making Nigeria a hub for medical tourism and recommendations to achieve this goal. The link of the questionnaire on Google Sheet is shared herein: https://docs.google.com/forms/d/e/1FAIpQLSf18zfZJU9gaklyP48G7T0eUVeGljcamPOvbE788Kun4AwFGA/viewform?usp=sf_link. Six data collectors from the six geopolitical zones of Nigerian were trained on how to collect data from respondents after consent was seek and obtained on 17th of November. The process of obtaining information on the

subject, the data collection process including the pre-test, training of data collectors, took almost three months before the target population for the study was actualized on 2nd of December, 2023. Data collected was downloaded into Excel Sheet and thereafter reviewed and transcribed thematically before using SPSS windows version 26 to analyzed and obtain descriptive and inferential statistics for the study. Specifically, the outcome measured for this study include: the proportion of Nigerians who engage in medical tourism, the determinants of medical tourism and the measures to address medical tourism in Nigeria. Descriptive statistics was measured using summary statistics including frequency and percent and mean to present categorical and continuous variables respectively while the Chi-square test was done to determine the relationship between medical tourism and wealth quintile of respondents.

Ethical considerations was adhered to as participants were recruited on voluntary basis and were informed; they could opt out of the study at any time they choose. Anonymity and confidentiality of information obtained was assured.

III. RESULTS

This chapter presents the result for the study. Table 1, 2 and 3 shows the socio-demographics of the respondents, practice of medical tourism, and relationship between practice of medical tourism and wealth quintile. Figure 1 and 2 shows the determinants of medical tourism and common conditions Nigerians travel abroad to receive treatment and care.

Table 1 Socio-Demographic Distribution of Respondents (n = 440)

S/N	Variable	Frequency (f)	Percent (%)
1	Gender:		
	Male	257	58.4
	Female	183	41.6
2	Marital Status:		
	Single	208	47.3
	Married	225	51.1
	Divorced	4	0.9
	Widow	3	0.7
3	Wealth Quintile:		
	Poorest	2	0.5
	Poor	27	6.1
	Middle Class	301	68.4
	Rich	34	7.7
	Wealth	19	4.3
4	Educational Qualification:		
	Secondary	24	5.7
	Diploma	39	8.9
	BSc/Equivalent	253	57.5
	Master	105	23.9
	PhD	19	4.3
5	Religion:		
	African Traditional Worshiper	5	1.1
	Christian	345	78.4
	Islam	90	20.5

Table 1 shows the socio-demographic characteristics of respondents for this study. 257 (58.4%) are males while 183(41.6%) are females; 208(47.3%) are single, 225(51.1%) are married, 4(0.9%) are divorced while 3(0.7%) are widow, 2(0.5%) are in the poorest wealth quintile, 27(6.1%) are poor, 301(68.4%) are middle class, 34(7.7%) are rich while 19(4.3%) are wealthy, 24(5.7%) had secondary education, 39(8.9%) have diploma, 253(57.5%) have BSc/Equivalent, 105 (23.9%) have master while

19(4.3%) have a PhD; 5(1.1%) are African Traditional Religion Worshipers, 345(78.4%) are Christians while 90(20.5%) are Muslims.

Table 2 Practice of Medical Tourism (n = 440)

S/N	Variable	Frequency (f)	Percent (%)
1	Have you ever had treatment abroad?		
	Yes	43	9.8
	No	383	87.0
	No response	13	3.0
2	Outcome of treatment obtained abroad:		
	Complicated	5	11.6
	Successful	20	46.5
	Very successful	15	34.9
	No Response	3	7.0

Table 2 above shows the practice of medical tourism among Nigerians. 43(9.8%) of Nigerians have travelled abroad to receive treatment and care, 383(87.0%) have not while 13(3.0%) did not respond. Among those that received care abroad, 5(11.6%) experienced complications,

20(46.5%) had successful experience, 15(34.9%) had a very successful experience while 3(7.0%) did not respond.

➤ *Determinants of Medical Tourism*

Figure 1 below shows the Drivers or Determinants of Medical Tourism in Nigeria.

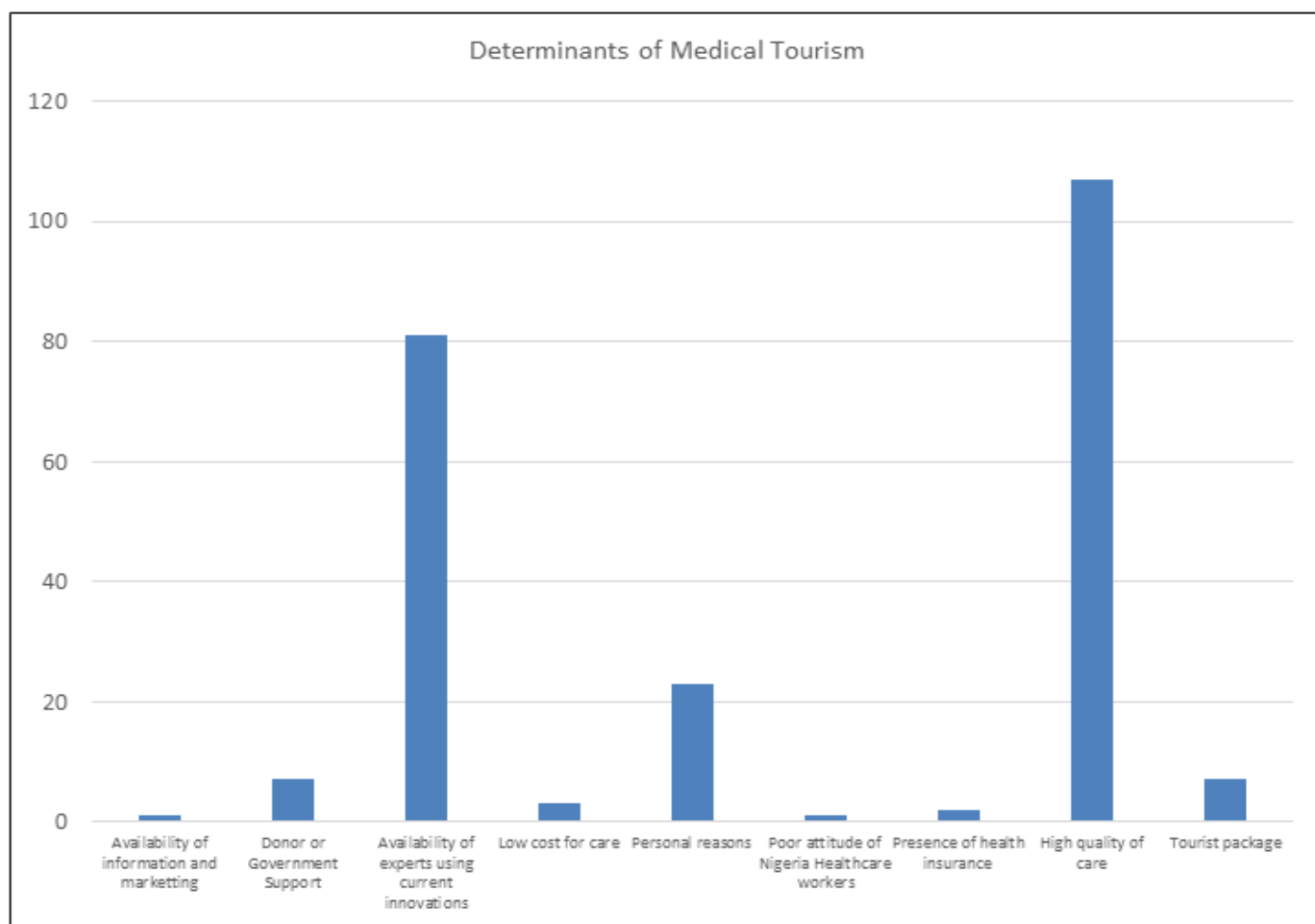


Fig 1 Determinants of Medical Tourism Amongst Nigerians

Figure 1 above showed the drivers to medical tourism in Nigeria. They include: 1 (0.3%) availability of information and marketing, 7(3.0%) Donor or Government Support, 81(34.9%) availability of experts using current innovations, 1(0.3%) presence of health insurance, 3(1.3%) low cost of care, 23(9.9%) personal reasons, 1(0.3%) poor attitude of healthcare workers, 1(0.3%) presence of health insurance, 107(46.1%) high quality, 7(3.0%) tourist package.

➤ Common Conditions Nigerians Seek for Care Abroad

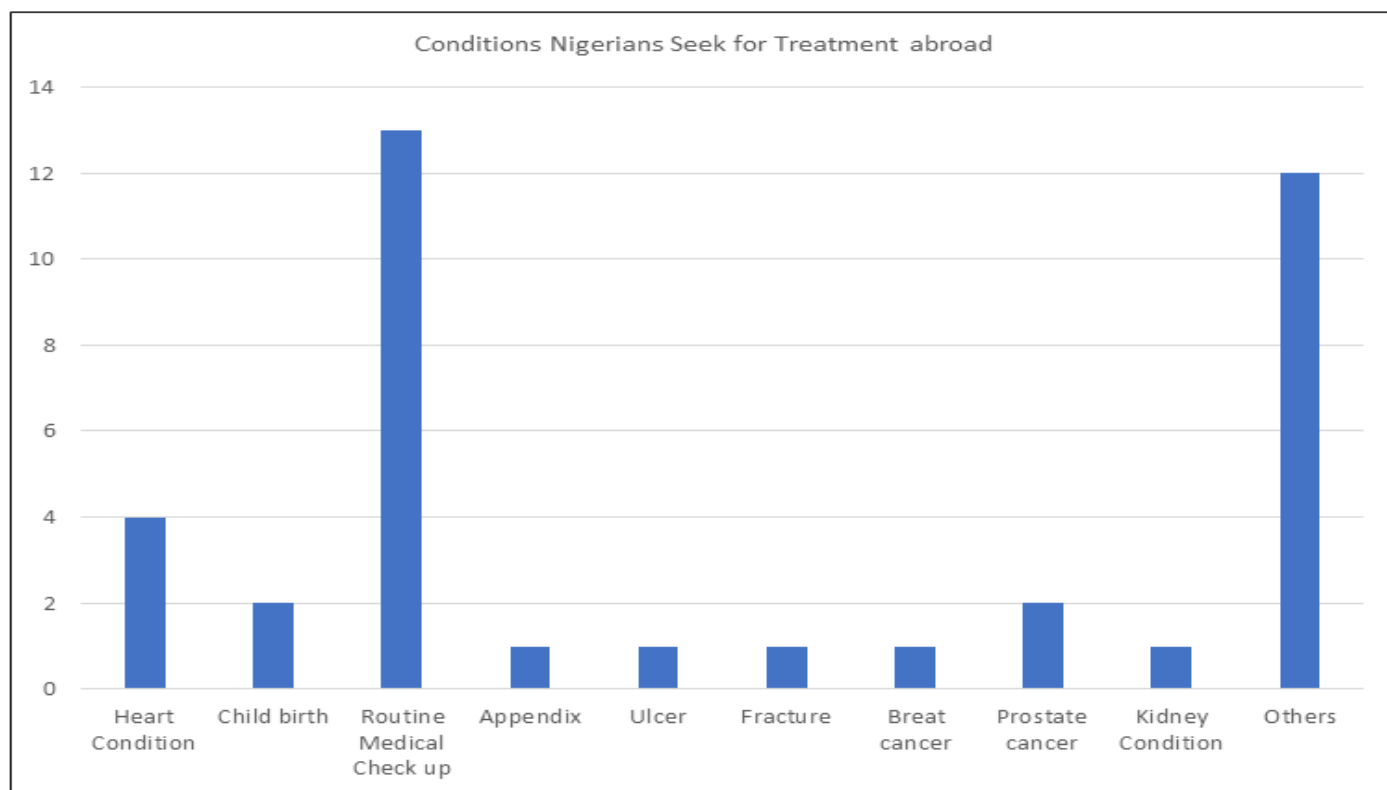


Fig 2 shows common conditions Nigerians travel abroad for treatment and care. 4(10.5%) was due to heart condition, 2(5.3%) due to Childbirth, 13(34.2%) due to routine medical check-up, 1(2.6%) due to appendix, 1(2.6%) due to ulcer, 1(2.6%) due to fracture, 1(2.6%) due to breast cancer, 2(5.3%) due to prostate cancer, 1(2.6%) due to kidney failure while 12(31.6%) due to other reasons

Table 3 Relationship between Wealth Quintile and Medical Tourism

Wealth Quintile	Have you ever had treatment abroad			Results			
	Yes	No	No response	Total	Df	X ²	P-value
Poorest	2	0	1	3 (0.7%)	8	23.978	0.0023
Poor	27	1	5	33 (7.5%)			
Middle Class	301	12	23	336 (76.4%)			
Rich	34	1	13	48 (10.9%)			
Weathy	19	0	1	20 (4.5%)			
Total	383 (87.0%)	14 (3.2 %)	43 (9.8%)	440			

Table 3 showed Chi-square test results on Wealth Quintile and Medical Tourism. At 95% Confidence interval, X² = 23.978, Df = 8, P – value = 0.0023, there was a statistically significant relationship between wealth quintile and ever had treatment abroad.

IV. DISCUSSION

Medical tourism is gradually become a culture in Nigeria as both elites and non-elites prefer to obtain treatment and care abroad (Abubakar *et al.*, 2018; Adeoye, 2023). The result from this study (Table 2) showed that almost 9.8% (approximately one in ten) Nigerians have gone for medical tourism before. This proportion is high and worrisome especially as Epundu *et al.* (2017) noted that medical tourism in Nigeria is a booming business with an annual growth rate of 20.0% which implies that that several

billions of Naira are spent on medical tourism by Nigerians. Our result are contrary to the report in South Africa which is also an Africa country that boost an estimated 1.8% of international tourists travelling to the country for medical reasons (Wesgro, 2016). This implies that while the South Africa healthcare system could boost international medical tourism, the Nigeria health care system in yet to achieve that milestone and therefore the growing and booming medical tourism practiced by an estimated one in ten Nigerians. The economic burden is so high that Adejero *et al.* (2023) noted that medical tourism gulped N8.3bn in one year. For the healthcare system, medical tourism is also taking its toil as investment into health for Nigeria has continuously remained below 15% which was the percentage of budget that should be for health amongst Africa countries who participated in the Abuja Declaration (Karamagi *et al.*,

2023). This among is the required budget needed for the smooth operation of the health sector in the country.

An interplay of various factors are known to contribute to this culture of medical tourism and the result from this study (Figure 1) revealed that high quality of care in the country of destination (46.1%), availability of experts using innovative approaches (34.9%) and undisclosed reasons (9.9%) amongst other factors were the reasons stated as the drivers to medical tourism. Our findings are similar to previous reports in Nigeria by Adejero et al. (2023) and Adeoye (2023) who also observed that the lack of quality healthcare, lack of innovations and expertise in some fields amongst other reasons are the factors that drive Nigerians to seek for treatment abroad. Improving these determinants or drivers of medical tourism in Nigeria, can be a turnaround of the current situation in the country to the most populous black population on earth that is strategically positioned to provide a variety of services to the West Africa region and Africa at large.

Common conditions that Nigerians travel abroad for healthcare that was elicited in this study are shown in figure 2. Our result revealed that routine medical check-up (34.2%), heart conditions (10.5%), prostate and breast cancer (7.9%), Childbirth (5.3%), kidney disease (2.6%), ulcer (2.6%) and appendix (2.6) are common reasons why Nigerians seek for treatment and care abroad while 31.6% did not disclose the reason they travel abroad for treatment. It is very worrisome from the findings of this study that some Nigerians travel abroad to go for medical check-ups when they often receive this care from Nigerian doctors. The unfortunate thing is more doctors (9 in 10) are willing to leave the country and this could create a major gap if the pace of exit do not commensurate with the pace at which doctors and allied professions are graduating from medical and other health institutions to build the necessary workforce (Onah et al., 2022). Innovations and expertise in the management of these conditions such as cancer, heart conditions and chronic kidney diseases will help avert this trend and this could help save the foreign exchange that the country is experiencing which plummeted the Naira. Another reason for the medical tourism is the desire to deliver their children in these countries due to perceived benefits their child may have if they become citizens of those countries (Brar et al., 2022). Usually, heavy amounts of money are spent on this trips through travel processing, transportation, and other payments needed for the trip (Ehrbeck et al., 2008). The overall outcome is the negative balance the country is currently going through which is affecting the healthcare sector in an unprecedented amount. Our findings are in congruent with study by Adejoro et al. (2023), and Adeoye (2023) who reported that these factors contribute to medical tourism and contribute greatly to the challenges the healthcare system and economy of the country is currently experiencing. Lastly, our result revealed that wealthy Nigerians patronize medical tourism more than the poor despite the assertion by Adeoye (2023) argued that both elites and non-elites Nigeria seek for medical care and treatment abroad. The implication of this finding is that access to health including advanced care is limited for poor

Nigerians who cannot pay for services that they need for their health and wellbeing (Orji et al., 2020). This raises an equity issue which can affect the actualization of Universal Health Coverage in this nation.

V. CONCLUSION

The proportion of Nigerians that seek for treatment abroad for various conditions is high and a thing to be worried about. The outcome of this tourism is great in most cases with few cases of complications. The main drivers of medical tourism in Nigeria are high quality of healthcare provided at the destination, availability of experts using current innovations in medicine in the destination country, Government and occasional Donor sponsorship of Nigerians to go abroad for care and treatment, and the presence of an attractive tourist package. The common conditions Nigerians seek abroad during medical tourism trips are routine medical check-up, heart conditions, breast and prostate cancer, and childbirth so that the child(ren) will become citizen(s) of the destination country. Medical tourism has done more harm to Nigerians than good and the time to address it is now. Nigeria is strategically positioned to be a giant in the healthcare industry and other sectors and until this realization shrink into the government and state actors, Nigerians would continue to go abroad for treatment and care and this will consistently affect the economy of the country in addition to the healthcare systems.

A clear vision, Government adequate commitment to health, turning brain drain to brain gain, investment in modern innovations and research, effective stakeholder engagement with diaspora and foreigners who are willing to invest for a long time in Nigeria will be the way forward towards making Nigeria see the fortunes of medical industrialization.

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