

**Evaluation of the roles of physicians and the functionality of the
healthcare system in Nigeria**

ABSTRACT

Background: A comprehensive medical care system is required for effective healthcare delivery to people who need it. Even though exact configuration of healthcare services varies from country to country, a sturdy mechanism comprising of a robust financing, a well-trained and adequately paid workforce; research, policy recommendation and implementation is needed for a well-maintained system to deliver effective healthcare services.

Methods: This is a descriptive study conducted on 100 Nigerian trained physicians with at least 1-year practice experience. The online questionnaire was administered to participants through social media platforms such as WhatsApp, Facebook and twitter using purposive sampling method. Data analysis was done using Microsoft excel 2010 version.

Result: The response rate was 100%. Ninety six percent (96%) and 99% of surveyed physicians think their monthly salary and the amount of money budgeted to the health sector is grossly inadequate. It was also noted that poor enumeration and/or low income 82/330 (25%) and poor medical facilities 70/330 (21%) are the commonest reasons they believe physicians emigrate from Nigeria while problem identification (20.2%), provision of leadership, healthcare service delivery (13.5%), policy making and implementation (12.9%) and research and development (10.4%) are the commonest roles for physicians identified by study participants.

Conclusion: The Nigerian physician is poorly enumerated, and the healthcare budget is poor. This accounts to large part why leave Nigeria. There is need for better funding of the healthcare

24 system in Nigeria and more involvement of physicians in leadership, research and policy
25 development.

26 Keywords: Physicians, healthcare system, Nigeria.

27

28 **INTRODUCTION**

29 The components of a well-functioning health system respond in a balanced way to a population's
30 needs and expectations by improving the health status of individuals, families and communities
31 defending the population against what threatens its health, protecting people against the financial
32 consequences of ill-health and providing equitable access to people-centered care.¹ For these to
33 be achieved there is need for a strong primary health care sector as the cornerstone of health
34 systems. In addition to a strong primary healthcare system, a well-motivated manpower and
35 material resources are also vital to achieving the universal basic health care for the population.¹
36 While many developed countries have to a large extent achieved the sustainable development
37 goal in the provision of basic and affordable health care for its population, the reverse is the case
38 in many developing countries especially in sub-Saharan Africa. Little wonder why these
39 countries have over the years recorded very poor vital statistics in mortality, morbidity and life
40 expectancy. Due to poor budgets and planning, Africa has witnessed a relentless emigration of its
41 health profession to industrial nations where working conditions and wages are considerably
42 better. In Nigeria for instance it was estimated that of the 72,000 medical physicians registered
43 with the Medical and Dental Council of Nigeria, only approximately 35,000 (48.6%) practice in
44 Nigeria² The Federal Ministry of Health in a 2006 survey reported that there were a total of 39
45 210 physicians (0.3 per 1000 population), 124 629 nurses (1.03 per 1000 population), 88 796
46 midwives (0.67 per 1000 population), 2482 dentists (0.02 per 1000 population) and 12 072

47 pharmacists (0.05 per 1000 population) for the year 2004 which are all less than the minimum
48 recommended by the World Health Organization.³ This has led to poor functioning and poor
49 state of health of Nigerians. We sought to evaluate from the perspective of the medical
50 practitioners in Nigeria, the reason for the continued increase in emigration of physicians for
51 several decades and the roles physicians should play in the improvement and functionality of the
52 Nigerian health care system.

53 **METHODOLOGY**

54 This was an **descriptive** online survey conducted on physicians who are Nigerians and have
55 practiced medicine for at least 1 year in the Nigerian healthcare setting. For a doctor to practice
56 medicine in Nigeria, s/he must undergo a 6 years basic medical undergraduate education in one
57 of the accredited universities in Nigeria. Foreign trained doctor who wishes to practice in Nigeria
58 must pass the Medical and Dental Council of Nigeria licensing examinations. Following
59 successful completion, medical graduate undergoes a one-year mandatory internship training and
60 followed by another one-year mandatory rural practice experience for physicians who are 30
61 years or younger. Residency training is a 4-6 years postgraduate program commenced after
62 passing the primary postgraduate medical college examination in the respective faculties. It is not
63 a mandatory training program and not required to practice as a general medical officer in
64 Nigeria.

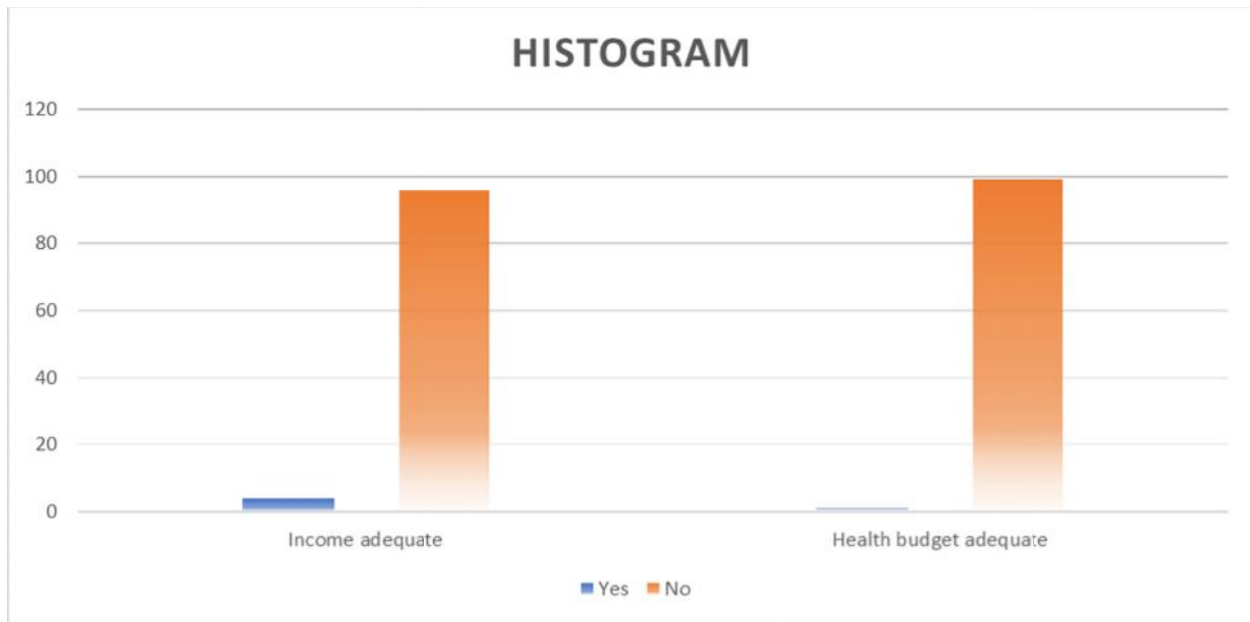
65 Data collection was done through online social media such as WhatsApp, Facebook and twitter.
66 Electronic consent letters were sent to the potential participants. For those that agree to
67 participate in the survey, a weblink generated from <https://www.surveymonkey.com/> was posted
68 to them electronically. The participants were assured on confidentiality by non-collection of
69 personal information that could serve as identifier. Participants were requested to answer four

70 questions on the online questionnaires to the best of their abilities. A small-scale pilot study was
71 done on 10 physicians to easy comprehensibility of the questions and other errors prior to been
72 administered to participants. These questions included information on the adequacy of their
73 monthly salary, national health budget, reason they believe physicians leave to practice medicine
74 outside Nigeria and what they believe are the role of physicians in the healthcare system of
75 Nigeria. The number of physicians enrolled was calculated based on a doctor-population ratio of
76 0.03%,³ a 5% precision degree and a non-response rate of 50% to accommodate possible sample
77 loss due to attrition. Enrollment of study participants was done using purposive sampling
78 method. Data collected was cleaned and analyzed using Microsoft excel statistical software
79 (2010 version). Results were presented in percentages and charts.

80 Ethical approval was obtained from the Ethics and Research Committee of the Ben Carson
81 Senior School of Medicine, Babcock University. Online consent form was sent to all potential
82 participants prior to the online questionnaire link sent. Identifiers were not collected in the
83 questionnaire forms.

84 **RESULT**

85 A total of 100 physicians participated in the survey through the online SurveyMonkey
86 administered questionnaire and response rate was 100%. Ninety six percent (96%) think their
87 monthly salary or income is inadequate or does not match the time and effort they put in the
88 medical job. Almost all (99%) except one are of the opinion that the amount of money budgeted
89 into the health sector is grossly inadequate. Fig 1



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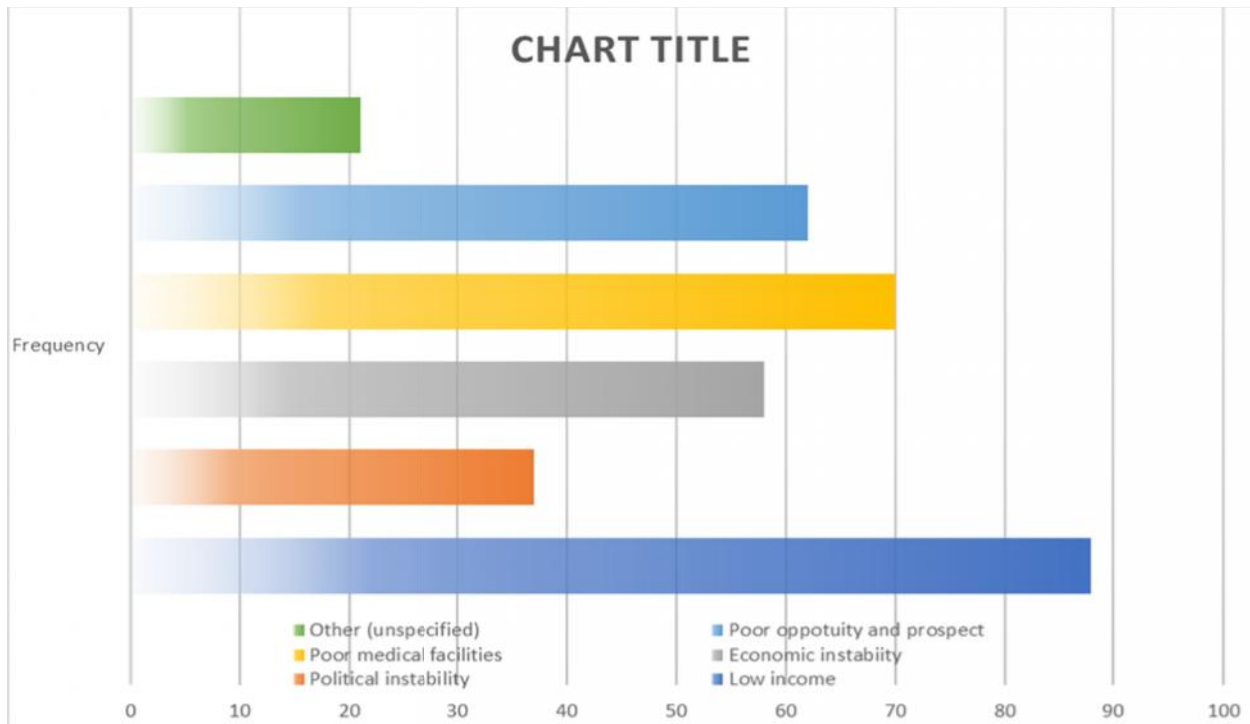
91 **Figure 1- Histogram showing responses to the adequacy of monthly salary and health**
 92 **budget in Nigeria healthcare system.**

93 When asked about reason physicians are leaving Nigeria, 330 responses were obtained giving an
 94 average of 3 responses per participants. Poor enumeration and/or low income 82/330 (25%) and
 95 poor medical facilities 70/330 (21%) were the commonest reasons indicated by the respondents.

96 Other reasons included reduced job opportunity 62/330 (19%), economic instability 58/330
 97 (18%), political instability 37/330 (11%) and other unspecified reasons 21/330 (6%). Participants

98 listed in their opinion what the main responsibility of physicians should be in the Nigerian
 99 healthcare system. One hundred and sixty-three responses were seen and some respondents gave

100 ≥ 2 responses. Fig 2



101

102 **Figure 2- Bar chart showing responses on the reasons medical physicians leave Nigeria**

103 Based on the responses given, ten patterns of responses were identified, and these were
 104 thematized into major categories as shown in Table 1. About one-fifth (20.2%) of the responses
 105 by the surveyed physicians believed that the main roles of physicians should be problem
 106 identification in the healthcare sector and proffering solution/recommendation to the government
 107 on how to tackle same. Provision of leadership and/or coordination of the healthcare system was
 108 the second most common (14.7%) responsibility supposed to be performed by the Nigerian
 109 doctor. Others included healthcare service delivery (13.5%), policy making and implementation
 110 (12.9%) and research and development (10.4%) The least expected role of the Nigerian doctor
 111 according to respondents included Public health promotion (4.9%) and utilization and
 112 advancement of medical innovations (3.7%). Four unspecified (2.5%) responses reported in the
 113 survey included the role of the Nigerian doctor in the healthcare system is “vital”, “a lot”,
 114 “pivotal” and “the doctor has no role”.

115 **Table 1: Doctor’s opinion on the core responsibilities of the physicians in the Nigerian**
 116 **healthcare system**

S/N	Thematic categories	Frequency	Percentage
	Responsibilities of the physicians in Nigeria	(N)	(%)
1.	Healthcare service delivery	22	13.5
2.	Problem(s) identification, recommendation of solution and development of guidelines	33	20.2
3.	Research and development	17	10.4
4.	Advocacy, reformer and activist for the health system	13	8.0
5.	Utilization and advancement of medical innovations	6	3.7
6.	Public health and health promotion development	8	4.9
7.	Leadership and coordination of the health system	24	14.7
8.	Provision of training, medical curriculum and continuing medical education	15	9.2
9.	Policy making and implementation	21	12.9
10.	Others (unspecified)	4	2.5
Total Responses		163	100

117

118 **DISCUSSION**

119 This survey shows that majority of the surveyed physicians believe that the monthly take home
 120 pay for the Nigerian physicians is inadequate. This is hardly surprising as an entry level doctor
 121 earns an average of ₦100,000 ~ US\$ 276.62 (based on 02/2019 exchange rate on www.xe.com:
 122 at exchanger rate of \$361.507) while an average middle-level medical doctor earns an average of
 123 ₦250,000~US\$691.56 per month. This sum in most cases includes allowances and before tax
 124 deductions. According to the consolidated medical salary scale 2009, the total salary of the
 125 highest paid medical professional (i.e. specialist consultants) in Nigeria on level 7 and grade 9 is

126 roughly 5, 128, 200 naira per annum including all allowances.⁴ This translates to approximately
127 USD\$14,185.62 per annum (based on 02/2019 exchange rate on www.xe.com: at exchanger rate
128 of \$361.507). This is less than half of the annual salary of a sitting senator (N12, 902, 360.00)
129 and members of house of representatives (N9,525,985.50).⁵ This is even more abysmal when
130 compared to annual salary of physicians in other countries.⁶ This explains a recent NOI Polls
131 which showed that 8 in 10 Nigerian physicians are seeking to emigrate to practice medicine in
132 other part of the world due to poor wages and work conditions.⁷

133 Similarly, our study showed that almost all physicians surveyed believed that the national health
134 budget is grossly inadequate in comparison to other less important sector of the Nigeria economy
135 and health budget in other countries. According to the National bureau of statistics, Nigeria
136 allocates less than 5% of its total revenue to the health sector.⁸ Between 2012 to 2018, the
137 percentage allocated to the health sector declined from 5.97% to a paltry 4.0%.⁹ Even more
138 distressing is the fact that over 70% of this sum is allocated to recurrent expenditure such as
139 salaries, administrative travels etc. with less than 30% on important expenditures such as
140 research, capital projects etc.⁹ An ecological study conducted by the World Health Organization
141 in 2009 showed that the life-expectancy is directly and significantly correlated to the national
142 annual health spending ($r=0.629$).¹⁰ This may partly explain why there is poor health outcome in
143 many middle to low income countries with comparatively low life-expectancy in these countries.
144 Relatedly, most physicians believe that poor income, poor facilities and poor prospect with
145 opportunity are the commonest reason physicians leave Nigeria to practice medicine. It is fair to
146 state that this may be related to the poor health budget and implementation in the Nigerian health
147 sector.

148 Additionally, our survey reported that physicians believe that problem identification, leadership,
149 healthcare delivery, policy recommendation and research should be the main roles of physicians
150 in the healthcare system of Nigeria. These are some of the documented roles of physicians in
151 healthcare system around the world.^{11, 12} Except healthcare delivery, the engagement of the
152 Nigerian doctor in other identified roles is debatable and were specified has been grossly
153 suboptimal. In authors opinion, while doctor should be encouraged to get involved in politics to
154 help drive policies issues, their involvement in leadership and headship of hospital around the
155 country should be strengthened. By training, physicians are meant to be leaders in the health
156 sector based on their rigorous and comprehensive training. It will however be vitally expedient
157 that those going into administration should acquire further certification in administration. Such
158 that their holistic and comprehensive knowledge of the health sector with further professional
159 administrative training will translate to a robust economic engagement of the health industry in
160 the country. This, we believe will further strengthen the leadership qualities of a doctor
161 translating into a more robust economic management of the limited money, material and
162 manpower in the Nigerian healthcare sector with minimal conflicts and overlapping functions
163 that lead to recurrent fights and unnecessary strike actions among the three tier levels of health
164 care team.

165 Finally, as indicated by surveyed physicians, medical research is a key area that needs to be
166 advanced for development of the healthcare system to be achieved. This is an under-explored
167 area in the Nigeria healthcare system as studies have shown that most physicians globally have
168 little interest and/or are not involved in research. This reason for this trend may be related to the
169 poor health research funding¹³ and/or poor training of physicians in research methods. In a report
170 evacuating major professional activities of medical graduates from various countries, Nigeria

171 trained physicians were significantly noted to be less involved in research (0.6%) and
172 administrative activities (0.5%) compared to counterparts from other regions of the world.¹⁴

173 **Conclusion**

174 We conclude that the Nigerian doctor is poorly remunerated, and the healthcare budget is poor.
175 These, together with the resultant poor work conditions are some of the contributors to the poor
176 health state and reasons physicians are emigrating from Nigeria. Continued and strengthening of
177 the training and involvement in research and policy development by Nigerian physicians may
178 help improve the healthcare system in Nigeria. **The purposive online sampling method used to**
179 **enroll the participants in this study may be a limitation of our study.**

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182 Consent: As per international standard written participant consent has been collected and preserved by
183 the authors.

184 Ethical: NA

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