

**LETTER TO THE EDITOR: THE DEMOGRAPHIC PROFILE OF THE NIGERIA EARLY CAREER DOCTORS.**

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**Keywords:** Career, interns, postgraduate, registrar, trainee, demographic, doctors, dentist, Early career doctors, demography, Nigeria.

**Cite this article:** Onuwabuchi E, Omololu A, Grillo E, Ekundayo O, Adeniyi MA, Ogunsuji OO, et al. Letter to the editor: the demographic profile of the Nigeria early career doctors. *Yen Med J* 2020; 2(1):1-4.

**Dear Editor,**

Early Career Doctors (ECDs) include medical and dental interns, medical and dental officers below the rank of principal medical officer or equivalent, and medical doctors or dentists who are in postgraduate specialist training<sup>1-5</sup>. They are collectively represented by the Nigerian Association of Resident Doctors (NARD) formerly called National Association of Resident Doctor of Nigeria (NARD), an affiliate of the Nigerian Medical Association<sup>2</sup>. Most publications tend to refer to these categories as junior doctors. While ECDs may appear similar to Junior Doctors, ECDs embraces more cadres of doctor than junior doctors especially as it is in the United Kingdom (UK) or Australia<sup>6,7</sup>.

Junior doctors apply strictly to doctors in training, whether in their foundation years, speciality trainee phase, or speciality registrar and work under the supervision of a senior doctor (consultant) in the two countries mentioned above<sup>1</sup>. The ECDs in Nigeria

also consist of interns, registrars, and senior registrars<sup>6</sup>. The departure is, however, that medical officer and senior medical officer or equivalent in the field of dentistry who are not in trainee positions are included. In recent times, the term 'junior doctors' has undergone immense scrutinization and various changes to its definition in the UK, with few authorities suggesting the need to drop this title<sup>8</sup>.

The uniqueness of this category of doctors is not in doubt. Therefore, the understanding of the demographic characteristics of ECDs is essential for the development of policies regarding them and the enhancement of the residency training programme that most of them are undergoing.

This article aims to provide a profile of ECDs using data from the ongoing the CHallenges of Residency Training and ECDs in NiGeria (CHARTING) study<sup>5</sup>. The CHARTING study is a

mixed study, multicentre, national survey into ECDs in Nigeria, and previous publications have been made from the study<sup>3,5</sup>.

The preliminary survey data of 491 ECDs in nine centres (Federal Medical Centre, Abeokuta; University College Hospital, Ibadan; Federal Teaching Hospital, Ido-Ekiti; Jos University Teaching Hospital, Jos; Federal Medical Centre, Katsina; LAUTECH Teaching Hospital, Ogbomosho; University of Port-Harcourt Teaching Hospital, Port-Harcourt; Federal Medical Centre, Yenagoa) were examined. After data cleaning, only data of 486 participants were analysed using SPSS version 23.

The Male: Female ratio is about 2:1 with males averagely older than females ( $p < 0.001$ ) although both genders tend to cluster between 31-40 years. Majority of respondents were young adults with a few proportions in the middle age. A higher proportion of females are within 21-30 years of age, in contrast to the higher proportion of males in the other age groups. The highest proportion of ECDs are married across both genders, with a similar proportionate distribution of marital status observed in both genders. Less than 20% of the respondents have an additional qualification with a Masters degree (9.1%) being the commonest additional qualification. More than 70% of ECDs graduated from medical or dental school in the last ten years, with more than 90% of home trained in Nigeria. In-depth, details of the analysis are in Table 1.

The picture from this analysis demonstrates the youthfulness of the ECDs in Nigeria. This youthfulness is beneficial to the country, which has a fixed age of retirement at 65-year-old by making it more likely for them to contribute another two decades to the civil service system. On the flip side is the high proportion who are married, which means work-life balance has to come into play in the human resources management of this segment of this workforce. Furthermore, the ECDs are at higher risk of burnout and other psychosocial issues due to the young age therefore there is need

for robust mental health program at their clinical workplaces.

The data demonstrate that home trained ECDs appears to remain a significant constituent of the ECDs workforce, and foreign-trained ECDs may not be a significant restocking opportunity for the Nigerian health system currently haemorrhaging from a widespread brain drain for now.

The ECDs in Nigeria appears more demographically mobile due to single marital status, lean family size, as suggested by the number of children, less than ten years of qualifications. All this would likely predispose them to the likelihood of migrating to greener pasture in order to maximize the remaining years of their career<sup>9</sup>.

The masculine nature, while reinforcing the likelihood of migration, also highlight the endemic gender imbalance in Science-Technology-Engineer-Medicine (STEM) sector in favour of males which is underpinned by pervasive poor girl child education. Could this disparity be because of family demands delays the females in the training or delays the time before they commence further career pursuit? However, this would need further investigations, using a total population database.

Also, the ECDs are vulnerable to the psychosocial issues associated with early medical career phase<sup>7</sup>. The critical stakeholders especially the employers and the managers of the healthcare system must understand this unique demography of ECDs and incorporate such into managing them in order to address the recurrent brain drain with its attendant effect on inadequate physician workforce, high risk of mental ill-health, burnout inclusive and recurrent labour crisis this phase can precipitate<sup>7,10-12</sup>.

The provision of well-being program and mentor-mentee program amongst other intervention would also go a long way to improve the workplace outcome of Nigeria ECDs<sup>7</sup>. Overall, the CHARTING study demographic profile showed a male-dominated pattern who are mainly youths and suggest a migration predisposed population.

Therefore, clear cut policies should be made bearing these peculiarities in mind. (and Bunmi)

**Acknowledgement:** The National Executive Council of NARD, Research Collaborator Network advisors and the CHARTING study Research Assistants (Tobi Akande, Iyanu Adufe

**Funding body:** Nigerian Association of Resident Doctors (NARD).

Variable	Total	Male	Female	p-value
<b>Total population</b>	486	325(66.9)	161(33.1)	
<b>Age group (years) mean± Standard Deviation</b>		34.46 ± 5.33	31.61 ± 6.06	<0.001
<b>Age group years</b>				<0.001
<b>21-30</b>	140(28.8)	68(23.4)	72(49.0)	
<b>31-40</b>	259(53.3)	194(66.9)	65(44.2)	
<b>41 and above</b>	38(7.8)	28(9.7)	10(6.8)	
<b>Range years</b>	22-56	23-52	22-56	
<b>Marital Status</b>				
<b>Single</b>	176(36.2)	112(34.6)	64(40.3)	0.341
<b>Married</b>	303(62.3)	210(64.8)	93(58.5)	
<b>Divorced</b>	4(0.80)	2(0.6)	2(1.3)	
<b>Not declared</b>	3(0.60)			
<b>Number of children (250)</b>				
<b>Mean± Standard Deviation</b>	2.08	2.05	2.14	0.441
<b>0-2 children</b>	192(39.5)	137(78.7)	55(72.4)	0.338
<b>3-4children</b>	53(10.9)	34(19.5)	19(25.0)	
<b>5-6children</b>	4(0.8)	3(1.7)	1(1.3)	
<b>Above 6 children</b>	1(0.2)	0	1(1.3)	
<b>Residency status</b>				
<b>Resident</b>	325(66.9)	241(76.0)	84(53.2)	
<b>Non-Residents</b>				
<b>Interns/House officers</b>	112(23.0)	54(17.0)	58(36.7)	
<b>Medical Officer</b>	38(7.8)	22(6.9)	16(10.1)	
<b>Additional Educational Qualification</b>				0.851
<b>Masters</b>	44(9.1)	31(53.4)	13(59.1)	
<b>PhD</b>	1(0.2)	1(1.7)	0	
<b>PGD</b>	13(2.7)	9(15.5)	4(18.2)	
<b>Others</b>	22(4.5)	17(29.3)	5(22.7)	
<b>Mean number of years of graduation from Medical School</b>	7.29± 4.11	7.64 ± 4.04	6.52± 4.19	0.007
<b>Duration (458)</b>				0.338
<b>0-5</b>	139(28.6)	81(25.8)	58(40.3)	
<b>6-10</b>	238(49.0)	173(55.1)	65(45.1)	
<b>11-15</b>	70(14.4)	52(16.6)	18(12.5)	
<b>16 and above</b>	11(2.3)	8(2.5)	3(2.1)	
<b>Undergraduate training</b>				0.230
<b>Nigerian</b>	448(92.2)	304(93.5)	144(89.4)	
<b>Foreign</b>	18(3.7)	9(2.8)	9(5.6)	
<b>Not stated</b>	20(4.1)	12(3.7)	8(5.0)	

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