

### Medknow

ISSN 2276-7096

VOL. 21 | Issue 1 | January-June 2019

# Journal of Medicine in the Tropics

http://www.jmedtropics.org

# Awareness and knowledge of sustainable development goals among health workers in Bida, north-central Nigeria

### **ABSTRACT**

**Background:** The sustainable development goals (SDGs) are the latest intervention focused on ensuring global development. The failures of the millennium development goal, which was the previous global strategy, have been hinged on poor awareness and knowledge of critical stakeholders among other reasons for poor performance in most developing countries. **Methods:** We carried out a cross-sectional study among a group of critical stakeholders (health workers) to assess their awareness and knowledge of the SDGs since its inception in 2015. We used a scoring system for some key components of the SDGs and analyzed the obtained data. **Results:** Of the 103 health workers that partook, 63.1% were males and 36.9% were females. Forty-eight percent of the respondents had good knowledge of the SDGs. Male gender among the participants was predictive of good knowledge whereas the professional affiliation of the participants did not significantly predict good knowledge of the SDGs. **Conclusionand Recommendation:** Awareness and knowledge of SDGs among participants was good. We recommend the introduction of SDGs in the curriculum of health workers with special focus for female professionals to enhance attainment of the goals.

Keywords: Development, goals, knowledge and awareness

### INTRODUCTION

Sustainable development goals (SDGs) are a collection of United Nation goals set as the successor of the millennium development goals (MDGs) that is otherwise called "agenda 2030."<sup>[1]</sup> It is meant to serve as reference point of collective world development agenda and it focuses on a 5P agenda, namely People, Posterity, Planet, Peace, and Partnership.<sup>[1]</sup> The SDGs are more comprehensive when compared with the MDGs because these consist of 17 goals, 169 targets, and more than 200 indicators. Likewise, the SDGs have been expanded to include noncommunicable diseases, pollution, and road traffic accidents,<sup>[2]</sup> thereby emphasizing the importance of the health sector to development and also demonstrating a paradigm shift from cure to prevention as key focus.<sup>[3]</sup>

Awareness and knowledge on SDGs is important in achieving its goals and facilitating accountability. In a report aimed at assessing progress made with the MDGs in 2015, slow start of the program and poor awareness among stakeholders were attributed as cause of poor outcome of some MDGs among African countries.<sup>[4]</sup> A similar finding was reiterated in the

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Website:
www.jmedtropics.org

DOI:
10.4103/jomt.jomt\_3\_19

MDG endpoint report by the Nigerian Government.<sup>[5]</sup> This underscores the importance of involvement of all stakeholders to achieve success with the SDGs. During the MDG era, developing countries benefitted immensely from aid flow but this had little impact on policy change especially in poorer countries making it difficult to achieve expected targets.<sup>[6]</sup> Stakeholders are meant to be facilitators of policies to ensure expected changes, with regard to the SDGs especially the health-related goals, and health workers are key stakeholders in attaining them. Therefore, necessitating a study like this aimed at assessing the awareness and knowledge of health workers on SDGs.

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**How to cite this article:** Bello AO, Omachi PA, Adeboye MA, Adegboye AO. Awareness and knowledge of sustainable development goals among health workers in Bida, north-central Nigeria. J Med Trop 2019;21:26-30.

### MATERIALS AND METHODS

### Study design

This study was a descriptive cross-sectional study assessing the awareness and knowledge of SDGs among health workers in Federal Medical Centre, Bida, Nigeria.

### Study setting

The hospital has 200 beds with about 1500 staff members, and core health workers constitute about half of this population. The hospital is the only tertiary hospital in Niger state and it serves patients in Niger state as well as neighboring states of Kwara, Kogi, Kebbi, Kaduna, and the Federal capital territory.

### Sample frame

The focus of the study were core health workers that include doctors, nurses, pharmacist, laboratory scientist, radiographers, and health information officers. Only bonafide staff of the hospital who belong to this profession were eligible as participants. Similarly, a written consent was voluntarily obtained from each participant.

### Sample size

A convenience sampling method was used for the study; this was adopted because it made easier to sample the participants, although it made the sampled population less representative and therefore limited the ability for generalization of obtained results.

### Instrument

A semistructured questionnaire adapted from a similar study was used for the study. [7] The questionnaire was assumed to be face validated since the previous study's proforma had been validated by Public Health Physicians, though a pilot test was not carried out. The studied variables were awareness of SDG, their knowledge on the year of its commencement, the number of SDGs, and target and timeline for SDGs. With the aid of this five main questions, a scoring system was devised for this study. Each correctly answered question was awarded a score of 20 making the five questions to add up to 100 if all questions were answered correctly. Respondents with ≥50 were labeled as having good knowledge of SDGs, whereas those <50 were labeled as having poor knowledge of SDGs. The criteria for choosing 50 was based on it being the mid-value from 0 to 100.

### **Ethical clearance**

Permission for the study was obtained from the Health Research and Ethics Committee of the hospital. Written consent was obtained from each participant.

### Data collection

The questionnaire was self-administered. Data obtained were entered into a spreadsheet and analyzed using Statistical Package of Social Sciences, version 21 (IBM Corp. Released 2012: IBM SPSS Statistics for windows version 21.0). Pertinent frequency distribution tables were generated and percentages were also expressed. Logistic regression was used to assess how a gender predicts each professional affiliation whether they have good or poor knowledge of SDGs. Level of statistical significance was set at P value of  $\leq$ 0.05.

### **RESULTS**

Of the 103 participants, 65 (63.1%) were males and 38 (36.9%) were females. The age range of respondents was 23 to 54 years with a mean age of  $34.9 \pm 8.3$  years. Doctors accounted for 53.4% of the participants whereas others were outlined as in Figure 1.

Eighty-eight (85.2%) of the participants were aware of the SDG [Table 1]. The most common source of this information was through the internet (44.7%) whereas 30 (29.1%) of the participants had heard of SDG through more than two sources [Table 2]. SDGs were rightly understood to be a new developmental plan for the world by 45 (43.1%) of the respondents.

With regard to having knowledge of the number of goals, the year of commencement, and timeline for achieving the SDG, 51 (49.5%), 49 (47.6%), and 38 (36.9%), respectively, knew the correct answers [Table 2]. Only 14 (13.6%) of the participants could list up to four of the SDG goals correctly and 60 (58.3%) of the respondents believed the SDG was achievable.

Overall, 48 (46.2%) of the health workers had good knowledge of the SDGs whereas 55 (53.4%) had poor knowledge of the SDGs. Male gender among the participants was predictive of good SDG knowledge compared to female gender with P = 0.007 (confidence interval: 0.131–0.726) [Table 3]. Among the groups of health workers, none of them was predictive of good SDG knowledge on binary logistic regression analysis [Table 3].

### **DISCUSSIONS**

The SDGs remain a comprehensive solution-focused program encompassing all nations globally; the theme "no one must be left behind"<sup>[1]</sup> has been used to underscore this. Our findings depict an improved

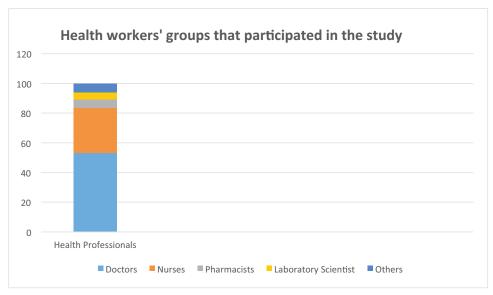


Figure 1: Health workers group that participated in the study.

Table 1: Participants view on SDGs

Variables	Yes/Correct answer (%)	No/Incorrect answer (%)	Total (%)
Awareness of SDGs	88 (85.4)	15 (14.6)	103 (100)
Number of SDGs	51 (49.5)	52 (50.5)	103 (100)
Year of commencement	49 (47.6)	54 (52.4)	103 (100)
Timeline for SDGs	38 (36.9)	65 (63.1)	103 (100)
Understanding of SDGs	45 (43.7)	58 (56.3)	103 (100)
Achievable	60 (58.3)	43 (41.7)	103 (100)
Good knowledge	48 (46.6)	55 (53.4)	103 (100)

SDGs, sustainable development goals.

Table 2: Source of information on SDGs

No. of sources	Frequency (%)	
A single source	44 (42.7)	
2 source	14 (13.6)	
>2 sources	30 (29.1)	
Not aware	15 (14.6)	
Total	103 (100)	

SDGs, sustainable development goals.

involvement of stakeholders with majority of our respondents being aware of the program 3 years down the line. A 2016 survey among 13 countries including Nigeria reported that 34% of their Nigerian respondents were aware of SDGs. Also compared to a 2016 study carried out in a higher institution in south-western Nigeria reported that 40% of their participants were aware of SDG this indicates improved awareness in the present study. Although our study was among health workers and carried out for more than a year after these two studies, our findings imply a better focus with the SDGs and a possibility of improvement in attaining the goals as implied with studies on MDGs. This improved awareness that may be attributed to the Nigerian

Table 3: Binary logistic regression analysis to predict good knowledge of SDGs

Variable	Odds ratio (Exp B)	95% CI	P value
Male	0.308	0.131-0.726	0.007
Constant	1	_	_
Professional groups			
Medical doctors	0.264	0.044-1.574	0.144
Nurses	2.083	0.306-14.165	0.453
Pharmacist	1.000	0.091-11.028	1.000
Laboratory scientist	0.750	0.064-8.834	0.819
Others (constant)	1	_	

CI, confidence interval; SDGs, sustainable development goals.

Government policy with regard to the goals such as appointment of a Presidential Special Adviser on the SDGs as well as incorporating enlightenment on SDGs as part of the compulsory orientation program of the National Youth Service Scheme.<sup>[11,12]</sup>

Most of the respondents in our study attributed their source of awareness of SDG to messages on the internet. This is contrary to the findings of Omisore *et al.*<sup>[7]</sup> in which mass media (television and radio) were the main source of

awareness. Internet-enhanced social media messages have become a prominent source of information dissemination globally and should be used to create awareness considering the importance of the SDGs. Although majority of our respondents identified SDGs as a world developmental program, about a third of them still opine that it is similar to MDGs. The immediate succession of the MDGs by the SDGs and the similarity in their acronym may be responsible for this.

The participants had an average knowledge of SDGs when commenced, the numbers of SDGs, and the timeline for SDGs, compared to a study among University workers in Nigeria, where 5% of their respondents had knowledge on SDGs. More than half of our respondents agree that SDGs are achievable; a similar finding was reported in a southwestern Nigerian study. Although SDG has only one health-specific goal, which is the field of our participants, it, however, has other goals such as SDGs 2, 5, 6, 11, and 16 that have health-related targets. Likewise, other goals beside this six also focus on social determinants of health. This interrelated focus of the goals enhances the chance of attaining them collectively; this implies that achieving any of the goals will assist in the achievement of others. [13]

Overall, almost half of the respondents had good knowledge of the SDGs. Male gender was predictive of good knowledge of SDGs in our population. There is a need for understanding the peculiarity of each gender in relation to health information dissemination. For instance, in a study in Saudi Arabia assessing gender preference with regard to health information, women prefer information disseminated in gatherings they belong to or during health promotion exercises whereas males preferred mass media messages. [14] This may account for this finding especially in this era of social media although we had more male respondents than females for this study. No Health Professional Group was predictive of good knowledge of SDGs. Although this may not apply in all cases but emphasizes the fact that all healthcare workers are equal stakeholders toward achieving the SDGs and have varying roles in achieving them. The International Council of Nurses buttressed this in a recent publication outlining the role a nurse plays in attainment of each of the 17 SDGs. [15] This study is limited by paucity of comparative data on the subject. Likewise, a convenience sampling method was employed making it difficult to generalize our findings.

### CONCLUSIONS AND RECOMMENDATIONS

Our study depicts an improved level of awareness and average knowledge of the SDGs. It implies a step in the right direction and will probably lead to improved achievement with the SDGs when compared to the MDGs. To further this cause, we recommend the introduction of SDGs in the curriculum of health workers to enhance attainment of the goals. Likewise, good knowledge of SDGs was more significant among the male gender; therefore, there is a need for a concerted effort focused on educating female health workers on the program.

### Acknowledgement

The authors appreciate all respondents in this study.

### Financial support and sponsorship

Nil

### **Conflicts of interest**

There are no conflicts of interest.

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