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Ward Health System in Nigeria: Are Health Workers in the Local Government Areas Well Informed?

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Abstract The Ward Health System was introduced in 2001 by the National Primary Health Care Development Agency to enhance community mobilization for health thereby revitalizing the Primary Health Care system. This move was in alignment with the recommendation of the World Health Organization in 1992 that boundaries of the health district should be the same as that of the electoral ward for effective and wholesome community mobilization and ultimately ownership. This study determined the knowledge of the health workers in the Local Government Areas on Ward Health System. A semi-structured questionnaire was administered to a total of 300 Primary Health Care facility workers in Anambra State. Approximately 46% of the health workers had ever heard of the term Ward Health System, while over 94% had no idea of the roles of the three tiers of government in the program. Over 76% of them could not correctly identify the functions of the village and ward development committees. Adequate and on-going education of health workers on Ward Health System is critically needed.

Keywords: *ward health system, primary health care, health care workers, local government area*

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1. Introduction

The international conference on Primary Health Care (PHC) in Alma Ata, USSR in 1978 proposed that the basic strategy for achieving the goal of ‘Health for All’ is to design health systems based on the concept of primary health care [1,2]. Since the Alma Ata declaration, PHC has been adopted and adapted by governments in most countries all over the world as a key health system strategy to ensure wider coverage and equity. Nigeria was not left out, as evidenced by two previous failed attempts, in 1976 and 1986, to operationalize and sustain PHC [2,3,4,5,6]. The two previous attempts failed to accomplish much or make any significant impact because the more important areas of community participation, inter-sectoral collaboration, principle of self-reliance and use of appropriate technology were not effectively addressed [2,4,5,6]. The desired objectives were not achieved because the people were passive recipients in most places and had little or no control over the programme [3].

Against the background of the massive deterioration in the nation’s health system, and the historical hindsight of two failed attempts, the national Primary Health Care Development Agency (NPHCDA) was given the mandate to revitalize the PHC system, recognizing its position as the cornerstone of the national health system [3]. The agency, bearing in mind the World Health Organization (WHO) review in 1992 which stated that community mobilization would be greatly enhanced if the boundaries of the health district were the same as the electoral ward which elects a councillor to the Local Government Area (LGA), introduced the Ward Health System (WHS) in 2001 [3,5]. This the agency did by adopting the political wards as the operational units for the implementation of PHC programs. The LGA-Ward-Community/Village structure, therefore replaced the LGA-District-Community/Village structure [3,4]. The idea was to provide a nationally acceptable targeted area of operation with clearly defined boundary, political representation and population [3]. The WHS has been identified by the NPHCDA as a means of revitalising the PHC system, by promoting active community participation, mobilizing and reinforcing political commitment to PHC at the ward level, thereby strengthening the national health system.

The goal of the WHS is to improve and ensure sustainable health services with full participation of people at the grass root level [3,6]. It is the third national

attempt at providing effective and efficient health services with wide coverage [3,6,7]. This implies affordable, accessible and sustainable health care services made universally available to all irrespective of social status, as right to health is now a matter of social justice. Two previous attempts at achieving the above were not successful and the few gains made were not sustained. The management structure of the WHS is mostly community-based [3,4,8,9]. This is to promote involvement and participation of every community in the decision-making process for any health action in the community. Over two decades after the institution of the WHS as well as a dearth of research on this subject, it is very crucial to ascertain the knowledge of the health workers at the LGAs on the WHS. This study therefore determined the awareness and knowledge of health care providers at the LGAs on the WHS.

2. Materials and Methods

2.1. Description of Study Area

Anambra State is one of the five States in the South-east geopolitical zone of Nigeria. Until 1991, the State was part of the larger Anambra State which comprised the present Enugu State, parts of Ebonyi State and the present Anambra State. It has a total land area of 4,416 square kilometres and is situated on a generally low elevation on the eastern side of the River Niger [10]. It has a population of 4,177,828 with 62% of the population resident in the urban areas of the State [11]. The State is bordered by Delta State to the west, Imo and Rivers States to the south, Enugu and Abia States to the east and Kogi State to the north [10]. Anambra State is made up 3 Senatorial zones, 21 local government areas (LGAs), 330 wards and 177 communities, with the capital at Awka [10]. There are two large commercial centres in the State, Onitsha and Nnewi. Therefore, a large number of the population are engaged in buying and selling.

Various categories of health facilities abound in the State belonging to government, religious organisations and private individuals. These include teaching hospitals, general hospitals, primary health care centres and maternity homes.

2.1.1. Study Design

This was a descriptive cross-sectional study that utilized a semi-structured interviewer administered questionnaire, developed from the NPHCDA hand book on the Ward Health System, to obtain information from the health personnel in selected PHC facilities.

2.1.2. Study Population

The study population consisted of health care providers at the PHC facilities in the LGAs.

2.1.3. Sample Size Determination

Minimum sample size for the study was determined using the Cochran's formula [12],

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:
e = desired level of precision (0.05)
p = proportion of health care workers who know about Ward Health System (50% = 0.5)
q = 1 – p (1 – 0.5 = 0.5)
z = 1.96 (at 95% confidence interval)

Therefore,

$$n_0 = \frac{1.96^2 X\ 0.50\ X\ 0.50}{0.05\ X\ 0.05}$$

$$n_0 = \frac{0.9604}{0.0025}$$

n_0 = 384.16 (approximately 385)

Since the population of health care providers in PHC facilities in LGAs in Anambra State is 1069 (sourced from Anambra State Primary Health Care Development Agency), n_0 will be modified using the following equation [12];

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Where:
n = new adjusted sample size
N = 1069
n_0 = 385

$$n = \frac{385}{1 + 384/1069}$$

n = 283.25 (approximately 284)

Therefore, the minimum sample size for this study was 284.

2.1.4. Sampling Technique

A multistage sampling technique was used to select six LGAs from the State (three urban and three rural). Five wards were also selected from each of the six LGAs. Ten health facilities were selected from each of the six LGAs. Anambra State administratively, comprises twenty-one LGAs across three senatorial zones.

Firstly, the component LGAs of each senatorial zone was categorized into urban and rural LGAs. The names of the 21 LGAs in the State were written on different cards, identified as urban or rural, sorted out according to the three senatorial zones, folded and put into three different labelled baskets. A simple random sampling technique applying the balloting system was used to select these six LGAs. Folded papers were picked from each labelled basket until one rural and one urban LGA respectively had been picked. Thus, one rural and one urban LGA were selected from each of the three senatorial zones in Anambra State.

The next step in the sampling process involved the listing of the component wards that make up each selected LGA. With the aid of balloting, five wards were selected from each of the selected LGA. A total of thirty wards were selected.

Finally, the PHC facilities in each selected ward were listed, and with the aid of balloting two PHC facilities were selected per ward. A total of sixty PHC facilities were selected for this research.

The questionnaire was administered to health care providers in the sixty selected PHC facilities. The health care providers were selected by simple random sampling.

2.1.5. Data Entry and Analysis

Data collected were entered and analysed with the aid of the computer software: SPSS version 20 after verification and consistency checks by the investigator. Frequency distribution of all relevant variables was represented in tables for easy appreciation. Relevant means and standard deviations were also calculated.

2.1.6. Ethical Considerations

Ethical clearance and approval for this study was sought and obtained from the Chukwuemeka Odumegwu Ojukwu University Teaching Hospital Health (COOUTH) Research Ethical Committee. Permission to conduct the study was also obtained from the Anambra State Primary Health Care Development Agency.

In addition, before the questionnaires were administered, the concept of the study was carefully explained to the respondents and informed consent was obtained from all the respondents.

3. Results

Table 1. Sociodemographic characteristics of health workers at the LGA, 2022

Variable	Frequency(n=300)	Percent
Age (years)		
23 – 33	10	3.3
34 – 44	149	49.7
45 – 55	127	42.3
>55	14	4.7
mean±SD	44.36±6.46	
Marital status		
Never married	15	5.0
Currently married	153	51.0
Separated	30	10.0
Divorced	38	12.7
Widowed	64	21.3
Cadre of health worker		
JCHEW	67	22.3
CHEW	145	48.3
CHO	39	13.0
Nurse/Midwife	49	16.3
Number of years in service as a health worker		
1 – 5 years	19	6.3
6 – 10 years	122	40.7
>10 years	159	53.0

A total of 300 health workers took part in the study. The ages of the respondents ranged from 23 – 58 years while the highest proportion of respondents (49.7%) was aged 33 – 44 years. All the respondents were females with majority (51.0%), currently married. More than half of the respondents have served as health workers for more than 10 years, with majority (48.3%) serving as Community Health Extension Workers (CHEWs).

Table 2. Knowledge of Ward Health System by health workers at the LGA I, 2022

Variable	Frequency (n = 300)	Percent
Ever heard of the WHS?		
Yes	139	46.3
No	161	53.7
Ever heard of VDC?		
Yes	84	28.0
No	216	72.0
Functions of the VDC in the WHS		
Serve as link between the village and health center	8	2.7
Don’t know	228	76.0
Provide basic needs in the health center	8	2.7
Mobilize local resources to meet the health needs of the community	13	4.3
Ensure development of the health center	19	6.4
Responsible for all village development plans	7	2.3
Create health awareness among the community members and sensitize utilization of the health center	17	5.7
Ever heard of WDC?		
Yes	292	97.3
No	8	2.7

Almost all the respondents (97.3%) have heard of Ward Development Committee (WDC) compared to only 28% for Village Development Committee (VDC). A large number of the respondents (76%) do not know any function of VDC.

Table 3. Knowledge of Ward Health System by health workers at the LGA II, 2022

Variable	Frequency (n = 300)	Percent
Functions of the WDC in the WHS		
Serve as link between the health center and the community	46	15.3
Don’t know	19	6.3
Provide basic needs in the health center including security	69	23.0
Forward all health development plans of the ward to the LGA	8	2.7
Create awareness of health care delivery to the community	32	10.7
Provide & maintain a comfortable work environment in the health center	31	10.3
Mobilize support for challenges in the health center from the community	41	13.7
They run the affairs of the health center	24	8.0
Assist in the development of the health center	30	10.0
Ever heard of LGA PHC management committee?		
Yes	120	40.0
No	180	60.0

Majority of respondents do not know about the LGA PHC management committee.

Table 4. Knowledge of Ward Health System by health workers at the LGA III, 2022

Variable	Frequency (n = 300)	Percent
Functions of the LGA PHC management committee in the WHS		
Serve as link between the health center and the local government	2	0.7
Don't know	186	62.0
Oversee activities in the primary health centers in the LGA	41	13.7
Regulate activities of the primary health centers in the LGA	29	9.7
Ensure delivery of quality health services in the LGA	15	5.0
Develop plans and budget of primary the health centers in the LGA	5	1.7
Provide and maintain basic amenities in the PHCs in the LGA	15	5.0
Monitor and maintain security and safety in the PHCs in the LGA	5	1.7
Supervise the Ward health committees in the LGA	2	0.7
Role of the Federal government in the WHS		
Don't know	292	97.3
Disbursement of funds to the State government	4	1.3
Provision of infrastructure	4	1.3

Almost all the health workers have no idea of the role of the Federal government in the WHS.

Table 5. Knowledge of Ward Health System by health workers at the LGA IV, 2022

Variable	Frequency (n = 300)	Percent
Role of the State government in the WHS		
Don't know	291	97.0
Provision of funds and material support to the local government	6	2.0
Supportive supervision	3	1.0
Role of the local government in the WHS		
Don't know	284	94.7
Provide technical support for PHCs including staff training	8	2.7
Provide basic amenities in the PHCs	4	1.3
Provide appropriate health man power for the PHCs	3	1.0
Ensures every ward has a PHC	1	0.3

Almost all the respondents do not know the roles of both the State and Local government in the WHS.

Table 6. Knowledge of manpower requirement for the Ward Health System by health workers at the LGA I, 2022

Variable	Frequency (n = 300)	Percent
Cadre of staff that should work in PHCs		
Medical officers	5	1.7
Community health officers (CHOs)	257	85.7
Community health extension workers (CHEWs)	295	98.3
Junior community extension workers (JCHEWs)	294	98.0
Mid-wives	234	78.0
Laboratory technicians	6	2.0
Community based Health workers		
Village health workers (VHWs)	286	95.3
Traditional birth attendants (TBAs)	269	89.7
Functions of VHWs		
Identify simple health problems in the village	7	2.3
Provide basic health care services in the community	16	5.3
Serve as link between the community and the PHCs	7	2.3
Assist in provision of basic health care services in the PHCs	144	48.0
Mobilizing the community for health care services	87	29.0
Improve access to quality health care in the community	4	1.3
Assist in solving the problems of the PHCs	6	2.0
Don't know	29	9.7

Only 1.7% of respondents were of the opinion that medical officers should be part of the staff that work in PHCs. Almost half (48%) of the respondents said that village health workers work in the PHCs.

Table 7. Knowledge of manpower requirement for the Ward Health System by health workers at the LGA II, 2022

Variable	Frequency (n = 300)	Percent
Functions of TBAs		
Take deliveries in the community	187	62.3
Arrange transportation for women in labor	11	3.7
Educate women during pregnancy and lactation on health issues	58	19.3
Provision of basic health care services in the community	10	3.3
Provision of support for pregnant women in the community	5	1.7
Improve outcome during pregnancy & child birth in the community	4	1.3
Don't know	25	8.3
Functions of JCHEWs		
Provide assistance to the CHEWs in the PHCs	245	81.6
Don't know	18	6.0
Supervise TBAs in the community	2	0.7
Treat minor ailments in the health facility	28	9.3
Sensitize & mobilize community members for health services in the PHCs	7	2.4
Percentage of JCHEWs working period supposed to be spent in the community		
90%	180	60.0
60%	16	5.3
40%	3	1.0
Don't know	101	33.7

A great proportion of the respondents noted that the TBAs take deliveries in the community (62.3%) and the JCHEWs assist the CHEWs in the PHCs (81.6%).

Table 8. Knowledge of manpower requirement for the Ward Health System by health workers at the LGA III, 2022

Variable	Frequency (n = 300)	Percent
Functions of CHEWs		
Provide basic health services in the PHCs	154	51.3
Supervision of JCHEWs in the PHCs	39	13.0
Don't know	48	16.0
Treat minor ailments in the PHCs	51	17
Sensitize and mobilize community members for health services in the PHCs	3	1.0
Collect, analyze and interpret health data	2	0.7
Provision of treatment using the Standing order	3	1.0
Functions of CHOs		
Supervision of CHEWs and JCHEWs in the PHCs	65	21.7
Don't know	158	52.6
Supervision of CHEWs in the PHCs	64	21.3
Provide basic health services in the PHCs	13	4.3
Percentage of CHEWs working period supposed to be spent in the community		
90%	15	5.0
60%	22	7.3
40%	145	48.3
Don't know	118	39.3

Over half of the respondents do not know the functions of CHOs.

4. Discussion

For a program that has lasted over two decades, the level of knowledge and awareness exhibited by the health workers at the LGA, who are one of the primary actors in the implementation of the program, was very poor. This is despite the fact that more than half of the health workers, precisely 53%, have served for over ten years. Of the 300 health workers at the LGA that were part of the study, 46.3% had ever heard of the term WHS. Also only 28% of the health workers had ever heard of Village Development Committee (VDC) as against 97.3% for Ward Development Committee (WDC). This finding is quite disturbing as they are key implementers of the WHS, and as such should be conversant with the various terms associated with the WHS. They are expected to know that the VDC has similar functions and operational guidelines to that of the WDC though they are limited to their various communities/villages, as against the WDC which covers entire wards.

As much as 76% of the health workers had no idea of the functions of the VDC in the WHS, while the responses provided by the remaining 24% were mostly wrong. Regarding the functions of the WDC in the WHS, majority of the responses volunteered by the health workers were mostly incorrect with only 2.7% being able

to correctly identify the forwarding of all health development plans of the ward to the LGA as a function.

The current National health policy document has apportioned responsibilities to the three tiers of government namely; the local government to be the implementer of PHC policies and programs, the state government to provide logistic support to the local government and the federal government to formulate overall policy [13,14]. Almost all (94.7%, 97% and 97.3%) the health workers studied had no idea of the roles of the local, State and Federal governments, respectively, in the WHS. This lack of knowledge of the roles of the three tiers of government might negatively impact on the effective implementation of the WHS. This high level of poor knowledge of WHS among these primary actors is similar to the finding in a study carried out seven years after the onset of the WHS in Nigeria that a high percentage of the stakeholders in the programme were not well informed [5].

Very few proportion of the 300 health workers were of the opinion that medical officers (1.7%) and laboratory technicians (2.0%) should be part of the staff that work in PHCs. In contrast to this, up to 78% of the health workers were favorably disposed to CHOs, CHEW, JCHEWs and nurse/mid-wives being part of the PHC staff. This finding is not surprising and could be due to the fact that currently, majority of the PHC staff are either CHEWs or nurse/mid-wives.

VHWs and TBAs are community-based health care providers that reside and work in their communities. The functions of VHWs include mobilizing their communities for development actions, treating of simple health problems, keeping of simple records and identification of those with serious health problems for referral purposes amongst other roles in the community [2]. In contrast to these ideal functions of the VHWs, majority of the health care providers (48%) said the duty of the VHWs was to assist the health care providers to provide basic health care services in the PHC facilities.

This shows they do not understand that the VHWs are community-based health care providers and are supposed to work in the community, not providing any assistance in the PHC facilities. This misunderstanding has led to the VHWs working primarily in the health facilities providing basic health care services under the supervision of the facility-based health care providers. This scenario is unacceptable and has defeated the aim for the establishment of the VHW program. The TBAs, on the other hand, take most of the deliveries in their community, identify at risk pregnant women for referral, keep simple records, counsel/educate pregnant women on family planning, immunization and nutrition among other duties [2,3]. Over 62% and 19% of the health workers correctly identified taking deliveries in the community and education of pregnant women respectively as the functions of the TBAs.

Over 81% of the health workers said the duty of the JCHEWs was to provide assistance to the CHEWs in the PHCs. Only 2.4% of them identified mobilization of community members as a function of JCHEWs. JCHEWs have administrative, community health, MCH and clinical functions. They spend 90% of their working period in the community [2,3], as rightly pointed out by 60% of the health workers, so their community health function is one of their key functions. This involves production of a map of the community where they work, carrying out community diagnosis, planning relevant interventions in conjunction with the VDC, ensuring community involvement in health and health related programs, as well as regular home visits [3]. The JCHEWs are also supposed to assess and supervise community-based services provided by the VHWs and TBAs. Regular supportive supervisory interactions with VHWs and TBAs, and attending VDC meetings in the community are essential duties of the JCHEWs. They are trained to provide basic PHC services to communities being guided by the Standing orders [2,3]. In contrast to this ideal, the JCHEWs are observed spending 100% of their work period in the health facilities focused mainly on the provision of clinical services to the detriment of the community health functions.

The CHEWs also have administrative, community and clinical functions. As opposed to the JCHEWs, they dedicate 40% of their work period to regular and scheduled visits to the communities. They supervise the JCHEWs, organize continuing education for the community-based service providers (JCHEWs, VHWs and TBAs), attend VDC/WDC meetings, ensure appropriate link between the facility-based staff and the community-based service providers, manage clients based on the Standing orders amongst other functions [3]. Over 48% of the health workers rightly responded that the CHEWs spend 40% 0f their work period in the community. However, a high proportion (39.3%) are not aware of the percentage of the work period of the CHEWs to be spent in the community, which is not acceptable. Greater than half of the health workers (51.3%) identified the duty of the CHEWs to be provision of health services in the PHCs, while 13% said they supervise JCHEWs in the PHCs. As much as 16% are not aware of the function of the CHEWs. Like their JCHEWs counterpart, the CHEWs spend 100% of their work period in the facility providing clinical care while neglecting the community-based functions. This observation could be attributed to a possible lack of proper post-employment orientation with clearly written or stated job description as well as capacity building at regular intervals to aid effective and efficient service provision by the health care providers.

The CHOs are the head of the ward health centers. Their numerous functions include supervision of the activities of the CHEWs, organization of regular staff meetings, maintaining discipline among staff members, attendance of VDC/WDC meetings, maintenance of link with LGA, ensuring proper client management using Standing orders among other functions. More than half of the health workers (52.6%) do not know any function of the CHOs while a little over 21% said they supervise CHEWs. This could still be attributed to lack of proper orientation and capacity building. Not knowing their job description will negatively impact on their service provision and output.

5. Conclusion

Over two decades after the adoption of the WHS by the NPHCDA the health care providers at the LGA, who are

crucial in the implementation of the program, do not exhibit the expected level of knowledge on WHS. Adequate information on WHS should be regularly provided to these stakeholders to improve their knowledge thereby enhancing their effectiveness and efficiency in the program.

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List of Abbreviations

CDC – Community Development Committee
CHEW – Community Health Extension Worker
CHO – Community Health Officer
JCHEW – Junior Community Health Extension Worker
LGA – Local Government Area
NPHCDA – National Primary Health Care Development Agency
TBA – Traditional birth Attendant
VDC – Village Development Committee
VHW – Village Health Worker
WDC – Ward Development Committee
WHS – Ward Health System

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