



# Knowledge, Attitudes and Practices of Enugu State District Health System by Public Primary Health Care Workers

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## Abstract

*The District Health System (DHS) provides the best chances of implementing primary health care as laid down in the declaration of Alma-Ata in 1978. In December 2003, Enugu state, Nigeria made a decision that the healthcare system will operate a District Health System with a unitarised healthcare delivery structure based on 17 Local Government Areas (LGAs) and 39 LGA Development Centers. After the adoption of DHS by the state Government, Partnership for Transforming Health Systems (PATHS) effectively commenced providing essential technical support for the development and implementation of the DHS. The objective of this research is to assess the knowledge, attitudes and practices of the district health system being implemented in Enugu state, by primary health care facility workers. Observational study, employing Cross-sectional study technique was the study design. Analysis was done in terms of percentage of health workers with the correct knowledge of district health system; and the right attitudes and practices of the Enugu state district health system. Scores were assigned to the response, and scores above 50% were considered adequate. Overall knowledge level of 72.7% was recorded on the supported health facilities, while 54.5% was recorded in the non-supported facilities. One hundred and forty two (98.7%) respondents from the supported facilities have right attitudes to the Enugu state DHS, while 93.7% have the right attitudes in the non-supported facilities. Over 60% of respondents from both the supported and non-supported facilities had the right practices to most of the provisions of the Enugu state DHS. Some of these provisions are; correct DRF practice, integrated supportive supervision, provision of basic obstetrics services, and existence of facility health committee. However, some provisions such as staff posting, discipline, promotion, recruitment and quality recognition initiative were poorly practiced.*

**Keywords:** Knowledge, attitude, practice, district, health, system.

## Introduction

District Health System (DHS) based on Primary Health Care (PHC) is a self contained segment of the national health system, usually made up of a well-defined population (50,000 – 500,000), living within a clearly delineated geographical and administrative area. It includes all individuals and institutions providing healthcare in the district, whether non-governmental, governmental, private, social security, or traditional<sup>1</sup>. Health outcomes are unacceptably poor across much of the developing world, and the persistence of deep inequities in health status is a problem from which no country in the world is exempt<sup>2</sup>. In 1985, the African member states of the World Health Organization (WHO) adopted the three-phased African health development scenario under which the district became the focus for health development<sup>3</sup>. WHO strongly recommends integrated healthcare at the district level, involving every healthcare provider, both private, and public, and all health system – traditional and modern, orthodox and non-orthodox<sup>4</sup>. Integrated District Health System is the means by which one can deliver specific health programmes in the context of overall healthcare

needs<sup>5</sup>. Strong health systems must have district health systems and community health services that are functional and effective<sup>6</sup>.

The DHS provides the best chances of implementing Primary Health care as laid down in the declaration of Alma-Ata in 1978<sup>7,8</sup>. This finding was incorporated in the 1987 Harare declaration, signed by twenty two African countries<sup>8</sup>. Primary health Care, as stated in the Alma Ata Declaration of 1978, was a first attempt at unifying thinking about health within a single policy framework<sup>2</sup>. The first serious attempt at implementing the Primary Healthcare in Nigeria as laid down in the Alma-Ata declaration was the introduction of the Basic Health Services Scheme (BHSS) (1975 – 1980). With the launching of the National Health Policy in 1988, a National PHC system was adopted in Nigeria using the District Health System approach to ensure a self reliant healthcare delivery to the entire population<sup>9</sup>. Enugu State is one of the thirty six states in Nigeria. In December 2003, the state made a decision that the healthcare system will operate a District Health System with a unitarised healthcare delivery structure based on 17 Local Government

Areas, and 39 LGA Development Centers<sup>10</sup>. However, the National Primary Health Care Development Agency (NPHCDA) in 2001 introduced the “Ward Health System” to revitalize the Primary Healthcare in Nigeria<sup>11</sup>. The Ward Health System entails the adoption of the political wards as the operational units for the implementation of the PHC programmes. Since introduction of Ward Health System model, PHC centers have been built by the Federal government. These centers are to serve as apex health facilities and referral centers within the ward<sup>12</sup>. Noteworthy is that in the current 1999 constitution, only vague reference is made to the responsibility of the Local Governments for health. The constitution falls short of specifying what roles the LGAs, State and Federal Governments must play in the National healthcare delivery system<sup>13</sup>. In Enugu state, the need to reform arose as a result of the negative health indicators in the state and Nigeria generally. Core welfare indicators in the state (2002) revealed as follows: 37% of households in the urban areas and 27% in the rural areas had reasonable access to health facilities<sup>14</sup>.

The Partnership for Transforming Health Systems (PATHS) is a programme of the United Kingdom Department for International Development (DFID), and has been supporting some health projects in Enugu state since 2002<sup>15</sup>. However, after the adoption of the DHS by the state Government, PATHS effectively started providing essential technical support and expertise for the development and implementation of the DHS<sup>16</sup>. By July 2004, the draft legal framework of the DHS was developed and in August 2004, the State Governor approved the governance structure and the composition of the constituent bodies which were formally inaugurated by the state Governor on September 21, 2004<sup>15</sup>. This was legislated upon, and passed in July, 2005; while it was signed into law by the Executive Governor in August of the same year. Essential parts of that law specify the constituent bodies of the Enugu state model, their membership, as well as their roles and responsibilities<sup>17</sup>. The State is divided into seven districts which are<sup>17</sup>, Agbani, Awgu, Enugu Metropolitan, Enugu Ezike, Isi- Uzo, Nsukka, and Udi Health Districts.

Each district is run by an eleven member District Health Board. The main function of the Board is to Implement approved policies for healthcare delivery in the state and increase access to improved health services. Each of the fifty six Local Health Authorities (LHA) is made up of twelve members, and is headed by a Chairman; who is a medical doctor of not less than three years post registration experience. The Secretary, who is the executive head of the LHA is the head of the health department of the LGA or local Development Council. The Enugu district health system, provides healthcare services to a defined population within a geographical area, and through various categories of health facilities<sup>18</sup>. Decentralization can take many forms. One set of typologies is the following<sup>19</sup>; Deconcentration, Devolution, Delegation, and Privatization.

**Justification:** It has been documented that integrated District

Health System is the means by which specific health programmes can most effectively be delivered in the context of overall healthcare needs<sup>5</sup>. It is also known that the District Health System provides the most effective means of implementing Primary Health care as laid down in the declaration of Alma-Ata in 1978<sup>7,8</sup>. Assessment of the knowledge, attitudes and practices of the District Health System model being implemented in Enugu state by the health facility workers shall provide an insight into the level of success expected from the health care reform; and identify the gaps that need to be filled so that the State will benefit maximally from the health reform process.

**Objective:** The objective of this study is to assess the knowledge, attitudes and practices of the district health system being implemented in Enugu state, by primary health care facility workers.

## Material and Methods

Enugu state is situated in the South Eastern part of Nigeria, and is one of the thirty six states that make up Nigerian as a nation. The state comprises 17 Local Government Areas. She shares boundaries with six other states namely, Imo and Abia States on the South, Benue and Kogi States on the North, Anambra State on the West and Ebonyi State towards the East. People of Igbo extraction are the natives of Enugu state. Some people from other tribes and nationalities also reside in Enugu State<sup>20</sup>. Based on the Nigerian population Census of 2006, the state is inhabited by about 3.26 million people<sup>21</sup>. Majority of the people in the urban areas are civil servants while those living in the rural areas are predominantly farmers and palm wine tappers. There are also traders, artisans and industrialists in the urban areas. English and Igbo Languages are commonly spoken by the people. There are generally two seasons of the year, namely rainy (April to October) and dry (November to March) seasons<sup>20</sup>.

The Public Health facilities in the state are 436, comprising 4 tertiary hospitals, one of which is owned by the state Government, and other 3 by Federal Government; 55 secondary healthcare facilities while the rest (377) are primary healthcare facilities. There are also about 485 private and faith based health facilities in the state, providing different levels of healthcare services<sup>22</sup>.

**Study Design:** Observational study, employing Cross-sectional study technique

**Study Population:** Partnership for Transforming Health Systems (PATHS), generally supported the implementation of District Health System in Enugu State. However, the United Kingdom Department for International Department, through the Health Commodities Project (HCP), working with PATHS, supplied significant quantities of drugs and medical equipment to eighty one Public health facilities, by December, the 31<sup>st</sup>

2007. Seventy-seven (77) of these facilities are primary health care facilities. Various forms of capacity building trainings were given to the health workers in the health facilities. The knowledge, attitudes and practices of Enugu State District Health System by health workers from these seventy seven public primary health care facilities were assessed, and compared with knowledge, attitudes and practices by health workers from randomly selected non-supported public primary health facilities. Two respondents from each of these facilities (the Officer-in-charge, and the Assistant) were recruited into the study. This gave a total of 154 respondents for the supported facilities, and 154 for the non-supported facilities. Out of the remaining 300 public primary healthcare facilities in the state that were not supported by DFID, 129 were either Health Posts or Health Clinics; while 83 were supported by the PATHS2 programme that commenced in 2009. Respondents from the unsupported health facilities were then selected from a sampling frame of 88 public primary health care facilities. Table of random numbers was used in selecting the facilities. Only Primary health Care Centers were supported by the PATHS

programme. No Health Clinic or Health Post was supported. Exclusion criteria were; secondary and tertiary health facilities, private health facilities, health posts and health clinics, facilities supported by PATHS2 programme that commenced in January, 2009.

**Study Instruments and Data Collection:** A self-administered, structured questionnaire was used to elicit information from the respondents in the supported and non-supported groups. The information elicited were on the knowledge, attitude and practices of the Enugu state District Health System by health facility workers. Data collection, collation, analysis and interpretation were commenced in mid-March, 2010 and was completed by the end of July, 2010.

**Data Analysis:** The information generated were analyzed, using statistical package for social sciences (SPSS) 11.0 for windows. The analysis was done quantitatively only and presented in the form of tables, and charts.

**Table-1**  
**Socio-demographic characteristics of respondents**

Variable	Non-supported n (%)	Supported n (%)	Total n (%)
Sex			
Male	17(11.7%)	20(13.4%)	37(12.6%)
Female	128(88.3%)	129(86.6%)	257(87.4%)
Qualification			
Public health nurse	4(2.8%)	4(2.7%)	8(2.8%)
Comm health officer	14(9.7%)	21(14.1%)	35(12.1%)
Nurse/midwife	13(9.0%)	14(9.4%)	27(9.3%)
Comm health ext worker	94(64.8%)	95(64.6%)	189(65.4%)
Junior comm health ext worker	14(9.7%)	5(3.4%)	19(6.6%)
Environmental health officer	1(.7%)	0(0%)	1(.3%)
Pharmacy technician	1(.7%)	2(1.4%)	3(1.0%)
Others(all medical doctors)	1(.7%)	6(4.1%)	7(2.4%)

**Table-2**  
**Proportion of OICs and Assistants with correct knowledge of district health system generally**

Variables	Non-supported N (%)	Supported N (%)	TOTAL N (%)
The DHS providing the best chances of implementing Primary Health Care	125 (86.2%)	133 (89.3%)	258 (87.8%)
Integration of Primary and Secondary Health Care as an important aspect of DHS	125 (86.2%)	134 (89.9%)	259 (88.1%)
Ideal DHS also providing for integration of the private health facilities, orthodox and non-orthodox methods of health care services.	72 (49.7%)	78 (52.3%)	150 (51.0%)
Integrated DHS as means by which specific health programmes can best be delivered in the context of overall health needs.	68 (46.9%)	83 (55.7%)	151 (51.4%)
Population being an important issue in a good DHS.	93 (64.1%)	99 (66.4%)	192 (65.3%)
Good referral system being essential for the proper functioning of the DHS.	131 (90.3%)	142 (95.3%)	273 (92.9%)
Deconcentration being an aspect of decentralization in DHS	42 (29.0%)	37 (24.8%)	79 (26.9%)
Devolution being an aspect of decentralization in DHS	15 (10.3%)	16 (10.7%)	31 (10.5%)
Demonstration not being an aspect of decentralization in DHS	15 (10.3%)	6 (4.0%)	21 (7.1%)
Delegation being an aspect of decentralization in DHS	77 (53.1%)	89 (59.7%)	166 (56.5%)
DHS being recommended by WHO as a means of properly implementing primary health care, as envisaged in the Alma-Ata declaration.	112 (77.2%)	118 (79.2%)	230 (78.2%)

**Table-3**  
**Proportion of Respondents with the correct knowledge of some specific aspects of Enugu state district health system**

Variables	Non-supported facilities	Supported facilities	Total
The Enugu State DHS law being enacted in 2005	25 (17.2%)	17 (11.4%)	42 (14.3%)
Enugu state DHS comprising seven Health Districts	133 (91.7%)	128 (85.9%)	261 (88.8%)
The DHS in Enugu state being made up of nine constituent bodies, outside the Local Health Authorities	17 (11.7%)	12 (8.1%)	29 (9.9%)
The Policy Development and Planning Directorate (PDPD) being headed by the Perm. Sec. MOH	14 (9.7%)	11 (7.4%)	25 (8.5%)
The State Health Board (SHB) being headed by the Health Administrator	42 (29.0%)	64 (43%)	104 (35.3%)
The Enugu state model of DHS providing for fifty six Local Health Authorities	53 (36.6%)	69 (46.3%)	122 (41.5%)
The Executive head of a Local Health Authority being the LHA Secretary	70 (48.3%)	75 (50.3%)	145 (49.3%)
With the introduction of DHS in Enugu state, the HOD Health in the LGA, is now known as the LHA Secretary	124 (85.5%)	128 (85.9%)	252 (85.7%)

**Table-4**  
**Identification of the correct names of the health districts in Enugu state**

Variable	Non-supported Facilities N (%)	Supported Facilities N (%)	Total N (%)
Enugu Metropolitan being a health district	97 (66.9%)	87 (58.5%)	184 (62.6%)
Aninri not being a health district	121 (83.4%)	138 (92.6%)	259 (88.1%)
Awgu being a health district	102 (70.3%)	119 (79.9%)	221 (75.2%)
Enugu-Ezike being a health district	104 (71.4%)	119 (79.9%)	223 (75.9%)
Udi being a health district	117 (80.7%)	122 (81.9%)	239 (81.3%)
Ezeagu not being a health district	117 (80.7%)	134 (89.9%)	251 (85.4%)

**Table-5**  
**Attitude of Respondents towards the Enugu state DHS**

Variable	Non-supported facilities N (%)	Supported facilities N (%)	Total N (%)
Best Description of The Enugu Dhs			
Excellent health sector reform	60(42.3%)	56(38.9%)	116(40.6%)
Good health sector reform	43(30.3%)	40(27.9%)	83(29.0%)
Very good health sector reform	30(21.1%)	46(31.9%)	76(26.6%)
Unnecessary health sector reform	9(6.3%)	1(.7%)	10(3.5%)
Bad health sector reform	0(.0%)	1(.7%)	1(.3%)
Dhs Making Positive Impact On The State Health Care Delivery System	133(91.7%)	141(94.6%)	279(93.2%)
Positive Impact Rating			
High	38(28.6%)	66(46.8%)	104(38.0%)
Average	47(35.3%)	44(31.2%)	91(33.2%)
Very high	46(34.6%)	30(21.3%)	76(27.7%)
Poor	1(.8%)	1(.7%)	2(.7%)
Below average	1(.8%)	0(.0%)	1(.4%)

**Outcome Measures:** The self-administered questionnaire was analyzed in terms of percentage of health workers with the correct knowledge of district health system; and the right attitudes and practices of the Enugu state district health system. Scores were assigned to the responses, and scores above 50% were considered adequate.

**Ethical Consideration:** The Ethical committee of the

University of Nigeria Teaching Hospital, Enugu gave formal approval prior to the commencement of the study. Consent was obtained from the Hon. Commissioner for Health Enugu State, the Health Administrator of the state and the health workers that participated in the study. The scope of the study and level of participation of respondents were explained to them. They were assured of confidentiality and the participation was voluntary.

**Table-6**  
**Drug revolving fund practice**

Variables	Non-supported facilities N (%)	Supported facilities N (%)	Total N (%)
Sources of drugs dispensed			
Supplied through the district health system approved source (CMS)	90 (84.1%)	130 (97.7%)	220 (91.7%)
Supplied privately by the LHA Secretary	8 (7.3%)	0 (0.0%)	8 (3.3%)
Supplied by the community	5 (4.6%)	0 (0.0%)	5 (2.1%)
Privately provided by the health facility workers	0 (0.0%)	3 (2.3%)	3 (1.2%)
Supplied privately by the LHA chairman	1 (0.9%)	2 (1.5%)	3 (1.2%)
Supplied by a private drug vendor	3 (2.8%)	0 (0.0%)	3 (1.2%)
Drug revolving fund roll out and training	0 (.0%)	149 (100.0%)	149 (50.7%)
LHA Secretary ensuring prompt replenishment of drug through the CMS	57 (49.6%)	72 (55.0)	129 (52.4)
Use of government approved drug price list	101 (69.7%)	137 (91.9%)	238 (81.0%)
Conspicuous display of price list	85 (84.2%)	112 (81.8%)	197 (82.8%)
Keeping good records of drug usage and purchases	86 (59.3%)	111 (74.5%)	197 (67.0%)
Operation of separate DRF Account	75 (51.7%)	105 (70.5%)	180 (61.2%)
Facility Health Committee approval of DRF transactions	101 (69.7%)	114 (76.5%)	215 (73.1%)
Community member being a signatory to DRF Account	80 (55.2%)	118 (79.2%)	198 (67.3%)
Keeping of separate cash and receipt books for DRF transactions	85 (58.6%)	117 (78.5%)	202 (68.7%)
Stacking of DRF items on shelves or pallets	85 (58.6%)	130 (87.2%)	215 (73.1%)
Monthly stock count and valuation of DRF items	76 (52.4%)	88 (59.1%)	164 (55.8%)
Handling of Expired Drugs			
Repackaged	14 (28.6%)	10 (8.0%)	24 (32.4%)
Given away to health facility workers	1 (2.3%)	0 (0.0%)	1 (1.6%)
Dispensed to patients if it is not more than 3 months expired	18 (31.6%)	10 (8.0%)	28 (35.0%)
Given to poor community members who might not be able to afford quality drugs	1 (2.2%)	2 (1.6%)	3 (4.6%)
Returned to the Central Medical Store	65 (81.2%)	103 (82.4%)	168 (90.3%)
Thrown away or destroyed by health facility workers	1 (2.2%)	0 (0.0%)	1 (1.6%)

**Table-7**  
**Obstetrics services provided in the facilities**

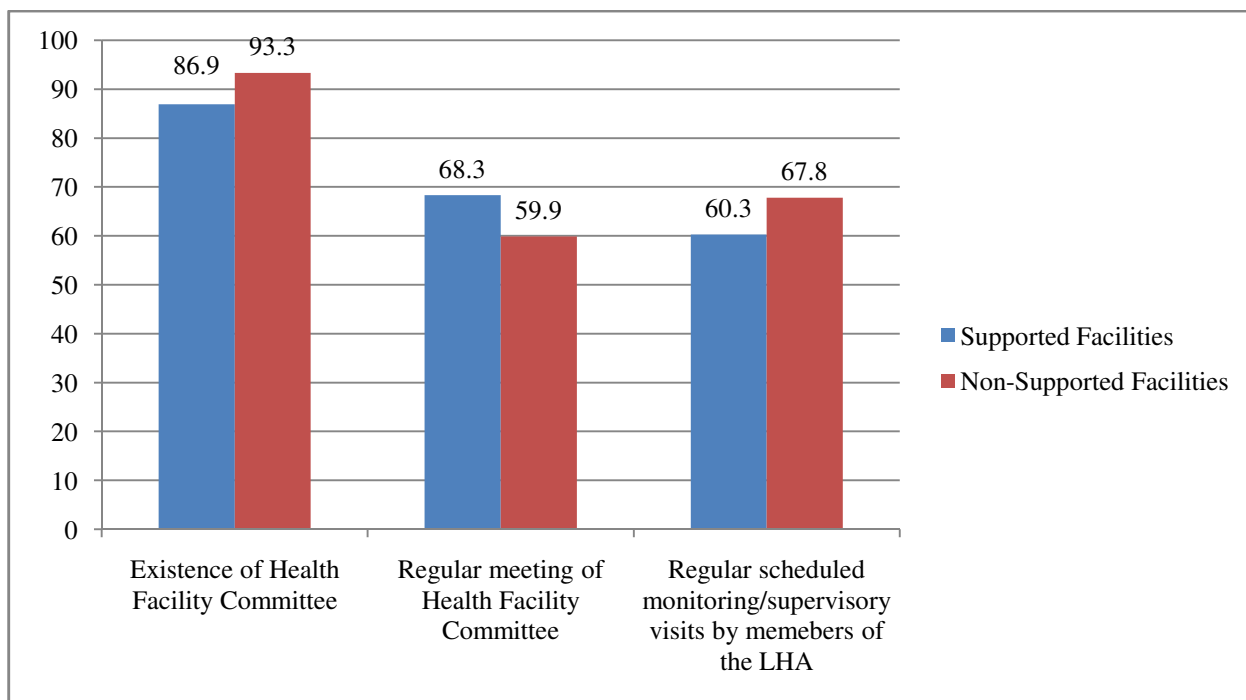
Variables	Non-supported facilities N (%)	Supported facilities N (%)	Total N (%)
Antenatal care	118 (81.4%)	130 (87.2%)	248 (84.4%)
Delivery	111 (76.6%)	128 (85.9%)	239 (81.3%)
Post natal care	96 (66.2%)	117 (78.5%)	213 (72.4%)
Episiotomy and repair	78 (53.8%)	102 (68.5%)	180 (61.2%)
Records of deliveries kept	99 (68.3%)	133 (89.3%)	232(78.9)

**Limitation and Difficulties:** Some difficulties and limitations encountered during the study are:

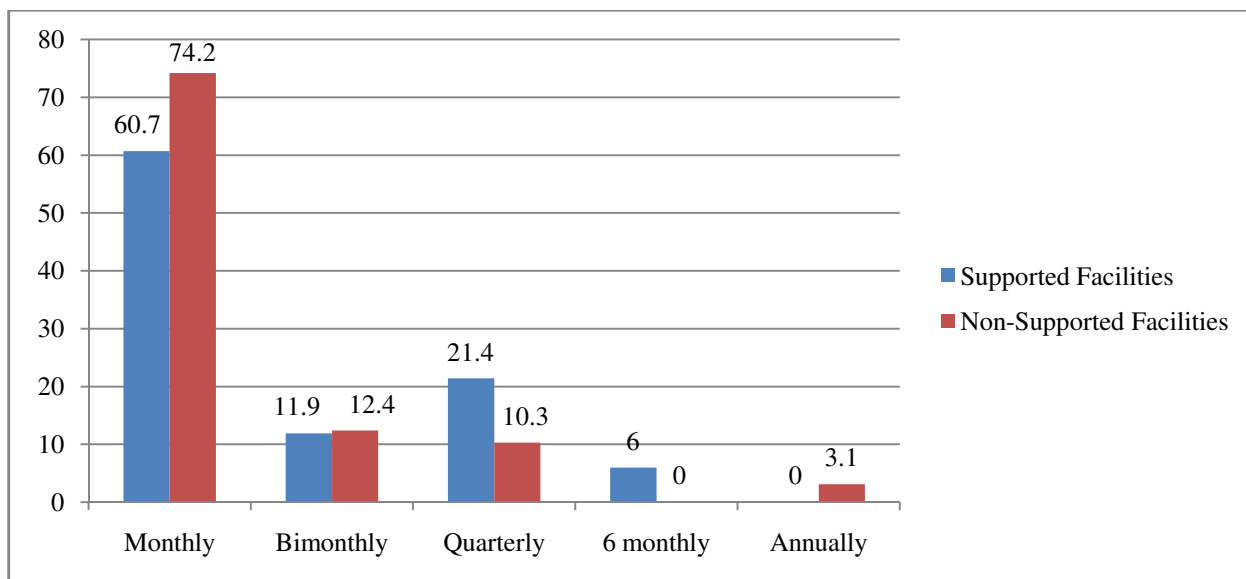
Getting the respondents from facilities located at hard-to-reach areas of the state to complete the questionnaire. These facilities are predominantly located at Nkanu East, Uzo-Uwani and

Igboeze North Local Government Areas of the State. These areas also do not have telephone services. Repeated visits to these facilities, using motorbike helped overcome this difficulty. Another difficulty encountered was getting the questionnaire completed at first visit to the facilities. Some respondents were frequently absent from the facilities. We kept re-scheduling appointments with them, and kept re-visiting until we retrieved 95.5% of the total number of questionnaire distributed.

The limitation of this research is that the reported District Health System practices in the facilities might not be in consonance with what actually is practiced in the facilities in some cases. The responses given as to what is practiced in the facilities were not authenticated. It is possible that some respondents could have given information merely aimed at boosting the image of their facilities.



**Figure-1**  
 Bar chart showing the practice of some district health system guidelines by the Respondents



**Figure-2**  
 Bar chart showing the regularity of monitoring/supervisory visits as reported by the health workers

### Results and Discussion

This study assessed the knowledge, attitude and practices of the district health system being implemented in Enugu state, by public primary health care facility workers. Three hundred and

eight copies of questionnaire were given to the Officers-In-Charge and their Assistants in both supported and non-supported facilities; but two hundred and ninety four (95.5%) were returned for analysis.

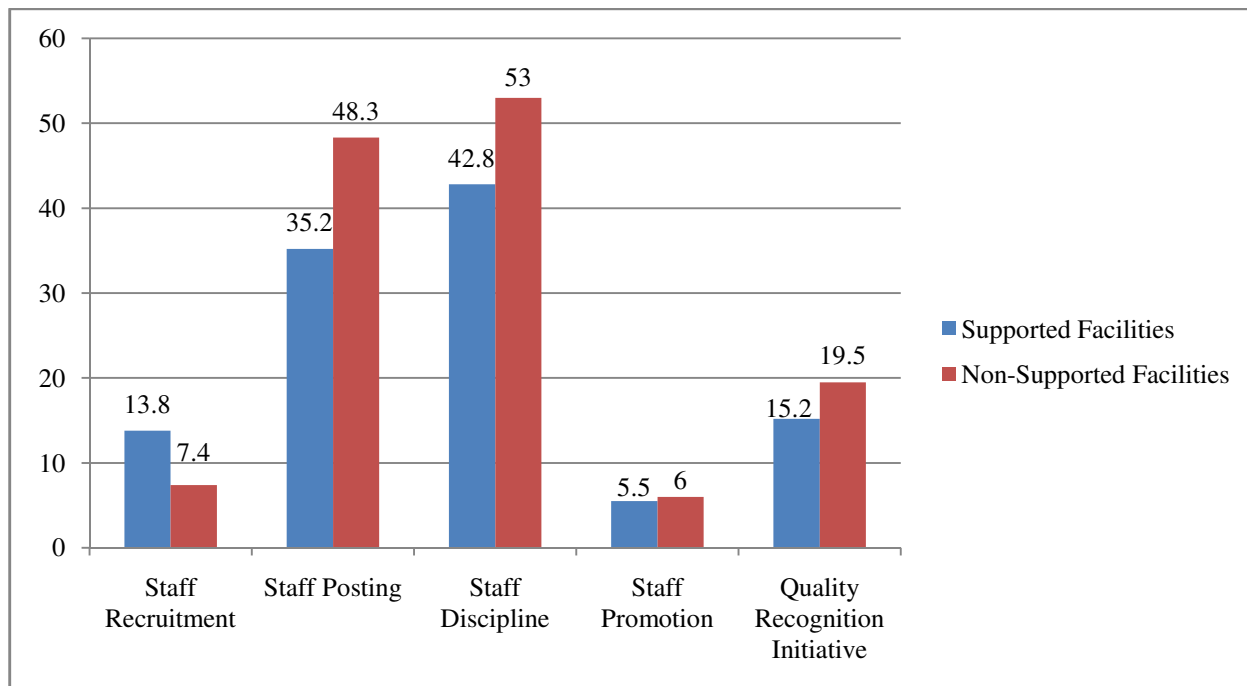


Figure-3

Bar chart representing the personnel issues addressed by the Local Health Authorities, in respect of the health facilities

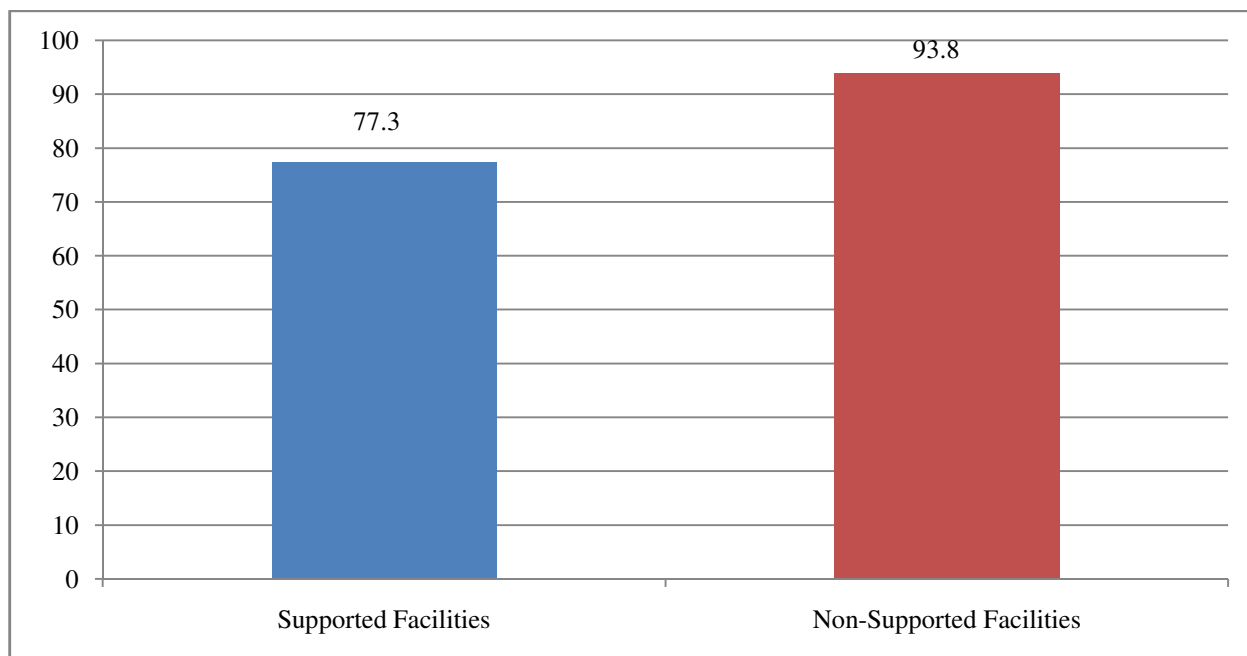


Figure-4

Bar chart showing the percentage of respondents who affirmed that drugs were dispensed to patients in their facilities

**Socio-demographic characteristics of Respondents:** Majority of the OICs and their Assistants in the facilities were females (86.6% in the supported facilities, and 88.3% in the non-supported facilities). Community Health Extension Workers (CHEWs) constituted 64.6% of respondents in the supported facilities and 64.8% in the non-supported facilities. Other members of staff in both supported and non-supported facilities in varying percentages were: Community Health Officers (CHOs), Nurses/Midwives, Medical Doctors, Junior CHEWs, Public Health Nurses, Pharmacy technicians and Environmental Health Officers.

**Proportion of Respondents with correct knowledge of DHS generally:** Over 50% of respondents from the supported facilities had correct knowledge of the key features of DHS such as being best chances of implementing PHC, integration of care and population being important in developing a good DHS as well as the necessity of good referral system. Only 10.7% of respondents from the supported facilities knew that devolution of authority was crucial in a good DHS. In addition, 24.8% knew that decentralization is an aspect of DHS. Out of the eleven questions asked to assess the knowledge of respondents on some key aspects of DHS generally, health workers from the supported facilities scored above 50% in eight of the questions, giving an overall correct knowledge level of 72.7%. On the other hand, in the non-supported facilities, respondents scored over 50% in six questions giving an overall correct knowledge level of 54.5%.

**Proportion of Respondents with the correct knowledge of some specific aspects of Enugu state DHS:** Eight questions on some specific aspects of Enugu state DHS such as year of enactment of the law, number of health districts, and constituent bodies were responded to. Respondents from the supported facilities scored above 50% in three of the questions giving a correct knowledge level of 37.5%. Respondents from the non-supported facilities scored above 50% in two questions giving a correct knowledge level of 25%.

**Identification of the correct names of the health districts in Enugu state:** Over 50% of respondents from both the supported and non-supported facilities gave correct response to the six questions that sought to assess their knowledge of the names of the health districts in Enugu state.

**Attitude of Respondents towards the Enugu state DHS:** Almost 40% of respondents from the supported facilities stated that Enugu DHS can best be described as excellent health sector reform, 31.9% said it is very good health sector reform, 27.9% believe it is good health sector reform. Only 0.7% believe that it is either unnecessary or bad health sector reform. Overall, 98.7% favourably described the Enugu state DHS. In the non-supported facilities, 42.3% of respondents believe that it is an excellent health sector reform, 21.1% stated that it is a very good health sector reform, while 30.3% said it is a good health sector reform. Only 6.3% think that it is unnecessary health

sector reform. Overall, 93.7% of respondents from the non-supported facilities favourably described the Enugu state DHS. One hundred and forty one (94.6%) respondents from the supported facilities believed that the DHS is making positive impact in the state health care delivery system, while 91.7% from the non-supported facilities also had the same opinion. Overall, 99.3% of respondents from the supported facilities gave a favourable rating of the positive impact made by the Enugu state DHS. Respondents from the non-supported facilities gave a favourable rating of 98.5%.

**The practice of some district health system guidelines by the PHC Health workers:** The respondents were asked about the existence of health facility committee in their facility, regular meeting of the committee, and whether the Local Health Authority regularly supportively supervised the health facilities as stipulated in the guidelines. Over 90% of respondents from the supported facilities reported having health facility committee while 86.9% from the non-supported facilities also affirmed having health facility committee. On the other hand, 59.9% from the supported facilities and 68.3% from the non-supported facilities held regular meetings of their health facility committees while 67.8% from the supported facilities and 60.3% from the non-supported facilities reported being regularly supportively supervised by the Local Health Authority.

**Personnel issues addressed by the Local Health Authorities, in respect of the health facilities:** Almost 49% of respondents from the supported facilities and 35.2% from the non-supported facilities stated that their LHA addressed the issue of staff posting, while 53% from the supported facilities and 42.8% from the non-supported facilities said that staff discipline was addressed by their LHA. In addition, 13.8% from the supported facilities and 7.4% from the non-supported facilities said that their LHA addressed staff recruitment, 6% from the supported facilities and 5.5% from the non-supported facilities stated that staff promotion was addressed by their LHA, while 19.5% from supported facilities and 15.2% from non-supported reported that their LHA performed some Quality Recognition Initiative activity in their facility.

**The percentage of respondents who affirmed that drugs were dispensed to patients in their facilities:** More respondents from the supported facilities (93.7%) than those from the non-supported facilities (77.3%) affirmed that drugs were dispensed in their health facilities.

**Drug revolving fund practice:** Most of the drugs used in the facilities were said to be procured through the Central Medical Store (CMS), which is the DHS approved source (97.7% from the supported facilities, and 84.1% in the non-supported facilities). However, in the non-supported facilities, 7.3% and 2.8% of respondents said they source their drugs through the LHA Secretary and private medicine vendors respectively. There was official DRF roll out ceremony in all the supported facilities, but this did not happen in any of the non-supported



facilities. The LHA Secretary were said to ensure prompt replenishment of drugs, as reported by 55.0% of respondents in supported facilities, and 49.6% of respondents in non-supported facilities; government approved price list said to be used in 91.9% of supported facilities and 69.7% of non-supported facilities; record of drug usage and purchases said to be kept in 74.5% of supported facilities and 59.3% of non-supported facilities; community member said to be a signatory in 79.2% of supported facilities and 55.2% in non-supported facilities; DRF items said to be staked on shelves and pallets in 87.2% of supported facilities and 58.6% of non-supported facilities; while monthly stock count and valuation of DRF items is said to be done in 59.1% of supported facilities and 52.4% of non-supported ones.

**Obstetrics services provided in the facilities:** One hundred and thirty (87.2%) respondents from the supported facilities and 81.4% from the non-supported facilities said that basic ANC services are provided in their facilities; 85.9% from supported facilities and 76.6% from non-supported ones said they conduct deliveries; 89.3% from the supported facilities and 68.3% from the non-supported facilities stated that records of deliveries are kept in their facilities.

**Discussion:** The socio-demographic characteristics of the respondents in both the supported and non-supported facilities are similar, except for six medical doctors working in supported facilities while only one worked in a non-supported facility. The six facilities in the study group that had medical doctors as the Officers-In-Charge, co-existed with secondary health care facilities which the doctors were heading. The primary health care and the secondary health care facilities were merged when the primary health care arm was supplied with drugs and equipment by PATHS. This ensured that the host community benefited maximally from the PATHS support, since the secondary care arm usually had more competent and qualified personnel. Moreover, the DHS advocate the integration of Primary and Secondary care services<sup>10</sup>. More respondents from the supported facilities exhibited better knowledge of the general features of a district health system than respondents from the non-supported facilities. This is probably as a result of the respondents from the supported facilities being exposed to more trainings on district health system activities. Though respondents had good knowledge of the names of the health districts in the state, they generally exhibited poor knowledge of the specific features of the Enugu state DHS such as the organogram and roles and responsibilities. This may suggest inadequate training or information dissemination on the Enugu State-specific aspects of the DHS.

An impressive number of respondents from the supported facilities had the right attitude to the DHS being implemented in Enugu state, judging from their favourable comments such as excellent health care reform, very good health care reform, and good health care reform. Right attitude was also recorded in significant number of respondents from the non-supported

facilities. Very good number of respondents from both supported and non-supported facilities believing that DHS was making positive impact on the state health care delivery system, and rating the impact being made above average; may be an indication of the willingness of the PHC workers to be committed to the implementation of the DHS in the state.

The practices of key aspects of the Enugu state DHS such as the existence of health facility committee that meets regularly, monthly supportive supervision by the LHA, and personnel issue such as staff disciplines being addressed by the LHA, were good. Some other aspects such as procuring drugs through the Central Medical Store (CMS), LHA Secretary ensuring prompt replenishment of drugs, government approved list being used, drug price list being conspicuously displayed in the facilities, separate DRF account being operated, monthly stock count and valuation of DRF items done, and expired drugs being returned to the CMS for destruction, were also very positively reported. Majority of the respondents reported having good practices in the areas of rendering ANC services, taking deliveries, providing post natal services, and giving/repairing episiotomy. It is apparent that the practice of the Enugu state DHS by the majority of PHC workers is right. However, the practice of some vital provisions in the guidelines such as staff recruitment, staff posting, and staff quality recognition initiative were reported to have been poorly practiced. It is possible that improving on the supervision of the LHAs by the District Health Boards (DHBs) and the provision of the necessary logistical support may further enhance the practices of the Enugu state DHS in the PHCs. The State Health Board (SHB) ensuring that the DHBs are very functional, may also ultimately improve the practices of the DHS in the PHCs.

## Conclusion

Majority of the primary health care facility workers in Enugu State generally had correct knowledge of the district health system being implemented in Enugu state. Majority also had right attitude and practices. Though the levels of knowledge, attitude and practices of the Enugu state DHS were better in the supported facilities, obviously as a result of the PATHS support; these were also clearly good in the non-supported facilities. This may be an indication that the State Ministry of Health made efforts to drive the implementation of the DHS equitably across the State.

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