

Information Generation and Utilization by the Primary Health Care Practitioners in Rural Areas of North Western States of Nigeria

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Abstract: *This study discusses the information generation and utilization of Primary Health Care (PHC) practitioners in Rural Areas of North-Western States of Nigeria. Four (4) research questions were formulated. The research questions sought to find out the: type of PHC information generated by health care practitioners in the PHCs in rural areas of North-Western States of Nigeria; how the primary health practitioners in the PHCs in rural areas of North Western Nigeria utilise the primary health care information generated among others: The population of the study consists of all the primary health care practitioners in the PHCs in rural areas of North Western State of Nigeria. Out of the total population of 5,958 health workers, 1,192 (20%) were selected using stratified Random sampling procedure. An open and closed-ended questionnaire was designed and used for data collection. Data that related to the research questions were analysed using frequency tables,. It was discovered that Information on maternal and child health, immunization, provision of adequate water supply water borne, diseases prevention of water borne diseases, environmental sanitation, reduction of morbidity and mortality rate were the types of information generated by the Primary Health Care Practitioners in the PHCs in rural areas of North Western State of Nigeria. The study recommended that PHC management board should be encouraged to establish effective and sustainable PHC information programme in order to enhance information resource utilization among practitioners.*

Keyword: *Information: Information Generation: Utilization: PHC Practitioners: Rural Area: North Western State: Nigeria.*

I. Introduction

In addition to sound professional education and training, the capacity of primary health care practitioners to successfully manage primary health care cases and challenges is largely dependent on their level of awareness of relevant information especially on primary health care and their ability to access and utilize effectively and efficiently such information. The fundamental factor in information generation and utilization is awareness of the existence of information (Tyagi, 2011). In information generation and a good management would enhance the level of awareness among the users and also determinant of use. Studies indicate that lack of information awareness is one of the primary reasons for non-use of information resources (Tyagi, 2011; John, 2006; Kujengyere, 2007; Manda & Mukangera. 2007; Sajjad and Ramzy, 2004).. Togia and Tsigilis (2011) reiterated that lack or low awareness of the existence of information resources constitutes major impedance to its utilization.

World Health Organization (2008) posits that “sound and reliable information is the foundation of decision making across all health system building blocks and is essential for health system policy development and implementation, governance and regulation, health research, human resources development, health education and training and service delivery”. This is to say that for effective service delivery by primary health care practitioners there is the need to generates information that is accessible and if properly utilized will lead to improved patient out come

Information Use

Choo (2002) defines information use as a dynamic, interactive social process of inquiry that may result in the making of meaning of decisions. Awareness precedes use, therefore a fundamental factor that is crucial to information utilization is the perceived information need. The awareness of the existence of an information resource is a major determinant of use. An individual’s knowledge of possible resources and preferences may help determine his information horizon. Awareness of the availability of information is therefore an important valuable that has been found to have a positive association with utilization of information. John-Okeke (2006), Manda and Mukangera (2007) and Sajjud Ur Rahmen (2004) assert that “lack of awareness is among the primary reasons for under utilization of information resources by health care professionals in Kuwait University.

This implies that though a user may identify his/her area of information need, without any proper awareness of how and where to get the resources that will provide the information needed, such needs may not be met.

,Salaam and Aderibigbe (2010) state that apart from the poor power supply and poor internet connectivity where electronic information resources are concerned, lack of awareness contribute to the poor utilization of information resources. Therefore, there is urgent need for deliberate effort to create awareness on the availability of various information resources to enhance utilization of information among primary health care practitioners in rural areas of North Western States in Nigeria.

Information in the Primary Health Care

The provision of primary health care requires planning and information is needed for planning. It is important that information should be made accessible to health care practitioners, planners and health policy formulators to enhance the provision of quality health care. Health information is a key ingredient to effective health delivery. It is in realization of the importance of communication to health service that Nakojimo (1997) remarked that "information and communication are at the very heart of World Health Organization".

WHO & UNICEF (1978) identified one of the fundamental principles of primary health care as "participation of community at all stages". For country to be intelligently involved, they need to generate, manage and have easy access to the right kind of information covering their health situation and how they can help improve it. It is important to have a clear explanation of the technologies available, their advantages and disadvantages, their success and failure, their possible adverse effects and their costs. Information given should be neither over sophisticated nor condensing but should be in the language people can understand. For example, newspapers, magazines, radio, television, films, plays, posters, community notice board and any other means available can be used.

Quality health care depends heavily on the knowledge and skills of its personnel. To ensure a high level of current awareness and research, PHC services and activities require the support of constant flow of information (WHO, 2008). Availability of health information generated in various forms at different locations calls for a need to coordinate them and make them accessible to those in need. In realization of this, the Federal Government of Nigeria (FGN) established the National Health Information System (NHIS) for planning, monitoring and evaluating health services.

Health Care Services in Nigeria

The first attempt at planning for development of health services in Nigeria took place in 1946 as part of the exercise which produced the overall ten year plan for development and welfare (1946-56) covering all aspects of governmental activities in the country. Since Nigeria was still a colonial territory, the proponents of this plan were mainly expatriate officers. It included four major schemes designed to extend the work of existing government department but it was not an integral development plan in the current sense of the word. These schemes were not probably coordinated nor were they related to the overall economic target (Jaja & Nwakaego, 2003).

Nevertheless, the above health services development plan was a modest realistic, well thought plan for its time and purpose and it served as the basis for subsequent health plan. Since the country became independent in 1960, health policies have been enunciated in various forms either in the National Health Development Plan or as Government decision on specific health problems, thus:

- a. The health components of the 2nd National Development Plan (1970–1974) identified and aimed at correcting some of the deficiencies in the health services,
- b. In the 3rd development plan (1975-80) there was a deliberate attempt to draw up a comprehensive national health policy dealing with such issues as health manpower, the provision of comprehensive healthcare on the Basic Health Services Scheme, disease control, planning and management. The period also witnessed lack of infrastructural facilities to meet the need of the take off. Attention was directed to the construction of buildings and issues of equipment.

In the 1979 Constitution of the Federal Republic of Nigeria, health matters were placed on the concurrent list. The health policy content of the 4th National Development Plan is being reflected in the policy document (1998). The 3rd National Development Plan in 1975 included the Basic Health Services Scheme known as The Focus of Policy in the Health Service for the National Development Plan which was to be implemented throughout Nigeria between 1975 and 1980. The aim was to bring Primary Health Care very near to the people in the rural areas and to achieve a minimum of 40% coverage of the population by 1980 from the estimated coverage of 25% only.

The implementation of the above scheme spilled over into the National Development Plan. At the end of 1983, PHC Services described by World Health Organisation (WHO) at Alma Ata in 1978 had been established by many governments in many parts of the world. Since 1986, the Federal Ministry of Health and

Social Services, States, and Local Governments have adopted new strategies for the present National PHC system. 52 LGAs were selected for the first phase of implementation. The 52 LGAs selected were referred to as the "PHC Model LGAs". The L.G. functionaries at the LGA level, villagers at the community level as well as the academics in the universities and other institutions of learning were involved in planning, implementation monitoring and evaluation workshop. Between March and May 1986, each LG with the technical assistance provided by FMOH, the social services and universities collected data on the health problems and resources available to solve the problems in each of the selected LGAs. Based on these, a broad-based health plan for each of the LGAs was developed. Later in the year, another series of workshops were held to state and provide steps to be taken for programmes formulation and plans to implement and manage the services. Five hundred thousand Naira (N500,000.00) was given to each of the selected LGA. In 1987, the then President of the Federal Republic of Nigeria and Commander-in-Chief of the Armed Forces launched the present PHC system. This launching marked a second attempt at the implementation of the PHC services based on the declaration of the Alma-Ata (1978). It was decided in 1989 that village Health Care Systems should be set up. It was also recognized that the success of the village health care system will depend on the quality and intensity of training and supervision of the workers. The villagers or their village Health Development Committee will nominate a person to be trained to man the health care services to be provided, thus:

1. Reflects and evolves from the economic conditions and social cultural and political characteristics of the country and its communities and is based on the application of the relevant results of social biomedical and health system, research and public health experience.
2. Address the main health problem in community, providing promotive, preventive, curative and rehabilitative services accordingly.
3. Includes at least: education concerning prevailing health problems and the methods of prevailing and controlling them; promotion of food supply and proper invitation; an adequate supply of safe water and basic sanitation; marital and child health care; including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs.
4. Involves the addition to small sector all related sectors and as part of national and community development in particular agriculture, animal husbandry, food industry, education, housing, public works, communication and other sectors and demands the coordinated effort of all sectors.
5. Requires and promotes maximum community and individual self-reliance and participation in planning, organization innovation and control of primary health care making fullest use of local national and other available resources, and to this end develop through appropriate education the ability of communities to participate.
6. Should be sustained by integrated, functional and mutually supportive referral systems, leading to the progressive improvement of comprehensive health care for all and giving priority to those most in need.
7. Relies on local and referral levels, on health workers including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained technically and socially to work as a health team and to respond to the expressed health needs of the community.

Primary Health Care Practitioners in Nigeria

From generation to generation, man has always had a body of belief about the nature of diseases, their cure and relation to other aspects of life. In Nigeria, many communities have since creation developed various traditional systems using locally available resources for alleviation of their health problems. The British colonial masters brought in orthodox medicine and today, both systems of health care-exist in the country. Successive governments in Nigeria have put in place one programme or the other to enhance healthy living. Some of these programmes lead to the establishment of health centres and the training of man power required for the provision of health services.

In the health sector, there are specialized professionals such as Doctors, Pharmacists, Nurses, Dentists and Medical Laboratory Technologists. The National Bureau of Statistics (NBS) (2009) report shows that there are 42,563 Doctors, 169,923 Nurses and 52,983 Pharmacists that are registered to practice in Nigeria. There are also 24,522 hospitals, 21,222 Health Centres and Dispensaries and 29 Tertiary Health institutions. A medical practitioner is a person whose primary employment role is to diagnose physical and mental illness, disorders, injuries and prescribe medications and treatment that promote or resolve food health. Primary Health Care Nurses practitioners are registered nurses who are specialists in PHC, who provide accessible, comprehensive and effective care to clients of all ages. They are experienced nurses with additional nursing education which enables them to provide individuals, families, groups and communities with health services in health promotion disease and injury prevention, cure rehabilitation and support.

Doctors' role includes diagnosing surgery and treatment of patients. The function of Nurses is to promote health, prevent illness, restore health and alleviate suffering. The Dentists specialize in the prevention and treatment of oral diseases particularly diseases of the teeth and supporting tissues. The Pharmacists care for the preparation and administration of the dosage forms of drugs such as tablets, capsules and sterile solutions for injection (Sirkorski and Peters, 2009). Ewruhjakpor and Ojile (2005) classified health practitioners into Doctors, Nurses, Pharmacists and other health care workers. This classification is adopted for the purpose of this study. A health practitioner therefore, is someone who, by nature of his training, is able to diagnose and treat diseases and also educate individuals, groups or, communities on maintenance of good health.

In the process of performing their functions, health practitioners are expected to use different approaches in order to generate, access, use and share different varieties of information. They are also expected to communicate with colleagues and superior officers on an interpersonal basis, attend conferences where new ideas are shared and publish research findings.

Statement of Problem

Health decisions depend on use of information. Health decisions require information from several sources. Information is an indispensable resource in health decision situations. In the United States, health care information system is evolving into a national network of quality improvement initiative (Blumenthal & Egbert, 2010 and ONHTIT, 2008). The utilization of health information is a necessary component of quality improvement initiative because it is expected to enhance quality care, increase health care safety and provide cost effective health services for patients.

According to Pakenham-Walsh and Priestly (1997) studies have shown that people in the rural areas do not have access to basic information they need since majority of the population live in rural areas. Most of the primary health care centres that are in remote areas lack facilities like internet services. They lack adequate power supply, poor road networks and most of the social amenities of life.

Despite the relevance of information for effective and efficient health care delivery there are still high rates of diseases in rural areas in Nigeria. Could the high rate of diseases in rural areas be attributed to poor information management? Could this be as a result of unawareness of such information or challenges in accessing and utilization of primary healthcare information among primary health care practitioners? It is in line with the aforementioned problems that the researcher sought to investigate the challenges of information generation and utilization among health care practitioners in rural areas of North-Western States of Nigeria.

Research Questions

The study was undertaken to answer the following questions:

1. What types of information generated by the health care practitioners in rural areas of North-Western States of Nigeria?
2. What are the primary health care information used for by the health care practitioners in rural areas of North-Western States of Nigeria?
3. To what extent Information being Utilized by PHC practitioners in Rural Areas of North Western States PHCs
4. How do the health care practitioners in rural areas of North Western States of Nigeria utilize the primary health care information generated?

Hypotheses

The research tested the following null hypothesis:

H₀ There is no significant difference among the health practitioners in their level of use of primary health care information in rural areas of North Western States of Nigeria.

II. Research Methodology

The survey research method was employed for the study. The population of the study was made up of all the primary Health Care practitioners in the PHCs totaling 184 in rural areas of North Western State of Nigeria. While the subject of the study was made up of 5,958 health practitioners and 1,192 practitioners were selected which is 20% of the primary health care using stratified random sampling technique. The data that are related to the research questions were analysed using frequency tables, pie chart and histogram. Proportionate sampling technique was used to ensure proper representation of the diverse segment of the population, while stratified and random sampling techniques were used to select the 1,192 PHC practitioners from the total number of 5,958 PHC practitioners in rural areas of North West states of Nigeria.

III. Result

Types of PHC Information Generated by Rural Health Care Practitioners in North-Western States of Nigeria

Types of PHC Information Generated	State Public Health Care														Total	
	KD		KN		KB		KT		JW		SK		ZF		f	%
	f	%	f	%	f	%	f	%	f	%	f	%				
Information on maternal health	166	92.7	278	96.9	133	91.7	212	95.9	111	86.0	37	84.1	33	94.3	970	93.3
Information on immunization and Childhood killer diseases	153	85.5	265	92.3	137	94.5	201	90.9	123	95.3	42	95.3	31	88.6	952	91.5
Information on the provision of adequate water supply.	147	82.1	282	98.3	45	31.0	199	90.0	23	17.8	13	29.5	7	20.0	716	68.8
Information on water borne diseases	167	93.3	276	96.2	122	84.1	189	85.5	110	85.3	34	77.3	34	97.1	932	89.6
Information on way to reduce outbreak of water borne diseases.	152	84.9	278	96.9	132	91.0	201	90.9	123	95.3	38	86.4	32	91.4	956	91.9
Information on environmental sanitation	153	85.5	256	89.2	143	98.6	199	90.0	121	93.8	32	72.7	28	80.0	932	89.6
Information on morbidity and mortality reductions	160	89.4	199	69.3	121	83.4	178	80.5	121	93.8	33	75.0	29	82.9	841	80.9
Information on control of endemic diseases	155	86.6	277	96.5	132	91.0	211	95.5	99	76.7	27	61.4	30	85.7	931	89.5
Information on provision of essential drugs	168	93.9	269	93.7	127	87.6	200	90.5	89	68.9	23	52.3	31	88.6	907	87.2
Information on prevalent diseases in the locality	145	81.0	278	96.9	17	11.7	214	96.8	23	17.8	39	88.6	10	28.6	726	69.8
Information on appropriate treatment of diseases	137	76.5	256	89.2	123	84.8	189	85.5	117	90.7	37	84.1	27	77.1	886	85.2
Information on Good Health Habits	143	79.9	281	97.9	135	93.1	213	96.4	118	91.5	40	90.9	25	71.4	955	91.8
Information on dental care	156	87.2	278	96.9	34	23.4	54	24.4	121	93.8	11	25.0	31	88.6	685	65.9
Information on availability of healthcare Centers.	165	92.2	256	89.2	132	91.0	215	97.3	123	95.3	34	77.3	28	80.0	953	91.6
Information on Rest	0	0.0	12	4.2	0	0.0	178	80.5	12	9.3	11	25.0	0	0.0	213	20.5
Poverty eradication	25	13.9	10	3.5	0	0.0	0	0.0	10	7.8	0	0.0	0	0.0	45	4.3
Information on Unemployment	12	6.7	0	0.0	11	7.6	0	0.0	0	0.0	0	0.0	0	0.0	23	2.2

Table show the type of PHC information generated by the Health Care Practitioners in rural areas of North Western States of Nigeria. It was discovered that information on: maternal and child health 970 (93.3%); immunization 952 (91.5%); provision of adequate water supply 716 (68.8%); water borne diseases 932 (89.6%); prevention of outbreak of water borne diseases 956 (91.9%); environmental sanitation 932 (89.6%); reduction of morbidity and mortality rate were the types of PHC information highly generated by the Primary Health Care Practitioners in all the rural areas of North Western State of Nigeria with over 60% scores respectively. It was however found that the states differ in their responses on information on control of endemic diseases, dental care and prevalent diseases. The need for information on control of endemic diseases, dental care and prevalent diseases are supposed to be adequately generated for the improvement of general well being of the society but unfortunately this is not the case in this study. This is an abnormal situation. The need for information was supported by Iso (2011) who stated that every health institution either profit or non-profit should capture and store the health information for current and retrospective need.

Information on Environmental Challenges

The research went further to determine specifically the kind of information generated on environmental challenges to primary health care, information generated on health challenges encountered by pregnant women and information generated on endemic diseases in the PHCs in rural areas of North Western states of Nigeria. On the type of information on environmental challenges frequently reported in the Primary Healthcare Centres in rural areas of North-Western States of Nigeria, a list of environmental challenges were provided for the respondents to tick as many options as applicable as shown in Table

Types of Environmental Challenges Reported to Rural PHC

Environmental Challenges	State Public Health Care														Total	
	KD		KN		KB		KT		JW		SK		ZF		f	%
	f	%	f	%	f	%	f	%	f	%	f	%				
Air pollution	167	93.3	277	96.5	145	100.0	221	100.0	121	93.8	44	100.0	35	100.0	1010	97.1
Water pollution	172	96.1	287	100.0	143	98.6	199	90.0	129	100.0	43	97.7	33	94.3	1006	96.7
Environmental degradation	0	0.0	0	0.0	127	87.6	211	95.5	123	95.3	44	100.0	3	8.6	508	48.8
Bush Burning	166	92.7	266	92.7	135	93.1	201	90.9	111	86.0	37	84.1	34	97.1	950	91.3
Soil Erosion	0	0.0	0	0.0	121	83.4	218	98.6	10	7.8	6	13.6	35	100.0	390	37.5
Oil spillage	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Poisoning	167	93.3	12	4.2	139	95.9	211	95.5	0	0.0	0	0.0	0	0.0	529	50.9

Table revealed that air pollution (97.1%), water pollution (96.7%), poisoning (50.9%) and bush burning (91.3%) were the major environmental challenges reported in all the PHCs in rural areas of North Western States of Nigeria. However, there are low responses on soil erosion with 37.5% and environmental degradation with 48.8% scores respectively. Benjamin (2008) posited that air and water pollution and environmental degradation are the major environmental challenges confronting development in the area of study. It was also discovered that none of the States reported any information on oil spillage as all the states are not oil non producing States.

Utilization of Primary Health Care Information in the Rural Areas of North Western States of Nigeria

This research question was asked to identify the types of PHC information utilized by the Primary Health Care Practitioners in rural areas of North Western States of Nigeria PHCs.

PHC Information Utilized for Primary Health Care in Rural Areas of North-Western States of Nigeria

Types of Information	State Public Health Care														Total	
	KD		KN		KB		KB		JW		SK		ZF		f	%
	f	%	f	%	f	%	f	%	f	%	f	%	f	%		
Information on maternal health	125	69.8	201	70.0	121	83.4	178	80.5	121	93.8	34	77.3	29	82.9	809	77.8
Information on Immunization and Childhood killer diseases	145	81.0	198	68.9	143	98.6	167	75.6	123	95.3	28	63.6	35	100.0	839	80.7
Information on the provision of adequate water supply.	156	87.2	212	73.9	122	84.1	211	95.5	127	98.4	44	100.0	32	91.4	904	86.9
Information on water borne diseases	111	62.0	188	65.5	67	46.2	199	90.0	129	100.0	43	97.7	28	80.0	765	73.6
Information on way to reduce outbreak of water borne diseases.	146	81.6	213	74.2	121	83.4	189	85.5	129	100.0	39	88.6	31	88.6	868	83.5
Information on environmental sanitation	167	93.3	245	85.4	141	97.2	212	95.9	129	100.0	27	61.4	35	100.0	956	91.9
Information on morbidity and mortality reductions	176	98.3	266	92.7	111	76.5	220	99.5	98	75.9	34	77.3	26	74.3	931	89.5
Information on control of endemic diseases	169	94.4	178	62.0	56	38.6	156	70.6	67	51.9	27	61.4	9	25.7	662	63.7
Information on provision of essential drugs	177	98.9	213	74.2	98	67.6	145	65.6	88	68.2	27	61.4	31	88.6	779	74.9
Information on prevalent diseases in the locality	166	92.7	242	84.3	99	68.3	199	90.0	111	86.0	44	100.0	23	65.7	884	85.0
Information on appropriate treatment of diseases	171	95.5	212	73.9	87	60.0	212	95.9	121	93.8	42	95.5	34	97.1	879	84.5
Information on Good Health Habits	167	93.3	245	85.4	101	69.7	211	95.5	123	95.3	18	40.9	35	100.0	900	86.5
Information on dental care	133	74.3	267	93.0	121	83.4	220	99.5	125	96.9	34	77.3	26	74.3	926	89.0
Information on the availability of healthcare Centers.	144	80.4	121	42.2	132	91.0	199	90.0	78	60.5	42	95.5	28	80.0	744	71.5
Information on Rest	99	55.3	143	49.8	134	92.4	155	70.1	66	51.2	12	27.3	31	88.6	640	61.5
Poverty eradication	89	49.7	98	34.1	23	15.9	43	19.5	14	10.9	23	52.3	0	0.0	290	27.9
Information on Unemployment	78	43.6	33	11.5	34	23.4	123	55.7	17	13.2	25	56.8	0	0.0	310	29.8

Showed the responses of the respondents on the type of information used by the Health Care Practitioners in rural areas of North Western States of Nigeria. It was discovered that information on maternal child health, information on immunization, provision of adequate water supply, information on water borne diseases, information on environmental sanitation, morbidity and mortality rate information, information on provision of essential drugs, information on prevalent diseases, information on good health habits, information on rest 640, information on mental breakdown, information on dental care, information on control of endemic diseases, and information and availability of healthcare centres were the most commonest used PHC related information by primary health care practitioners with an average of over 60% scores respectively in the rural areas of North Western States of Nigeria.

On the other hand, information on poverty eradication and information on employment were the least used by the primary health care practitioners with less than 30% scores. Also, a follow up question was asked to determine the extent of use of information on Primary Health Care in rural areas of North Western States of Nigeria. To do this, a five point Likert measurement scale was collapsed into three levels to facilitate analysis and discussion as indicated in

Extent of Utilization of PHC Information in Rural Areas of North Western States PHCs

S/N	Type of PHC information	Responses					
		Always		Rarely		Not at all	
		f	%	f	%	f	%
1	Information on Maternal child health	875	84.1	165	15.9	0	0.0
2	Information on Immunization	870	83.7	74	7.1	96	9.2
3	Information on provision of adequate water supply	40	3.8	860	82.7	140	13.5
4	Information on water borne diseases	777	74.7	195	18.8	68	6.5
5	Information on environmental sanitation	362	34.8	662	63.7	16	1.5
6	Information on morbidity and mortality rate reduction	04	0.4	966	92.9	70	6.7
7	Information on control of endemic diseases	140	13.5	865	83.2	35	3.4
8	Information on Provision of essential drugs	930	89.4	100	9.6	10	0.9
9	Information on Prevalent diseases	940	90.4	66	6.3	34	3.3
10	Information on appropriate treatment of diseases and injuries	905	87.0	135	12.9	0	0.0
11	Information on good health habits	100	9.6	973	93.6	27	2.6
12	Information on rest	0	0.0	67	6.4	973	93.6
13	Information on Poverty eradication	38	3.7	100	9.6	902	86.7
14	Information on Unemployment	0	0.0	128	12.3	912	87.7
15	Information on Mental breakdown	18	1.7	72	6.9	940	90.4
16	Information on Dental care	917	88.2	123	11.8	0	0.0
17	Information on Availability of health care	0	0.0	118	11.3	922	88.7

Table indicated that the PHC information on: maternal health, (875:79.5%); immunization, (930:84.5%); water borne diseases, (777:70.6%); provision of essential drugs, (990:90%); prevalent diseases, (1000:90.9%); appropriate treatment of diseases and injuries, (965:87.7%) and dental care, (977:88.8%) were the types of PHC information used always by the primary health care providers in the rural areas of North Western States of Nigeria PHCs. This finding is expected because the types of information used constituted the major health problems which the PHCs were established to address.

However, it is surprising to find that information on provision of adequate water supply, environmental sanitation and information on morbidity and mortality rate reduction were rarely used by the primary health care practitioners in the areas studied. This situation portends a serious danger on the social well being of the locality as majority of the pregnant women require more education on the kind of water to drink and use vis-à-vis the imperativeness of environmental sanitation to safeguard themselves from diseases. It is therefore important that primary health care centers also pay much attention towards improving good sanitation and hygiene in their areas of operation.

Analysis of Variance on Level of Use of Primary Health Care Information in Rural Areas of North Western States of Nigeria

Source of Variance	Sum of Squares	DF	Means of Squares	F	P	F critical
Between Groups	1138.3	6	227.7	10.39	0.23	2.48
Within Groups	3942.8	1109	109.5			
Total	5081.1	1115				

Table showed the analysis of variance on the level of use of Primary Health Care Information by the PHC practitioners in the PHCs in rural areas of North Western States at $P > 0.05$ level of significance, The F calculated 10.39 is greater than the F critical 2.48. This implies that the null hypothesis is rejected. It can therefore be concluded that there is significant difference among the Primary Health Care practitioners' levels of use of Primary Health Care Information in the PHCs in rural areas of North Western States of Nigeria.

IV. Summary Of Major Findings

Based on the analyses of the data collected, the following are the major findings:

1. With regards to the types of PHC information generated, the study revealed that:
 - i. Information on maternal and child health, immunization, provision of adequate water supply water borne, diseases prevention of water borne diseases, environmental sanitation, reduction of morbidity and mortality rate were the types of information generated by the Primary Health Care Practitioners in the PHCs in rural areas of North Western State of Nigeria.
 - ii. The PHC information is mostly generated in form of reports, statistics, memos, notices and records.
 - iii. Air pollution, water pollution, environmental degradation and bush burning were the major environmental challenges reported in the PHCs in rural areas of North Western States of Nigeria.
 - iv. Issues on soil erosion, oil spillage and poisoning were rarely reported in the PHCs in the area studied.
 - v. control of endemic diseases; poverty eradication; unemployment and availability of healthcare centres were not utilized by the Primary Health Care Providers in rural areas of North Western States of Nigeria.
- i. The information on: maternal health; immunization, water borne diseases, provision of essential drugs, prevalent diseases, appropriate treatment of diseases and injuries and dental care were the types of PHC information utilized always by the primary health care providers in the PHCs in rural areas of North Western States of Nigeria.
- ii. There is significant difference among the primary health care practitioners in the rural areas of North Western their levels of use of Primary Health Care Information in the PHCs in the States.

V. Conclusion

Information is a dynamic entity inherent in the society that is both powerful and important in our complex modern society. An ever-widening range of Health decisions, public and private, group and individual depend on wide use of information. Many Health decisions require information from several sources. Information is therefore an indispensable resource to the individual, family and society. PHC information is mostly generated in form of reports, statistics, memos, notices and records in the PHCs in rural areas of North Western states of Nigeria. It can be concluded that information on: maternal health, immunization, water borne diseases, provision and dental care, were the types of PHC information used always by the primary health care providers in the rural areas of North Western States of Nigeria PHCs

Reference

- [1]. Benjamin, B. (2008). Medical Information. Britacy Heinemann. PP 48-49
- [2]. Blumenthal, D. & Egbert, T. (2010). The Meaningful Use Regulation for Electronic Health Records. *The New England Journal of Medicine*, 363 (6), 501-504.
- [3]. Blumenthal, D. & Egbert, T. (2010). The Meaningful Use Regulation for Electronic Health Records. *The New England Journal of Medicine*, 363 (6), 501-504.
- [4]. Ehiemere, I. O. (2001). A Guide to Nursing Process, 1st Edition. Enugu: Kinsmann Publishers.
- [5]. Elisha, M. (2000). "Management of Medical Records". (Unpublished MLs Thesis). Zaria Department of Library and Information Science, Ahmadu Bello University. P.15
- [6]. John, O. R. (2006). Interface Model for Information Utilization in Research Institution. *Lagos: Journal of Library and Information Science*, Vol. 3. (2) pp. 147 – 152.
- [7]. Iso (2011). General Information on Health Information Management. accessed on 5/12/2012, from <http://en.wikipedia.org/wiki/informationmanagement>
- [8]. Kuyengyere, A. A. (2007). Effect of Information Literacy on the Utilization of Electronic Information Resources in Selected Academic and Research Institution in Uganda. *Electronic Library*, Vol. 25 (3) pp 328 – 334.
- [9]. Mohammed, Z. (2012). The Dynamics of Information: Embracing the Present to Cope with the Future. Seventh Tai Solarin National Memorial Lecture held on 27th September, 2012, Victoria Island, Lagos.
- [10]. Mande, A. & Mukangera, F. (2007). Gender Analysis of Electronic Information Resource Use: The Case of University of Dar es Salam. *Tanzania University Dar Es Salam Working Journal*, 10 (1 & 2), pp 29-45.
- [11]. Togia, A. & Tsigilis, N. (2011). Awareness and Use of Electronic Information Resources by Education Gradaute Students. Preliminary Results from the Aristotle University of Thessaloniki. *Qualitative and Quantitative Methods in Libraries Theory and Application* (pp 646-472). Retrieved from http://e proceedings.worldscinet.com/9789814299701/97898_299701_0058.html. Accessed on 22/7/2012.
- [12]. Tyagi, S. (2011). Use and Awareness of Electronic Information Sources at IIT Roorkee India A Case Study. *JLISIT Vol. 2(1)*, (Guigno/June 2011). Retrieved from DoI 10.1103/jhis.it-4586. Accessed on 25/7/2012.
- [13]. Pakenham-Wals, N., Priestly, C. & Smith, R. (1997). Meeting the Information Needs of Health Workers in Developing Countries. *BMJ Vol. 314 (7074): 90 Jan 11 1997 pp. 980-1418*.
- [14]. UNESCO (2001). Integrating Modern & Traditional Information and Communication Technologies for Community Development (Seminar Report January 22–27, 2001 Kothonale, gri-lanka). Paris: Unesco.
- [15]. UNICEF & World Health Organization (1978). Primary Health Care: Report of the International Conference on Primary Health Care. Alma-Ata, USSR 6-12 September. Paris: Geneva.
- [16]. UNICEF & World Health Organization (1978). Primary Health Care: Report of the International Conference on Primary Health Care. Alma-Ata, USSR 6-12 September. Paris: Geneva.
- [17]. UNICEF (1998). The State of World's Children 1998. New York: Unicef [http://www. Unicef.org/sowc98](http://www.Unicef.org/sowc98).