

**ASSESSMENT OF SUCCESSFUL TREATMENT RATE OF HEALTH CARE FACILITIES BY RURAL DWELLERS IN OWO REGION, NIGERIA: A CHALLENGE FOR RURAL DEVELOPMENT**

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**ABSTRACT**

One of the important parameters that distinguish the developed countries from the less developed ones is the people's health status, which in the latter is still very low. The less developed countries, of which Nigeria is one, are characterised by high infant mortality rate, high prevalence of communicable diseases as well as high level of illiteracy and ignorance (Egunjobi, 1996). The human, economic, and societal costs of ill health are immense. Millions of people die prematurely from diseases that are preventable or curable (Carr, 2004). The effect of this is much felt among the rural dwellers, who are living in areas that are provided with very few and poor health care facilities.

This paper assesses the successful treatment rate of health facilities in Owo region, Nigeria by rural dwellers with a view to promoting the patronage of these facilities in order to improve their health conditions as means of boosting their economic and welfare status. Owo region harbours tertiary, secondary, and primary health care facilities and the region comprises of 2 urban settlements and 193 rural settlements. This provides a study area that mirrors a typical Nigerian situation.

Three different sets of questionnaires were designed and used for the collection of primary data for the study. However, secondary data relevant to the study were sought. The primary data were subjected to both qualitative and quantitative analysis. Furthermore, some of the information were presented in form of tables, graphs, and others were subjected to statistical test; a paired-sample t-test was used in testing the hypothesis which was used in comparing the treatment success rate between the government-owned health facilities and private-owned health facilities in the region.

Our findings revealed that the rural dwellers patronised both urban- based and rural -based health facilities. Both the government, and private-owned health care facilities located in the rural areas render very low and poor health care services. The success treatment rate at the government-owned health care facilities is significantly different from that of the private-owned facilities; yet the rural dwellers patronised the private-owned health care facilities, which are mostly dominated by quacks. In view of the expectations from different health programmes such as roll back malaria; fight against the scourge of HIV/AIDS; eradication of Tuberculosis, etc, the paper calls for a deserved attentions to be given to the rural areas.

**Keywords: Owo region, Patronage, Rural development, Government-owned, Private-owned, health care facilities and Quacks.**

## 1. INTRODUCTION

Governments and international organizations have long recognized the need to improve the health of the poor. In the 1970s, the World Health Organisation (WHO) led a global effort to achieve "Health for all" by the year 2000. More than 25 years later, however, the goal remains elusive (Ashford, 2004). For instance, even when there had been tremendous strides in health science and technology, evidence is widespread that majority of the world population have no regular or dependable access to health services (Oakley 1991, Lindelow 2004). This has partly responsible for the poor health that has been hampering the overall human development, the capacity of individuals to realize their potentials for productive life, human right to live and die with dignity (Olajuyin, et al, 1999). The popular parlance that "health is wealth" is based on the understanding that good health is a pre-condition for socio-political and economic development. Unfortunately, the human, economic and societal costs of ill health are immense. Millions of people die prematurely from diseases that are preventable or curable (Carr, 2004). The effect of this is much felt among the rural dwellers, who are living in areas that are provided with very few and poor health care facilities in most developing countries, of which Nigeria is one.

In Nigeria, any settlement with less than 20,000 people and characterized by an agricultural economy is called a "rural settlement" and its area referred to as "rural area" (Akinola, 1997). The entire population of rural settlements are referred to as "rural dwellers". The population of rural dwellers constitute over 65 percent of the entire population of the country (Oni, 2005). Disappointedly, poor roads characterize rural areas in Nigeria. This hinders physical accessibility to the few locations where health care facilities, are sited. In addition, the few health care facilities are often short-staffed, inadequately equipped and poorly maintained. These reasons are probably responsible for the poor health status in the rural areas that reflect high incidence of morbidity and mortality (National Planning Commission, 2000). Besides patronizing the few available health care facilities within the rural areas, rural dwellers are bound to patronize health care facilities located in the urban areas.

Nigeria, like most African countries is characterised by two major systems of health care. These are (a) the local traditional health care and (b) the western-styled orthodox (modern) health care (Lambo, 1989). Apart from these two major systems, there is a third group. This is the "faith healers," who are increasingly becoming very popular in the urban areas and it relies solely on prayers (Aragbeyen, 1992). However,

both the local traditional health care and the faith healing health care systems are beclouded with many unveiled activities that range from non-availability of proper records of treatment to non-standardisation of practice. All these constitute problems on the gathering of empirical data on them. Thus, the focus of this paper is on modern (or western-styled orthodox) health care services.

The paper therefore reports the results of the assessment of the successful treatment rate of health care facilities by rural dwellers in Owo region, Nigeria; with a view to address the challenges its poses to rural development. An understanding of these challenges would guide in fashioning of policies aimed at improving the health status of rural dwellers, which is inevitable to rural development.

## **2. THE STUDY AREA: OWO REGION, NIGERIA.**

Owo region comprises of Owo and Ose Local Government Area (LGAs), which are adjacent to one another in Ondo State, Nigeria (see figure 1). Geographically, Owo region is located between longitude 5° 25' and 5° 57' East of Greenwich meridian and between latitude 6 ° 40' and 7° 38' north of equator. It occupies about 2,516 square kilometres of land. It comprises of 195 settlements, with a projected population of 312,768 for the year 2000. In the region, there are only 2 urban settlements. These are Owo town and Ifon. The remaining 193 settlements are rural settlements. Therefore over 60 percent of the populations of the region are rural dwellers (NPC Akure, 2000).



### 2.1 Location of Health Facilities in Owo Region.

The locations of health facilities in the region are shown in Table1 and this reveals the spatial distribution of health facilities in the region. The aggregate analysis of these health care facilities in essence shows the overall available services to the generality of the people without the consideration of costs and accessibility to such facilities.

Owo with an estimated population of 97,928 harbours the Federal Medical Centre (FMC), 28 private hospitals and medical clinics (including the Catholic Mission Hospital), 3 health centres located at Oke-Mapo, Ijebu and Idasin quarters respectively; a dispensary, a maternity center; and 3 market-based clinics located at Owo local government council secretariat complex, ojomo market and oja oba respectively. Overall, there are 37 health facilities located in Owo Township and they constitute 41.1 percent of total health facilities in the region.

Ifon, the Ose local government council headquarter is the second most populated settlement in Owo region. It is an urban centre with an estimated population of 20,279. It has 5 private hospitals and clinics, and 2 health centres that constitute 7.8 percent of the entire health facilities in the region. Ipele with an estimated population of 7,853 has 4 different health facilities. These are one private hospital, one health centre, one

dispensary and one maternity centre. These constitute 4.1 percent of the health facilities in the entire Owo region. Ipele is located at about 5km away from Owo, which can be described as a sub-urban settlement (Adeagbo, 1998).

**Table 1: Spatial Distribution of Health Facilities in Owo Region.**

4.1.1.	Settle-ments	Proj. Pop 2000	4.1.1.1	Gen. Hosp.	Private Hosp.	Health centre	Disp.	5	M A T .	Mkt. clinic	Health Post	5.1.1.1.	%
1	Owo	97,928	1	-	28	3	1	1		3	-	37	41.1
2	Ifon	20,279	-	-	5	2	-	-	-	-	-	7	7.8
3	Idoani	14,293	-	1	1	1	-	-	-	-	-	3	3.3
4	Uso	6,438	-	-	-	1	-	1	-	-	-	2	2.2
5	Idogun	8,541	-	-	-	1	-	-	-	-	-	1	1.1
6	Ute	4,729	-	-	2	1	-	-	-	-	-	3	3.3
7	Ipele	7,853	-	-	1	1	1	1	-	-	-	4	4.1
8	Ijagba	5,079	-	-	1	1	-	-	-	-	-	2	2.2
9	Iyere	9,016	-	-	1	1	-	-	-	-	-	2	2.2
10	Okelusi	6,426	-	-	-	1	-	-	-	-	-	1	1.1
11	Isuada	751	-	-	-	1	-	-	-	-	-	1	1.1
12	Arimogija	3,178	-	-	-	1	-	-	-	-	-	1	1.1
13	Afo iyoye	1,789	-	-	-	1	-	-	-	-	-	1	1.1
14	Afo	3,115	-	-	1	1	-	-	-	-	-	1	2.2
15	Imoru	3,850	-	-	-	1	-	-	-	-	-	1	1.1
16	Ikaro	3,063	-	-	1	1	-	-	-	-	-	2	1.1
17	Upeme	489	-	-	-	1	-	-	-	-	-	1	1.1
18	Imeri	2,554	-	-	-	1	-	-	-	-	-	1	1.1
19	Owani	1,884	-	-	-	1	-	-	-	-	-	1	1.1
20	Emure Ile	4,508	-	-	1	1	-	-	-	-	-	2	2.2
21	Obasoto	369	-	-	-	1	-	-	-	-	-	1	1.1
22	Ojana	398	-	-	-	1	-	-	-	-	-	1	1.1
23	Eporo	569	-	-	-	1	-	-	-	-	-	1	1.1

24	Amurin	1,349	-	-	-	1	-	-	-	--	1	1.1
25	Amehinti	674	-	-	-	1	-	-	-	-	1	1.1
26	Okoti-Ofa	1,106	-	-	-	1	-	-	-	-	1	1.1
27	Ijbogun	175	-	-	-	1	-	-	-	-	1	1.1
28	Ago panun	1,353	-	-	-	-	-	-	-	1	1	1.1
29	Kajola	1,046	-	-	-	1	-	-	-	-	1	1.1
30	Waterworks	1,011	-	-	-	-	-	-	-	1	1	1.1
31	Asolo	715	-	-	-	-	-	-	-	1	1	1.1
32	Omolege	555	-	-	-	-	-	-	-	1	1	1.1
33	Owajulaye	1,235	-	-	-	1	-	-	-	-	1	1.1
34	Ori-Ohin	1,929	-	-	-	-	-	-	-	1	1	1.1
35	Igbowoye	1,789	-	-	-	-	-	-	-	1	1	1.1
	<b>Total</b>		1	1	42	32	2	3	3	6	90	100

*Source: Field Survey, 2000.*

The only available government-owned general hospital is located at Idoani. Idoani has an estimated population figure of 14,293; which is the headquarters of the defunct Ire-Akari Autonomous Council. Other health facilities in the village include one health centre and a private hospital. The 3 health facilities constitute 3.3 percent of the entire health facilities in the region.

Another settlement that is provided with 3 health facilities is Ute while other settlements that are provided with 2 health facilities include Uso, Ijagba, Iyere, Ikoro, Emure-ile and Afo. The 2 health facilities are usually a health centre and a private hospital which in most cases is an annex to an urban-based hospital either at Akure, the state capital or Owo town.

However, 24 other villages are provided with only one health facility each. These villages are Idogun, Okeluse, Isuada, Arimogija, Afo Iwoye, Imoru, Upeme, Imeri Owan, Obasoto, Ojana, Eporo, Amurin, Amehinti, Okiti Ofa, Ugbegun and Oke Odo Kajola which are provided with health centre. Other villages which are provided with health post are Ago-panu, Water-work, Asolo, Omolege, Oriohin, and Igbowoye. Health post is usually a one-room apartment, used as meeting place for immunization exercise during National Immunization Programme (Igbinosun, 1992). The villagers from the village of the location of an health post and surrounding villages are expected to assemble at the health post for immunization.

In spite of the seemingly impressive number of health institutions in Owo region as shown in Table 1, it is interesting to observe that the two urban settlements in the region (i.e. Owo and Ifo) put together harbour about 50 percent of the entire health institutions in the region. Even the quality of services in the health institutions located at the villages leave much to be desired. The age-long discrimination against the rural areas and the spatial injustice in the provision of social infrastructure in Nigeria which Idachaba (1985) and Akinola (1997) have differently stressed for different parts of Nigeria still exist in the provision of health facilities in Owo region.

### **3. RESEARCH METHODOLOGY**

Two sets of questionnaires were designed for the collection of primary data for the study. They are questionnaire for the health care seekers that are living in the rural communities (i.e. rural dwellers); and questionnaire for the health care providers in the region. The questionnaire for the health care seeker among others probed into their socio-economic characteristics, mobility behavior, patronage, and treatment performance of the health care facilities in the region. However, the questionnaire for the health care providers searched into the type, ownership, location and infrastructural facilities available in their health institutions. It also probed into their operational cost, and performance as well as the attendance record in their health institutions over a period of 12 months. The relationship between the two different sets of questionnaires used in the study is mainly to provide a better link between health care facilities on the one hand, and the treatment performance of the various categories of the health care facilities on the other hand.

Primary data obtained from the two surveys were complemented with secondary data obtained from Ondo state ministry of Health, and Health offices in the two local government councils that made up the region. Besides these two sources, population figures of the rural communities were obtained from the National Population Commission. For the selection of sampled health care seekers, the 195 settlements in the region were classified into nine (9) groups, using a population classification interval of 2,499. The first group is made up of two (2) settlements with over 20,000 people. In Nigeria, any settlement with a population of 20,000 people or more is regarded as Urban Settlement. Therefore, the two settlements in the first group are Owo Township and Ifo, which are urban settlements. Both settlements being urban settlements; they were ignored in making selection of rural communities for the conduct of health care

seekers survey. From the remaining eight (8) groups, 22 rural settlements were selected from the 193 rural settlements, using stratified random sampling method. And 348 rural households were randomly selected from the 22 rural communities.

In conducting the health care provider survey, an up-dated list of the (modern) health care facilities located either in urban or rural settlements in the region was compiled. The list shows there are 90 health care facilities in the region. The head of each of the health care facility is regarded as health care provider. And 50 percent of the health care providers (which constitutes 45 health care providers) were randomly selected for interview, under the health care service provider survey. Data obtained from the two surveys (i.e. health care seekers survey, and health care provider survey) were processed through the use of computer, using the Statistical Package for Social Sciences (SPSS) version 10. A paired-sample t-test model was used to measure the difference in successful treatment rate between the two categories of health care facilities.

#### 4. RESEARCH FINDINGS

##### 4.1 Characteristics of Rural Dwellers in Owo Region

###### a. Sex and Marital Status

**Table 2.** Sex By Marital Status of Rural Dwellers in Owo Region (% In Parenthesis)

Sex	Marital Status					
	Single	Married	Divorce	Widowed	Others	Total
MALE	17.(44.7)	193(79.4)	25(67.6)	1(5.3)	0.(0.0)	236(67.8)
FEMALE	21(55.3)	50(20.6)	12(32.4)	18(94.7)	11(100)	112(32.2)
<b>Total</b>	38(10.9)	243(69.8)	37(10.6)	19(5.5)	11(3.2)	348(100.0)

*Source: Author's Fieldwork, 2000.*

The analysis of the data in Table 2 shows that majority (67.8%) of the rural households in Owo region is headed by male while the female-headed households constitute 32.2 percent. This is a typical reflection of any Yoruba rural setting where male usually constitute the majority of household heads (Akinola 1997). Those that are married among the rural household heads form the majority (69%). The divorced and widowed-heads of household constitute 10.6 and 5.5 percent respectively.



Household heads that were married but not living together during the period of our health consumer survey are classified under others. This group constitutes 3.2 percent. This situation mostly arises when the husband who may be a public servant is working and living in the location of his work place, while the wife may remain in the village. The relevance of this to our study is that the husband might have to be contacted before taking any major health-seeking decision.

**b. Age and Educational status.**

**Table 3.** Age by Educational Level of Rural Dwellers in Owo Region (% in Parenthesis)

Age Group	Educational Level					
	No formal Education	Primary School	Secondary School	Polytechnic/ University Education	Others	Total
Under 18 yrs	0(0.0)	15(13.3)	3(4.4)	2(5.1)	2(28.6)	22(6.3)
18 – 45 yrs	79(69.9)	28(24.8)	49(65.3)	5(12.8)	2(28.6)	164(46.8)
46 – 60 yrs	21(18.4)	70(61.9)	16(21.3)	17(43.6)	3(42.9)	127(36.5)
Above 60 yrs	14(12.3)	0(0.0)	7(9.3)	15(38.5)	0(0.0)	36(10.3)
Total	114(32.8)	113(32.5)	75(21.6)	39(11.2)	7(2.0)	348(100.0)

Source: Author's Field Survey, 2000.

The age profile of the respondents is shown in Table 3. The table indicates that the active working age group (i.e. 18 – 45) years) constitutes 46.8 percent of the respondents. Next in level of activeness is the age group between 46 and 60 years that constitutes 36.5 percent of the respondent while those that fall below 18 years constitute 6.3 percent. However, respondents that attained 60 years and above are regarded as aged. This group constitutes 10.3 percent only. As noted by Okafor (1983), the early and the late years of life are those in which people are mostly prone to attack by diseases owing largely to low physical resistance. These two age groups (i.e. below 18 years and over 60 years) constitute 16.6 percent of the respondents.

The illiteracy level in Owo region is 32.8 percent, which is lower than the national illiteracy level of 43 percent (NPIgC, 2000). The illiteracy level is very high in

the age group of under 18 years. The positive effect of free primary education in the region since 1955 could have been responsible for this. Overall, 32.5 percent had primary school education; 21.6 percent had secondary school education; 11.2 percent with either Polytechnic or University education while 2 percent are either literate in koranic or Christian religious education alone. The importance of education to the utilization of health facilities cannot be over-emphasised. It is likely that literacy level will have positive relationship with population access to health facilities.

### **c. Occupational and Income Level.**

**Table 4:** Occupational structure by Annual Income of Rural Dwellers in Owo Region (% in Parenthesis).

Occupation	Annual Income Level					
	Less than N36,000	N36,000 to N72,000	N72,000 to N108,000	N108,000 to N144,000	ABOVE N144,000	TOTAL
Farming	97 (76.4)	40(54.1)	31(62.0)	4(1.8.2)	6(8.0)	178(51.1)
Crafting	14(11.0)	17(23.0)	7(14.0)	0(0.0)	0(0.0)	38(10.9)
Teaching/Public Servant	0(0.0)	5(6.8)	3(6.0)	1(4.6)	63(84.0)	72(20.7)
Hired Labour	11(8.7)	3(4.0)	6(12.0)	0(0.0)	0(0.0)	20(5.7)
Driving	0(0.0)	5(6.8)	1(2.0)	0(0.0)	0(0.0)	6(1.7)
Others	5(3.9)	4(5.4)	2(4.0)	17(77.3)	68.0)	34(9.8)
<b>Total</b>	127(36.5)	74(21.3)	50(14.4)	22(6.3)	75(21.0)	348(100.0)

Source: Aurthors' Field Survey, 2000.

Owo region is a rural region and this is reflected in the data on occupational structure of the respondents as shown in Table 4. The addition of the three major agriculture-related occupations (farming, hired-labouring, lumbering and produce trading so classified as others) gives 66.6 percent of the respondents. The few public servants are teachers, council workers and health workers. This group constitutes 20.7 percent while craftsmen and women form 10.9 percent. The issue of occupation is related to income. Table 4 shows that 35.5 percent earns less than ₦36,000 per

annum out of which 76.4 percent of them are farmers, and none of the respondents is a civil servant. And 21.3 percent, 14.4 percent and 6.3 percent earn between ₦36,000 and ₦72,001 and ₦108,001 and ₦144,000 per annum respectively. However, of the 21 percent of the respondents that earn above ₦144,000 per annum, only 8 percent of them are farmers while 84 percent are civil servants. None of the drivers, craftsmen or hired labourers earn above ₦108,000 per annual. The fall in the price of cocoa during the year 2000 may have adversely affected the earning capacity of the farmers in the region.

#### 4.2 Choice of Modern Health Care Facilities by Rural Dwellers in Owo Region.

*Table 5. Choice of Modern Health Care Facilities by Rural Dwellers in Owo Region..*

Health Facility	Patrons among rural dwellers	Non-patrons among Rural dwellers	Total Sampled Rural dwellers
Federal Medical Centre, Owo	116 (33.3)	232 (66.7)	348 (100)
St Louis Catholic. Hospital, Owo	25 (7.2)	323 (92.8)	348 (100)
Private Hospitals/Clinics	121 (34.8)	227 (65.2)	348 (100)
Health Centres	360 (74.7)	88 (25.3)	348 (100)
Maternity Centres	2 (0.6)	348 (99.4)	348 (100)
Dispensaries	6 (1.1)	342 (98.3)	348 (100)
Health Post	33 (9.5)	315 (90.5)	348 (100)
Others	93 (55.6)	155(44.5)	348 (100)

*Source: Author's Field work, 2000*

*Note: Each of the health facility is considered on N = 348*

The Nigerian rural dwellers seek expert help outside the household only after all available expertise within the immediate family must have been exhausted (Aregbeyen, 1992). Even when the household-head finally decides to seek medical assistance more

than one health care provider is often chosen. Therefore, respondents were given the opportunity of indicating more than one health care facility where applicable. The result, which is shown in Table 5, is the frequency distribution of choice of type of the health care facility in order of prominence.

In Owo region like any other part of Nigeria, the modern health care facilities are established (or owned) and run by both private individuals and organizations (such as religious bodies), or by the public sector. In the region, the health care delivery system consists of health institutions peculiar to the three levels of health care. These are the tertiary, secondary and primary health care institutions. At the primary health care level, there are health posts, family planning units, dispensaries, maternity centres, and health cares. Health care at this level is regarded as grass root health care delivery and it is supposed to be the nearest to rural households.

The analysis of choice of health care facilities by rural dwellers in Owo region is shown in Table 5. Health centre attracted the highest patronage (74.7 %) by the rural households. The reason for this is as a result of the proximity of health centre (i.e. less than 5km) to 83 percent of the rural households in the region. The itinerant drug vendors and patient medicine shop operators (that are classified as others in Table 5) attracted 55.6 percent of the rural patrons. Disappointedly, these itinerant drug vendors are majorly dominated by “medical quacks”. In most developing countries including Nigeria, private health facilities particularly in urban areas provide higher quality of care than available in the most public health institutions and to those that are ready to afford the cost (Trivedi, 2002). In Owo region, the private health facilities attracted 34.8 percent of the rural patrons. The low income of majority of the rural dwellers could have been responsible for this low patronage.

The Federal Medical Centre (FMC), a tertiary health institution in the region attracted 33.3 percent of rural patrons during the period under review. The federal opportunities from the low cadre health institution attended by the rural dwellers put the FMC at this advantage position. Next to the FMC is the health post, in the order of choice by the rural dwellers seeking health care services. The health post in the region, are majorly put into use during national immunization exercise, where rural dwellers live their villages, where there are no health institutions to receive immunization at the health post nearer to their respective villages.

The St.Louis Catholic Hospital Owo is a secondary health institution, owned by a religious body. It attracted only 7.2 percent health care seekers among the rural dwellers in this region. The erroneous belief among the majority of the rural dwellers that the hospital is mainly for members of the Roman catholic as well as the high treatment fees chargeable by the hospital were given as reasons for the low patronage by health care seekers from the rural areas of the region.

The dispensaries and maternity centres enjoyed the least patronage by rural dwellers in the region. Dispensaries are particularly designed to be the nearest to the rural dwellers and most patronized. However, the result of this study does not support this for one particular reason. The region has 2 dispensaries one located at Idasin Owo, and the second is located at Ipele. While there are only 3 maternity centres, located at Owo, Uso, and Ipele respectively. The drastic reduction in the number of existing dispensaries and maternity centres is as a result of the government policy towards the implementation of the primary health care programme, which led to the massive conversion of dispensaries and maternity centres to 'glorified' health centres nationwide (Okunade, 2001).

Therefore, the reduced number of available dispensaries and maternity centres in the region is responsible for their low patronage. In addition to the issue of low number, the peculiarity of maternity centre, being specifically designed for pregnant women and nursing mothers makes its patronage restricted to limited group of health care seekers within the rural households. Secondly, the services available in these dispensaries and maternity centres are also available in health centres, which are available to over 74.7 percent of the sampled health care seekers.

#### 4.3 Prominence of Illnesses among Rural Dwellers in Owo Region.

*Table 6. Prominence of Illnesses in Rural Areas of Owo Region.*

Type of Illness	No of respondents	% of total
Malaria fever	281	80.7
Headache	101	29.0
Cough	100	28.7

Stomach pain	84	24.1
Typhoid fever	80	22.9
Wound/accident at work	51	14.7
Diarrhea/Dysentery	38	10.9
Yellow fever	25	7.2
Guinea Worm	6	1.7

*Source: Author's Field Work, 2000*

*Note: Respondents made more than one option where applicable*

*Each reason was considered on N = 348*

A dimension to the determination of demand for health care services is anchored on health care seeker's perception of his illness and his ability to afford a visit. Therefore, respondents were asked to indicate the common ailments they suffered from within the last 12 months of the survey. Each respondent was allowed to indicate more than one illness where applicable. The analysis as shown in order of prominence in Table 3 indicates that malaria fever is the most common illness in the rural areas of Owo region with 80 percent of the respondents indicating it. This is followed by headache with 29 percent of the respondents. Ordinarily often times, headache is a symptom of malaria fever. Other illnesses in order of prominence as indicated in Table 3 are cough, stomach pain, typhoid fever, wounds/accident at work, diarrhea/dysentery and guinea worm infection. Despite the non-indication of HIV/ AIDS as one of the illness in their villages by sampled respondents but 65 percent of these respondents never claimed ignorance of the knowledge of what HIV/ AIDS is all about.

#### **4.4 Successful Treatment Rating.**

The utmost intention of any right-thinking patient in seeking medical treatment for his/her illness (health problem) is to be successfully treated (Stamtom and Annemarie, 1992). It is evident to stress therefore, that the encouraging record of

successful treatment rate of any health facility would continue to boost its patronage. Based on their (direct or indirect) experiences in the utilization of the health facilities in the region, information on the treatment success of major groupings of health facilities was elicited. First, are on government-owned health facilities located in urban and rural areas in the region. Second, are on private-owned health facilities located also in urban and rural settlements.

A guide to the assessment of the successful treatment rate was adopted from Lewis, et al (1999). The key to the guide was indicated along with the questions in the health consumer survey questionnaire. For instance, health facility to be rated as very high successful treatment rate would have been able to treat successfully 9 out of 10 patients. In addition, high successful treatment rate would be 7 out of 10 patients; average successful treatment rate would be 5 out of 10 patients; low successful treatment rate would be 3 out of 10 patients; and very low successful treatment rate would be 1 out of 10 patients.

#### ***a. At Government-Owned Health Facilities***

The result of the successful treatment rating of government-owned health facilities in Owo region by rural households shows their effectiveness as presented in Table 7. A cursory look at the table shows that the treatment success rate at government-owned health facilities based in urban centres were rated very high by 58 percent while those based in rural areas were rated very high by only 3.2 percent of the respondents. In addition, 28.4 percent rated treatment success rate at government-owned health facilities based in urban area as high while those based in rural areas were rated high by only 13.2 percent of the respondents.

Only 0.9 percent rated urban-based government-owned health facilities as low and none of the respondents rated them very low. Nonetheless, 33.9 percent and 10.9 percent rated those rural-based government health care facilities as low and very low respectively while 12.6 percent rated urban-based government-owned health facilities as average but a significant percentage (38.85) rated rural-based government-owned health facilities as average.

Taken together, these empirical results indicate a high rate of successful treatment in urban-based government health facilities in Owo region. This is not simply

a matter of reflecting high quality of health services offered but a revelation of the high caliber of medical personnel working in these health institutions with appropriate medical equipment. The low successful treatment rate attributed to the rural-based government health institutions is as a result of the inadequate equipment and neglect over the years.

**Table 7.** *Assessment of Treatment Success of Government-Owned Health Facilities by Rural Households in Owo Region*

Assessment	Urban-based health facilities		Rural-based health facilities	
	No	%	No	%
Very high	202	58.0	11	3.2
High	99	28.4	46	13.2
Average	44	12.6	135	38.8
Low	33	0.9	118	33.9
Very low	Nil	Nil	38	10.9
Total	348	100.0	348	100.0

*Source: Authors' Field Survey, 2000.*

#### **b. At Private-Owned Health Facilities**

Table 8 shows the rating of treatment success for private-owned health facilities in both urban and rural areas in Owo region. The treatment success rate of urban-based private health facilities were rated very high and high by 25 percent and 33.3 percent of the respondents respectively. However, the treatment success rate of rural-based private health facilities were correspondingly rated very high and high by 6 percent and 17.8 percent of the sampled respondents. It was 8.6 percent and 1.7 percent that rated the treatment success rate of urban-based private health facilities as low and very low respectively while 26.4 percent and 12.6 percent rated the treatment success rate of rural-based private health facilities as low and very low respectively.

**Table 8.** *Assessment of Treatment Success of Private-Owned Health Facilities by Rural Households in Owo Region*



Assessment	Urban-based health facilities		Rural-based health facilities	
	No	%	No	%
Very high	87	25.0	21	6.0
High	116	33.3	62	17.8
Average	109	31.3	129	37.1
Low	30	8.6	92	26.4
Very low	6	1.7	44	12.6
<b>Total</b>	<b>348</b>	<b>100.0</b>	<b>348</b>	<b>100.0</b>

Source: Authors' Field Survey, 2000.

It is interesting to observe that the results of the rating of the private-owned health facilities reflect the result pattern for the government-owned health facilities in the region. However, the most striking difference is that none of the respondents rated the urban-based government-owned health facilities as very low whereas, 1.7 percent rated the urban-based private-owned health facilities as very low. Besides the general reasons adduced for the pattern in government-owned health facilities, the activities medical quacks in the private-owned health facilities in the region contribute in no small measure to their low treatment success rate in the region.

#### 4.5 Testing of Hypothesis.

The performance history of any health facility can influence in no small measure health seekers in the patronage of such health facility. The performance of any health facility is a reflection of its successful treatment rate. An hypothesis was formulated to establish the difference in the successful treatment rate between government-owned health facilities and private-owned health facilities in the region.

H<sub>0</sub>: The successful treatment rate is not significantly different in government-owned health facilities from that of private-owned health facilities in Owo region.

H<sub>1</sub>: It is significantly different

A paired-sample t-test model was employed to measure the difference in successful treatment rate between the two categories of health facilities as assessed by the health consumer. Table 9 shows the paired-sample t-test result as extracted from the computer print-out

**Table 9.** *The Paired Sample t-test Result*

Variables	Mean	Std Dev	Std Error Mean	95% conf. interval of the different		t-value	df	Sig. 2 tailed
				Lower	Upper			
Pair I SUCCGRB and SUCCGUB	-1.80	0.95	0.011	-1.90	-1.70	-35.169	347	.000*
Part II SUCCPUB and SUCCPRB	0.93	0.73	0.73	-1.01	-1.01	-23.829	347	.000*

Source: Authors' Field Work Analysis, 2000.

SUCCGUB - Treatment success rate at government-owned health facilities in urban Centres.

SUCCGRB - Treatment success rate at government-owned health facilities based in Rural areas.

SUCCPUB - Treatment success rate at private-owned health facilities based in urban Centres.

SUCCPRB - Treatment success rate at private-owned health facilities based in rural areas.

\* = Significant

The paired sample t-test shows that the t-value for pair one variables is -35.169 at 347 degree of freedom is significant at 0.05 level (i.e. 95% confidence level). The t-value for pair two variables (i.e. SUCCPUB and SUCCPRB variables are -23.829 at 347 degree of freedom, which is equally significant at 0.05 level. The decision is that when the t-values of both paired variables are significant at 0.05 level,  $H_0$  will be rejected and  $H_1$  will be accepted.

Since the t-values are significant at 0.05 level (i.e. 95% confidence level)  $H_0$  is rejected and  $H_1$  is accepted. Hence, there is a significant difference in the successful

treatment rate between government-owned health facilities and private-owned health facilities. The reasons for the confirmation are not far fetched. In a rural region (i.e a region dominated by rural settlements), the private-owned health facilities are mostly dominated by 'quacks' that are always ready to penetrate into the rural hinterland to exploit the ignorance of the rural dwellers health-wise. Performance of these quacks with little or no equipment cannot match the performance in the government-owned health facilities even when they are equally characterized with poor staffing situation. It is only in the urban centres in which few of the private-owned health facilities can compare favourably with government-owned health facilities. This calls for setting up of a minimum standard of equipment and staffing for all categories of health facilities that will ensure the performance of their statutory functions.

Surprisingly, the rural people never see anything bad in patronizing these quacks particularly when the quacks are treating almost all ailments with the administration of injections on their patients. The low level of education among the rural households as revealed by our survey in Table 3 (32.2% were illiterates while 2.55 had primary school education) is responsible for the high level of ignorance that was medically exploited by the medical quacks.

#### **4.6 The Implications of the Findings on Rural Development.**

Education helps in no small measure in brightening the awareness to know the basic health and hygiene practices. This helps to reduce preventable diseases especially malaria and the scourge of HIV/AIDS. The education status of the rural dwellers needs to be improved upon. The issue of adult literacy should be given a boost, in order to address illiteracy among the aged in the rural region.

The activities of the medical quacks constitute a major problem for the private-owned health facilities in the rural areas, which, should be appropriately checked. These medical quacks penetrate easily to the grassroot and the State Ministry of Health should increase its surveillance to check their activities. The staffing situation in the government-owned health facilities based at the rural areas needs to improve. Thus, more staff should be recruited the State Ministry of Health and posted to government-owned health facilities in the rural areas. However, rural posting allowance should be introduced and paid to these health workers working in the rural areas. This is to encourage them to work in the areas. The Ministry of Health should refurbish the non-functional equipment in the health care facilities in the rural areas. This will improve the

performance of the government-owned health facilities based in the rural area. An equipment-refurbishing loan should be given to operators of private-owned health facilities based in the rural areas. The government should closely monitor the utilisation of the medical equipment re-furbishing loan to avoid mis-use of such loan.

Reduction of preventable diseases especially malaria among rural dwellers will improve their health status. Thus, reducing the long absence of rural dwellers from their farm-works as a result of incessant sicknesses. This will improve their performance on their farms inform of increase in their production and subsequently their farm yield. The implication of this is that the rural dwellers would have more to eat but there is need to have remunerative prices for their agricultural output in order to increase their income. Thus, rural roads in the regions and other regions in the country should be improved. Provision of motorable roads in the region would allow for better marketing of their agricultural products.

Rural road is an essential rural infrastructure that is basic to rural development. However, other rural infrastructure that needs deserved attention is rural water supply. Solar-powered boreholes should be provided in the remote parts of the rural region where the inhabitants depend on unsafe and doubtful sources that exposes them to guinea worm infection.

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