

## ASSESSING THE PRICING OF HEALTHCARE SERVICES PROVIDERS IN IJEBU-ODE LOCAL GOVERNMENT OGUN STATE, NIGERIA

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**Abstract:** This study examined the pricing of health care service delivery in Nigeria and references health care service providers in the Ijebu-Ode Local Government Area of Ogun State. The pricing of health care is influenced by the accessibility availability and utilization level of health care infrastructure; this will 'determine whether the health care price will be highly charged, moderately charged or lowly charged since the cost of quality healthcare is very high in Nigeria and with an increasing deteriorating living standard where 50% of the entire population in Nigeria could be said to have no access to quality healthcare, simply because they cannot afford such services even if they should demand them. The study made use of primary and secondary sources; primary data was collected through a well-designed questionnaire, interview, and observational studies. The questionnaire was appropriate because it examined the perception of people on the pricing of health care services. The questionnaire was used as a research instrument to obtain data from the field survey. Secondary data were journal articles seminar papers, textbooks, etc. The study population is very large, so 100 respondents were selected from the private and public hospitals in the Ijebu- Ode local government area of Ogun State while 100 respondents were selected from the private and public hospitals in the Ijebu-Ode local government area of Ogun state while 100 respondents are also sample from traditional health care services provider. The respondents that patronize herb sellers and traditional doctors in Oke- Aje Market of Ijebu- Ode are sampled for the study. The study concludes that Alternative medicine is cheaper than modern medicine. The cost of orthodox medicine is increased by modern health technology, which in many cases is inappropriate, or irrelevant to the immediate needs of the people, while in many cases in inappropriate, or irrelevant to the immediate needs of the people, while in traditional medicine, the herbs can be sourced locally within the community. Traditional medicine enjoys. This could be due partly to the inaccessibility of modern medicine, but the major contributory factor is the fact that traditional medicine blends readily into the socio-cultural lie of the people whose culture is deeply rooted.

**Keywords:** The pricing of health care; Health care services; Traditional medicine; Ijebu- Ode Local Government Area of Ogun State

### 1 INTRODUCTION

The pricing of health care Is influenced by the accessibility, availability, and utilization level of health care infrastructure; this will determine whether the health care price will be highly charged, moderately charged, or lowly charged. It is imperative to note that healthcare infrastructure is understood in both qualitative and quantitative terms to mean the quality of care accessibility, to healthcare delivery within a country [1]. It is judged by the quality of physical, technological, and human resources available at a given period. The pricing of these resources will determine the actual cost to be paid by an individual who needs health care attention. Physical structure entails the building and other fixed structures such as pipe-borne water, good access roads, electricity, and so on within the healthcare environment, while the technology is about the equipment meant specifically for hospital use including surgeries [2,3]. This also includes computer equipment and consumables while human resources comprise the health professionals including doctors, pharmacists, nurses, midwives, laboratory technologists, administrators, accountants, and other sundry workers. All these are put together from the structure upon which the healthcare delivery is anchored in any society and the determinants of its infrastructure.

Health care infrastructure is part of a larger concept of health which contains the health policy, budgetary allocation, implementation, and monitoring [4,5]. This is larger in concept and more robust than a mix of facilities, and medical consultation in terms of diagnosis, treatment, and compliance. It also involves the healthcare consumers and other factors associated with or adjunct to healthcare delivery. The differences and fluctuation in the prices of health care infrastructural affects the prices discrimination in the pricing of health care infrastructural affect the price discrimination in the pricing of health care delivery services in Nigeria. To prevent monopolistic and exploitative tendencies of health care services provided government, through ministries of health and other related ministries and agencies plays an important role in health pricing and development by strengthening health systems and generation of human, financial, and resources. This allows the health system to achieve its goals of improving health, reducing health inequalities, securing equity in healthcare finances, and responding to population needs.

Improved health outcomes are not attributed to the health system alone, as evidence has shown, but to social, economic, cultural, and environmental determinants also, as reflected in the WHO conceptual framework of Health for All. The role of governments in health development is well documented worldwide and is illustrated by the impressive growth of

the health system, initiated and supported by the government and pursued through partnerships with the private sector, non-governmental organizations, and charitable institutions. Governments, which levy taxes and benefit from natural resources, have social obligations to provide security and to facilitate socio-economic development, including education and health development. The dramatic changes and challenges which took place during the last four decades of the 20<sup>th</sup> century have greatly affected and led to a repositioning of, the role of government in health as well as other social sectors. Moves toward democracy decentralization and a more active role for civil society in governance, and the growing importance of the private sector in socioeconomic development, have been accompanied by policy changes reflecting more privatization, a more restricted role of government in policy development, strategic planning and management, and greater reliance on market forces [6,7].

This study therefore becomes interesting because it captures an empirical investigation into the gaps that previous research work has created. There is very little literature on the pricing of health care services delivery in Nigeria and most available works focus solely on government health spending and Nigeria's economic growth. Hence, the primary focus of this study is to examine the pricing of healthcare delivery services in Nigeria using the healthcare service providers in Ijebu-Ode- Ode Local government areas.

## 1.2 Statement of the Problem

Since the cost of quality healthcare is very high in Nigeria and with an increasingly deteriorating living standard where 50% of the entire population in Nigeria could be said to have access to quality healthcare because they cannot afford such services even if they should demand them [8]. The poverty scenario in Nigeria can also be linked to the absence of adequate health facilities, which can be reduced, if not eradicated. By health interventions [9]. Less than 1% of GDP was allocated to healthcare provision in Nigeria; about 2% of government and oil revenue was assigned to the health sector. In Nigeria [10] noted that low financial commitment will result in unequal access to healthcare resources.

Therefore, since most Nigerians are poor and pay for their health care out of their pocket [11], many may be left out of health care provision. This has demonstrated that the accessibility to healthcare facilities in Nigeria is low: it was revealed that only 3 out of 5 Nigerians have access to healthcare facilities [12,13,14]. The aforementioned problems are motivational problems that this study is interested in examining. An effort would be made to investigate the economic factors that affect the pricing of healthcare services delivery in Nigeria.

## 1.3 Objective of the Study

The broad objective of this study is to examine the pricing of healthcare services in Nigeria. The specific objectives are:

- 1) To examine the factors affecting the price of health services in Nigeria.
- 2) Examine the problems of obtaining medical treatment in Ijebu-ode local government
- 3) To examine the significant difference between the health care service delivery offered by the orthodox hospital and the one offered by the traditional hospitals.

## 1.4 Research Questions

The following research questions are examined:

- 1) What are the factors affecting the price of health services in Nigeria?
- 2) What are the problems of obtaining medical treatment in Ijebu ode local government?
- 3) Is there a significant difference between the health care service delivery offered by the orthodox hospitals and the one offered by the traditional hospitals?

## 1.5 Research Hypothesis

The following are the hypotheses used in this research work”

H<sub>0</sub>: represent Null Hypothesis, H<sub>1</sub>: represent the alternative hypothesis

### Hypothesis one:

H<sub>0</sub>: The price of health care has no significant effect on the health care services.

H<sub>1</sub>: The price of health care has no significant effect on the demand for health care services

### Hypothesis Two:

H<sub>0</sub>: Income has no significant effect in determining the demand for healthcare services

H<sub>1</sub>: Income has a significant effect in determining the demand for healthcare services

## 2 METHODOLOGY

This chapter deals with the research methodology and it involves the methods involved in the collection of all information required for a study. This chapter contains the research design, population and sampling size, research instrument, validity and reliability of data, measurement of variables, and data analysis technique

### 2.1 Sample and Sampling Techniques

The study population is very large, so 100 respondents shall be selected from the private and public hospitals in Ijebu-Ode local government area of Ogun, state while 10 respondents are also sampled from traditional health care services providers. The respondents that patronize herb sellers and traditional doctors in Oke- Aje Market of Ijebu – Ode are sampled for the study:

This study cut across the various that patronize the following hospitals

- 1) General Hospital (Public Hospital)
- 2) Private Hospitals: Ore-Ofe Hospital in Ijebu–Ode, St Thomas Hospital in Ijagun, and Ise Oluwa Hospital in Ijebu-Ode.
- 3) Traditional health care centers: Herbs sellers and native doctors in Oke-Aje market, a new market in Ijebu Ode.

Simple random sampling techniques will be used to select the hundred respondents for this study to ensure that those who are available at the time the study will be conducted will be contacted.

### 2.3 Description of the Instrument

Primary data will be collected through a well-designed questionnaire, interview, and observational studies. The questionnaire is appropriate because it examines the perceptions of people on the pricing of health care services. The questionnaire is used as a research instrument to obtain data from the field survey. The questionnaire is divided into two sections: Section A and Section B. Section A consists of demographic and socio-economic characteristics of the respondent while Section B consists of relevant questions on the respondent's perception of health care services in the study:

The questionnaire is arranged to include questions that attract four Likert- scales which include strongly Agree (SA), agree (A), indifference (ID), strongly disagree (SD), and Disagree (D)

### 2.4 Data Analysis Technique

The statistical techniques employed in analyzing data collected in this study are:

- **Table**

Tables effectively order and summarize the quantitative data. They are used to arrange facts and figures in columns and rows. This fact and figure can be systematically examined.

- **Percentages**

These are used in translating frequency into percentage. These percentages were used to show the distribution of respondent according to their responses.

Chi-square is used to test the research hypothesis.

## 3 RESULTS

The chapter deals with the presentation and analysis of the results obtained from the returned questionnaire. A total of one hundred copies of the questionnaire were given out to obtain information on the pricing of health care delivery services in Ogun State using Ijebu-Ode as a case study. Data gathered were presented according to the order in which they were arranged in the questionnaire. The various responses were therefore grouped and tabulated to ensure an objective analysis and interception of the findings. The simple percentage was used to analyze the responses gathered from the questionnaire on the demographic information of the respondents while the test of the research hypothesis was carried out using chi-square analysis.

### Demographic Information of The Respondent

**Sex:** Analysis based on the sex of the respondent can be seen in Table 1.

**Table 1** Analysis based on the Sex of the Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid FEMALE	52	52.0	52.0	52.0
MALE	48	48.0	48.0	
Total	100	100.0	100.0	100.0

The above table 1 shows that one hundred (100) respondents were used in the field survey. The table shows that 48% were male representing 48 respondents while 52% were female representing 52 respondents. Therefore, females participated in the survey than males.

**Marital Status:** Analysis based on the marital status of the respondent can be seen in Table 2.

**Table2** Analysis based on Marital Status of Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid MARRIED	32	32.0	32.0	32.0
SINGLE	68	68.0	68.0	
Total	100	100.0	100.0	100.0

The above table 2 shows that one hundred (100) respondents were used in the field survey. That table shows that 68% were single representing 68 respondents while 32% were married representing 32 respondents. Therefore, a single participated in the survey than the married one.

**Age:** The distribution of respondents can be seen in Table 3.

**Table 3** Distribution of Respondent

	AGE			
	Frequency	Percent	Valid Percent	Cumulative Percent
34-41	8	8.0	8.0	8.0
26-33	44	44.0	44.0	52.0
18-25	48	48.0	48.0	
Total	100	100.0	100.0	100.0

Table 3 reveals that 48 (48%) of the respondents are within the age bracket of 18- 25 years, 44 (44%) of the respondents are Within the age bracket of 26- 33 years, 8(8%) of the respondent are within the age bracket of 34- 41 years. It can then be concluded that the majority of the respondents are within the age bracket of 18-25 years.

**Qualification:** The educational Qualification of the Respondent can be seen in Table 4.

**Table 4** Educational Qualification of Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid M.ED	8	8.0	8.0	8.0
B.SC	56	56.0	56.0	64.0
SSCE	36	36.0	36.0	100.0
Total	100	100.0	100.0	

Table 4 Shows that 36(36%) of the respondents are SCE holders, 56(56%) of the respondents are B.S.C holders 8(8%) of the respondents are MSC holders. From this information, we can conclude that the majority of the respondents are B.S.C holders.

**Occupation:** The occupation distribution of respondents can be seen in Table 5.

**Table 5** Occupation Distribution of Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid OTHERS (SPECIFIED)	28	28.0	28.0	28.0
UNEMPLOYED	28	28.0	28.0	56.0
TRADER	20	20.0	20.0	76.0
PUBLIC SERVANT	8	8.0	8.0	84.0
CIVIL SERVANT	12	12.0	12.0	96.0
ARTISANS	4	4.0	4.0	100.0
Total	100	100.0	100.0	

Table 5 reveals that 4(4%) of the respondent are artisans, 12(12%) of the respondent are civil servants, 8(8%) of the respondent are public servants, 20(20%) of the respondent are traders, 28(28%) of the respondent are unemployed, 28(28%) of the respondent did not specify their occupation, it can be concluded that majority of the respondent are unemployed and those who did not specify their occupation.

**No of Household Member:** Analysis based on No of household members of the respondent can be seen in Table 6.

**Table 6** Analysis Based on No of Household Members of the Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
5-10	16	16.0	16.0	16.0
0-5	84	84.0	84.0	100.0
Total	100	100.0	100.0	

The above table shows that one hundred (100) respondents were used in the field survey. The table shows that 84% have 0-5 household members representing 84 respondents while 16% have 5-10 household members representing 16 respondents. There, the majority of the respondents have 0-5 household members.

**Monthly Income:** The monthly income distribution of respondents can be seen in Table 7.

**Table 7** Monthly Income Distribution of Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid MORE THAN #40,000	28	28.0	28.0	28.0
#20,000-30,000	16	16.0	16.0	44.0
#10,000-20,000	8	8.0	8.0	52.0
#0-10,000	48	48.0	48.0	100.0
Total	100	100.0	100.0	

Table 7 reveals that 48 (48%) of the respondents receive #0-10,000 as their monthly income, 8(8%) of the respondents receive #10,000-20,000 as their monthly income 16(16%) of the respondents receive #20,000-30,000 has their monthly income 28(28%) of the respondents receive more than #40,000 has their monthly income, it can then be concluded that majority of the respondents receive #0-10,000 has their monthly income.

**Question 1:** patronize public hospitals often because inability to afford private hospitals

**Table 8** Patronize Public Hospitals often because Inability to Afford Private Hospitals

	Frequency	Percent	Valid Percent	Cumulative Percent
DISAGREE STRONGLY	23	23.0	23.0	23.0
DISAGREE	21	21.0	21.0	44.0
AGREE	16	16.0	16.0	60.0
STRONGLY AGREE	40	40.0	40.0	100.0
AGREED	0	0.0	0.0	0.0
INDIFFERENCE				
Total	100	100.0	100.0	

From the Table 8 above, 40 respondents (40%) strongly agreed that they patronize public hospitals often because of their inability to afford private hospitals, 16(16%) agreed, 21(21%) disagreed, and 23(23) strongly disagreed. Therefore, it can be concluded that they patronize public hospitals often because of their inability to afford private hospitals.

**Question 2:** The cost of health care in a hospital is too expensive compared to traditional medical care center

**Table 9** The Cost of Health Care in a Hospital is too Expensive compared to Traditional Medical Care Center

	Frequency	Percent	Valid Percent	Cumulative Percent
DISAGREE	13	13.0	13.0	13.0
STRONGLY DISAGREE	15	15.0	15.0	28.0
AGREE	56	56.0	56.0	44.0
STRONGLY AGREE	16	16.0	16.0	52.0
AGREED	0	0.0	0.0	100.0
INDIFFERENCE				
Total	100	100.0	100.0	

From the Table 9 above, 16 respondents (16%) strongly agreed that the cost of health care in hospitals is too expensive compared to traditional medical care centers 56 (56%) agreed, and 15 (15%) disagreed. Therefore, it can be concluded that the cost of health care in hospitals is too expensive compared to traditional medical care centers.

**Question 3:** Consumers cannot shop around for inexpensive health care unless price information is readily available

**Table 10** Consumers cannot Shop Around for Inexpensive Health Care unless Price Information is Readily Available

	Frequency	Percent	Valid Percent	Cumulative Percent
DISAGREE	28	28.0	28.0	28.0
STRONGLY DISAGREE	8	8.0	8.0	36.0
AGREE	32	32.0	32.0	68.0
STRONGLY AGREE	32	32.0	32.0	100.0
AGREED	0	0.0	0.0	0.0
INDIFFERENCE				
Total	100	100.0	100.0	

From Table 10 above, 32 respondents (32%) strongly agreed that consumers cannot shop around for inexpensive health care, unless price information is readily available, 32 (32%) agreed, 8 (8%) disagreed, 28 (28%) strongly disagreed. Therefore, it can be concluded that consumers cannot shop around for inexpensive health care unless price information is readily available.

**Question 4:** There is a significant difference between the health care services provided by orthodox hospitals and the health services provided by traditional doctors

**Table 11** There is a Significant Difference between the Health Care Services Provided by Orthodox Hospitals and the Health Services Provided by Traditional Doctors

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid DISAGREE	12	12.0	12.0	12.0
STRONGLY DISAGREE	4	4.0	4.0	16.0
AGREE				
INDIFFERENCE	48	48.0	48.0	64.0
STRONGLY	0	0.0	0.0	0.0
AGREED	36	36.0	36.0	100.0
Total	100	100.0	100.0	

From the Table 11 above, 36 respondents (36%) strongly agreed that there is a significant difference between the health care services provided by orthodox hospitals and the health services provided by traditional doctors, 48(48%) agreed, 4(4%) disagreed, 12(12%) strongly disagreed. Therefore it can be concluded that there is a significant difference between the health care service provided by orthodox hospitals and the health services provided by traditional doctors.

**Question 5:** Price transparency and price information should be published by hospitals

**Table 12** Price Transparency and Price Information Should Be Published by Hospitals

	Frequency	Percent	Valid Percent	Cumulative Percent
DISAGREE	12	12.0	12.0	12.0
STRONGLY	4	4.0	4.0	16.0
DISAGREE	0	0.0	0.0	0.0
INDIFFERENCE				
AGREE	44	44.0	44.0	60.0
STRONGLY AGREED	40	40.0	40.0	100.0
Total	100	100.0	100.0	

From Table 12 above, 40 respondents (40%) strongly agree that price transparency and price information should be published by hospitals, 44(44%) agreed, 4(4%) disagreed, and 12(12%) strongly disagreed. Therefore it can be concluded that price transparency and price information should be published by hospitals.

**Question 6:** The government should discourage abnormal or excess health care charges imposed by doctors

**Table 13** The Government should Discourage Abnormal or Excess Health Care Charges Imposed by Doctors

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid DISAGREE	4	4.0	4.0	4.0
AGREE	36	36.0	36.0	40.0
INDIFFERENCE	0	0.0	0.0	0.0
STRONGLY	60	60.0	60.0	100.0
AGREED				
Total	100	100.0	100.0	

From Table 13 above, 60 respondents (60%) strongly agree that Government should discourage abnormal or excessive health care charges imposed by Doctors, 36(36%), agreed 4(4%) disagreed 0(0%) strongly disagreed. Therefore, it can be concluded that the government should discourage abnormal or excessive health care charges imposed by doctors.

**Question 7:** Unlike most markets for consumer services the healthcare market, generally lacks transparent market-based prices

**Table 14** Unlike Most Markets for Consumer Services the Healthcare Market, Generally Lacks Transparent Market-Based Prices

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STRONGLY	8	8.0	8.0	8.0
DISAGREE				
AGREE	76	76.0	76.0	84.0
INDIFFERENCE	0	0.0	0.0	0.0
STRONGLY	16	16.0		
AGREED				
Total	100	100.0	100.0	

From Table 14 above, 16 respondents (16%) strongly that, unlike most markets for consumer services in the healthcare market, generally lack transparent market-based prices 76(76%) agreed 0(0%) disagreed, 8(8%) strongly disagreed.

Therefore it can be concluded that unlike most markets for consumer services in healthcare market generally lacks transparent market-based prices.

**Question 8:** Hospitals, doctors, and other medical providers have traditionally disclosed their fee schedules only to insurance companies and other institutional payers and not to individual patients

**Table 15** Hospitals, Doctors, and Other Medical Providers have Traditionally Disclosed Their Fee Schedules only to Insurance Companies and Other Institutional Payers and not to Individual Patients

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid DISAGREE	21	21.0	21.0	21.0
STRONGLY DISAGREE	15	15.0	15.0	36.0
INDIFFERENCE	0	0.0	0.0	0.0
AGREE	40	40.0	40.0	76.0
STRONGLY AGREED	24	24.0	24.0	100.0
Total	100	100.0	100.0	

From Table 15 above, 24 respondents (24%) strongly agreed that hospitals, doctors, and other medical providers have traditionally disclosed their fee schedules only to insurance companies and other institutional payers and not to individual patients, 40(40%) agreed, 15(15%) disagreed 21(21%) strongly disagreed. Therefore, it can be concluded that hospital doctors and other medical providers have traditionally disclosed their fee schedules only to insurance companies and other institutional payers and not to individual patients.

**Question 9:** Since there is a lack of access to healthcare pricing information price-based competition will be reduced

**Table 16** Since There Is a Lack of Access to Healthcare Pricing Information Price-Based Competition will be Reduced

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid DISAGREE	16	16.0	16.0	16.0
STRONGLY DISAGREE	28	28.0	28.0	44.0
INDIFFERENCE	0	0.0	0.0	0.0
AGREE	36	36.0	36.0	80.0
STRONGLY AGREED	20	20.0	20.0	100.0
Total	100	100.0	100.0	

From Table 16 above, 20 respondents (20%) strongly agreed that since there is a lack of access to health pricing information price-based competition will be reduced, 36(36%) agreed, 28(28%) disagreed, and 16(16%) strongly disagreed. Therefore it can be concluded that since there is a lack of access to health care pricing information, price-based competition will be reduced.

**QUESTION 10:** My income level is low which is why I prefer using traditional herbs and local medical centers

**Table 17** My Income Level is low which is why I Prefer Using Traditional Herbs and Local Medical Centers

	Frequency	Percent	Valid Percent	Cumulative Percent
DISAGREE	21	21.0	21.0	21.0
STRONGLY DISAGREE	47	47.0	47.0	68.0
INDIFFERENCE	0	0.0	0.0	0.0
AGREE	16	16.0	16.0	84.0
STRONGLY AGREED	16	16.0	16.0	100.0
Total	100.	100.0	100.0	

From Table 17 above, 16 respondent (16%) strongly agreed that their income level is low which is why they prefer using traditional herbs and local medical centers, 16(16%) agreed, 47(47%) disagreed 21(21%) strongly disagreed. Therefore, it can be concluded majority of the respondent do not agree that their income level is low which is why they prefer using traditional herbs and local medical centers

**Question 11:** The government should regulate the charges imposed on patients by medical practitioners

**Table 18** The Government Should Regulate the Charges Imposed on Patients by Medical Practitioners

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid DISAGREE	8	8.0	8.0	8.0
AGREE	36	36.0	36.0	
INDIFFERENCES	0	0.0	0.0	84.0
STRONGLY AGREED	56	56.0	56.0	0.0
Total	100	100.0	100.0	100.0

From Table 18 above, 56 respondents (56%) strongly agreed that the government should regulate the charges imposed on patients by medical practitioners, 36 (36%) agreed, 8 (8%) disagreed, and 0 (0%) strongly disagreed. Therefore, it can be concluded the government should regulate the charges imposed on patients by medical practitioners.

**Question 12:** Transparency in Health care pricing can lead to high-quality lower cost health care and more patient involvement in buying healthcare

**Table 19** Transparency in Health Care Pricing can Lead to High-Quality Lower Cost Health Care, and more Patient Involvement in Buying Health Care

	Frequency	Percent	Valid present	Cumulative Percent
Valid DISAGREE				
STRONGLY	12	12.0	12.0	
DISAGREE	8	8.0	8.0	12.0
INDIFFERENCE	0	0.0	0.0	20.0
AGREE	32	32.0	32.0	0.0
STRONGLY	48	48.0	48.0	52.0
AGREED	100	100.0	100.0	100.0
Total				

From Table 19 above, 48 respondents (48%) strongly agreed that transparency in Health care pricing can lead to high quality, lower cost health care and more patient involvement in buying health care, 32 (32%) agreed, 8 (8%) disagreed, 12 (12%) strongly disagreed. Therefore, it can be concluded that transparency in healthcare pricing can lead to high quality, lower cost healthcare, and more patient involvement in buying healthcare.

**Question 13:** Health care cost also varies significantly across geographical regions

**Table 20** Health Care Cost also Varies Significantly across Geographical Regions

	Frequency	Percent	Valid present	Cumulative Percent
DISAGREE	20	20.0	20.0	
STRONGLY	8	8.0	8.0	20.0
DISAGREE	0	0.0	0.0	28.0
INDIFFERENCE				0.0
AGREE	48	48.0	48.0	
STRONGLY	24	24.0	24.0	76.0
AGREED				100.0
Total	100	100.0	100.0	

From Table 20 above, 2 respondents (24%) strongly agreed that health care cost also varies significantly across geographical regions, 48(48%) agreed, 8(8%) disagreed, and 20(20%) strongly disagreed. Therefore, it can be concluded that healthcare cost also varies significantly across geographical regions.

**Question 14:** Despite price discrimination in the healthcare market, consumers should not base their healthcare solely on prices

**Table 21** Despite Price Discrimination in the Healthcare Market, Consumers Should Not Base Their Healthcare Solely on Prices

	Frequency	Percent	Valid present	Cumulative Percent
STRONGLY	4	4.0	4.0	
DISAGREE				4.0
AGREE	68	68.0	68.0	
INDIFFERENCE	0	0.0	0.0	72.0
STRONGLY	28	28.0	28.0	0.0
AGREED				100.0
Total	100	100.0	28.0	

From Table 21 above, 28 respondents (28%) strongly agreed that Despite price discrimination in the healthcare market consumers should base their healthcare solely on prices, 68(68%) agreed, 0(0%) disagreed 4(4%) strongly disagreed. Therefore it can be concluded that despite price discrimination in Health healthcare market, consumers should not base their healthcare solely on prices.

**Question 15:** High Prices don't always mean better quality of services

**Table 22** HIGH PRICES don't Always Mean Better Quality of Services

	Frequency	Percent	Valid present	Cumulative Percent
DISAGREE	4	4.0	4.0	
STRONGLY	24	24.0	24.0	4.0
DISAGREE	0	0.0	0.0	28.0
INDIFFERENCE				0.0
AGREE	32	32.0	32.0	
STRONGLY	40	40.0	40.0	60.0
AGREED				100.0
Total	100	100.0	100.0	

From the Table 22 above, 40 respondents (40%) strongly agreed that high prices don't always mean better quality of services, 32(32%) agreed, 24(24%) disagreed, and 4(4%) strongly disagreed, therefore, it can be concluded that high prices don't always mean better quality of services.

**Question 16:** Health care services prices are heterogeneous in all hospitals rendering the same services

**Table 23** Health Care Services Prices are Heterogeneous in all Hospitals Rendering the Same Services

	Frequency	Percent	Valid present	Cumulative Percent
DISAGREE	20	20.0	20.0	
STRONGLY	25	25.0	25.0	20.0
DISAGREE	0	0.0	0.0	45.0
INDIFFERENCE				0.0
AGREE	43	43.0	43.0	
STRONGLY	12	12.0	12.0	88.0
AGREED				100.0
Total	100	100.0	100.0	

From Table 23 above, 12 respondents (12%) strongly agreed that healthcare service prices are heterogeneous in all hospitals rendering the same services. 43(43%) agreed, 25(25%) disagreed, 20(20%) strongly disagreed. therefore it can be concluded that health care services prices are heterogeneous in all hospitals rendering the same services.

**Question 17:** The price of health care services varies considerably depending upon who is paying for the services and where the services are obtained

**Table 24** The Price of Health Care Services Varies Considerably Depending upon who Is Paying for the Services and where the Services is Obtained

	Frequency	Percent	Valid present	Cumulative Percent
DISAGREE	4	4.0	4.0	
STRONGLY	12	12.0	12.0	4.0
DISAGREE	0	0.0	0.0	16.0
INDIFFERENCE				0.0
AGREE	56	56.0	56.0	
STRONGLY	28	28.0	28.0	72.0
AGREED				100.0
Total	100	100.0	100.0	

From the Table 24 above, 28 respondents (28%) strongly agreed that the prices of health care services vary considerably depending upon who is paying for the services and where the services are obtained 56(56%) agreed, 12(12%) disagreed 4(4%) strongly disagreed. Therefore, it can be concluded that the prices of health care services vary considerably depending upon who is paying for the services and where the services are obtained.

**Question 18:** In terms of efficiency and quality services delivery, private hospitals are more effective than public hospitals

**Table 25** In Terms of Efficiency and Quality service delivery, Private Hospitals are more Effective than Public Hospitals

	Frequency	Percent	Valid present	Cumulative Percent
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DISAGREE	8	8.0	8.0	
STRONGLY	20	20.0	20.0	8.0
DISAGREE	0	0.0	0.0	28.0
INDIFFERENCE				0.0
AGREE	32	32.0	32.0	
STRONGLY	40	40.0	40.0	60.0
AGREED				100.0
Total	100	100.0	100.0	

From Table 25 above, 40 respondents (40%) strongly agreed that in terms of efficiency and quality services delivery, private hospitals are more effective than public hospitals, 32(32%) agreed, 20(20) disagreed 8(8%) strongly disagreed. Therefore, it can be concluded that in terms of efficacy and quality delivery, private hospitals are more effective than public hospitals.

**QUESTION 19:** The rate of patronage in traditional medical centers is higher than in public hospitals

**Table 26** The Rate of Patronage in Traditional Medical Centers is Higher than in Public Hospitals

	Frequency	Percent	Valid present	Cumulative Percent
DISAGREE	33	33.0	33.0	
STRONGLY	35	35.0	35.0	33.0
DISAGREE	0	0.0	0.0	68.0
INDIFFERENCE				0.0
AGREE	16	16.0	16.0	
STRONGLY	16	16.0	16.0	84.0
AGREED				100.0
Total	100	100.0	100.0	

From Table 26 above, 16 respondents (16%) strongly agreed that the rate of patronage in traditional medical centers is high than in public hospitals 16(16%) agreed 35(35%) disagreed 33(33%) strongly disagreed. Therefore, it can be concluded that the majority of the respondents did not agree that the rate of patronage in traditional medical centers is higher than in public hospitals.

**Question 20:** The orthopedic preferences of people lie on native orthopedic doctors rather than orthodox hospitals

**Table 27** The Orthopedic Preferences of People Lie on Native Orthopedic Doctors rather than Orthodox Hospitals

	Frequency	Percent	Valid present	Cumulative Percent
DISAGREE	48	48.0	48.0	48.0
STRONGLY	12	12.0	12.0	60.0
DISAGREE	0	0.0	0.0	0.0
INDIFFERENCE				
AGREE	28	28.0	28.0	88.0
STRONGLY	12	12.0	12.0	100.0
AGREED				
Total	100.0	100.0	100.0	

From Table 27 above, 12 respondents (12%) strongly agreed that the orthopedic preferences of people lie with native orthopedic doctors rather than orthodox hospitals, 28(28%) agreed 12(12%) disagreed 48(48%) strongly disagreed. Therefore, it can be concluded that the orthopedic preferences of people lie in native orthopedic doctors rather than orthodox hospitals.

### 3.1 Hypothesis Testing

#### Hypothesis One

$H_0$ : The price of health care has no significant effect on the demand for health care services

$H_1$ : The price of health care has no significant effect on the demand for health care services.

**Table 28** Table Testing whether the Price of Health Care has a Significant Effect on the Demand for Health Care Services

RESPONSES	OBSERVED VALUE	EXPECTED VALUE	Df	X-CALCULATED	X-CRITICAL VALUE	P	DECISION
SA	36	25.0	3				
A	48	25.0					
D	4	25.0		50.400	7.814	0.05	Accept the alternative hypothesis
ID	0	0.0					
SD	12	25.0					

$X^2$  calculated value = 50.400

$X^2$  critical value = 7.814

Decision Rule: If  $X^2$  calculated is greater than  $X^2$  tabulated accept the alternative hypothesis and if otherwise, accept the null hypothesis

The above chi-square summary table 28 shows that the calculated  $X^2$  statistic is 50.400 while the critical value is 7.814 at a 5% level of significance with 3 as the degree of freedom. The rule of thumb guiding the acceptability of a particular hypothesis in chi-square states that when the  $X^2$  calculated is greater than  $X^2$  critical, we are to accept the alternative hypothesis and reject the null hypothesis. On the other hand, if the critical value is greater than the calculated value, we are to accept the null hypothesis and reject the alternate hypothesis. Therefore, since the first condition is justified as the calculated value is greater than the critical value (i.e.  $X^2_{cal} > X^2_{critical}$ ). Hence, we are to accept the alternative hypothesis which states that the price of health care has a significant effect on the demand for health care services.

### Testing for Hypothesis Two

$H_0$ : Income has no significant effect in determining the demand for health care services.

$H_1$ : Income has a significant effect in determining the demand for health care services.

**Table 29** Table Testing whether Income has a Significant Effect in Determining the Demand for Health Care Services

RESPONSES	OBSERVED VALUE	EXPECTED VALUE	Df	X-CALCULATED	X-CRITICAL VALUE	P	DECISION
SA	16	25.0	3				
A	16	25.0					
D	47	25.0		26.480	7.814	0.05	Accept the alternative hypothesis
ID	0	0.0					
SD	21	25.0					

$X^2$  calculated value = 26.480

$X^2$  Critical value = 7.814

Decision Rule: if  $X^2$  calculated is greater than  $X^2$  critical tabulated accept the alternative hypothesis and if otherwise accept the null hypothesis.

The above chi-square summary table 29 shows that the calculated  $X^2$  statistic is 26.480 while the critical value is 7.814 at a 5% level of significance with 3 as the degree of freedom. The rule of thumb guiding the acceptability of a particular hypothesis in chi-square states that when  $X^2$  calculated is greater than  $X^2$  critical, we are to accept the alternative hypothesis and reject the null hypothesis. On the other hand, if the critical value is greater than the calculated value we are to accept the null hypothesis and reject the alternate hypothesis. Therefore since the first condition is justified as the calculated value is greater than the critical value (i.e.  $X^2_{cal} > X^2_{critical}$ ). Hence we are to accept the alternative hypothesis which states that income has a significant effect in determining the demand for health care services.

## 4 CONCLUSION

The study has examined various factors responsible for healthcare pricing in the Ijebu-ode local government area of Ogun State. The factors that influence the demand for health input we also determined. The relative accessibility of alternative methods of medical care is thus seen to be a very important factor in the decisions of individuals regarding their responses to health care pricing. The greater the range of possibilities and the more equivalent their accessibility, the more likely a sick person will make a judgment based on factors such as the type of illness, previous experience of contact, and opinion and confidence that such contact produces. The distribution of wealth in society, the structure and allocation of health resources by the government, and the position of the health system in society are all critical factors in the utilization of orthodox medical services. The extent to which an individual network ties into a healthcare provider depends to a larger degree on one's position in society. Therefore, structure location is important in utilization, primarily because of the way it affects access to medical care. The following conclusions are also made from the study in each paragraph as follows.

- 1) Alternative medicine is cheaper than modern medicine. The cost of orthodox medicine is increased by modern health technology, which in many cases is inappropriate, or irrelevant to the immediate needs of the people, while in traditional medicine, the herbs can be sourced locally within the community.
- 2) Traditional medicine enjoys wider acceptability among these people of developing countries than does modern medicine. This could be due partly to the inaccessibility of modern medicine, but the major contributory factor is the fact that traditional medicine blends readily into the socio-cultural life of the people whose culture is deeply rooted.
- 3) The traditional medical practitioner could serve as an additional source of health manpower in developing countries, this is especially so if they could be retrained especially in simple hygiene, health education, nutrition environmental health, general modern health concepts, etc.

4) In order to consult an orthodox doctor, the patient often has to undergo registration, and long queues to see a doctor and conduct laboratory tests, which are time-wasting. But in traditional medicine, the patient has ready access to the doctor who devotes his undivided attention to his patient(s).

## 5 RECOMMENDATION

The following recommendations are made:

- 1) The government should as a matter of urgency regulate the activities of traditional medical practitioners by creating a different department within the Ministry of Health that will monitor and discipline any one of them whose practice or activity is inimical to his occupation ethics.
- 2) The government should encourage the publishing of healthcare prices in both public and private hospitals to encourage health and favorable competition.
- 3) The traditional practitioner needs to be retrained especially in simple hygiene general modern health concepts, health education, elementary health care, referrals, and record-keeping so that they can contribute their quota toward the attainment of the goal of healthcare.
- 4) The government should integrate traditional medicine into the curriculum of medical students in the university so that the students will learn the two (orthodox and traditional) to make it more acceptable to society.
- 5) The government should encourage and finance research(es) into our local herbs to find cures to diseases that have developed resistance to orthodox medicine and this may also eliminate doubts and establish confidence in the minds of people about the efficacy of herb medicine.

## COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

## REFERENCES

- [1] Ichoku HE, Leibbrandt M. Demand for healthcare services in Nigeria: a multivariate nested logit model African Development Review, 2003, 15(2/3): 396-424.
- [2] Erinsho AO. National Health Account of Nigeria 2003-2005. Federal Ministry of Health. Abuja, 2006.
- [3] Imai B, Yukata C. Health reform in Japan. Organization for Economic cooperation and Development (OECD), Economics Department working papers, 2002, 321.
- [4] Oladeji Yo. Ownership and Technical Efficiency of Hospital. Medicare, 2006, 28(6): 552-561.
- [5] Alexandre B. NHS Database of Reference Costs is Severely Flawed. British Medical Journal, 2005, 323, 106.
- [6] Bour D. Analyzing the primary of distance in the utilization of health services in the Ahafo-Ano south district, Ghana. The International Journal of Health Planning and Management, 2003, 18(4): 293-311.
- [7] Jergers, Mm Katrien, K Diana DE Greve, et al. A typology for provider payment system in health care. Health policy, 2002, 60(3): 255-73.
- [8] Ajala OA, Sanni L, Adeyinka SA. Accessibility Of health care Facilities: A panacea for Sustainable Rural Development in Osun State South-Western Nigeria J Hum Ecol, 2005, 18(2): 121-128.
- [9] UNDP. Cultural Liberty in today's diverse World. Human Development Report 2004, 2004.
- [10] Ogunbekun I, Ogungbekun A, N Orobato. Private health care in Nigeria: Walking the tightrope. Health policy and planning, 1999, 14(2) : 174-181
- [11] NQAI. National Quality Assurance Initiatives. Nigerbus survey. USAID, Lagos, 1994.
- [12] Nigeria Project Agenda. Nigeria project and shared aspiration, 2007.
- [13] Akin JS, Guilkey KD, Hazel E. Quality of Service and demand for Health Care in Nigeria: Journal of Social Science and Medicine: Science Direct, 1995, 40(11): 1527-1537.
- [14] Uzochukwu B, Onwejkwke O. Socio-economic differences & health seeking behavior for the diagnosis & treatment of malaria: A case study of four Local Government Areas operating the Bamako initiative Program in southeast Nigeria. International Journal for Equity in Health, 2004, 3: 6.