

# Determinants of the Use of Orthodox Health Care Services among Rural Dwellers in Isokan Local Government Area of Osun State, Nigeria

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## Abstract

Orthodox and traditional healthcare services are the major health care services that can be obtained in Nigeria. The use of these services are determined by several factors which are mostly socio-economic in nature. This study investigated the determinants of the use for orthodox healthcare services among rural dwellers in Isokan Local Government Area, Osun state, Nigeria. Interview schedule was used to collect data from 140 rural household heads through multi-stage sampling. Data were analysed using Pearson Product Moment Correlation, Chi-Square and regression analysis at  $P < 0.05$ . The most popular occupation was farming (91.4%), with majority (76.4%) between the ages of 31-70. Education played an important role in the use of orthodox health care as (62.1%) of the respondents had formal education. Majority (95.7%) had favourable attitude to orthodox healthcare services, but long distance to health centres (83.6%), insufficient facilities (62.9%) and shortage of healthcare providers (45.7%) were rated as severe constraints to orthodox healthcare services usage. Majority indicated malaria (96.4%) and eye infection (31.4%) as their major health challenges, while general medicine (52.9%), antenatal/midwifery (47.1%), mental healthcare (47.9%), child welfare/immunisation (51.4%), dental/oral hygiene (47.9%), circumcision and ear piercing (47.9%), family planning (46.4%) were said to be affordable orthodox health care services by the respondents. Regression analysis concluded marital status, availability and attitude ( $\beta = -0.453, 0.616, 0.733$ ;  $p < 0.05$ ;  $R^2 = 0.749$ ) influenced the use of orthodox healthcare. Healthcare professionals can exploit these factors to improve the health status of rural populations to make a healthy choice of medical care, thereby enhancing their productivity.

**Keywords:** Determinants, Healthcare services, Orthodox, Preference, Rural Dwellers.

## Introduction

The health of the citizens of a nation is very crucial to her economic growth and development. Good health is basic to human welfare and fundamental to development. A healthy population is likely to be a productive population, and a productive population will lead to a growing economy. However, rural Nigeria still remains till date, the most neglected and its people, the most deprived with respect to the provision of modern health care services, despite the fact

that the bulk of agricultural production comes from the rural population, (Akpomovie, 2010). In addition, they lack other basic infrastructural necessities that are essential to the maintenance and promotion of good health.

The International Labour Organisation (ILO, 2004) explained that the agricultural sector is one of the most hazardous in terms of occupational hazards. Farmers are usually exposed to harsh weather, difficult working posture and lengthy hours of work due the use of local farm tools; since

majority of them are small scale subsistence farmers. The link between agriculture and health is thereby bi-directional; agriculture influences health and health influences agriculture. This bi-directionality offers an incentive for the two sectors to work together to orient agricultural systems to benefit health, and health systems to benefit agriculture. Ajani and Ugwu (2008) also found that a one-percent improvement in a farmers' health condition led to a 31-percent increase in efficiency.

Orthodox medicine is the diagnosis of ailments, prescription and administration of drugs through health care services provided by medical experts such as medical doctors and nurses. It is defined as a professional discipline that relies on a body of knowledge, scientific training and skills aimed at diagnosis, prevention, treatment and rehabilitation of the physically and mentally sick (Tella, 1992; Badru, 2001; Ewhrudjakpor, 2007; Okujagu, 2007). In the past, most African countries have used indigenous knowledge to cure diseases and it is now one of the sources of healthcare delivery (Akpomovie, 2010). These measures were aimed at restoring patients to a harmonious relationship with their environment and counteracting the effect of evil forces (Ojua *et al.*, 2013).

Although, these traditional healing measures has been able to fill the gap left by inadequate modern health provision mostly in rural areas in Africa and particularly Nigeria, their use also indicates some health risks due to lack of standard measurement and hygiene. However, with the advent of orthodox medicine, people's confidence tilted from traditional to the modern medicine, thus allowing patients to choose from a wide range of options when dealing with illness (Ojua *et al.*, 2013). However, accessibility, cost, quality and lack of equipment have made orthodox medicine less effective in coverage. Thus,

orthodox medicine cannot be seen as substitutes to traditional medicine.

Most rural dwellers do not have proper access to quality and pristine health care because of the unavailability of health centres and poor access to drugs; and this has made the success of the national health policy goal which is to bring about a inclusive healthcare system, based on primary healthcare that is promotive, preventive, and rehabilitative to every citizen of the country within the available resources so that individuals and communities are assured of productivity, social wellbeing and enjoyment of life (World Bank, 2011).

There still exists a mix in the use of traditional and orthodox healthcare services. The continuing high rates of deaths as a result of illness and diseases in rural Nigeria remain worrisome, knowing full well that the health status of rural dwellers determines their productivity (Ladele and Bisi-Amosun, 2014). This makes it a very crucial factor in the optimal utilisation of human resources for agricultural development. It is against this background, that this study was carried out to investigate the determinants of the use of orthodox healthcare services among rural dwellers in Isokan Local Government Area of Osun State, Nigeria.

The specific objectives of the study were to determine the personal characteristics of the household heads in the study area, identify the prevailing health challenges of respondents in the study area, determine the affordability of orthodox healthcare services, ascertain their attitude to orthodox health care services and identify their constraints to the use of orthodox healthcare services in the study area.

#### **Materials and Methods**

The study was carried out in Isokan Local Government Area of Osun state. Isokan LGA is between Longitude 4° 15" East and 4° 30" East and Latitude 7° 30" North and

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7° 38" North. It has three towns and less than 200 villages with the headquarters in the town of Apomu. It has an area of 179km<sup>2</sup> and a population of 103,177 at the 2006 census. The predominant ethnic group is Yoruba. The area lies within the derived savannah with both favourable rainfall of 1130mm per annum and adequate soil. The major occupation of the people in the area is farming. There are five primary healthcare centres, two private hospitals, five clinics/maternity homes and one general hospital in the study area.

A multi-stage sampling procedure was used to select the participants for the study. Stage one involved the selection of the communities that were studied. A total of 11 (6%) villages were chosen from 180 villages namely; Asunaaraoke, Amuloko, Adanbieran, Lasegba, Akobi-ogun, Oranran, Ojaoosa, Baaleologan, Olode, Mopa-oba and Idogan-esho randomly using snowball sampling technique (Akinbile(2007)). Stage two involved the selection of the rural household heads after the list was generated by snowball, from which a simple random technique was used to select 20% of the total from each village deriving a total of 140 respondents for the study. Interview schedule was used to collect information such as: personal characteristics of respondents, prevailing health challenges, affordability of orthodox healthcare services, rural dwellers' attitude to orthodox healthcare services, constraints to use of orthodox healthcare services, and their preference for use of orthodox healthcare services.

Prevailing health challenges was measured by asking the respondents to indicate from a list of health challenges the ones that were prevalent in their community. Affordability of orthodox healthcare services was measured by asking respondents if the orthodox healthcare services listed were affordable. Very

Affordable = 2, Fairly Affordable = 1, Not Affordable = 0 was used. Highest obtainable score was 16 and lowest obtainable score was 0. Respondents' attitude to orthodox healthcare services was measured by asking respondents to respond to sixteen attitudinal statements about orthodox healthcare services, on a scale of Strongly agree (SA) = 5, Agree (A) = 4, Undecided (U) = 3, Disagree (DA) = 2, Strongly Disagree (SD) = 1 for positive statements, while a reverse order was done for negative statements. The maximum and minimum scores were 80 and 16 respectively.

The mean score was used as the benchmark for categorising into favourable and unfavourable attitudes towards orthodox healthcare services. To measure constraints towards the use of orthodox healthcare services, a list of constraints were generated and respondents were asked to indicate the extent to which they encountered constraints on a scale of Very Severe = 3, Severe = 2, Mild = 1, Not a Constraint = 0. Maximum and minimum scores were 24 and 0 respectively.

## **Results**

### **Demographic characteristics of respondents**

Table 1 shows the distribution of respondents according to their demographic characteristics. The highest age range (40.0%) of the respondents fall between 31 and 50 years, and majority (80.7%) of the respondents are male. Majority (90%) of the respondents are married and the most common primary occupation of respondents is farming (91.4%). A greater proportion (62.1%) of the rural dwellers had formal education and majority (53.6%) of respondents fall between the household sizes of 4 and 6 with a mean household size of 8.

**Table 1:** Distribution of Respondents According to their Demographic Characteristics

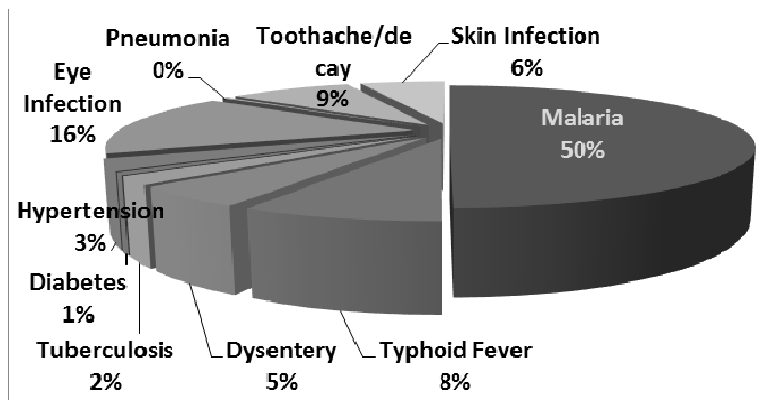
Variables	Category	Frequency	Percentage
Age	≤30	5	3.6
	31-50	56	40.0
	51-70	51	36.4
	71-90	25	17.9
	>90	3	2.1
	Mean		57.10
Sex	Male	113	80.7
	Female	27	19.3
Marital Status	Married	126	90.0
	Divorced	1	0.7
	Widowed	13	9.3
Educational Status	No formal Education	53	37.9
	Primary Education	69	49.3
	Secondary Education	10	7.1
	Tertiary Education	7	5.0
	Others (Arabic)	1	0.7
Primary Occupation	Farming	128	91.4
	Trading	2	1.4
	Civil Servant	3	2.1
	Artisan	7	5.0
Household Size	1-4	17	12.1
	5-8	75	53.6
	9-12	45	32.1
	13-16	3	2.1
	Mean	7.47	
Annual Income	≤100,000	53	37.9
	101000-500000	83	59.3
	501000-1000000	3	2.1
	>1000000	1	0.7

Source: Field Survey, 2015

**Prevailing health challenges of rural dwellers**

Figure 1 shows the distribution of the respondents based on health challenges encountered. Out of 140 respondents selected for this study, 50% of them indicated malaria as a major health challenge, 16% indicated eye infection, 9%

indicated tooth ache/decay, 8% indicated typhoid fever, 6% indicated skin infection, 5% indicated dysentery and the least experienced health challenge was pneumonia (0%), hypertension 3%; diabetes 1%; and Tuberculosis 2%. Other health challenges reported were backache, leg pain and jaundice.



Source: Field Survey, 2015

**Figure 1:** Distribution of Respondents' Health Challenges

**Affordability of orthodox healthcare services**

Table 2 shows that General medicine services (52.9%), ante-natal and midwifery services (47.1%), child welfare and immunization services (51.4%), ear piercing and circumcision services (47.9%),

and family planning and infertility management services (46.4%) were fairly affordable. General surgery/orthopaedic services (60.7%) was not affordable and the mean score of affordability of orthodox healthcare services is 11.7.

**Table 2.** Distribution of Respondents on Affordability of Traditional and Orthodox Healthcare Services

Orthodox Healthcare Services	Affordability			Mean
	VA%	FA%	NA%	
General Medicine Services	44.3	52.9	2.9	1.41
General Surgery/Orthopaedic	13.6	25.7	60.7	0.53
Antenatal Care, Labour and Delivery Services	45.0	47.1	7.9	1.37
Child Welfare and Immunisation Services	45.0	51.4	3.6	1.41
Mental Health Care Services	42.9	47.9	9.3	1.34
Dental and Oral Hygiene Services	45.0	47.9	7.1	1.38
Ear Piercing and Circumcision Services	45.0	47.9	7.1	1.38
Family Planning and Infertility Management Services	44.3	46.4	9.3	1.35

Source: Field Survey, 2015. VA - Very Affordable; A - Fairly Affordable; A - Not Affordable

**Rural dwellers’ attitude to orthodox healthcare services**

Table 3 shows that majority of the respondents strongly agreed that they will be better looked after in an orthodox clinic (95.0%). Doctors were said not to be present most times especially when they are needed (72.9%). Respondents (52.1%) agreed that there was insufficient equipment to cater for treatment in hospitals. Majority (89.3%) of respondents also believed that doctors were more knowledgeable than their unorthodox counterparts. All the respondents were of the opinion that orthodox medicine was packaged in hygienic conditions and

environments (100%) and ninety percent (90.0%) strongly disagreed that going to health centres was time wasting. The bulk of the respondents (99.3%) felt that language was a barrier during consultation in clinics and majority (95.0%) believed that they would be better looked after in a clinic if the doctors and equipment needed were readily available.

Table 4 shows that majority (95.7%) had a favourable attitude to orthodox healthcare services, while minority (4.3%) had an unfavourable attitude to orthodox healthcare services with a mean score of 65.5.

**Table 3.** Distribution(%) of Respondents on their Attitude to Orthodox Healthcare Services

<b>Attitudinal Statement</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>	<b>Mean</b>
I will be better looked after in clinic	95.0	3.6	-	1.4	-	4.92
Hospital drugs are cheaper and nearer	5.0	4.3	-	78.6	12.1	2.11
OHS takes into consideration the correct dosage in terms of quality and quantity	96.4	3.6	-	-	-	4.96
Orthodox healthcare services gives room for check up	96.4	3.6	-	-	-	4.96
I go to hospitals when illness is very serious	95.0	5.0	-	-	-	4.95
Health staff in clinics do not establish a good relationship with their patients	-	0.7	-	60.7	38.6	4.37
Doctors are not present most times especially when needed	72.9	0.7	-	20.7	5.7	1.86
There are no sufficient equipments/laboratory service to cater for treatment in hospitals	52.1	2.9	-	35.0	10.0	2.48
Doctors are more knowledgeable, I do not trust traditional healers’ competence	89.3	-	8.6	2.1	-	4.76
Hospital charges are more expensive	24.3	71.4	-	4.3	-	1.84
Going to Healthcare centre is time wasting	-	-	-	10.0	90.0	4.90
Most of the drugs in pharmacy are adulterated/fake drugs	-	-	-	22.9	77.1	4.77
My religion forbids body exposure to opposite sex, so I cannot go for treatment in the hospital	-	-	-	0.7	99.3	4.99
Some of these orthodox health practitioners are uncertified/unqualified	7.1	23.6	-	42.9	26.4	3.58
Language is a barrier during consultation in clinics	-	-	-	0.7	99.3	4.99
Orthodox medicine is packaged under an hygienic environment	100	-	-	-	-	5.00

Source: Field Survey, 2015.N=140; SA -Strongly Agree;A - Agree;U - Undecided; D - Disagree; SD-Strongly Disagree

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**Table 4.** Categorisation of Respondents' Attitude on Orthodox Healthcare Services

Attitude	Range of Score	F	%	Mean	SD	Min	Max
Favourable	66-78	134	95.7	65.464	4.716	52	78
Unfavourable	52-65	6	4.3				

Source: Field Survey, 2015

**Constraints to use of orthodox healthcare services**

Table 5 shows that majority indicated that long distance from home to health centres (83.6%); insufficient health facilities (62.9%) and shortage of health care providers (45.7%) were very severe

constraints to using orthodox healthcare services. Only a minority indicated that the cost of services (2.9%) and wastage of ample time in the process of assessing treatment (1.4%) were severe constraints to the use of orthodox healthcare services.

**Table 5.** Distribution of Respondents According to their Constraints to Use of Orthodox Healthcare Services

Constraints	Very Severe		Severe		Mild		Not a Constraint		Mean	Rank
	F	%	F	%	F	%	F	%		
Prohibitive cost of services	4	2.9	5	3.6	52	37.1	79	56.4	0.53	4
Long distance from home to health centres	117	83.6	6	4.3	2	1.4	15	10.7	2.61	1
Shortage of health care providers	64	45.7	2	1.4	7	5.0	67	47.9	1.45	3
Hostile attitude of healthcare providers	1	0.7	0	0.0	-	-	139	99.3	0.02	6
Insufficient health facilities	88	62.9	7	5.0	11	7.9	34	24.3	2.06	2
Wastage of ample time in the process of assessing treatment	2	1.4	1	0.7	7	5.0	130	92.9	0.11	5
Problems related to adulteration of drugs	0	0.0	0	0.0	0	0.0	140	100	0.00	7.5
Language barrier during consultation	0	0.0	0	0.0	0	0.0	140	100	0.00	7.5

Source: Field Survey, 2015

**The use of orthodox healthcare services**

From the results in Table 6, majority of the respondents prefer to use orthodox health services for all the services; general medicine (85.0%), ante-natal and midwifery services (97.9%), mental healthcare services (92.1%), general

surgery and orthopaedic care (90.7%), child welfare and immunization (95.7%), dental and oral hygiene services (92.9%), circumcision and ear piercing (77.1%), family planning and infertility management services (92.1%).

**Table 6.** Distribution of Respondents on their Preference for Orthodox Healthcare Services

Preference for Use of Orthodox Healthcare Services	Not Used		Used	
	F	%	F	%
General Medicine	21	15.0	119	85.0
Ante-natal care, labour and delivery services (midwifery services)	3	2.1	137	97.9
Mental healthcare services	11	7.8	129	92.1
General surgery and orthopaedic care	13	9.3	127	90.7
Child welfare and immunisation	6	4.3	134	95.7
Dental and oral hygiene services	10	7.1	130	92.9
Circumcision and ear piercing	32	22.9	108	77.1
Family planning and infertility management services	11	7.9	129	92.1
<b>Mean</b>	0.76		7.40	

Source: Field Survey, 2015

**Determinants of the use for orthodox healthcare services among respondents**

Results in Table 7 shows a coefficient of determination ( $R^2$ ) of 0.749. Attitude (0.733), Availability (0.616) and Marital

status (-0.453) are the factors that contributed significantly to the preference for use of orthodox healthcare services.

**Table 7.** Regression Analysis of Determinants of Preference for Orthodox Healthcare Services

Variables	Standardized Coefficients Beta	T	P
Constant		-2.519	0.021
Age	0.035	0.163	0.872
Household Size	0.065	0.482	0.636
Income	0.175	0.641	0.530
Religion	0.046	0.342	0.736
Marital Status	-0.453	-3.383	0.003
Educational Status	0.089	0.533	0.601
Availability	0.616	2.675	0.015
Affordability	0.183	1.309	0.207
Attitude	0.733	4.638	0.000
Constraints	0.209	1.082	0.294

R=0.865,  $R^2=0.749$  T - t statistic; P-p value

Source: Field Survey, 2015

**Discussion**

This study investigated the determinants of the use for orthodox healthcare services

among rural dwellers. The highest age range of the respondents falls between 31 and 50 years which implies that an average



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rural household head has the physical ability and belongs to the active working population (Akinbile, 2007). This supports the findings of Echebiri and Mbanasor (2003) that the mean age of rural households' heads across the various states of South-eastern Nigeria was between 45-54 years. The study shows that the rural household's heads were predominantly males that were married and this would imply that the orthodox health services would be more directed at the males because of the need to provide for their household. Angel-Urdinola and Wodon (2010) opined that as a consequence of various inequalities between men and women, household decision-making power in Nigeria remains concentrated among men, especially decisions on the use of productive assets.

From the results, it is seen that a greater proportion (62.1%) of the rural dwellers had formal education. Therefore, it can be inferred that majority of the respondents will tend to patronise orthodox healthcare services due to their high level of education and exposure. This agrees with Ladele and Bisi-Amosun (2014), that formal education may affect people's choice of medicine and their attitude towards it, as education influences a change in attitude, skills or knowledge. Therefore, the belief of the western world that traditional medicine is primitive and unscientific may transcend to people with western or formal education. Majority (91.4%) of the respondents practiced farming as their primary occupation which implies that farming is the major income earner. A lot of physical strength is required in agriculture, since their health status will determine their productivity, bearing in

mind that agriculture in Nigeria is largely not mechanised.

Furthermore, most of the respondents (53.6%) fall between the household sizes of 4 and 6 with a mean household size of 8. The implication of this is that rural dwellers with large household sizes may opt for cheaper means of meeting their health needs and that of their family members in order to save cost. This corroborates Shehu and Mallam (2007) that the bulk of people living in rural areas have low economic status and the cost of modern medicine is usually beyond their means. This means that most of the respondents in the study area could still be described as low-income earners, which can influence their ability to purchase and gain access to health-related services. Low income earners will rather go for healthcare services that they will spend less on or nothing at all. This is consistent with the findings of Mafimisebi *et al.* (2010) who reported that the average household income in most of Sub-Saharan Africa is extremely low, compared to developed economies.

Malaria was the major health challenge reported by the respondents followed by eye infection. The other health challenges reported were backache, leg pain and jaundice. This may be due to the fact that the major occupation in the study area is farming which is labour intensive and leads to drudgery. International Labour Organisation (2000) has asserted that the agricultural sector is one of the most hazardous in terms of occupational hazard. Based on the affordability of traditional and orthodox healthcare services, most of the respondents find orthodox healthcare services very or fairly affordable. However, General Surgery/Orthopaedic services were

not affordable for majority of the respondents.

Majority of the rural dwellers believe that they would be better looked after in hospitals or clinics if orthodox healthcare services were made available and accessible. Although majority of the respondents (95.0%) believed that they would be better looked at in a clinic if the doctors and equipment needed are readily available, they would still have to spend a lot of money to obtain these services as (60.7%) of them stated that general surgery/orthopaedic services were not affordable and hence would require them spending more (mean score of 11.7). This agrees with Ana (2001) and Salako (2007) who stated that with the advent of modern medicine, people's confidence tilted from traditional to modern medicine and in contrast to the findings of Bello (2005), that there is increment in the patronage of traditional healthcare services.

The majority (95.7%) of the respondents had a favourable attitude to orthodox healthcare services. This affirms that rural dwellers would use orthodox services if they were made available and accessible. The finding supports the assertion of Fujitsu (2008) that patients today have much higher expectations of modern health care providers than they did before. Cost of services and wastage of time were not seen as severe constraints to the use of orthodox healthcare services by most of the respondents. This may be due to the presence of patent medical personnel and drug hawkers in the community who sell cheap and commonplace drugs. Also, wastage of ample time in the process of assessing treatment may have been dealt with through the use of private clinics.

Another implication of this is that cost is not the most important factor influencing the utilisation of orthodox medicine in the study area, and this is contrary to widely held views in literature (Chetley, 2007; WHO, 2002), that cost of medical care is the most important factor influencing their utilisation of orthodox healthcare services. Based on the distribution of respondents on their preference for orthodox healthcare services, it can be inferred that most rural dwellers make use of orthodox healthcare services.

From the coefficient of determination ( $R^2$ ) calculated, it can be implied that all the independent variables contributed 75% to preference for use of orthodox healthcare services. Marital status, availability of orthodox healthcare services and attitude to orthodox healthcare services contributed significantly to the preference for use of orthodox healthcare services by the respondents. Attitude of respondents to orthodox healthcare services was the highest of the three factors that contributed significantly to the preference for use of orthodox healthcare services; this indicates that rural dwellers with favourable attitude to orthodox healthcare services prefer to use such healthcare services. It can also be inferred that rural dwellers will prefer to use orthodox healthcare services if they are available. In contrast, marital status inversely affects preference for use of orthodox healthcare services which maybe as a result of their fairly large sized families, an average family head has a lot of dependants whereas a person who is single would be more able to afford orthodox healthcare services as he/she has no dependants. The implication of this therefore is that rural dwellers with moderate to large households may opt for cheaper means of meeting their health

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needs and that of their family members to save cost.

### **Conclusion and Recommendation**

Malaria and eye infections were the most prevailing health challenges in the study area. Respondents in the study area preferred to use orthodox healthcare services for their health challenges. Orthodox healthcare services were fairly affordable and respondents had a favourable attitude towards orthodox healthcare services. Long distance, insufficient health facilities and shortage of healthcare providers were the most severe constraints to the use of orthodox healthcare services.

Rural dwellers' access to orthodox healthcare services should be improved by building and equipping more primary health centres, to cover a large percentage of the core rural areas. Health care facilities (rural clinics, health centres) should be within reach of the community, particularly for women and children to solve the constraint of long distance to health care services. The cost of orthodox healthcare services should be subsidized especially general surgery/orthopaedic services to make them more affordable for the rural dwellers. Hospital management boards at the grass root level should ensure that competent and adequate medical personnel are recruited and retained in the community health centres in order to solve the problem of shortage of health care providers. Incentives to retain and motivate these personnel should be also be provided. These would make orthodox health care facilities readily available to the rural community, make rural dwellers' attitude towards orthodox health care more receptive and contribute favourably to the

reduction of self-medication practiced by rural dwellers.

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