SOCIO-DEMOGRAPHIC DETERMINANTS OF HEALTHCARE UTILIZATION AMONG ADULTS IN RURAL COMMUNITIES OF BENUE STATE, NIGERIA

ABSTRACT

This study investigated the determinants of HealthCare Utilization among Adults in Rural Communities in Benue State. A descriptive survey design was adopted for the study. Population for the study consisted of 4,253,641 adults in rural communities in Benue State. A sample size of 612 adults was selected by a multistage sampling procedure. The instrument for data collection was a self-structure questionnaire with reliability coefficients of 0.82. Data analysis was done using the statistical package for social sciences. Percentage and Mean (x) sores were used in analyzing the demographic variables and research questions, while Spearman rank order was used in testing the hypotheses at 0.05 level of significance. The findings of the study showed that socio-demographic variables such as age, educational level, marital status and location had no significant difference in the utilization of health services ($\bar{X}$>2.50) while religion have significant difference ($\bar{X}$<2.50) in the utilization of health care service in the study area. It was concluded that sociodemographic variables have influence utilization of health care services among adult was high. Based on the findings, it was recommended among others that, Government need to improve on accessibility to health care facilities by building additional health care facilities where distance will be closer to the people.

KEYWORDS: Communities, Determinants, Healthcare, Socio-demographic, Rural

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Introduction

The issue of utilization of health care facilities in Nigeria has received much attention in recent time in view of the increasing health challenges which have claimed the hundreds or thousands of lives across the country (Firima&Ledibabari, 2019). Health care services are medical or remedial care given to a sick person with the aim of improving his or her condition (These services are not only essential but a fundamental requirement for ensuing a healthy and economically productive society. Reid (2018), noted that growth and development can be achieved when the health status of the citizens are in good condition. He also stated that, no nation can grow or prosper if her health system is weak and dysfunctional. A country that is blessed with healthy people will optimize development initiative through efficient utilization of technological innovation (Osabuohien&Efobi, 2012). Given the importance of healthcare services to the growth and development to a nation, the Federal Government of Nigeria has made quality healthcare delivery a priority in their administration and has provided healthcare facilities across the nation. The various state governments have also follow suit by providing healthcare facilities in their respective state.

Health care utilization has been defined by Awoyemi (2017) as the use of health care services by the people. The choice of health care facility among people may vary from person to person and from place to place depending on various factors predisposed to the end users. Ejembi (2014), stated that the healthcare delivery system is a blend of both public and private healthcare providers. According to Akute (2019), healthcare provision is the responsibility of the three tiers of government with the private sector also playing along. Awoyemi and Opaluwa (2017), noted that, before the advent of modern medicine in Nigeria, traditional medicine was the main system of healthcare delivery. Obayelu (2019), says that healthcare delivery services during this time were offered by herbalists, traditional midwives, spiritualists, bone setters, mental and Health

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therapists. Chuke (2018), stressed that, the first record of modern medical services in Nigeria was discovered during the various European expenditures in the early to mid-nineteenth century, as being provided by doctors brought by explorers and traders to cater for the well-being of the European, while the natives were left to die from their illness. Olu-abiodun (2014), explained that studies conducted in Nigeria over the years have shown that the choice of healthcare facility utilization depends on the health-seeking behaviour of the people and many other factors pre-disposed to the people for instance, a study carried out in Sagamu, South-west Nigeria, revealed that private hospitals, teaching hospital, patent medicine sellers and maternity homes, in that order, were the most preferred type of health facilities due to competence, effective treatment, promptness of service and quality of service.

Health care services relies heavily on the contributions of rural men and women (Dixit &Bandhani, 2019) thus, their socio-demographic characteristics must not be ignored in the perusal of their knowledge and utilization of health care services. One of such factors which cannot be over emphasized is age. Age could be an issue of public health concern because adults of advanced age especially women of child bearing age experience higher rates of pregnancy related complications, obstetrical intervention and severe maternal and mobility than younger mothers (Magawa, 2012) thus, having more awareness or knowledge about their health care issues. Age is strong epidemiological variable that influences certain health conditions in adults. Both of younger and older age can be implicated for the knowledge of health care services. On the other hand, age in a way can be related to the number of children one has. For instance, women having more children tend to visit or utilize health care facilities more often than those having more because they at one point or the other will need to use either the prenatal or postnatal services including immunization, family planning and treatment of infectious diseases.

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All these expose such women to the health care services by experience thus, increasing their knowledge on utilization of health care services.

According to Dharmalingam (2018), stated that education is the leading out of the innate potential. Odetola (2015) indicated that majority of the client have their choice of healthcare facility influenced by their level of education. He added that, this is quite true as people's decisions most of the time are influenced by their level of education is highly educated adult men and women, though in the rural area for example will patronize the best health institution based on their informed minds and perhaps affordability of the services. This is also because of highly educated individuals are likely to earn more to afford the services cost of the health facilities of their choice. Fagbanigbe (2015) noted that the educational attainment of clients influences their choice of health care facility. In Benue State, the communities with its attendant of high cost of living, cost of services had deterred most rural men and women from accessing healthcare facilities.

Marital status can in a way have been associated with the utilizations of health care services among rural dwellers. Marriage is a union between a man and woman that is legally binding. The support and assistance that a married couple may enjoy in or utilizations of health care services may not be the same for their unmarried counterpart. This is because an unmarried may feel some level of shame or shyness which may limit their frequency of visiting the health care facility for patronage thereby limiting the information, they would have obtained about the services from the health care personnel. However, for the married, it may not be so as they may have more courage to visit and obtain the needed information about health care services thereby, increasing their knowledge of the health care services and utilization.

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In Nigeria, Benue State inclusive, the provision of quality health is very important. This is because patients are the core purpose for establishing hospitals and the sole aim of training doctors and other health care providers. Patient centered care has been accepted as one of the pillar for health services and to achieve these qualities of care, it must involve the patient needs and preferences in decision making. However, it has been observed that in most cases the knowledge of rural dwellers (adult men and women) about the various health care services available for them are inadequate and negatively influencing their level of utilization. This is evident as in several rural area, the health care facilities provided by government to render such services are in a state of decay with no or very few patient visiting for their health needs.

The hope that primary health care would be a vehicle of radical change and improvements in health care provision and quality health status was over optimistic. Many countries have limited access to primary health care for residents (Rutherford, 2009), World Health Organization (WHO), 2019). A combination of factors contributes to this condition, lack of resources, challenges posed by the primary care model and government healthcare administrators' failure to incorporate input from the community regarding healthcare needs. As a result, many people suffer illnesses unnecessarily and communities experience high mortality and morbidity rates from preventable causes (World Bank, 2016). Nature of care, distance to wellbeing office, absence of transport, people' low societal position, age, standing, religion, instructive level, monetary status of the family, absence of independence and dynamic force and social standards are a portion of the components that have been discovered to be related with the use of maternal consideration administrations in various settings (Masters, et al 2013). Babalola and Fatusi (2009) detailed that few investigations have evaluated the individual and family determinants of

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use of maternal administrationsalbeit, the examinations didn't yield a steady example of connections between administration use, individual and family indicators.

Utilization of delivery services could be subject to the age of a people as more youthful people may not be willing to use delivery service especially when the need arises in light of the fact that the majority of them barely take complex decision, for example, adopting the utilization of medical care services, though more established people do. Even in places where such facilities are in their good state with qualified health care personnel, patients are seen resorting to different means of health care, seeking health care from local medicine shops, quacks and self-medications by low socio economic groups.

A look at Benue State shows that these occurrences result to high maternal and child mortality among other complications and many have cited some factors to be responsible, such as demographic factors like age, educational level, marital status, religion and location of the health facility. Others attributed it to level knowledge or awareness of the benefit of utilization of health care services, cost of care, attitude of health care givers, cultural beliefs and distance of health care facilities. Recent research studies have shown that not much work has been done hence call for concerted efforts to fill the research gap. Thus, this study examines socio-demographic determinants of utilization of health care services among adults in rural communities in Benue State, Nigeria. The study provided answers to the following research questions:

1. What is the influence of educational level on the utilization of health care service among adults in the study area?
2. What is the influence of marital status on the utilization of health care service among adults in the study area?

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3. What is the influence of religion on the utilization of health care service among adults in the study area?
4. What is the influence of location on the utilization of health care service among adults in the study area?

Hypotheses

The following null hypothesis postulated were tested at 0.05 level of significance:

1. There is no significant difference between utilization of health care services and educational level in rural communities in Benue State.
2. There is no significant difference between utilization of health care services and marital status of adults in rural communities in Benue State.
3. There is no significant difference between utilization of health care services and religion among adults in rural communities in Benue State.
4. There is no significant difference between utilization of health care services and location among adults in rural communities in Benue State

Methodology

The descriptive cross sectional survey design was adopted with a population consisting of 4,253,641adults in Rural communities in Benue State. The sample size for the study was 598 which was selected using a multi-stage sampling procedure comprising cluster sampling technique, simple random sampling technique and purposive sampling techniques. At stage I: the cluster sampling was used to group the study area into three clusters of Benue North-West, Benue North East and Benue South Senatorial District respectively. At stage 2, the researcher listed and selected 3 Local Government Areas (LGAs) from each of the senatorial District of Benue State through simple random sampling technique. At Stage 3, the researcher use simple random sampling technique with non-replacement method to select 2 communities from each of

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the selected LGAs making a total of 18 communities. At the final stage, the researcher used purposive sampling technique, to select 34 adults from each of the selected communities making a total of 598 respondents. Purposive sampling technique was used to ensure only those who were appropriate for the study. The instrument for data collection was structured questionnaire titled "Health Care Services Utilization Questionnaire (HCSUQ)", with a reliability coefficient of 0.82. Data collected was analyzed with the aid of the Statistical Product for Service Solution (SPSS V-22) using percentage, mean and Spearman rank-order correlation at 0.05 level of significance.

Results

The results of the study are shown below:

Table 1 Demographic Data of the Respondents

Demographic data	**Frequency (F)**	**Percentage (%)**
Age		
15-25	149	24.3
26-35	152	41.2
36-45	105	18.2
46 and above	92	16.3
Total	**598**	**100.0**
Educational level		
Non-formal	51	8.3
Primary	181	30.7
Secondary	180	46.5
Tertiary	86	14.5
Total	**598**	**100.0**
Marital Status		
Single	199	33.1
Married	103	49.3
Others	96	17.7
Total	**598**	**100.0**
Religion		
Christianity	313	68.0
Traditional	78	12.7
Islam	107	19.3

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Total	**598**	**100.0**
Location		
Residence		
<20 minutes to health facility	115	19.9
Residence		16.1
<40 minutes to health facility	91	
Residence		64.0
>one hour to health facility	192	
Total	**598**	**100.0**

Table 1 shows the demographic data of the respondents. The result shows that 149 (24.3%) of the respondents were within the age range of 15-25 years, 252 (41.2%) were aged 26-35 years, 105 (18.2%) were aged 36-45 years while 92 (16.3%) were aged 46 years and above. 51(8.3%) had no formal education, 181 (30.7%) had primary education, 280 (46.5%) had secondary education while tertiary education had 86 (14.5%). 199 (33.1%) were single, 302 (49.3%) married, 96 (17.7%) others. Majority 413 (68.0%) were Christians 78 (12.7%) were traditionalist while 107 (19.3%) were Muslims. 115 (19.9%) residence with distance less than 20 minutes to health facility, 91 (16.1%) were residence with distance less than 40 minutes to health facility while 392 (64.0%) were residence with distance one hour and above to health facility.

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Table 2: Descriptive Analysis of influence of cultural beliefs on the utilization of health care services in the study area

	Influence of educational level on the utilizations of health care services in the study area	SA N %	A N %	D N %	SD N %	$\overline{X}$	STD
1	Non formal	98 27.8	124 35.1	59 16.7	72 20.4	2.70	1.04
2	Primary	151 42.8	116 32.9	57 16.1	29 8.2	3.10	0.859
3	Secondary	128 36.3	114 32.3	51 14.4	60 16.9	2.88	1.093
4	Tertiary	128 36.3	112 31.7	55 15.6	58 16.4	2.78	1.285
5	Non formal	109 30.9	135 38.2	64 18.1	45 12.7	2.87	1.310

Field work, 2023

Table 2 shows the influence of educational level on the utilization of health care services in the study area. The grand mean = 2.90 + 0.26 is higher than the criterion mean = 2.5 indicating that the influence of educational level on the utilization of health care services in the study area is high. Non formal level of education (1.78+.26) is less than the criterion mean of 2.5 while secondary level of education (2.75+.19) has the highest mean score.

Table 3: Mean and standard deviation on the influence of marital status on the utilization of health care services among adults in the study area

Influence of marital status on the utilization of health care services among adults in the study area		SA N %	A N %	D N %	SD N %	$\overline{X}$	STD
6	Married	117 33.1	97 27.5	58 16.4	81 22.9	2.71	1.14
7	Single	119 33.7	117 33.1	52 14.7	65 18.4	2.82	1.34
8	Divorced	124 35.1	121 34.3	44 12.5	64 18.1	2.86	1.219
9	Widow	127 35.9	97 27.5	63 17.8	66 18.7	2.81	1.140
10	Widower	136 38.5	111 31.4	37 10.5	69 19.5	2.89	1.01

Source: Field Work, 2023.

Table3 shows the influence of marital status on the utilization of health care services in the study area. The grand mean = 2.93 + 0.20 is greater than the criterion mean = 2.5 indicating that the influence of marital status on the utilization of health care services in the study area is high. Other demographic variables (1.78+.318) has the least means score while marred health workers (2.97+.000) has the highest mean.

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Table 4: Descriptive Analysis of the influence of religion on the utilization of health care services in the study area?

	influence of religion on the utilization of health care services in the study area	SA N %	A N %	D N %	SD N %	$\overline{X}$	STD
1	Christianity	159 45.0	111 31.4	51 14.5	32 9.1	3.12	0.958
2	Islam	163 46.2	104 29.5	43 12.2	43 12.2	3.09	0.931
3	Traditional	151 42.8	112 31.7	48 13.6	42 11.9	3.05	0.803
4	None	133 37.7	128 36.3	46 13.0	46 13.0	2.99	1.004
5	None						

Source: Field Work, 2023.

Table4 shows the influence of religion on the utilization of health care services in the study area. The grand mean = 1.86 + 0.34 is less than the criterion mean = 2.5 indicating that the influence religion on the utilization of health care services in the study area is low. Traditional religion has the least mean score (1.60+.30), while Christianity (1.96+.56) has the highest mean.

Table 5: Descriptive Analysis of influence of location on the utilization of health care services in the study area

	Influence of location on the utilization of health care services in the study area	SA N %	A N %	D N %	SD N %	$\overline{X}$	STD
1	Residence <10 minutes to health facility	12 3.4	10 2.83	164 46.5	167 47.3	1.62	3.52
2	Residence <20 minutes to health facility	151 52.4	53 18.4	49 17.0	35 12.2	3.11	0.941
3	Residence >30ne hour to the health facility	163 56.6	103 35.8	10 3.5	12 4.2	3.44	0.703
4	Residence <40 minutes to health facility	117 40.6	87 30.2	43 14.9	41 14.2	2.97	1.14
5	Residence <50 minutes to health facility	133 46.1	128 44.4	13 4.51	14 4.86	3.32	0.704

Source: Field Work, 2023.

Table 5shows the influence of location on the utilization of health care services in the study area. The grand mean = 2.91 + 0.24 is less than the criterion mean = 2.5 indicating that the influence of location on the utilization of health care services in the study area is high. Residence one hour to health facility record least mean score (1.86+.29), while Residence 20 minutes to health facility (2.92+.31) has the highest mean.

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Table 6: Summary of Spearman's rank Correlation on the utilization of health care services and educational level of adults in rural communities in Benue State.

Correlations

			utilization of health care services	Educational level
Spearman's rho	utilization of health care services	Correlation Coefficient	1.000	.447**
		Sig. (2-tailed)	.	.058
		N	353	353
	Educational level	Correlation Coefficient	.447**	1.000
		Sig. (2-tailed)	.058	.
		N	353	353

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS, 22. 0

Table 6 shows the Spearman's correlation coefficient; rho = 0.447** and the probability Value *(PV)* = 0.058 < 0.05 (level of significance). This is to show that there is a positive and significant relationship between utilization of health care servicesand educational level of adults in rural communities in Benue State. We, therefore, accept the Null hypothesis which says that utilization of health care servicesdoes not significantly affect the educational level of adults in rural communities in Benue State.

Table 7: Summary of Spearman's rank Correlation on the utilization of health care services and marital status of adults residing in Benue State.

Correlations

			Utilization of health care services	marital status of adults
Spearman's rho	Utilization of health care services	Correlation Coefficient	1.000	.447**
		Sig. (2-tailed)	.	.058
		N	353	353
	marital status of adults	Correlation Coefficient	.447**	1.000
		Sig. (2-tailed)	.058	.
		N	353	353

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS, 22. 0

Table 7 shows the Spearman's correlation coefficient; rho = 0.447** and the probability Value *(PV)* = 0.058 < 0.05 (level of significance). This is to show that there is a positive and significant relationship between Utilization of health care servicesand marital status of adults residing in Benue State**.** We, therefore, accept the Null hypothesis which says that Utilization of health care services does not significantly affect the marital status of adults residing in Benue State.

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Table 8: Summary of Spearman's rank Correlation on the utilization of health care services and religion of adults residing in Rural communities in Benue State.

Correlations

			Utilization of health care services	**Religion**
Spearman's rho	**Utilization of health care services**	Correlation Coefficient	1.000	.447**
		Sig. (2-tailed)	.	.058
		N	598	598
	Religion	Correlation Coefficient	.447**	1.000
		Sig. (2-tailed)	.058	.
		N	598	598

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS, 22. 0

Table 8 shows the Spearman's correlation coefficient; rho = 0.447** and the probability Value *(PV)* = 0.058 < 0.05 (level of significance). This is to show that there is a positive and significant relationship between utilization of health care servicesand religion of adults residing in Rural communities in Benue State. We, therefore, accept the Null hypothesis which says that there is no significant difference in the utilization of health care services and religion among adults residing in rural communities in Benue State.

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Table 9: Summary of Spearman's rank Correlation on the utilization of health care services and location of adults residing in rural communities in Benue State

Correlations

			Utilization of health care services	Location of adults residing in rural communities
Spearman's rho	Utilization of health care services	Correlation Coefficient	1.000	.447**
		Sig. (2-tailed)	.	.058
		N	598	598
	Location of adults residing in rural communities	Correlation Coefficient	.447**	1.000
		Sig. (2-tailed)	.058	.
		N	598	598

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS, 22. 0

Table 9 shows the Spearman's correlation coefficient; rho = 0.447** and the probability Value *(PV)* = 0.058 < 0.05 (level of significance). This is to show that there is a positive and significant relationship between the utilization of health care services and location of adults residing in rural communities in Benue State. We, therefore, accept the Null hypothesis which says that the utilization of health care services does not significantly affect the location of adults residing in rural communities in Benue State.

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Discussion

The findings of the study are discussed below:

The result of this study showed that education had a high influence on utilization of health care services (2.90 + 0.20). Though the influence of education on utilization of health care services was found to be high, among respondents who had secondary education, can play a great role in boosting the interest of individuals on such services. The finding of this study is similar to that of Okonofuo et al (2018) which showed that adults with primary and secondary levels of education were more likely to receive delivery care in health care service than the highly educated. The findings of this study is at variance with that of Emelumadu, et al, (2014) which showed that the odds of utilizing formal health facility for maternal health services were found to be significantly associated with educational status of mothers ($P < 0.001$). The findings of Onasga, et al, (2012) which showed that there was a significant relationship between level of education of respondents understudy and their utilization of antenatal care services. However, the difference could be as a result of location and sample size of the study.

The result of this study showed that the influence of marital status on the utilization of health care services was high (2.93 + 0.20). Although it was more among those who were married (2.97 + .000), than those who were single (2.50 + .245). Marital status can in a way have an association with the utilization of health care services among adults in the study area. Marriage is a union between a man and woman that is legally binding. The support and assistance that a married woman may enjoy in seeking or utilizing health care services may not be the same for her unmarried counterpart, the finding of this study is also similar to that of Afaya, et al, (2020) which was carried out in Ghana that, not being married and divorced women were 75% and 91% respectively less likely to have good knowledge regarding antenatal care (OR = 0.25, (95% CI:

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0.13 – 0.51) , P <0.001; OR = 0.09, (95% CI: 0.03 – 0.26), P < 0.001). This is because women many feel some level of shame or shyness which may limit her frequency of visiting the heath care facility for patronage, thereby, limiting the information she would have obtained about the services from the health care personnel however, for the married woman, it may not be so as, she may have more courage to visit and obtain the needed information about health care services thereby increasing the utilization.

The result of this study showed that the influence of religion on the utilization of health care services was low (1.86 + 0.34) although it was found more among Christians (1.96 + .56) followed by Muslims (1.77 + .29). These findings might be explained by the fact that the study was carried out in a Christian dominated area. This is synonymous to what Adepatu (2006) observed when he stated that region influences man's actions of which attitude to life issues is inclusive. The teachings of many religious organizations favour some of the attitudinal issues while others do not. This is basically reflected in the results obtained across all the religious practiced by individuals in rural communities in Benue State. The finding is in disagreement with the views of Ndurahuge, et al (2009). Their studies showed that religion (98:8%) significantly enhances the utilization health care services. The finding of the study is similar to that of Afaya, et al (2020) which was carried out in Ghana showing that respondents who belonged to the Islamic religion were 85% less likely to have positive influence on the utilization of health care (antenatal care) service which is one of the components of primary health care, issues compared to respondents who were Christians (OR = 0.15, (95% CI: 0.08 – 0.27) P < 0.001). However, the variation of the result may be attributed to many factors such as sample size (smaller) and location.

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The result of this study showed the influence of location on the utilization of health care services was high (2.91 + 0.24) although it was more among those who residence were less than 20 minutes to the health facility (2.92 + 0.31), followed by those whose residence were less than 40 minutes to health facility (2.89 + 0.29). It can be deduced from the findings of this study that respondents whose residence were less than 20 minutes closer to the health facility had more influence on utilization of health care services. This finding may not be surprising given the fact that there is the possibility that those who are closer to the health facility may not encounter difficulties in terms of transportation to the facility and as well exposed to daily information on benefits of health care utilization. The findings of this study is in keeping with the studies carried out by Okonfua, et al, (2018), and Wolderufael (2012). In their various studies, findings indicated that predictor such as was used in this study were significantly associated or related with the utilization of health care services, at ($P < 0.005$). However, the findings Ndie&Idam 2013) is in disagreement with the findings of the study. This could be due to the fact that the study of Ndie&Idam had a higher sample size and was carried out in Abakaliki urban compared to this present study that had a lower sample size.

Conclusion

Based on the findings of the study it was concluded that, socio-demographic factors such as education, marital status, religion and location influenced the utilization of health care services among adults in rural communities in Benue State.

Recommendations

Based on the findings of the study the following recommendations were made.

1. Government need to improve on accessibility to health care facilities by building additional health care facilities where distance will be closer to the people.

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2. Government should intervene by extending the existing health insurance scheme (BAIS) to include more beneficiaries and the private sectors; this will reduce the cost of services and enhance the utilization of health care services.
3. Health agencies and NGOs should from time to time carry out free medical care outreach to reduce the burden of medical bills on low income patients.

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