

Health Insurance and Out-Of-Pocket Payment in Malaria Case Management with Implications for Household Well-being in Cameroon

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Abstract Malaria remains the most important cause of mortality of persons, especially children and pregnant women in Africa. Health Insurance is a way to pay for health care. It protects persons from paying the full costs of medical services when they are injured or sick. The overall objective of this study is to evaluate the importance and effectiveness of Health Insurance in facilitating the payment of malaria bills in the Bamenda Health District. This is a cross sectional study in which questionnaires were administered to 202 respondents. Secondary data was obtained from hospital registers of four health facilities in Bamenda Health District. The data was analysed to show that there is a less than 1% coverage and enrolment in health insurance schemes in the Bamenda Mutual Health Organisation (BMHO), which is very low. Therefore people still cover their entire cost for malaria treatment, and are not opportune to save some money from their total expenditure on malaria bills. In addition, the knowledge of Health Insurance among persons in Bamenda Health District is 90.09%, which is good, but there is less enrolment, making the scheme, not very effective when it comes to covering malaria treatment bills. Finally, with the estimated cost of about 20,434 Francs CFA (US\$ 35) monthly on malaria, uninsured persons are likely to save less than insured persons as about 75% of the bill is covered for insured persons. This is a serious economic burden on patients, which pushes them to borrow money to cover cost always, use traditional medicine and road side medicine as a way to evade cost of hospital treatment.

Keywords: malaria, health insurance, Out-Of-Pocket payment, Cameroon

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1. Introduction

In Cameroon, almost all of the total expenditure on health is out-of-pocket and this is done by individuals and households as insurance coverage is less than 1% [1,2]. The awareness and purchase of insurance in Cameroon goes mostly to car or transportation insurance. Therefore, many people see health insurance as a western phenomenon as it is mostly obligatory in the western world. In addition, cost bearing changes by region as people in low- income countries pay for health care out-of-pocket (OOP) and at the time of serious need, while higher income countries make arrangements for various types of pre-payment and health insurance [3]. Large out-of-pocket payments may reduce consumption expenditure on other goods and services and push households into poverty [4].

Health insurance is now being considered as one of the possible instruments in reducing impoverishing effects of

large out-of-pocket health expenditure. Expenditure on health care is now a development concern due to its negative effect on household's ability to finance consumption of other basic needs. The subject is now prime on research agendas [4,5], and the World Health Organization estimated the importance of catastrophic health expenditure [6,7]. This is an important point that influences the decision of policy makers towards the choice of which measure to take in the eventual eradication of malaria and other diseases. In countries without payments mechanisms, OOP expenditure on health can impact the entire economy [8]. Malaria has had a great impact on the Socio-Economic growth of Cameroons' tourism and foreign investment opportunities a lot. Foreigners, especially from out of Africa fear the devastating effects and tend to be reluctant to invest or visit the touristic sites in the country [9].

Poor health in general has a considerable impact on the economic sustainability of households, especially in places which lack effective health insurance policies and have poor resource settings [7]. The different treatment

seeking patterns of households have direct links with the method which they use to finance health care. The strategy they use to cope with such payments determines how susceptible they are to impoverishment [8].

In Africa, the mortality and morbidity from malaria is especially amongst infants aged 0-5, and pregnant women [6]. Most of the deaths from malaria could however be avoided because effective and affordable ways to prevent and treat it exist. These involve the use of and involvement in health insurance and this can be done by getting registered in available health insurance schemes. As an example in the North West Region of Cameroon, as at December 2012, the Bamenda Mutual Health Organization (BMHO) had paid health care bills for more than 2,000 ill-health episodes of their members, costing about 19 million FCFA and between 2012 and 2014 she had covered bills for about 200 malaria episodes only for Bamenda [9].

The overall objective of the study is to evaluate the importance and effectiveness of Health Insurance in facilitating the payment of malaria bills in the Bamenda Health District. Specifically the study determines the number of malaria bills covered by the Bamenda Mutual Health Organization from the year 2012 to 2014 and assesses the level of awareness and effectiveness of health insurance in malaria case management. In Cameroon, health insurance has limited coverage but there is still the need to study its effectiveness on the few insured persons so far.

2. Materials and Methods

2.1. Study Location and Target Population

This study was carried out in the Bamenda Health District of Cameroon, located in the North West Region. The North West is one of the 10 regions, making up the Republic of Cameroon and the Bamenda Health District is one of the 19 health districts in the region. From Global Position System (GPS) readings, the altitude of the area ranges from 1239.2m/19,0m to 1304.8m/19.0m. Within the district, the study was carried out specifically in four hospitals, (the Bamenda Regional Hospital, the Saint Mary Soledad Hospital, the Bamenda Sub Divisional Hospital (PMI Nkwen) and the Presbyterian Health Centre Mankon). These specific hospitals were selected due to the fact that the BMHO paid more bills from them as compared to others in agreement. The target population was approximated at 710. Primary and secondary data was obtained from all the institutions. In Cameroon, malaria is prevalent throughout. The northern part of the country (Far North, North and Adamawa regions) are the most affected over the years, notwithstanding, the study location, being the North West region also has a high prevalence of malaria. This is shown in [Figure 1](#).

2.2. Nature and Source of Data

The data collected included both primary and secondary data, which were obtained through a detailed review of the various sources of information relevant to the study. The primary data was obtained through the use of questionnaires and the secondary data was collected from

the hospital records and from the records of the BMHO. Questionnaires were administered to in and out-patients, to assess the level of knowledge and awareness of health insurance and the factors that influence payments of hospital bills, especially those for malaria episodes. This study selected hospitals which registered the highest number of malaria bills paid by the BMHO and those that registered the highest number of malaria cases from the year 2012 to 2014. Following this, five hospitals were selected out of the twelve which have an agreement with the BMHO. They were, (the Bamenda Regional Hospital, Bingo Annex Baptist Hospital, Nkwen, St. Mary Soledad Hospital, Bamenda Sub Divisional Hospital (PMI Nkwen) and Presbyterian Health Centre Mankon). Study access was however granted by all, except the Bingo Annex Baptist Hospital, Nkwen. To calculate the sample size which was used, data on the number of malaria cases for the three years was earlier obtained from each of the hospitals. It showed that about 710 persons had malaria, monthly in the four selected hospitals. The highest numbers of persons were registered under the regional hospital with about 360 persons monthly, 240 persons at St Mary, 50 persons at PMI and 60 at the Presbyterian hospital. The prevalence rate of malaria was 20.28%, (20%) given that the population of the area where the hospitals are found is approximately 3500 persons. The study considered a sample of 232 patients, irrespective of age, gender, race, place of origin, and religion. However respondents were selected from the four hospitals in the ratio of 4:3:1:1 given that the Bamenda Regional Hospital has the highest number of malaria cases, followed by the St Mary hospital, the Presbyterian Hospital and PMI Nkwen respectively. Babies, disabled and very sick persons with malaria were assisted by their care givers, in responding to the questionnaires. The four study sites were visited at least ones in a week. Returning patients who had earlier been interviewed were excluded, thus did not respond to the questionnaires for a second time.

To attain the first objective which is to determine the percentage of malaria bills covered by the Bamenda Mutual Health Organization from the year 2012 to 2014, firstly, the total number of confirmed malaria cases was obtained according to month and year from each of the four selected hospitals. Then, from the BMHO records, the number of bills covered for malaria cases was counted with respect to the four hospitals. With the total number of confirmed malaria cases and coverage per hospital, the percentage of coverage was calculated. This was done for each hospital and for the three different years, showing the variations. With that, the total percentage of coverage was obtained. The information was analysed by the use of a spread sheet.

For the second objective which is to assess the level of awareness and effectiveness of health insurance in malaria case management, questionnaires were used to obtain the information from the in and out-patients. From the questionnaires, perception of respondents was gathered to ascertain their level of awareness of health insurance and specifically the BMHO. Information was grouped and extracted by the patients group (in or out-patients), by their gender and by marital status. The total number and percentage of respondents who were aware of health insurance was obtained. This showed the level of awareness, thus the effectiveness of the BMHO.

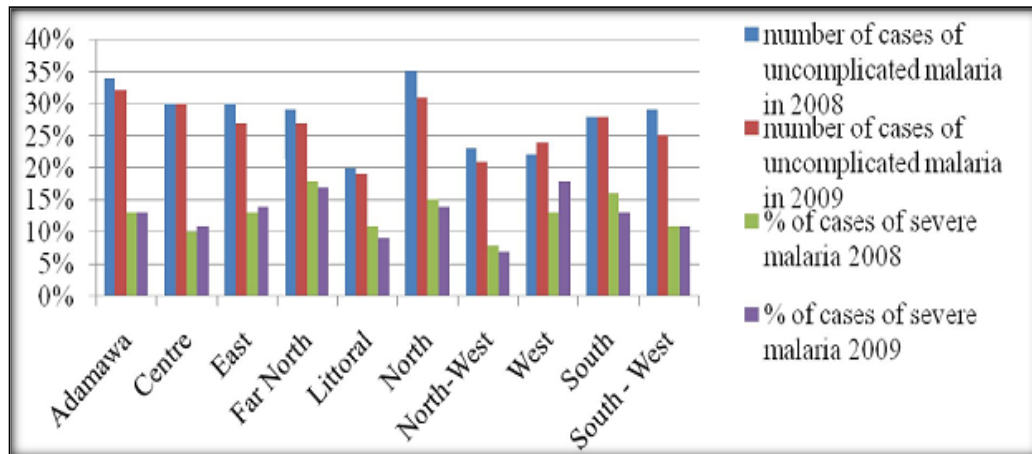


Figure 1. Cameroon, Malaria morbidity rates recorded at Health facilities in 2008 and 2009. Source: [10]

Table 1. Annual Benefits for BMHO members

Service Providers	Out-patients	Admissions	Surgery (Planned and Emergency)	Delivery
Confessional Hospitals	50% up to 15,000 FCFA	75% up to 30,000 FCFA	50%, up to 60,000 FCFA or 75% up to 120,000 FCFA	100% up to 20,000 FCFA
Public Hospitals	50% up to 15,000 FCFA	75% up to 30,000 FCFA	75% up to 120,000 FCFA	100% up to 20,000 FCFA
Health Centres	50% up to 15,000 FCFA	75% up to 30,000 FCFA	75% up to 120,000 FCFA	100% up to 20,000 FCFA

Source: Field Survey, 2015, BMHO. (1US\$ approximates 600 FCFA)

For the third objective which is to measure the Socio-Economic impact of OOP in malaria case management, the percentage spent on malaria episodes was calculated. This was done by registering the various incomes of all respondents, and also, the amount of income spent on malaria episodes per month then their average income and the average spent on malaria was calculated. To further measure the economic impact of OOP, 25% (which is the obligatory part paid by insured in-patients with malaria) of the total average expenditure on malaria cases was calculated. The figure obtained represents what every insured person would pay for every malaria episode, while an uninsured person covers the total cost. Table 1 shows what registered members of the BMHO stand to benefit.

The table shows the benefits every member can have in a year for the BMHO. Firstly, new members must complete their general observation period of 3 months, 9 months for surgery and delivery and 12 months for planned surgeries. The insurance scheme will pay 25-70 % of bills, depending on the nature of care.

For the social impact, four variables were used to capture the impact of OOP. The respondents were asked to respond to suggestions such as borrowing money to cover malaria bills, selling of family property to pay bills, use of traditional medicine to avoid visiting the hospital and buying of road side medicines so as to evade cost of hospital treatment. The frequencies and percentages of respondents were compared for the insured and the uninsured persons.

2.3. Socio Demographic Characteristics of Patients

Gender, religion, marital status and In/out-patient were variables used to capture the socio-demographic features of the study. Of the respondents who answered the questionnaire, the sex distribution showed that (30.7%)

were males and (69.3%) were females. This simply is understood as more women are found at hospital naturally as they get pregnant and have to go for clinical check-up, besides malaria is very common among them. Regarding religion, (92.1) were Christians and (7.9%) were Muslims. This is due to the fact that the region is dominated by Christians. Besides, the study included two Christian-mission-owned hospitals which Muslims scarcely visit. As concerns the marital status of the respondents, (63.4%) were married, (32.7%) were single and (4%) were divorced. Married persons dominate because they comprise of women at child bearing age and are liable to have malaria before, and during pregnancy. There is a percentage of (41.6%) in-patients and (58.4%) out-patients. The out-patients happen to be more than the in-patients because fewer cases are admitted for malaria, and some people detest hospital wards and would rather take treatment out of hospital.

Table 2. The socio demographic characteristics of patients

VARIABLE	FREQUENCY	PERCENTAGE (%)
Gender		
Male	62	30.7
Female	140	69.3
Total	202	100.0
Religion		
Christian	186	92.1
Muslim	16	7.9
Total	202	100.0
Marital status		
Divorced	8	4.0
Married	128	63.4
Single	66	32.7
Total	202	100.0
In/ out-patient		
In-patient	84	41.6
Out-patient	118	58.4
Total	202	100.0

Source: Field survey, 2015.

2.4. Ethical Considerations

Ethical clearance was sought and granted from the Ethical Review Board (ERB) of the Catholic University of Cameroon, Bamenda (CATUC). Permission was also sought from the Bamenda Health District Office and from the Director of the Regional Hospital, Bamenda. Consent forms were given to respondents. Confidentiality of responses was explained and assured through writing.

3. Results and Discussion

3.1. Malaria Bills Covered By BMHO

In the year 2012, the Bamenda regional hospital, had a percentage coverage of 0.019%, 0.319% in the year 2013, and 0.859% in 2014, indicating a slight increase in coverage over the years. This must have been because the BMHO started doing intensified campaigns and adverts during that year at the out-patient department of the hospital. For St Mary Soledad hospital in 2012, there was zero coverage. In the following year the percentage of coverage was 0.299%. And in the year 2014, the percentage coverage was 0.249%. It is evident that the zero coverage could be accounted for by the fact that, the St. Mary hospital had not yet gotten into an agreement with the BMHO. Besides its principal health insurance scheme is BEPHA Bamenda, a catholic owned health insurance scheme. Regarding the Presbyterian health centre, in the year 2012, the percentage of coverage was 0%. In the following year, it was 1.792%, a great increase in coverage. This is because, the BMHO made an agreement with the hospital in that year. For the year 2014, coverage dropped to 0.682%. For the PMI Nkwen health centre, in the year 2012, there was percentage coverage of 1.574%, 0.729% in the following year, and 0.819% in the year 2014. This indicates a fluctuation in coverage. All these could be explained by the fact that in the earlier years patients did not gain the satisfaction they wished for and refused to enrol in the preceding year. However percentage of coverage for malaria was bound to be low as the total number of malaria cases dropped over the years from 8974 in 2012 to 8461 in 2013 and to 8074 in 2014. Also, the percentages are bound to be low as people are not compelled to own health insurance, unlike the car insurance coverage which would be about 80% because car owners are compelled to own insurance for their cars. It was noticed that the Bamenda regional hospital has the highest level of coverage as this tie with the fact that it has the highest number of patient' intake

and the BMHO is found in the premises of the hospital. Overall, evidence indicates an insignificant progress in coverage. This is attributed to a slight increase awareness and interest in the services rendered by the health insurance scheme. The tallied result expressed in percentage of coverage is 0.39%, implying that the majority of patients suffering from malaria pay their bills out of their pocket.

3.2. Awareness Level of the Existence of BMHO

Many health insurance schemes exist in Bamenda with some cropping up and disappearing without being noticed. Consequently, it is possible for some people living in the town not to be aware of some of these health insurance schemes and the services they render. Table 4 grouped respondents to assess the awareness level of the BMHO. They were grouped by in or out-patient, gender, religion and marital status.

About 88.1% out-patients as compared to 92.9% In-patients had knowledge of the BMHO. The percentage of awareness for in-patients exceeds that for out-patients, but the number of out-patients is more than that of in-patients. This means that out-patients are more aware because they constitute a greater proportion of intake in all hospital and also, campaigns by the BMHO cannot be done inside or beside the wards where patients are admitted and need a quiet environment.

Concerning gender, 93.5% of the 62 male were aware, as well as 88.6% of the 124 females. We observe that the number of females exceeds the number of males, although the males have a greater percentage of awareness, showing that the few available males had better knowledge than the females. For awareness by religion, the percentage of awareness was 91.4% and 75% for Christians and Muslims respectively. However, although the Muslim percentage is lower out of the 20 of them in the study, 16 were aware, besides adverts on health insurance are made right inside Christian churches at the detriment of the Muslims, so the Christians have a better idea. Concerning marital status and awareness, a majority of respondents were married. 87.5% of them and 93.9% of single persons, The divorced were 100% aware of health insurance, as all 8 of them had knowledge of the health insurance scheme. The total percentage of awareness was 90.09%, which is good, but contradicting with a study in South west Nigeria on The Payment for Health Care and Perception of the National Health Insurance Scheme which instead shows that only, 6.4% of the respondents in the study were aware of the NHIS [11]. As earlier mentioned; the total percentage of coverage is only 0.39%.

Table 3. Number and percentage of malaria cases and bills covered by the BMHO, by Hospital and by year

H	2012			2013			2014		
	NMC	NBC	PC	NMC	NBC	PC	NMC	NBC	PC
Bamenda Regional Hospital	5027	1	0.019	4065	13	0.319	4071	35	0.859
St. Mary Soledad Hospital	2793	0	0.000	3004	9	0.299	2807	7	0.249
PMI Nkwen	508	8	1.574	555	4	0.72	610	5	0.819
Presbyterian Health Centre	646	0	0.000	837	15	1.792	586	4	0.682
Total	8974	9	0.001	8461	41	0.48	8074	51	0.63

H=Hospital, NMC=Number of Malaria Cases, NBC=Number of Bills Covered, PC=Percentage coverage, NM
 Source: Field Survey, 2015, BMHO.

Table 4. Level of Awareness

		NUMBER AWARE	NUMBER NOT AWARE	TOTAL	PERCENTAGE AWARE
Patient Group	In-patient	78	6	84	92.9%
	Out-patient	104	14	118	88.1%
	Total	182	20	202	90.1%
Gender	Male	58	4	62	93.5%
	Female	124	16	140	88.6%
	Total	182	20	202	90.1%
Religion	Christian	170	16	186	91.4%
	Muslim	12	4	16	75.0%
	Total	182	20	202	96.04%
Marital Status	Married	112	16	128	87.5%
	Single	62	4	66	93.9%
	Divorce	8	0	8	100%
	Total	182	20	202	90.1%

Source: Field survey 2015.

Majority of persons who were aware of health insurance, heard from the media (46.5%), almost same as the study in [11] which revealed that the few respondents who were aware cited the electronic media as the main source of information (45.5%). This includes radio and television news, sign boards, notice and newsletters. These various sources fall under media and it explains why many respondents got aware through the media. Next were those who heard from the hospital (20.8%). This is because, talks and advice are given almost on a daily basis at hospitals concerning the need to get enrolled into the mutual Health Scheme. The next are those who heard from friends (12.9%) meaning that the topic of health insurance is not very much discussed among friends and peers. Lastly were those who heard for the very first time from the church (9.9%). This could have been because those who heard from church decided to enroll in other schemes.

3.3. Health Insurance Enrolment

Varied reasons account for why people either get registered or not with health insurance schemes. Factors such as insufficient finances, limited benefits, lack of trust in the scheme, poorly understood policies and some had never heard of the BMHO and so had no other reason why they were not insured. For the insured, factors like delay to visit hospital when sick, difficulty covering total bills, frequently sick, for peace of mind when sick and to save money as part of the bills is covered by the scheme. These factors were used in this study as determining reasons to ascertain the relationship existing between each of the variables and enrolment into the BMHO.

Table 5. Factors attributed to non-enrolment

Reason	Frequency	Percentage	Cumulative Frequency
Insufficient finances	54	33.75	33.75
Limited benefits	30	18.75	52.5
Lack of trust in the scheme	48	30	82.5
Policies are not understood	8	5.0	87.5
Never heard of the scheme	20	12.5%	100.0
Total	160	100.0	

Source: Field Survey, 2015.

A majority of the uninsured respondents (33.75%), attributed it to insufficient funds. This falls in line with [2] who revealed that the 40% rate of monetary poverty in the general population is feeding the low rate of enrolment in the Mutual Health Organisation. This low rate might have been because of patients with low incomes or those with very large families incomes' are not even sufficient for their essential needs. Such persons could be allowed to pay for enrolment in about three different instalments. 30% of them blamed it on lack of trust in the scheme. This also explains their ignorance on the purpose of the BMHO which aims at community sharing. Besides, 5% of the respondents accepted that they did not understand the policies. Also some patients who gave this a complain explained that they were not comfortable with the way already registered members queued or followed up for their bills to be paid, spending too much time which they should have used doing other things. (18.75%) of the respondents replied that the benefits of the BMHO were limited. This was understood, as the BMHO does not cover all types of disease. Patients however see no reason to enrol as they cannot choose the kind of illness to get sick of. The other (12.5%) had never heard of the scheme and advanced no reasons for not enrolling into the scheme. However, a disadvantage which might set in due to enrolment and ownership of health insurance is the moral hazard problem by which insured persons may not have the incentive to take care of their health just because they are covered.

Table 6. Factors attributed to enrolment

Reason	Frequency	Percentage	Cumulative Frequency
Delay to visit hospital	2	4.8	4.8
Difficulty covering total bills	8	19.0	23.8
Frequently sick	10	23.8	47.6
Others	2	4.8	52.4
Peace of mind	2	4.8	57.1
Save money	18	42.9	100.0
Total	42	100.0	

Source: Field survey 2015.

Insured persons got enrolled into the BMHO, firstly because they felt they could save money, because they had

to pay either 25% or 50% only of their total cost for treatment. Therefore, 42.9% of them enrolled for this reason. 23.8% of respondents got enrolled because they fell sick frequently. Besides, the scheme can cover one person up to 5 times, 2 times for in-patients and 3 times for out-patient department in one year. About 19% of respondents got enrolled because they usually found difficulty covering their bills. By enrolling, they were sure of either 50% or 75% of their bills already covered. 4.8% of the respondents enrolled because they delayed to go to hospital when sick. With enrolment into the health insurance scheme, they could now hurry to hospital, thus avoiding further complications and more intense levels of sickness. Also, 4.8% got enrolled for peace of mind when sick as some patients felt additional pains when ill as they were not certain of how to pay their bills and the kind of debts they would get themselves into. The other 4.8% of the respondents enrolled for other reasons such as work place obligation and because they got registered by somebody else, making it was free of charge for them.

3.4. Socioeconomics of OOP on Uninsured Persons

To capture the socio economic impact of OOP on uninsured persons, the mean or average monthly income of respondents was calculated at 161,429.57 FCFA. Also their mean expenditure on malaria bills was calculated at 20,433.66 FCFA. Therefore the percentage spent on malaria episodes is 12.66% of every monthly income. This result is similar to that of a study carried out in Ghana on the economic burden of malaria on businesses, showing the proportion of cost of all illnesses due to malaria. The Pharmaceutical business sector alone had an estimated cost of malaria being 869,760.77(US\$) accounting for 13.2% of total cost on malaria and 0.7% of gross returns on the business sector [12]. As earlier mentioned, such percentages on income spent on ill health could be catastrophic in the long-run [13]. Very low income earners could be prevented from having their daily consumption of basic needs like food, salt, soap and toilet roll. This would be regarded as catastrophic even though they may not essentially amount to high health care payments in real terms. About 75% of in-patient bills for malaria are paid by the BMHO. Assuming this, insured persons would pay 25% of their total malaria bills i.e. 20,434 FCFA; while the uninsured would pay the full sum. Therefore, an insured person would be gaining approximately 15,326 FCFA and paying only 5,108 FCFA, while the uninsured person would be paying the full sum of 20,434 FCFA.

Every person wishes to consult a doctor when sick, but some are constraint by financial means. In order to distinct the coping habits of insured and uninsured persons, sources of solutions such as borrowing money, selling family property, using traditional medicine and buying road side drugs were suggested in this study.

A total of 146 respondents who agreed to have borrowed money to cover malaria bills, about 89.7% of them were uninsured persons and only 10.27% were insured persons. Therefore, uninsured persons, most often have to borrow money to cover bills. This drives them into serious debts and they can hardly have peace of mind when sick, this is similar to the case of a study in

Cambodia where households incurred debts for treatment and after 1 year. Here, 62% of them still had not been able pay, and of which 23% of the total still had outstanding debts for the total amount of money they had borrowed [14]. For the few insured persons who borrowed money to cater for bills obviously did not have to borrow as much as the uninsured, making their debt burden lower. However, the insured persons who borrowed were probably those with very low monthly incomes or persons with large family sizes whose incomes are spread over many other needs. For the habit of selling family property, 2 insured and 2 uninsured agreed to have done that. This shows that this is not a common practice as malaria bills are hardly ever very high to push persons to the extent of selling their family property to cover bills. For the habit of using traditional medicine, both insured and uninsured persons agreed to have used it. Also, more uninsured persons (83.75%) as compared to (16.25%) insured persons had the habit of using traditional medicine. This is usually done as many people feel that they can make and use their own medicines but turn to the hospitals when situations get critical. This is typical of low income households but many studies such as that on the treatment of severe malaria in children in referral hospitals in Cameroon, fail to mention treatment from traditional healers and their outcomes [15]. Those reporting to have bought road side medicines, 21.1% insured persons and 78.9% uninsured bought road side drugs. Most often these drugs are cheap and people often do presumptive diagnosis for malaria and buy drugs from the road side which are sometimes expired and have been exposed repeatedly to dust, sun and alternating dry and wet conditions which are not good for the medicines. However, after taking such drugs to no avail, persons again report to hospitals when conditions are critical. This implies that, more would be spent as compared to the situation where sick persons had visited the hospital at the instance of a malaise. All these help to explain that mostly the uninsured persons tend to rely on these coping habits except for the habit of selling family property. In summary, the strategy people use, to cope with treatment and hospital bill payments determines how susceptible they are to impoverishment.

Table 7. Sources of solutions for malaria case management

Source of solution		Insured	Uninsured	Total
Borrowed Money	Frequency	15	131	146
	Percentage	10.27%	89.7%	100%
Sold family property	Frequency	2	2	4
	Percentage	50%	50%	100%
Used traditional Medicine	Frequency	26	134	160
	Percentage	16.25%	83.75%	100%
Bought road side medicine	Frequency	38	142	180
	Percentage	21.1%	78.9%	100%

Source: Field Survey, 2015.

In sum, the BMHO and four hospitals which were included in the study the findings are that less than 1% of persons are insured (0.39%) in the BHD. However, coverage increased over the years from 0.001% in the year 2012 to 0.48% in 2013 and 0.63% in 2014. Therefore, coverage is very steady and low as compared to a study

carried out in Belgium, in which from a subset of 44 of the schemes, the median value of the percentage of the population covered was 24.9%; 13 schemes had a coverage rate below 15%, and 12 schemes had a coverage rate above 50% [4]. Another study on the Lalitpur Scheme in Nepal showed that population coverage in a target areas rose from 19–20% in 1983 to 27–48% in 1995 [16]. To reach out to the wider demands urgent intensification of sensitization activities and the putting in place of better methods to stimulate registration of new clients is necessary. Majority of respondents were aware of the existence of the BMHO (92.02%) and a majority of them got aware through the media, 79.2% of persons never owned health insurance and 20.8% did. In Cameroon, reference [1] observed that there was low enrolment into Community Based Health Insurance Schemes in the BHD (2.4%). Factors significantly associated with non-enrolment into CBHIS in BHD were; low level of education, low age group of less than 40 years, non-salary employment, low income level and unawareness of existence of schemes. This is a complete reverse of the situation in the Bwamanda Hospital Insurance Scheme in the Democratic Republic of Congo, showing that in 1996 when a health insurance scheme was established, 32 600 people or 28% of the district population got aware and joined within 4 weeks [17]. This suggests that there is a need to sensitize the community on Health Insurance more, through the media.

The average percentage of income spent on malaria episodes was 12.66% monthly. This, ties with studies on the cost of illnesses showing that, in low and middle income countries, the expenditures on health are frequently above 10% of household income and that levels higher than this tend to be catastrophic in the long-run [13]. Insured persons were seen to be gaining approximately 15,326 FCFA and paying only 5,108 FCFA for treatment, while uninsured persons paid the full cost of 20,434 FCFA, also tying with the study on Cost of malaria treatment and health seeking behavior of children under-five years in the Upper West Region of Ghana which revealed that the children who were enrolled into the NHIS paid less (US\$4.76) compared to those not insured (US\$5.88) [18]. The gross economic loss on such persons every year could be very high. Again, for the socio economic impact of OOP, 89.7% of uninsured persons had to borrow money to cover malaria bills, similar to experiences in India [19]. Just two persons without insurance had to sell family property, (83.75%) of those who had no insurance had to use traditional medicine and (78.9%) of the persons who had no insurance had to buy road side medicine. It was noticed that the habit of selling family property is not very prominent with persons in the region, but the other habits are. Therefore, mostly uninsured persons tend to borrow money for treatment, use traditional medicine and buy road side medicines. These are the effects of paying for malaria episodes always out of pocket.

4. Conclusion

Despite the intervention of the BMHO, there is still less than 1% coverage and enrolment in health insurance schemes in the district. It is clear that enrolment is very low. Therefore people still cover their entire cost for

malaria treatment, and are not opportune to save some money from their total expenditure on malaria bills. Also, the knowledge of Health Insurance among persons in Bamenda Health District is good, but there is less enrolment, making the scheme, not very effective when it comes to covering malaria treatment bills. Finally, with the estimated cost on malaria, monthly, uninsured persons save less than insured persons as about 75% of the bill is covered for insured persons. This is a serious economic burden and impact on persons. Following the factors attributed to non-enrolment and the results obtained from this study, the following recommendations will contribute to higher enrolment in the Health insurance scheme and reduce the mortality and morbidity of Malaria in the District. (a) Persons who complain of insufficient finances could be allowed to pay their user fee in about three different instalments. The scheme can also make the enrolment fee a little cheaper. This can be achieved if policy makers through authorities make the enrolment into health insurance schemes or community health compulsory by including enrolment fee in the indirect taxes of workers. For farmers whose profits cannot be directly taxed, the BMHO can encourage in kind payments by market links with farmers. This would indirectly increase coverage. (b) For persons whose complain was lack of trust, the scheme, should make very explicit their policies and the manner of operations. In addition, they should avoid members queuing up or going through long processes to have their bills covered. (c) The health insurance schemes should be taken to the most rural areas of the district, because those badly in need of financial assistance are found more in such areas than in the urban areas. (d) Agreements or partnership could be done with more pharmacies, laboratories, clinics and even preferred doctors as some persons always would want to visit particulars hospitals which have no agreement with the scheme. These recommendations, without doubt, may increase the percentage of coverage.

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