

# Quality of rural public healthcare services in northeastern region of India: analysis from user perspective

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## Abstract

**Background and Objective:** Quality of public healthcare service is one of the major issues in the rural areas of India. Though integrated healthcare is provided by the government, the utilization of the same has been low due to various reasons and one could be the quality of service itself. Therefore, it is important that quality is assessed to constantly improve upon the health care services. This will help in more health care utilization by the rural people, which will help meeting the targets of the Sustainable Development Goals (SDGs) in health care domain.

**Data and Methodology:** The data have been collected from the field in the summer of 2015. We have used Principal Component Analysis (PCA) to examine the structure of the relationship among variables representing the perceived quality dimensions of the rural public health care. The assessment is based on Likert scale of 1 to 5; where 1= strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree on access, usage, reliability and satisfaction factors. We also assessed the quality difference between Primary Health Centres (PHCs) and Community Health Centres (CHCs) by using t-test.

**Results and Applications:** Easy accessibility is a problem with the public health care service in the rural areas of Assam. Usage of the public health care service is poor even though reliability and satisfaction of the service are adequate. PHCs are found to be better than CHCs except in the reliability aspect. This could be due to the fact that accessibility of PHCs is better than the CHCs. The findings of the study suggest that the rural public health care needs to be improved and they should not act only as referral units. In order to improve the usage of the publicly provided health care service, awareness on health care utilization needs to be created which would also improve the health status of the people and also reduce the out of pocket spending on health care. However, for this to happen, improvement in the service provided is necessary.

**Keywords:** Rural Healthcare, User Perspective, Primary Healthcare, Likert Scale, Principal Component Analysis

**JEL Classification:** H5, H75

## 1. Introduction

The role of government in ensuring that its country's healthcare system provides an optimal service for its population has been greatly emphasized upon [1]. Therefore, maintenance and constant improvement in the health care service quality should be an important agenda of the health care sector. The Global Conference on primary health care held at Astana, Kazakhstan co-hosted by the World Health Organization, UNICEF and the Government of Kazakhstan on 25-26 October 2018 delved to renew a commitment to primary health care to achieve universal health coverage and the Sustainable Development Goals (SDGs) targets. It was to commemorate the 40<sup>th</sup> Anniversary of the Alma Ata Declaration to emphasize on the importance of primary health care. Furthermore, the SDG third goal focus on ensuring healthy lives and promote wellbeing for all and at all ages, with the targets such as reduce the global maternal mortality ratio to less than 70 per 100 000 live births, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases, and to ensure universal access to sexual and reproductive health-care services, including for family planning, and the integration of reproductive health into

national strategies and programmes etc. by 2030. However, to realize such ambitious targets the quantity and quality of health care services need to be taken care. The availability of the health care will depend on the healthy co-existence of both private and public health care sectors. And the universal accessibility of the quality health care will help to achieve the targets of the SDGs. This universal accessibility will be possible when government provides robust health care system in the country. India provides integrated primary health care facilities in the rural areas viz., Sub-Centres (SCs), Primary Health Centres (PHCs), and Community Health Centres (CHCs). The SCs at the primary level, the PHCs at the middle level, and the CHCs at the highest level of the rural health care system. The population norm of one SC is 5000 and 3000 for the plain and hill/tribal/difficult areas respectively. It is 30,000 population per PHC in the plain area and 20,000 per PHC in the hilly/tribal and difficult areas. And the population norm for the CHC is 1, 20,000 per CHC in the plain area and 80,000 per CHC in the hilly/tribal and difficult areas.

However, despite this integrated health care provisions in the rural areas of India, it has been reported by many studies that the provisions of health care facilities in the rural areas is not adequate both quantitatively and in the quality of services provided by the government. This requires an investigation into the rural health care system to improve upon the quality of the service provided by the government. The concept of quality is however, multifaceted, signifying different meanings to different stakeholders such as government, service provider, hospital administration, and patients. For instance, three stakeholder components of quality such as client, professional and managerial have been identified [2]. Quality is meeting the objectives of the patients and the physicians[3].In focused on user perception, technical standards and provisions of health care[4,5].In highlighted eight dimensions of health care service delivery, viz., effectiveness, efficiency, technical competence, interpersonal relations, and access to service, safety, continuity and physical aspects of healthcare[6]. Therefore, the concept of quality in health care takes multifaceted form, and can be analyzed from different dimensions, such as technical, managerial, and functional. However, it is emphasized that real improvement in the quality of care cannot occur unless user perception is incorporated. Therefore, this paper tries to look into the quality of rural public health care service of Assam from users' perspective. The study is arranged as follows: this introduction is followed by the second section where data and methodology of the present work is discussed. The third section is the findings and discussions and the fourth section is the conclusion.

## 2. Data and Methodology

### 1. Data

For the assessment of public health care services from user's perspective, variables like access, usage, reliability, and overall satisfaction are used. Questionnaire on assessment of health care services has been designed based on standard questionnaire "SERVQUAL" developed by Parasuraman, Zeithaml and Berry and the questionnaire developed by Haddad, Fournier and Potvin [7, 8]. Each variable has 8 sub-variables or statements of assessment of the users of public health care in the rural areas. The assessment is based on Likert scale of 1 to 5; where 1= strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree.

### 2. Method of data collection

As per the prevailing institutional arrangement in the study area, it is mandatory to meet the village headman of each village selected for the survey before entering the villages. The village headmen were explained about the purpose of the visit. Selection of the households was based on the following conditions:

1. Whether a particular household had made any health care expenditure for the last one year (365 days) preceding the survey date
2. Whether any of the members of the household visited the public health care services (primary health care and community health care centre) for the past 6 months and willing to assess the quality of the health care visited based on our questions. If these two conditions were fulfilled, a household was selected for further questioning with the sets of questionnaires. The first condition was also used because we also collected data on household's Out-of-Pocket spending on health care.

### 3. Sampling design

From Chirang district two major development blocks i.e., Borobazar Block and Sidli Block have been selected. 16 villages and 12 villages were surveyed from Borobazar block and Sidli Block respectively. From each block 288 households were surveyed taking equal number of households from poor and non-poor type of households. Thus, 576 households were selected by multistage sampling method.

### 4. Data analysis

Factor analysis (Principal Component Analysis) was used to examine the structure of the relationship among variables representing the perceived quality dimensions of the rural public health care on the 23 scale items. Prior to running the factor analysis Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were performed. Scales used in this study were tested for reliability using the widely used Cronbach's alpha which was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 [9]. In this study, Cronbach's alpha coefficient which is a measure of inner consistency was utilized to evaluate reliability of the scales of the quality of public health care services from user's perspective. Despite the fact that there is no elucidation regarding what is an adequate alpha value, in their work "*criteria for scale selection and evaluation*", propounded that, an alpha coefficient above 0.80 is "adequate", it is "acceptable" when the alpha is between 0.70 and 0.79, and "moderate" when it is around 0.60 and 0.69 [10]. In any case, Cronbach's alpha qualities are very responsive to the quantity of things in the scale. Factors/components were extracted by fixing the factors into four (based on predetermined research proposal on these four factors/components) rather than determining based on Eigen values. All items with communalities of more than 0.3 have been retained and it ranges from 0.32 to 0.88. Responses for the sub-items for the four factors/components have been analyzed in percentages. Further, the individual scores of the components (namely access, usage, reliability, and satisfaction) have been aggregated. Finally, the aggregated scores have been named as Overall Access, Overall Usage, Overall Reliability, and Overall satisfaction. The quality difference between the primary health centre (PHC) and the community health centre (CHC) based on the assessment given by the users have also been examined by using Student's t-test.

### 5. Findings and Discussions

#### 1. Principal component analysis (Factor Analysis) to determine the structure of the relationship of the variables used for measuring quality of health care service

The generated KMO was 0.77 (which is middling and the sample is adequate to run the factor analysis (PCA) according to Kaiser). The Bartlett's test of sphericity also found to be statistically significant ( $p < .001$ ) with 105 degrees of freedom (Table 1). For interpreting the results, Varimax rotation was used to rotate the solution. Thus, this makes the loadings to be distributed among the four factors specified.

Factors/components were extracted by fixing the factors into four (based on the predetermined research proposal) rather than determining based on Eigen values. All items with communalities of more than 0.3 have been retained and it ranges from 0.32 to 0.88. By using Varimax rotation, the factor analysis of 32-item scale on the basis of PCA converged in 5 iterations with four components with the Eigen values of 4.219, 2.189, 2.058 and 1.851. Therefore, ultimately 15 items with four factors/components had been retained. The total variance explained is 68.78 with four components with the minimum Eigen values of 1.851 and maximum Eigen values of 4.219. The components are named as Access, Usage, Reliability and Satisfaction. The components loading have been shown in Table 2.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.765
Bartlett's Test of Sphericity	Approx. Chi-Square	4601.923
	df	105
	Sig.	.000

Source: Field Survey

The reliability test on the first component “Access” has three items with the Cronbach’s alpha of 0.81. The second component “Usage” is with the Cronbach alpha of 0.87 and with six items. The third component is the “Reliability” with the Cronbach’s alpha of 0.68 with three items. The last component is the “Satisfaction” has three items loadings with the Cronbach’s alpha score of 0.81. The details of items loadings have been shown in Table 2.

Table 2. Components loading of the principal components analysis (Factor Analysis)

		Usage	Access	Satisfaction	Reliability	Communalities after extraction
Access						
1	Distance of the Public health Centre is conveniently approachable from your home	.030	.927	-.026	-.035	.742
2	Public Health Centre is well connected with pucca/all weather road from your home	.136	.843	.079	-.083	.863
3	Public Health Centre is well connected with transportation from your home	.066	.753	.022	.222	.621
Usage						
1	First seek care from the public health care	.929	.077	.075	-.072	.879
2	Visited public health centre as and when needed health care	.924	.131	.083	-.052	.881
3	Would utilize public health centre when need health care	.901	.065	.134	-.004	.834
4	Had recommended public health centre at least once to the family members	.797	.112	.217	-.045	.697
5	Had recommended public health centre at least once to the Neighbours	.569	.124	-.238	.039	.397
6	Care received from public health centre satisfactorily	.494	-.166	.147	.166	.321
Reliability						
1	Met the medical doctor whenever visited the health centre(doctor availability)	.091	.215	.038	.823	.732
2	Met the nurses/staffs whenever visited the health centre(nurse/staffs availability)	.057	.044	.092	.821	.687
3	Pharmacy located nearby	-.126	-.146	-.103	.710	.552
Satisfaction						
1	Satisfied with medical officer/doctor’s courteousness	.130	.004	.872	.015	.777
2	Satisfied with receptionist’s courteousness	.033	.063	.840	.033	.621
3	Satisfied with the information provided by the public health care centre	.112	.009	.780	-.017	.712
Percentage variance explained by factor after rotation		25.426	15.288	15.056	13.014	

Source: Field Survey; NOTE: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations

The reliability test of the scale gave the overall Cronbach’s alpha of 0.75 and it ranged from 0.68 to 0.87. The reliability was highest for usage which has six items loading and lowest for satisfaction scale with three items loading.

## 2. Assessment of functional quality of the rural public health care services

The assessment is done for two levels of rural public health centres, one the Primary Health Centre (popularly known as PHC and is the first contact point between the rural people and the medical officer/doctor) and second, the Community Health Centre (CHC). The average percentage score of the respondents is shown in Table 3.

*Table 3. Average scores of the user's assessment on the public health care service (%)*

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Access	22.03	27.53	0.27	42.23	7.87
Usage	12.43	47.63	3.93	35.00	0.93
Reliability	3.70	21.17	0.33	61.93	12.83
Satisfaction	0.07	1.10	0.57	84.50	13.77

*Source: Field survey*

### 3. Access

Healthcare access (here PHCs and CHCs) can be measured with different parameters like distance in kilometers, connectivity from the user's home, financial access etc. It was considered that for the easy access of the health care, distance of the health care centre should be conveniently approachable from the user's home, it should be well connected with the transportation from the user's home, so that those who do not have personal vehicles/bikes or any other means of transportation do not face difficulty in reaching the health centre. Similarly, the health centre should be well connected with the all-weather roads for the smooth access to the general public. The average percentage of respondents who said that they agree with the accessibility of the public health centres (PHCs and CHCs) is 42.23%. And 7.87% of the respondents said that they strongly agree with the accessibility of the public health centres. However, there is significant number of respondents who said that, they do not agree with the accessibility of the public health centres. In other words, public health centres are not easily accessible to them. For instance, 2.03% of the respondents strongly disagree with the accessibility, and 27.53% disagree with the public health care accessibility (Table 3). Thus, 50.1% of respondents said that public health care was accessible and 49.56% of the respondents said, that it was not accessible. There is almost 50/50 for both the accessibility and inaccessibility. This could be due to the geographical location of the respondents. Many villages and households are in remote places, where roads and communication facilities are not well connected to health centres. And, for them the distance to the public health care is far and further not conveniently approachable. The connectivity to all-weather roads is found to be only 55.3%. In other words, for 44.4% respondents there is absence of all-weather road connections to the public health centres. Transportation is also a problem for many villagers. For instance, it has been found that only 46.5% of the respondents said that there were transportation facilities from their homes to the public health centre. Therefore, accessibility of public health centre is still a problem for significant number of the people.

### 4. Usage

Understanding the pattern of health care utilization of the set of population is a complex attempt due to various factors involve in determining the behavior of the individual/households/community [11]. Table 3 shows the usage of the public health centres in the study area. On an average 35.93% of respondents reported to be using the public health care services regularly. And 47.63% respondents reported disagree and 12.43% respondents said strongly disagree. Therefore, lesser number of respondents agrees, that they use the public health care services regularly. This may be due to, shortfall in infrastructure, significant problems with regard to the adequacy of working facilities (supplies and equipment) within the health care centre, lack of adequate trained staff and lack of adequate access to the health care infrastructure. However, apart from the above mentioned factors, there could be some other factors which might affect the usage of any given health care facilities. For instance, lack of awareness could be one factor which affects the health care utilization. Because low usage of public health services does not necessarily mean high visits to the private hospitals. It could be just that people do not visit any health centre, but do self-medications from the nearby pharmacies (Over the counter (OTC)) or access from the traditional healers which is a commonly seen phenomenon in the rural areas of Assam. Even the NSSO (2004) found that lack of awareness is a serious problem in the rural areas of India, due to which, huge population go untreated when needed health care intervention [12]. The growth of private health care could be another reason for the low usage of publicly provided rural health care. The reasons for such private preference over public facilities could be lack of infrastructure and personnel at public health care centres, like accessibility, timing, unpredictability of the medical practitioners, and availability of services at the place and time required.

Thus, accessibility to the privately provided health care is higher than the publicly provided care. Studies like NSSO (2004), found the same where the private health care is preferred to public health care due to reasons given above [12-14]. Most of the time, especially when sickness or the disease is critical people prefer to go private health centre directly. In other words, people seek treatment from the public health care (PHC/CHC), only when the sickness is not critical or when they feel that the sickness could be treated at the public health centres. This indicates that, people in the rural areas use the primary public health care only for minor ailments. For instance, when respondents were asked whether they seek public health care as and when needed health care, only 32.3% responded as agree and only 0.3% responded strongly agree. In other words, majority of the people do not always seek public medical care as and when need health care. Though people use the public health care service, it is not their first priority (Table 3). It shows that only 31.8% of the respondents agree that, they first seek the care from the public health care centre. Significant number of the people in the study area revealed that, they first seek the care from the private local pharmacies (OTC) and they go to the hospital or to the doctor either public or private only when the sickness/disease does not get cured with the OTC treatment. Medicines are not always available in the rural public health care centre and the patients need to buy from the private pharmacies. Moreover, apart from travel cost, wage loss (labourer) in visiting public health centre must be higher than the wage loss in visiting the private providers due to longer distance travel to reach the public health facilities. Geographical accessibility and financial accessibility also determine the usage of the health care facilities. The issue of geographical accessibility seems to be more significant than the price [14]. Geographical accessibility to the public health facilities is much lower than the private providers (if the private pharmacies available in the rural areas are taken into account). Therefore, it is less time consuming to visit the private facilities than visiting the public facilities both in terms of waiting time and travel time. Visits to the public health centres are further not cheaper than going to the private doctor, who moreover, is probably easier to be found. Therefore, geographical accessibility also could be one of the reasons for not visiting the public health care centre. People attempt to visit the nearest health care centre, and private health care (especially the private pharmacies) which are easily accessible in the nearby places though at a higher costs are frequently used by the rural people. All these above mentioned factors could have determined the low usage of the public health care services in the rural areas of the Chirang district.

## 5. Reliability

Table 3 shows that 61.93% of respondents agreed that the rural public health care centres are reliability 12.83% of respondents said that they strongly agree that they are reliable. Thus, on average 74.76% respondents said that public health centres are reliable. In other words, they met the doctor/medical officer and the nurses and paramedical staffs when they visited the public health centre (i.e. PHC and CHC), and the pharmacies are located nearby the health centres. This high percentage of positive response of the people with regard to the reliability component shows that there is less absenteeism of medical workers of PHCs and CHCs in the study area and the pharmacies are located nearby the public health centres for the easy access of medicines. This also must have been facilitated by adequate number of doctors/medical officers and paramedical staffs deployed in the study area. The regularity or punctuality of the doctors and medical workers in the area could be due to strict administrative mechanism implemented by the government of Assam in recent times. However, the caution is that, the high reliability score in this study could have been partly due to sub-items of the reliability component. Furthermore, one needs to be cautious to interpret this result and not to conclude that the rural public healthcare centres are of high quality, because, the Sub-Centre (SC) which is the lowest level of the three tier system and the first contact point between the rural people and modern medical facilities has been excluded from this study. Therefore, had SC been included in the study, the scenario might have been different. This is one of the limitations of this study.

## 6. Satisfaction

Satisfaction can be measured through different aspects like waiting time, overall care, doctor's behavior, paramedical staff's behavior etc.

Table 3 shows that 84.50% of respondents agree with the satisfaction and 13.77% strongly agree. In other words, 84.50% of the respondents felt that they were satisfied with the publicly provided health service in the rural areas. Therefore, this shows that doctors and paramedical staffs of the PHCs and CHCs are courteous in their behavior with the patients. Furthermore, people are satisfied with the information or advice they received from the medical doctors/officers. This indicates that the prevailing environment of the rural public health centres in the study area is congenial. Thus, this implicitly indicates that there was no discrimination. This is so because irrespective of caste, creed, gender, age etc. the satisfaction is rated high.

### **7. Difference in perceived quality between primary health centres and community health centres**

The quality of service difference between PHCs and CHCs has been examined. In the Indian rural public health care system, there is three-tier system of service provisioning. PHC is the second tier and the first contact point between the rural people and the modern medical officer/doctor. One PHC is manned by a Medical Officer supported by 14 paramedical and other staff. It acts as a referral unit for 6 SCs. It has 4 - 6 beds for patients. CHC is in the top tier of the system with some of the modern facilities like surgeon, physician, gynecologist and pediatrician supported by 21 paramedical and other staff. It has 30 inpatient beds with one operation theatre, X-ray, labour room and laboratory facilities. The study on quality of service difference between the two has been done by in the rural areas of Uttar Pradesh by using the user's perspective method [15]. They used t-test to evaluate the quality difference. Therefore, in this study it was considered to apply the similar test to examine the service difference between PHC and CHC in the rural areas of Assam taking data from rural Chirang district.

Table 4 shows the difference in perceived quality between PHCs and CHCs. In the aforesaid table many of the factors in the PHC is perceived to be better than CHC by the users. This results support the findings of the research done in the rural areas of Uttar Pradesh, where they found PHCs to be better than the CHCs [15]. For instance, in our study, statistically significant differences are observed on 'Access' with higher scores being recorded for all the items for the PHCs. Distance of public health care is conveniently approachable from home ( $p=.000$ ), public health care centre well connected with pucca/ all-weather road from home ( $p=.000$ ) and public health care centre is well connected with transportation from home ( $p=.000$ ) are all very important aspects where the PHCs is better than CHCs. This could be because only two CHCs are available in the study area as compared to 24 numbers of PHCs (11 in Sidli-Chirang block and 13 in Borobazar Block).

Furthermore, usage of PHCs is also more than CHCs. For example, four items of usage viz. first seek care from public health care centre, visited public health centre as and needed health care, would utilize public health centre when need health care(repeat visit) and recommendation of public health care at least once to the family members are significantly better with the PHC than the CHC at  $p=.000$ . This shows that due to more availability of PHC people are more interested or it is more convenient for them to visit the PHC than CHC, although the reliability is higher for the CHC compared to PHC. For instance, it has been observed that availability of the doctor/medical officer and nurse/staffs are significantly higher for the CHC than the PHC ( $p=.000$ ). This could be due to the fact that the CHC is at the higher level than PHC and is the uppermost tier of the primary health care system in rural India. CHC is manned by medical specialists comprising surgeon, physician, gynecologist, and pediatrician supported by twenty one paramedical and other medical staff and PHC is manned by only one medical officer supported by fourteen paramedical and other staff. However, this finding contradicts what Sharma and Narang (2011) found in the rural Uttar Pradesh in that they found inadequate availability of doctors in the CHCs compared to PHCs [15]. They argued that it could have been due to vacancy in the sanctioned posts of specialists at CHCs which has been found by other study as well [14] and high absenteeism rate among the primary health workers [16]. Furthermore, there is also statistically significant difference between PHCs and CHCs in 'satisfaction' aspect.

For instance, people are more satisfied with medical doctor's/officer's courteousness from the PHCs than CHCs ( $p=.030$ ). Similarly with receptionist's courteousness ( $p=.004$ ). However, there is no statistically significant difference between PHCs and CHCs with regard to people's satisfaction on information provided by the public health workers. This difference could be because people are found to visit more frequently to the PHCs compared to CHCs due to its (PHCs) more availability, thus, they might be more used to medical workers of the PHCs compared to the CHCs.

Table 4. Differences in perceived quality between PHCs and CHCs

Scale (Dependent Variable)	Healthcare Centres				
	PHCs (no. of respondents=347)		CHCs (No. of respondents=229)		“t”
	Mean	Standard Deviation	Mean	Standard Deviation	
Access					
Distance of the Public health Centre is conveniently approachable from your home	3.13	1.38	2.36	1.41	6.517***
Public Health Centre is well connected with pucca/all-weather road from your home	3.28	1.27	2.50	1.43	6.652***
Public Health Centre is well connected with transportation from your home	2.96	1.25	2.55	1.26	3.906***
Usage					
First seek care from the public health care	2.84	1.01	2.30	.87	6.794***
Visited public health centre as and when needed health care	2.83	1.02	2.22	.93	7.399***
Would utilize public health centre when need health care	3.02	.96	2.52	.90	6.370***
Had recommended public health centre at least once to the family members	3.12	1.03	2.52	.93	7.141***
Had recommended public health centre at least once to the Neighbours	1.73	.10	1.51	.80	2.836**
Care received from public health centre satisfactorily	3.31	1.01	3.29	1.00	.251
Reliability					
Met the medical doctor whenever visited the health centre(doctor availability)	2.98	1.21	3.78	1.15	-7.982***
Met the nurses/staffs whenever visited the health centre(nurse/staffs availability)	3.86	.80	4.08	.76	-3.235**
Pharmacy located nearby	3.16	1.14	4.08	.35	-11.807***
Satisfaction					
Satisfied with medical officer/doctor's courteousness	4.13	.48	4.05	.36	2.178*
Satisfied with receptionist's courteousness	4.14	.42	4.04	.34	2.857**
Satisfied with the information provided by the public health care centre	4.15	.47	4.08	.42	1.750

Source: Field Survey: Student's t-test to compare the mean difference between PHCs and CHCs  
Sig. at .05(95% confidence level) NOTE: \*\*\*P<0.001; \*\* P<0.01; \* P<0.05

## 6. Conclusions

The analysis of the quality of rural public health care services from user's perspective depicts that in the rural areas of Chirang district, health care accessibility and usage are still not adequate, even though users are satisfied with the services they received. Although reliability and satisfaction on the services are high, usage is found to be low. This could be due to unavailability of high tech treatment mechanism to treat certain major diseases in the rural health care facilities. It seems that rural public health centres are only for minor ailments or for the first aid.

It has been revealed from the interactions with the people of the area, that the public health centres (PHC and CHC) act too much as a referral centres, meaning referring the patients to the other hospitals randomly at the first instance. Many times the centres simply refer at the first instance, even though they could treat the patients. Thus, people have a fear psychosis that, when they visit the public centres, they would be referred to other hospitals anyway. Therefore, they rather visit the private health centres when they get sick. Another reason could be due to lack of awareness which is the predisposing factor. Because low usage of public health services does not necessarily mean high visits to the private hospitals.

It could be just that people do not visit any health centre but rather do self-medications from the nearby pharmacies (OTC) or visits the traditional healers. Therefore, creating awareness on the importance of seeking medical care is an important factor to take into cognizance by the policy makers.

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