IOSR Journal Of Humanities And Social Science (IOSR-JHSS)
Volume 22, Issue 10, Ver. 12 (October. 2017) PP 42-48
e-ISSN: 2279-0837, p-ISSN: 2279-0845.
www.iosrjournals.org

Status of Public Health Care Delivery System–A case study of Nagaon and Nalbari district of Assam (India)

Dr. Nirmala Devi
Assistant Professor of Economics Arya Vidyapeeth College, Guwahati, Assam (India)

ABSTRACT: The public health care delivery system plays an important role in overall development and growth of the health sector. Evidences show that studies on public health care delivery system are limited both in the Indian as well as in the context of the north-eastern region. This paper is an attempt to assess the status of public health care delivery system and pattern of utilization of health care services in Assam which is a state with 'weak health outcome indicators'. The result of the study indicate, that the meager concert of the public health care delivery system in the study areas, has an adverse impact, mainly on the poor population, in the form of high out of pocket expenses and low quality of care. Factors like shortages of specialist health personnel's, shortages of medicines, poor functioning of the health centres, lack of infrastructural facilities, shortages of manpower and problem of accessibility has become inimical for the overall development of the health care system especially for the poor population as majority of them depends on government health facilities for treatment.

Keywords: Public health, health care delivery, health services utilization, private healthcare providers

---

Date of Submission: 16-10-2017 Date of acceptance: 02-11-2017

I. INTRODUCTION

The public health delivery system plays an important role in overall development and growth of the health sector. The World Health Organization (WHO) defines health *service delivery* as "the way inputs are combined to allow the delivery of a series of interventions or health actions" (WHO 2001). Healthcare delivery system constitute of a large number of dispensaries, primary health care institutions, large hospitals, medical colleges and hospitals and paramedical training institutions (National Commission on Macroeconomics and Health, 2005). These inputs are essential for a health care delivery system to perform better and to have an impact in the form of decreased morbidity or mortality in the country (United States Agency for International Development, 2012). However, evidences show that imperfect functioning of health care delivery system has resulted in low quality of care and the need for reforming the system has become most essential. Lack of equipments, trained health personnel, lack of medicines, inadequate supervision, absenteeism of doctors or health providers and rude behavior of health personnel has resulted in diversion of the common masses to the private hospitals or health clinics although unwillingly (Chaudhury et.al. 2003; Banerjee et. al. 2004; Bajpai & Dholokia 2006) Under the above background, this article focuses on the status and utilization of public health care delivery system in Assam. Assam is one of the states which have been recognized as a state with 'weak health outcome indicators' (National Health Mission, 2005). For instance, the state has highest maternal mortality ratio and infant mortality rate across the major states of the country (National Health Policy, 2015, Assam Human Development Report, 2016). The present article looks at the lapses of public health care delivery system in two districts namely Nagaon and Nalbari. With respect to the present health care scenario of the state it is important to focus on the major issues which compel the rural people to hover around the private health facilities or private pharmacies in spite of various health facilities being provided by the state. There is a need to question about the issue of efficiency and feasibility of public health care delivery system in the rural areas. Moreover, the expenditure pattern in the state indicates that the expenditure on construction of hospitals or infrastructure is very less and a significantly large expenditure is spent on salaries which is a matter of concern (Duta & Bawari, 2007).

II. MATERIALS AND METHODS

The study is based on household survey conducted in Bamuni Pathar and Balagaon villages of Nagaon and Nalbari district of Assam. Nagaon has been selected as one of the district below the median rank and Nalbari has been selected as one of the district above the median rank. A ranking of districts was carried out

based on selected socio-economic indicators with emphasis on primary and secondary indicators of health.[1] A further survey literature was done to identify the forward and backward blocks in which the sample survey can be carried out. Kaliabor Development Block (backward block) and Barbhag Development Block (forward block) were selected from which a list of revenue villages was created. From the two blocks Bamuni Pathar and Balagaon revenue villages were randomly selected for the study.[2] A census enumeration of Bamuni Pathar village showed a total of 247 households, out of which 99 (40 per cent) of the households were selected randomly for a sample survey[3]. Balagaon revenue village constituted of 278 households, out of which 111 (40 per cent) of the households has been selected for the present study.

Type of questionnaire used in the survey

To collect household level information a household questionnaire has been prepared and information about the household's background characteristics together with information related to morbidity, outpatient care, inpatient care and out of pocket expenses were also collected. The information on health care delivery system was collected by using four types of questionnaire a. Primary Health Centre Questionnaire b. Community Health Centre Questionnaire c. Auxiliary and Nurse Midwives (ANM) and Sub Centre (SC) Questionnaire and d. Accredited Social Health Activist (ASHA) Questionnaire.

1. A brief overview on health and socio-economic status of the population in the study villages:

In terms of household accessibility to basic household amenities Balagaon is relatively better off than Bamuni Pathar. The share of households having access to electricity facility is 75 percent in Bamuni Pathar and 93 per cent in Balagaon. In terms of use of toilet facility, 60 percent of the households are using toilet facility while the rest go for open defecation in Bamuni Pathar. While in Balagaon 84 percent of the households have access to toilet facility. Use of safe drinking is limited to 63 percent in Bamuni Pathar and 73 percent in Balagaon. The overall literacy rate is 66 per cent in Bamuni Pathar and 84 percent in Balagaon.

In Bamuni Pathar the prevalence rate of morbidity is 42 percent and in Balagaon 40 percent. These show close to a quarter of the residents in the study area suffering from various kinds of basic illnesses. In Bamuni Pathar among the total population reporting any kind of illness, 86 percent was treated and 14 percent were untreated while in Balagaon 90 percent has been treated and 7 percent were untreated. While morbidity prevalence is high, there is a sizeable share of population that remains untreated. Untreated morbidity is higher for acute illnesses than chronic illnesses in both the villages[4]. Since chronic illnesses are unavoidable in nature, untreated cases are found to be lower in both the villages. Untreated morbidity is large because of various reasons. Many casual workers do not seek treatment due to high opportunity costs of missing workdays. Lack of availability of quality healthcare in public facilities is another reason for people not seeking treatment. Over crowdedness in public facilities discourages people. Although the cases of untreated illnesses are less in Balagaon, untreated cases for communicable diseases are found to be higher in both the villages which need policy intervention.

2. Utilization of health care delivery services in the study villages:

The options available for households in Bamuni Pathar for seeking treatment are: PHC and sub-centre located within the village, FRU located at the nearest town in Jakhalabandha (13 kilometers away from the revenue village), civil hospital in Tezpur town (35 kilometers away from the revenue village), and private clinics and nursing homes located in Jakhalabandha and Tezpur. Households also prefer self-medication by directly buying medicines from the pharmacy, traditional healers (*ojhas*) and home remedial measures.

In Balagaon revenue village, the government health services include mini primary health (MPHC) centre and a sub-centre located within the village, a PHC is situated almost 5 kilometers away at Maroa town. Patients from Bamuni Pathar also visit the CHC at Kamarkuchi for treatment. A CHC is situated 15 kilometers away from the village at Kamarkuchi town. The civil hospital is situated at Nalbari town which is almost 12 kilometers away from the village. Private health clinics and nursing homes are concentrated in Nalbari town.

[1] See Appendix for the indicators used and the ranking of districts based on the composite index. The methodology of calculation of the composite index was adapted from Ram (2005).

[2]The backward block has been selected on the basis of the available literature on *Identification of Backward Blocks* by Barua (2012)

[3] The information on morbidity was gathered from the individual residents of these 99 households constituting 485 individuals.

[4] Information on acute and chronic morbidity has been collected separately because chronic morbidity has a greater impact on the household financial liability of the households. For treatment of chronic morbidity the households have to spend a larger share of their total consumption expenditure leading to higher impoverishment among the rural households. There is a direct relationship between poverty and chronic diseases. For instance, treatment of chronic diseases is much expensive in comparison to acute diseases as for treatment of chronic diseases the rural population has to either go to the private sources as the sophisticated facilities are not available within their coverage and they have to travel to tertiary or secondary hospitals which are located far away from the village (Mukherjee et al., 2015)

In terms of individual behavior seeking treatment, the use of government health facilities is 78 percent in Bamuni Pathar village, 7 percent go to private health facilities, 1 per cent goes to both private and public health facilities and 14 percent rely on other measures (Figure 1). Although the demand for government health facility is high in the village; due to lack of proper treatment, lack of equipments, medicines and health specialist most of the patient budge to the FRU at Jakhalabanha which is nearly 13 kilometres away from the village. However, the FRU is mostly overcrowded and due to shortage of beds in the FRU, people have to go to the nearby private clinics or hospitals. The civil hospital which is situated at Tezpur which has a high carrying capacity is far away from the village. Therefore the residents of the village had to depend on the private health facilities although unwillingly[5]. Although the preference on government health facilities is high among the study population in Bamuni Pathar, due to deteriorating or low quality of care and other loopholes, people are compelled to visit private healthcare facilities.

In Balagaon among all those suffering from morbidity, 59 percent went to government health facility and 33 percent went to private health facility for treatment. Around 3 percent availed both public and private facilities and 5 percent relied on other forms of treatment (Figure 2). Those who went to both government and private health institutions are those cases, where the patients first went to government health institutions, were not fully cured, and therefore went to a private health facility later on.

In both villages preference and demand for government health facilities are very high. Private health facilities became an option only when government health facilities could not

Figure 1:Utilization of different health care facilities in Bamuni Pathar

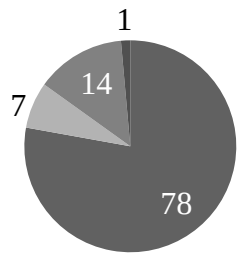
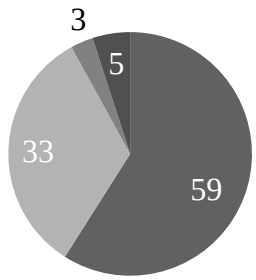


Figure 2: Utilization of different health care services in the Balagaon



provide treatment due to crowding or lack of quality care. This is true of both villages. Between both the villages however, Bamuni Pathar, the relatively more backward village, shows a heavy dependence on government health facilities. While low household incomes are one of the most important reasons for accessing public health facilities, there are more. Personal interviews explored preference for health facilities based on household characteristics. Bamuni Pathar has low levels of awareness regarding quality treatment, and people are accustomed to the low quality of care in government hospitals, apart from the fact that they are more

[5] Public health facilities in the rural areas are more acquainted with provision of treatment for acute morbidity and child and maternal healthcare facilities. Therefore the patients have to move to the nearby private hospitals for treatment of chronic or hospitalization cases resulting in higher out of pocket expenses (Mukherjee et al., 2008).

accessible in terms of expenses. Balagaon village has higher levels of literacy and economic status of households is relatively better off. Dependence on private healthcare facilities is comparatively high in Balagaon. The respondents maintained that due to poor quality of treatment, rude behavior of the hospital staff, lack of proper care and negligence by the hospital authority and long duration of treatment in the government health facilities, they were reluctant to go to government health facilities. Some households preferred to go to private health facility even if they had to borrow money from friends and relatives.

Moreover, the estimates of expenditure in various components of OOP expenses reflect that a notably large proportion of residents are forced to purchase medicines from private pharmacies as most of the medicines are out of stock in government health facilities. Similarly, most of the diagnostic tests are outsourced to private health facilities due to their unavailability in government facilities. Since many cases are referred to private facilities, OOP shoot up. In Bamuni Pathar, 56 percent of hospitalization cases are treated in private health facility. Although there is a high demand for government health facility in the village, low quality care, low seat capacity, over crowdedness, lack of specialists and lack of sophisticated health equipment compel residents to visit private health facilities for treatment. Amount is spent on attendant charges and transportation to reach private hospital or the FRU cannot be considered trivial.[6] Majority of the households visit public health facilities for hospitalization cases in Balagaon. The households prefer government health facilities because of low cost and easy accessibility.

Therefore people seeking treatment even in government health facilities has to incur heavy OOP expenses. Higher expenditure on health implies cutting off expenditure on food and other non-food items such as expenditures on education and other household utilities. Thus on an average approximately 85 percent of expenses are made on health and food together in Bamuni Pathar and it is 75 percent in Balagaon. Residents of Bamuni Pathar are therefore making greater sacrifices on other forms of non-food expenses, although the opportunities forgone in Balagaon are not that low either. Diagnostic tests are largely outsourced from the government health facilities to private health facilities adding to the households' burden of expenses.

3. Problems associated with health care delivery system in the study villages:

On the basis of personal interviews with residents and the views of health personnel in government health facilities in the villages, the following problems were observed.

a. ***Accessibility:***

Accessibility to the public health care facilities is one of the major constraints in the rural setting. In the context of the present study, people in Bamuni Pathar spent 9 percent of the total OOP expenses on transportation. Since health facilities in the village provide only minimal health care, people regularly move out for health reasons. People are largely dependent on private transport due to a complete lack of public transport system in place. The civil hospital is 25 kilometers away from the village. The FRU is overcrowded with patients, there is lack of seats in the hospital, compelling patients to seek treatment in nearby private hospital or private health care clinics. Especially in cases of hospitalization and long term illnesses, the households have to bear a bulk of expenses in terms of transportation cost (10 percent) and attendant charges (16 percent), which result in heavy economic burden mainly for the poorer households. However, the problem of accessibility is comparatively lower among the households of Balagaon.

b. Shortages of skilled health personnel:

Shortages of skilled health personnel in health facilities in both villages have already been stressed in the previous section. The general opinion that came up was doctors are reluctant to work in the rural set up. In many cases it was observed that the doctors in the government health institutions practice privately in the villages and collect a fee. The ANM at the PHC in Bamuni Pathar expressed heavy workload due to lack of adequate manpower in the health centre. In the mini primary health centre of both the villages, there were AYUSH doctors only. In the FRU of Bamuni Pathar gynecologists and anesthetists are not available due to which patients are referred to private health facilities. Same is the case with the PHC and CHC of Balagaon.

c. Shortages of medical equipment:

Lacks of proper medical equipments such as ultrasound facilities are not available either in the PHC or the CHC in both the study villages. Thus for ultrasound, patients have to go to the nearest FRU, resulting in loss of time and money. Thus, in many cases, residents ignore going to health facilities in the early stages resulting in critical condition at a later stage. Diagnostic test facilities are completely absent in nearby public health facilities. The health personnel in the study villages expressed their unhappiness regarding the lack of government attention to health units at the village level.

[6] Hospitalization expenses are one of the major factor behind high out of pocket expenses resulting in catastrophic payment among the households (Peters et al., 2002; Roy and Hill 2007; Garg and Karan, 2008).

d. Shortages of medicines in government hospitals:

Another serious problem encountered was shortages of medicines in the health centres of both villages. Supply of medicines was irregular, and only some of the common medicines were available. Households purchased bulk of medicines from private pharmacies, which also contributed to high out of pocket expenses. Some of the commonly available medicines were Iron and Folic Acid tablets, calcium tablets, and medicines for minor illnesses like fever or diarrhea. We have seen in Chapter 6 that a major share of total out of pocket expenses were on drugs and medicines.

e. Lack of infrastructural facilities:

Lack of basic infrastructure such as separate toilet for males and females, poor housing, non-functional ambulance services, and lack of beds in government health facilities are a major limitation. The higher income groups prefer private health institutions while the lower income groups suffer the inefficiencies of public health institutions.

f. Low seat capacity and over crowdedness

Another problem in the government health institutions is the problem of low seat capacity and over crowdedness. Bamuni Pathar residents always complained of over crowdedness and low seat capacity, propelling them to go to private hospitals

III. CONCLUSIONS

This paper reiterates the findings of NSSO that there is a large demand for quality public health services in the rural areas. This is particularly true of village Bamuni Pathar in Nagaon district where there is a heavy dependence of people on government health facility. Balagaon village in Nalbari district, which has access to private health facilities, also has a very high rate of utilization of government health facility. Under such circumstances, well equipped government health facilities and a substantial increase in capital expenditure can contribute to better health status of the rural households. However the study indicates that there are problems of accessibility, infrastructure, rude behavior of the health personnel, shortages of medical equipments, shortages of medicines, low bed capacity and shortages of manpower in the sample villages. Although a majority of the population depends on the government health facilities for treatment the quality of treatment is not at all satisfactory.

Low quality of care in the government health facilities resulted in movement of patients to private facilities leading to high out of pocket expense in both the villages. Moreover, the problem of outsourcing of patients to the private health facilities for diagnostic tests is another major issue in the rural set up, contributing to high out of pocket expense which needs policy intervention. Higher expenditure on health implies cutting off expenditure on food and other non-food items such as expenditures on education and other household utilities. To make various ends meet, households go through an unending struggle of sacrificing one utility over the other; whether it is education, health, clothing or leisure activities.

ACKNOWLEDGEMENT

I acknowledge the local inhabitants of the two villages who helped me to carry out the survey smoothly through their full co-operation sharing the required information spending their valuable time. My sincere thanks is to all the officials and other office bearers of different capacities in the health centres located within the jurisdiction of the survey area for their best support and encouragement to me. I also acknowledge the Department of Humanities and Social Sciences (HSS), Indian Institute of Technology Guwahati (IITG) for availing their infrastructure to me for undertaking this study in support of their PhD programme.

REFERENCES

[1] Bajpai N, Dholokia RH. Scaling up Primary Health Care Services in Rural Rajasthan: Public Investment Requirements and Policy Reforms. Centre on Globalization and Sustainable Development (CGSD) working paper series. (32): 2006

[2] Banerjee A, Deaton A, Duflo E. Health Care Delivery in Rural Rajasthan. Economic and Political Weekly. (2004); 39 (9): 944-949.

[3] Barua, J, On Identification of Backward Blocks. Research Paper Series (04), Omeo Kumar Institute of Social Change and Development (OKDISCD). Guwahati; 2012.

[4] Chaudhury N, Hammer J, Kremer M, Muralidharan K, Rogers H. Teachers and Health Care Providers Absenteeism: A Multi-Country Study'. Development Research Group. World Bank; 2003

[5] Commission on Macroeconomics and Health. Macroeconomics and health: investing in health for economic development. Geneva: World Health Organization; 2001.

[6] Dutta I, Bawari S. Health and Health Care in Assam, A status Report. Centre for Enquiry into Health and Allied Themes in collaboration with Omeo Kumar Das Institute of Social Change and Development. Mumbai; 2007.
[7] Garg C, Karan A. Reducing out-of-pocket Expenditures to Reduce Poverty: a Disaggregated Analysis at Rural-Urban and State Level in India. Health Policy and Planning. 24 (2); 2008; 116–28.
[8] Gosh, S., Arokiasamy, P. Morbidity in India-Trends, Patterns and Differentials. Journal of Health Studies. 2009; 2: 136-148.
[9] Government of Assam. Assam Human Development Report 2014. Planning and Development Department. Guwahati; 2016.
[10] Government of India, *National Rural Health Mission document*, Ministry of Health and Family Welfare, New Delhi, 2005.
[11] Mukherjee A N, Karmakar K. Untreated Morbidity and Demand for Healthcare: An analysis of National Sample Survey Data. Economic and Political weekly. 2008; 43 (46): 71-77.
[12] Mukherjee A N, Karmakar K. Untreated Morbidity and Demand for Healthcare: An analysis of National Sample Survey Data. *Economic and Political weekly*. 2008; 43 (46):71-77.
[13] Mukherjee S, Chaudhuri A, Barik, A. New Health Policy and Chronic Disease: Analysis of Data and Evidence. Economic and Political Weekly. 2015; 12 (37): 21-24.
[14] National Commission on Macroeconomics and Health. Financing and delivery of health care services in India. New Delhi: Government of India; 2005.
[15] National Health Policy 2015. Draft. Ministry of Health and Family Welfare Government of India. 2015.
[16] Panikar P.G.K. Health Care Delivery Systems in India: Alternative Approaches. Economic and Political Weekly. 1976; 11(22): 817-819.
[17] Peter DH, Sujatha KR, Fryatt R. Lumping and Splitting: the health policy agenda in India. Health Policy Plan. 2003; 18 (3): 249-260.
[18] Ram F, Shekhar H, Mohanty SK. Human Development: Strengthening District Level Statistics in India. International Institute of Population Sciences: 2005.
[19] Ray SK, Basu SS, Basu AK. An Assessment of Rural Health Care Delivery System in Some Areas of West Bengal-An Overview. Indian Journal of Public Health, 2011; 55 (2): 70-80.
[20] Roy K, Hill HD. Equity in out of pocket payments for hospital care: evidence from India. Health Policy. 2007; 80 (2): 297–307.
[21] Sen G, Iyer A, George A. Structural Reforms and Health Equity: A Comparison of NSS Surveys, 1986-87 and 1995-96. Economic and Political Weekly. 2002; 37 (14): 1342-1352.
[22] United States Agency for international Development. The Health System Assassment Approach: A How –To Manual; 2012
[23] World Health Organization. Health System: Improving Performance. World Health Report: 2000.

APPENDIX

A1. List of indicators used for ranking of the districts

Mortality indicators	Health Coverage indicators	Risk factors	Demographic and socio-economic characteristics
1. Infant mortality rate	1. Provision of full antenatal care to pregnant women	1.Low Birth Weight of new born infants	1.Crude birth rate
2. Under five mortality rate	2. Post natal care to women within 48 hours of delivery	2. Source of drinking water	2.Natural growth rate
	3. Contraceptive prevalence rate	3.Household access to toilet facility	3.Female literacy rate
	4. Full immunization of children of 12-23 months of age	4.Household access to electricity facility	4.Women with birth order 3 and above
	5. Financial assistance from Janani Suraksha Yojana for institutional delivery		
	6. Delivery at government health institutions		
Sources of information:			

Categorisation of health indicators adapted from WHO (2011) *Global Health Indicators*
Ram and Shekhar (2004) for the methodology Index value=$\frac{Max\ (X_{1d})-X_{1d}}{\{Max\ (X_{1d})-Min\ (X_{1d})\}}$ Composite index =$1/16\sum_{i=1}^{16} X_{id}$
Annual Health Survey (2011) and Census of India (2011) for district level data

IOSR Journal Of Humanities And Social Science (IOSR-JHSS) is UGC approved Journal with Sl. No. 5070, Journal no. 49323.

Dr. Nirmala Devi Status of Public Health Care Delivery System–A case study of Nagaon and Nalbari district of Assam (India)." IOSR Journal Of Humanities And Social Science (IOSR-JHSS) , vol. 22, no. 10, 2017, pp. 42-48.