An Economic Analysis of Health Status on Madurai District, Tamilnadu: A Case study of Thirumangalum Taluk

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Abstract

The quality of healthcare in India in both the private and public health sector is unsatisfactory. The problems include non-availability of staff and medicines as well as the rude behaviour of the staff. Studies in the private sector have shown that practitioners tend to recommend unnecessary and even harmful medicines. Recent policy documents also acknowledge the lack of quality in the Indian health services. In this context rural health is identified as a major indicator in the rural development and an attempt is made in this study to trace the trend in health status, present and future health challenges and "felt need" of the people in health care services in rural Tamil Nadu by taking a few revenue villages in Madurai district. There is inequality in health status among different socio-economic groups defined in terms of income, education, land ownership, and housing. Therefore research studies are needed not only to examine the nexus between health and development but also the question of differentials in health status and health care utilization across socio-economic groups in rural areas. The present study will also focus intensively to find out reasons behind the health seeking behavior of people at micro level in rural Tamil Nadu by taking a few villages in Madurai District.

Introduction

The progress of a nation depends on a large extent to the development of rural society. The development is consistent and effective only when there is a balanced growth regionally. In India still the development is lop-sided. In our country, there is mismatch between objectives and resources, which leads to both inadequacies and inequalities in rural development. To minimize this problem, the people in the rural areas particularly the weaker section to be properly identified and to assess how far the developments are addressed to their needs. To day, it is widely felt that development of social infrastructure is the pre-requisite for the

overall development of any economy. In this context rural health is identified as a major indicator in the rural development and an attempt is made in this study to trace the trend in health status, present and future health challenges and "felt need" of the people in health care services in rural Tamil Nadu by taking a few revenue villages in Madurai district.

Statement of the Research Problem

Tamil Nadu has performed well in health sector when compared with other states in India. Tamil Nadu is the leading state in implementing various government health programmes as per the observations made by UNICEF and WHO. But it is widely observed that today the public health system does not deliver services adequately to those who need them; and the private sector has grown to be the main provider of curative health care. The studies on health status in Tamil Nadu show the rosy picture of the health status in the state are based on aggregates and they conceal rather than reveal the inequalities that exist in the health conditions in the state. There is inequality in health status among different socio-economic groups defined in terms of income, education, land ownership, and housing. Therefore research studies are needed not only to examine the nexus between health and development but also the question of differentials in health status and health care utilization across socio-economic groups in rural areas. Moreover it is necessary to analyze how far the health care services supply by the Government of Tamil Nadu are perceived by people in rural areas and what are the "felt need" of the people in health services. The present study will also focus intensively to find out reasons behind the health seeking behavior of people at micro level in rural Tamil Nadu by taking a few villages in Madurai District.

Specific objectives of the Study

The specific objectives are:

1. To analyze the health status in the Villages in Madurai District in terms of
    (i) Morbidity due to communicable and non-communicable diseases and
    (ii) Mortality
2. To examine
    (iii) Health care expenditure
    (iv) Choice of medical system

among different socio-economic groups in the selected villages of the Madurai district

3. To give suggestions to enhance the efficiency equity and sustainability of health care system in the state.

Methodology of the Study

Madurai district consists of 7 taluks: 13 community development blocks and 664 revenue villages. There are 42 primary health centres of which 13 are main PHCs and 29 are Additional PHCs. According to 2011 Census enumerated population there were 30.41 lakhs of people in the district of which 11.96 lakhs were in rural areas and 18.44 lakhs were in urban areas.

Selection of the Study Area

Thirumangalam Taluk in Madurai District has been selected as the study area for several specific reasons. Thirumangalam Taluk is considered to be one of the most backward taluks in the Madurai District. This Taluk is the largest taluk in the state covers 814.18 sq.km area in Madurai District. As per 2003 VHN (Village Health Nurse) Records, this Taluk has the highest death rate (8.4 per 1000 population) in the District. Moreover this Taluk consists of 108 revenue villages of the total 670 revenue villages of Madurai District. Thus this Taluk is the largest Taluk in Madurai District. This Taluk consists of 13.5 percent of rural population of Madurai District .This Taluk is Covering more rural areas and poor health status (death rate) in the district. Therefore this Taluk has been chosen as the study area

Table -1

Thirumangalam Taluk

S. No	Study Area	Number of Households
1	A.Kokkulam	30
2	Sathangudi	30
3	T.Pudupatti	30
4	Nallamanayakkanpatti	30
5	Chinna Ulagani	30

Total Households	150

Collection of Primary Data

Primary Data: Primary data collected for this Thirumangalam Taluk has been chosen. This block consists of two main PHCs and three Additional PHCs. Of this one revenue village covers under each PHC has been chosen and thus number of sample revenue villages are five in this study. A complete household survey has been undertaken in all the selected five villages. Simple random sampling method is adopted to collect primary data in the present study to get an in-depth view about the rural health status in the district. Thus primary data are collected from the selected five villages of the Thiumangalam Taluk of Madurai District.

Analysis of the Study: Percentage analysis, Correlation and chi-square test are used in primary data. Study area from Thirumangalam Taluk, Madurai District. 150 total households are selected from five revenue villages. Each 30 households are used simple random sampling.

Table 2

Community of the Total Households

S. No	Community	Total Households	Percentage
1	BC	56	37.33
2	MBC	82	54.67
3	SC	11	7.33
4	ST	1	0.67
Total		150	100

Source: survey data

150 households from five revenue villages and 54.67 percentage of the majority of the community are Most Backward Class. 37.33 percentage of the population are Backward Class.

Table 3

Education Status of the Total Households

S. No	Education	Total Households	Percentage
1	Literate	98	65.33
2	Illiterate	52	34.67
3	Total	150	100

Source: survey data

65.33 percent of the total households are literate and 34.67 percent of the total households are illiterate.

Table 4

Size of the Family and Total Households

S. No	Family Size	Total Households	Percentage
1	1-3	49	32.67
2	4-6	90	60.00
3	7-9	11	7.33
Total		150	100

Source: survey data

60 percent of the total households are 4-6 family size in study area and 32.67 percent of the total households are 1-3 family size.

Table: 5

Occupational Status of the Total Households

S. No	Occupational Status	No.of.Total Households	Percentage
1	Farmer	09	6
2	Agricultural Worker	65	43.33
3	Government Employee	12	8
4	Private Employee	13	8.67
5	Self Employee	21	14
6	Unemployed	30	20

Total	150	100

Source: Survey data

43.33 percent of the occupational status is agricultural worker and 20 percent of the households are unemployed.

Table: 6
Monthly Income of the Total Households

S. No	Monthly Income (in Rs)	Total Households	Percentage
1	Below 1500	13	8.66
2	1501-3000	36	24.00
3	3001-4500	40	26.67
4	4501-6000	49	32.67
5	6001 and above	12	8
Total		150	100

Source: Survey data

32.67 percentage of the number of the total households of the monthly income are 4501-6000. 8 percentage of the total households are 6001 and above.

Table: 7

Monthly Health Expenditure of the Total Households

S. No	Monthly Health Expenditure (in Rupees)	Total Households	Percentage
1	Below 500	56	37.33
2	501-1000	37	24.67
3	1001-1500	27	18
4	1501-2000	18	12
5	2000 and above	12	8
Total		150	100

Source: Survey data

37.33 percent of the total households are spending below 500. 24.67 percent of the total households are spending 501- 1000. 8 percent of the households are spending 2000 and above.

Table: 8

Structure of the Household

S. No	Structure of household	Total Households	Percentage
1	Hut	31	20.67
2	Titled	51	34
3	RC Roofed	68	45.33
Total		150	100

Source: survey data

45.33 percent of the total households are living Rc Roofed and 20.67 percent of the total households are living Hut.

Table: 9

Electrification Facility of the Households

S. No	Electrification	Total Households	percentage
1	Yes	138	92
2	No	12	8
Total		150	100

Source: survey data

8 percent are not electrification in household and 92 percent are electrification in household.

Table: 10

Source of Drinking Water

S. No	Source of Drinking Water	Total Households	Percentage
1	Public tab	126	84

2	Bore well	12	8
3	Open well	2	1.33
4	Tank	10	6.67
Total		150	100

Source: Survey data

84 percent of the households are used public tab and 1.33 percent of the households are used open well.

Table: 11

Toilet Facility

S. No	Toilet Facility	Total Households	Percentage
1	Flush out	12	8
2	Dry latrine	5	3.3
3	Open Place	133	88.7
Total		150	100

Source: Survey data

88.7 percent of the households are used open place and 3.3 percent of the households are dry latrine.

Table: 12

Choice of Health System

S. No	Choice of Health System	Total Households	Percentage
1	Primary Health Centre	53	35.33
2	Government Hospital	76	50.67
3	Private Clinic	19	12.67
4	Ayurvedic/Homeopathy	2	1.33
Total		150	100

Source: Survey data

50.67 percent of the household are going to Government hospital and 1.33 percent of the people are going to Ayurvedic/Homeopathy.

Table: 13

Mortality of the Households

S. No	Mortality	Total Households	Percentage
1	Yes	11	7.3
2	No	139	92.7
Total		150	100

Source: Survey data

7.3 percent of the households are death and 92.7 percent of the households are not death.

Table: 14

Reason for Death of Mortality

S. No	Reasons for death	Total Households	percentage
1	Accident	5	45.45
2	Natural death	3	27.27
3	Child death	2	18.18
4	Chest pain	1	9.10
Total		11	100

Source: Survey data

45.45 percent of the households are death in accident cases and 9.10 percent of the total households are death in chest pain.

Table: 15

Morbidity of the Total Households

S. No	Morbidity	Total households	percentage
1	Yes	134	89.3
2	No	16	10.7
Total		150	100

Source: Survey data

89.3 percent of the households are affected communicable diseases and non communicable diseases. 10.7 percent of the households are not affected both diseases.

Table: 16

Communicable Disease and Sex

S. No	Communicable diseases	Sex		Total
		Male	Female	
1	Affected	93 (37.96)	152 (62.04)	245 (100)
2	Not Affected	240 (76.68)	73 (23.32)	313 (100)
Total		333 (59.68)	225 (40.32)	558 (100)

Source: Survey data Figures in parentheses refers to percentage

The above the table 245 of the family members is affected communicable diseases, 313 of the family members are not affected communicable diseases. 62.04 percent of the female are affected communicable diseases. 37.96 percent of the male are affected in communicable diseases. 76.68 percent of the male are not affected communicable diseases and 23.32 percent of the female are not affected communicable diseases.

Table: 17

Affected Correlation between affected Communicable Disease and Sex

S. No	Name of the Communicable diseases	Sex		Total
		Male	Female	
1	Viral Fever	38 (15.51)	62 (25.31)	100 (40.82)
2	Cough	12 (4.90)	33 (13.47)	45 (18.37)
3	Small box	22 (8.98)	24 (9.79)	46 (18.77)
4	Cholera	8 (3.27)	9 (3.67)	17 (6.94)
5	Malaria	7 (2.86)	11 (4.49)	18 (7.35)
6	T.B	4 (1.63)	6 (2.45)	10 (4.08)
7	Diaherria	2 (0.83)	7 (2.85)	9 (3.67)
Total		93 (37.96)	152 (62.04)	245 (100)

Source: survey data and Figures in parentheses refer to percentage

40.82 percent of the total respondents are affected viral fever and 25.31 percent of the female are affected viral fever and 15.51 percent of the male are affected viral fever and 18.77 percent of the total respondents are small box and 18.37 percent of the total respondents are cough.

Table 17.1

Results of the Correlation between affected Communicable Diseases and Sex

Name of the Correlation	'r' Value	Degree	Correlation Result
Karl pearson	0.93	High	Positive Correlation

There is high positive correlation between affected communicable diseases of the male and female**.**

Table: 18

Non Communicable Diseases and Sex

Non Communicable Diseases	Sex		Total
	Male	Female	
Affected	250 (79.87)	63 (20.13)	313 (100)
Not Affected	83 (33.88)	162 (66.12)	245 (100)
Total	333 (56.68)	225 (40.32)	558 (100)

Source: Survey data and Figures in parentheses refers to percentage

245 of the total respondents are affected non communicable diseases and 313 of the total respondents are not affected non communicable diseases. 33.88 percent of the male are affected non communicable diseases and 66.12 percent of the people are affected non communicable diseases.

Table 18.1

Result of the Chi-Square Test

Factor	Calculated Value	Table Value	Degrees of Freedom	Remarks

Non Communicable Diseases and Sex	0.96	3.84	1	Significant at 5 per cent

The chi-square test reveals that the calculated value is less than the table value and result is significant at 5 percent level. Hence the hypothesis is accepted. From the analysis, it is concluded that there is association between non communicable Diseases and Sex. For 1 degree of freedom at 5 per cent level of significance chi-square table value is 3.84. Since calculated value is 0.96 is less than table value is 3.84. There is H_0 null hypothesis accepted. There is no significance difference between sex and non-communicable disease.

Suggestions of the Study

- ✓ The central and state government should encourage the public expenditure on health in rural areas
- ✓ The central and state government may increase the main primary health centers and additional primary health centres and health sub centres in rural areas
- ✓ Government may increase health awareness programmes and environmental awareness programmes for illiterate rural people
- ✓ Infrastructure facilities and emergency facilities should increase in primary health centres.

Conclusions

It is widely recognized that improvement in the health status of population is an important strategy to increase the productivity and economic growth of developing nations. In India, ensuring the good health of the people, particularly in rural areas is a challenging task. Many of the health targets are still remained unachieved. In the light of this, it widely felt that an in depth study of health status in rural areas like the present study could provide valuable inputs to the academics, health experts and policy makers.

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