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Socio economic and demographic differentials in the prevalence of chronic diseases across states in North East India.

(Evidences from DLHS 4)

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Abstract

There is a number of literature on chronic diseases at global level and even to some extend at the country level in India describing the trends, pattern and significant of such diseases, but however the same is still very few in regions like North Eastern States of the India. In the above backdrop, the present study aims to explore the pattern and prevalence of the some of the common chronic diseases across the North eastern states by some socio economic and demographic characteristics.District level household and facility survey-4 (DLHS-4), which is a nationwide survey conducted during 2012-13 gather information also on the prevalence of morbidity for a wide range of communicable and non-communicable diseases. Across seven states in North east except Assam, information in a household questionnaire were collected from a total of 264263 household members. The data was utilized to perform the analysis to achieve the objectives of the

study where various analysis viz frequency, cross tabulation and chi square test were perform on the appropriate variables to obtained the desired results.The five mostly diagnosed chronic diseases reported among the sampled household members in the North eastern States taken as a whole in a decreasing order of incidences are hernia, followed by hypertension, diabetes, asthma and lastly those diagnosed with chronic liver diseases. The above chronic diseases constitutes about 46.3% of all reported diseases among households members and the study also reveals existence of differentials in the prevalence by age, sex and standard of living across the seven states.

Keywords DLHS 4, Chronic diseases, North eastern states, Standard of living, Chi square test.

Introduction

Chronic diseases can be considered as those diseases of long duration and generally slow progression and to name a few, such as heart disease, stroke, cancer, chronic respiratory diseases, diabetes, gastroenteritis and Tuberculosis and are by far the leading cause of mortality in the world [1] . Globally, the changes in the economic, social and demographic determinants of health and adoption of unhealthy lifestyles are contributing to observed progressive and accelerated rise in morbidity and mortality due to the above mentioned chronic diseases.

The study of chronic diseases in India has been done by many researchers and some of them are those done by Patel *et al*, 2011 [2] mentions that Chronic diseases (eg, cardiovascular diseases, mental health disorders, diabetes, and cancer) and injuries are the leading causes of death and disability in India, and they projected pronounced increases in their contribution to the burden of disease during the next 25 years. Based on the determinants of the diseases the researchers advocate the need to strengthen social and policy frameworks to enable the implementation of interventions such as taxation on bidis (small hand-rolled cigarettes), smokeless tobacco, and locally brewed alcohols.

Directorate general of health services, Ministry of health and family welfare, Government of India in its report to the planning commission in 2011 [3] titled 'Prevention and control of non communicable diseases' reveals that more than 20% of the population has at least one chronic disease and more than 10% have more than one. Chronic diseases are widespread in people who are younger than 45 years and in poorer populations. The report also mentions that although socioeconomic development tends to be associated with healthy behaviours, rapidly improving socioeconomic status is associated with a reduction of physical activity and increased rates of obesity and diabetes. The emerging pattern in India is therefore characterized by an initial uptake of harmful health behaviours in the early phase of socioeconomic development. Such behaviours include increased consumption of

energy-dense foods and reduced physical activity and increased exposure to risk factors which are driven by factors such as higher levels of urbanization, technological change, market integration and foreign direct investment.

Research works related to chronic diseases in North East India is scanty and some of the isolated studies conducted on few groups of the populations are highlighted in the following passage. Misra *et al*(2014) conducted a study on Risk factor profile for non-communicable diseases among *Mishing* tribes in Assam [4], a North East State in which a total of 332 individuals of the *Mishing* tribe (men 54%) aged 25-64 yr, were selected from Tinsukia district using WHO STEPs approach where information on Demographics and measured variables viz weight, height, waist circumference and blood pressure were collected. The researchers found that Tobacco use, alcohol use and unhealthy diet habits were high among men and women in this population and were major NCD risk factors and suggested that an integrated approach of culturally appropriate population level and high risk strategies are warranted to reduce these risk factors and to enhance adequate control of hypertension.

Barman(2016) was working on the prevalence of chronic non - communicable diseases in urban population of Nagaland [5], a state in North east of the country. The researcher collected primary data through a household survey in which information is collected on the prevalence of certain chronic diseases (cardiovascular, diabetes, cancer, chronic respiratory disease, cirrhosis of liver, renal failure, asthma) and on certain risk behaviours (physical exercise, consuming tobacco and alcohol, smoking, body mass index etc.). The findings reveals that persons in the age group 25-50 years are approximately 4 times less likely to have chronic disease compared to those above 50 years of age, that persons living in kachcha houses are approximately three and half times less likely to have chronic disease compared to persons living in pucca house and economically advanced persons have more chance of acquiring chronic diseases. Respondent with lower family income may have higher prevalence of other communicable diseases. The researcher also found that tobacco consumption increase the risk of chronic diseases by one and a half times, smokers are approximately one and half times at high risk of acquiring chronic disease and alcoholic persons are more than two and half times at high risk of having chronic disease.

All the above literature makes it clear that various studies have been conducted on chronic diseases at global and even to some extend at the national level, but however the same is still very few in regions like North Eastern States of the country. I this backdrop, the researcher intend to explore the pattern and prevalence of the some of the common chronic diseases across all the eight North eastern states. A quest for the research question has enable the researcher to meet the objective of the study by

the use of the District level household and facility survey-4 (DLHS-4), which is a nationwide survey conducted during 2012-13 gather information also on the prevalence of morbidity for a wide range of common, communicable, non-communicable and lifestyle diseases [6].

Objectives:

The present study aims to explore the pattern and prevalence of the some of the common chronic diseases across the North eastern states by some socio economic and demographic characteristics.

Data and Methodology

In the North East the DLHS-4 survey collect information from 60228 households spread across the seven states and the household questionnaire is use also gather information on prevalence of morbidity for a wide range of common, communicable, non-communicable and lifestyle diseases. The information reveals that there are a total of 264263 household members from whom information is sought in the household questionnaire. However only about 15058 household members responded to the information on types of symptoms to chronic diseases pertaining to illness persisting for more than 1 month and to the question related to diagnosed of chronic diseases during the last one year preceding the surveyed, a total of 14699 household members provided the information. It is to be noted that the data for the state of Assam is not available. DLHS - 4 is a nationwide survey which was conducted during 2012-13 by International Institute of Population Sciences, Mumbai and funded by ministry of health and family welfare, Government of India.

The DLHS-4 data compiled in STATA was utilized to perform the analysis to achieve the objectives of the study. The data is converted to SPSS data file through the STAT transfer software and the various analysis viz frequency, cross tabulation and chi square were perform on the appropriate variables to obtained the desired results. A couple of indicator is considered in the study are (a) The Chronic diseases diagnosed one year preceding the surveyed and (b) The main symptoms pertaining to chronic illness one year preceding the surveyed. The socio economic variables and demographic predictors variables used in the study are age, sex, standard of living and caste/tribe.

Findings and Discussions:

In order to describe the demographic and socio economic background of the household members Figure 1 highlight the distribution of household members by age group and sex across various states whereas Table 1 shows the distribution of household members by Standard of

Living(SLI) and Table 2 describe the distribution of household members by Caste and Tribe.

In order to achieve the objectives of the study, the present study utilized the information collected during DLHS 4 survey regarding the symptoms and types of chronic diseases diagnosed. In this connection, the data from Table 3 reveals that the five top symptoms of diseases reported by 15058 household members in the North eastern States taken as a whole in a decreasing order of incidences are 13.5% of them report to having symptoms in related to gastrointestinal-system. This is followed by 10.0% household members reporting to having symptoms in related to respiratory-system and 9.4% reporting to having symptoms in related musculoskeletal-system. The fourth most reported incidences of Symptoms is related to Central-nervous-system are reported by 6.0% household members and lastly 5.9% household members reporting to having symptoms in related Cardiovascular-system. Above five symptoms constitute about 44.8% of all reported symptoms of sickness among household's members in North eastern States.

The household questionnaire in DLHS 4 also collect information on medical diagnosed of chronic diseases prevalent among the household members in the preceding year from the survey. In this connection Table 4 reveals that the five most diagnosed diseases reported by 14699 household members in the North eastern States taken as a whole in a decreasing order of incidences are 23.9% of them report to having diagnosed related to hernia-Hydrocele-peptic-ulcer. This is followed by 7.4% household members reporting to having diagnosed with Hypertension and 6.0% reporting to having diagnosed with Diabetes. The fourth most reported diagnosed related to Asthma-Chronic-respiratory-Failure are reported by 4.7% household members and lastly 4.3% household members reporting to having diagnosed with Chronic-Liver-Diseases. The above five diagnosed constitutes about 46.3% of all reported diagnosed of sickness among households members in North eastern States.

The figure 2 and figure 3 depicts the type of disease diagnosed among the respondents by age group and the data reveals the pattern of some selected diagnosed disease whose information is provided by 14699 subjects across all states in North East India. The figures shows that Diabetes and Hypertension start peaking form age group 20 – 24, reach maximum around age group 50 – 54 and tappers down to minimum with further increase in age.

The figures also show that the age group of those who were diagnosed with Piles prevalence is prominent among 35 – 49 age group of respondents. Tonsillitis is more prevalence among the younger and middle age group whereas Rheumatoid Arthritis is more prone to the respondents in higher age

groups.

The data in Table 5a and Table 5b reveals that there is a total of 6907 male and 7788 female household members in all the states whose information were given about the status of the diagnoses of diseases by the respondents. A cross analysis is carried out of the diagnosed disease by sex of the household members and subsequently Chi square test [7] is perform. Results shows that the above association is statistically significant for the state Arunachal Pradesh at 0.0 level of significant whereas the level of significant is 0.032 for the state of Manipur, 0.016 for Mizoram and 0.014 for Tripura. The test is not statistically significant for Meghalaya, Sikkim and Nagaland.

The above tables reveals that the first three top most diagnosed disease among males households members in North East are 23.2% related to hernia-Hydrocele-peptic-ulcer which is followed by 7.2% household members reporting to having diagnosed with Diabetes and 6.6% reporting to having diagnosed with Hypertension. In females first three top most diagnosed disease in North East are 24.2% of them related to hernia-Hydrocele-peptic-ulcer which is followed by 8.0% reporting to having diagnosed with Hypertension and 4.9% reporting to having diagnosed with Diabetes.

DLHS 4 data as depicted in Table 5c reveals that in the state of Arunachal Pradesh, 63.7% males reported to having Diabetes compare to 36.3% females whereas the figures for Manipur, Mizoram and Tripura show that the disease is only slightly higher for males. However, Hypertension is more prevalent among females in almost all the states and Chronic-Heart-Disease is 63% for females and 37% for males in the state of Mizoram. There is significant difference in the level of Asthma-Chronic-respiratory-failure by sex in Tripura , where male incidences is 70.7% compared to 29.3% for females. Higher percentage of males are diagnosed with Tuberculosis in all the states and this sex differential is prominent in the Tripura where the difference is 50 percentage points. Hernia-Hydrocele-peptic-ulcer is more prominent among females in almost all states with the exception of the state of Mizoram.

In order to link the type of diagnosed diseases with the economic level of the household members a proxy economic indicator called Standard of Living Index (SLI) is constructed by the use of variables, viz, house type, source of lighting, toilet facility, main fuel for cooking, source of drinking water, ownership of the house, ownership of agricultural land, ownership of durable goods collected in a household questionnaire in DLHS 4.

In determining the appropriate weightage on each of the variables mentioned above, Principal component analysis [8,9] is carried out and the result shows the good sampling adequacy with Kaiser-

Mayer-Olkin index of 0.894 and the Bartletts's test of sphericity at 0.00 level of significant with 44.8% as the total variance explained. The weights is provided by the vectors related to the highest Eigen value 4.936 and accordingly the weights are multiplied to the corresponding variables mentioned above to obtained the SLI. Index scores range from 0 - 28 for a low SLI to 29 - 44 for a medium SLI and 45 - 60 for a high SLI.

In the above connection Table 6b, Table 6c and Table 6d reveals that there is a total of 9087 low, 4350 medium and 1256 high SLI household members in all the states who provided the information about the type status of the diagnoses of different chronic diseases. A cross analysis carried out of the diagnosed disease by SLI of the household members and subsequently Chi square test is perform and results shows that the above association is statistically significant for the state Arunachal Pradesh, Manipur and Mizoram at 0.0 level of significant whereas the level of significant not statistically significant for other states.

The above tables reveals that the first three most diagnosed disease among low SLI households members in North East are 23.4% of them report to having diagnosed related to hernia-Hydrocele-peptic-ulcer which is followed by 8.4% reporting to having diagnosed with Hypertension and 7.0% reporting to having diagnosed with Diabetes. Among medium SLI households members, the first three most diagnosed disease in North East are 22.7% of them report to having diagnosed with hernia-Hydrocele-peptic-ulcer which is followed by 6.6% diagnosed with Hypertension and 5.2% diagnosed with Diabetes. Among high SLI households members, the first three most diagnosed disease in North East are 30.9% of them report to having diagnosed with hernia-Hydrocele-peptic-ulcer which is followed by 4.9% diagnosed with Asthma-Chronic-respiratory-failure and 4.1% diagnosed with Tuberculosis.

DLHS 4 data in the table 6a depicted that in Arunachal Pradesh, out of 190 household members who reported to having Diabetes, 68.4% belong to low SLI, 29.5% belong to medium SLI and 2.1% belong to high SLI. This figure for the state of Manipur is 52.8% to low SLI members, 46.1% to medium SLI and 1.1% belong to high SLI out of a total of 267 household members. Among those members who were diagnose with Hypertension, 278 are from Arunachal out of which 75.9% belong to low SLI members, 19.1% to medium SLI and 5.0% belong to high SLI. In Manipur the proportion having the disease is 41.4% to low SLI members, 56.8% to medium SLI and 1.8% belong to high SLI out of a total of 331 household members.

The above table further reveals that among those household members who were diagnose with Chronic-Heart-Disease,116 are from Arunachal out of which 71.6% belong to low SLI family

members, 20.7% to medium SLI and 7.8% belong to high SLI. In Manipur the proportion having the disease is 53% to low SLI family members, 46.3% to medium SLI and 0.7% belong to high SLI out of a total of 149 family members. In connection with Tuberculosis, in Arunachal Pradesh, out of 190 household family members who reported to having Diabetes, 54.7% belong to low SLI family members, 27.4% belong to medium SLI and 17.9% belong to high SLI. This figure for the state of Manipur is 33.8% to low SLI family members, 63.8% to medium SLI and 2.5% belong to high SLI out of a total of 80 household members.

Across all SLI, hernia-Hydrocele-peptic-ulcer, Diabetes and hypertension seems to be the common type of diseases diagnosed among the responded family members with a varying levels of incidences and a general pattern of proportion is observed across states from low SLI to high SLI. However in many instances the state of Manipur shows some different pattern of incidences across SLI's.

An exercise is also carried out to highlight the status of the diagnoses of diseases by Caste and Tribe of the respondents and for this purpose only the states of Arunachal Pradesh, Manipur, Manipur and Sikkim is selected because of the heterogeneity of the population in terms of Caste and Tribe. This exercise is not carried out in the Scheduled Tribe dominated states of Mizoram, Meghalaya and Nagaland.

The data in Table 7a ,Table 7b and Table 7c reveals that there is a total of 906 Scheduled Caste(SC), 6621 Scheduled Tribe(ST), 1244 Other Backward Classes(OBC) and 1447 belonging to Others in the selected states whose information were given about the status of the diagnoses of diseases by the respondents. A cross analysis is carried out of the diagnosed disease by caste and tribe of the household members and subsequently Chi square test is perform and results shows that the above association is statistically significant for the state Arunachal Pradesh, Manipur and Sikkim at 0.0 level of significant whereas the level of significant is 0.024 less than 0.05 for the state of Tripura.

The above mentioned tables show that across all types of chronic diseases diagnosed, more proportion of SC and OBC suffered from diabetes and hypertension for North east taken together. However in connection with Tuberculosis more proportion of ST are diagnosed with the disease compared to SC and OBC's.

Summary and conclusion:

The top five top symptoms of diseases reported by the sampled household members in the North eastern States taken as a whole in a decreasing order of incidences are gastrointestinal-system,

followed by respiratory-system, musculoskeletal-system, Central-nervous-system and lastly symptoms in related Cardiovascular-system. These constitute about 44.8% of all reported symptoms of sickness among household's members in North eastern States.

The five most diagnosed diseases reported sampled household members in the North eastern States taken as a whole in a decreasing order of incidences are hernia-hydrocele-peptic-ulcer, followed by those diagnosed with hypertension, Diabetes, Asthma-Chronic-respiratory-failure and lastly those diagnosed with chronic liver diseases. The above five diagnosed constitutes about 46.3% of all reported diagnosed of sickness among households members in North eastern States. The study also reveals existence of differentials of the above diseases by age, sex and SLI across the seven states.

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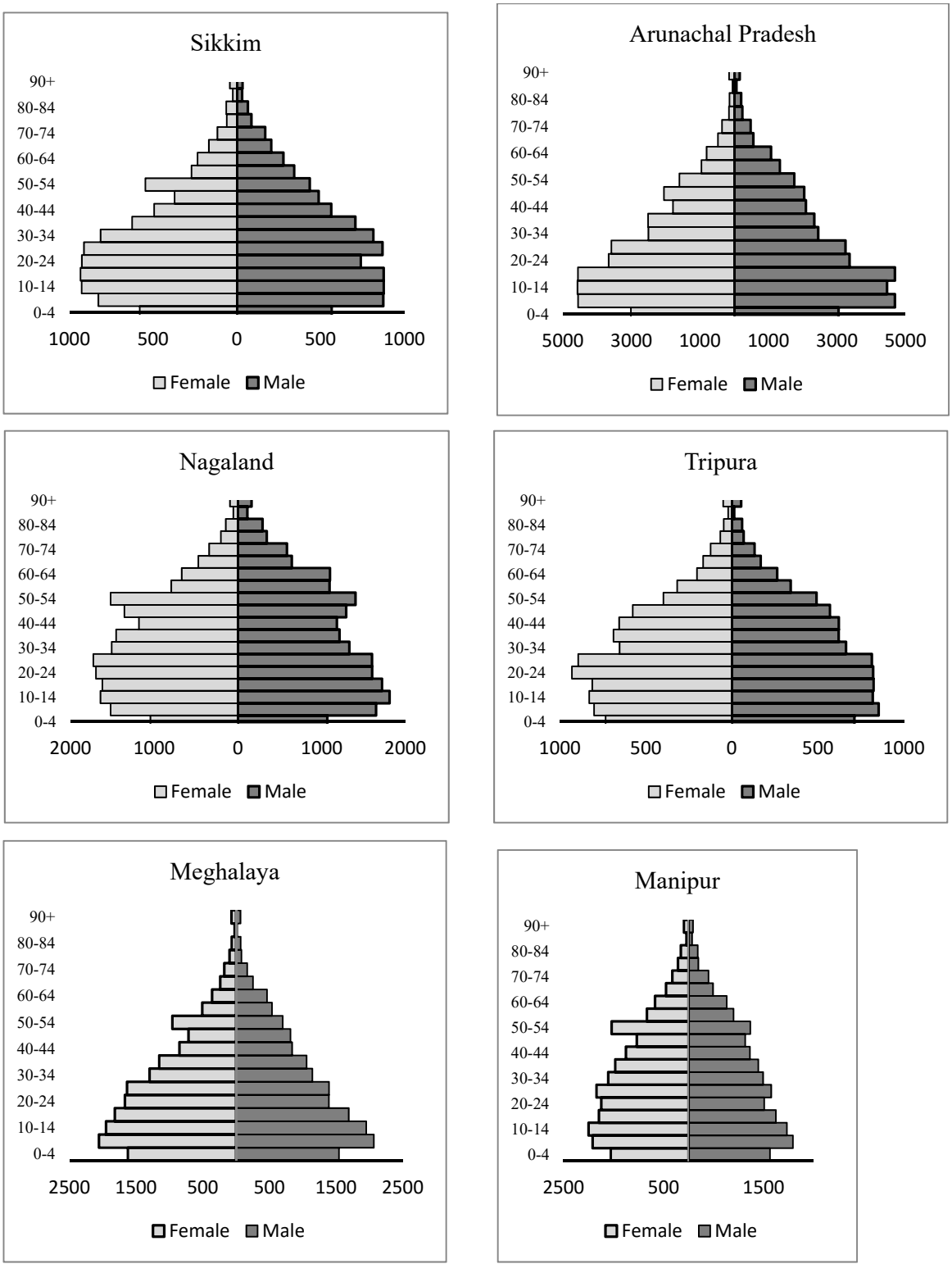
Fig 1: Number of household members by Sex and age group in North east DLHS 4.



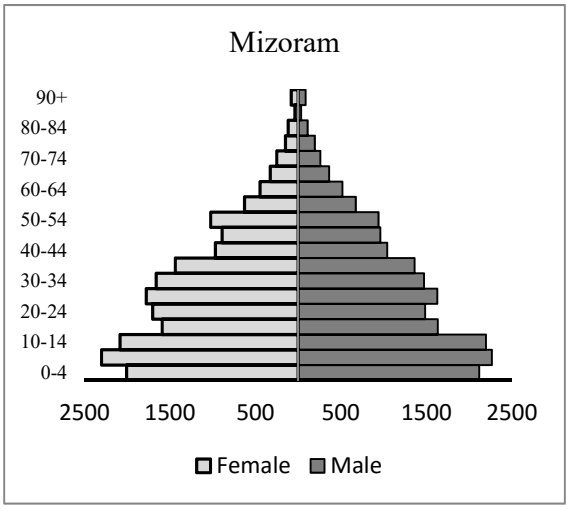


Fig 2: Type of Diagnosed chronic diseases by age group

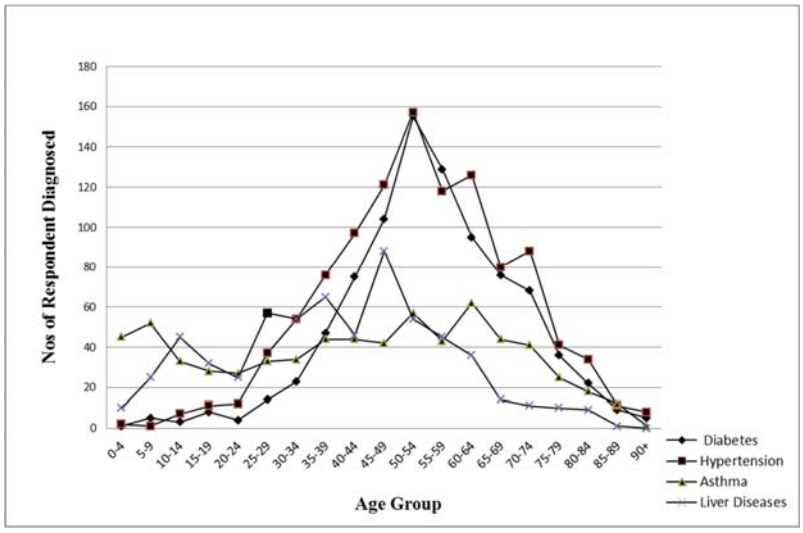


Fig 3: Type of Diagnosed chronic diseases by age group

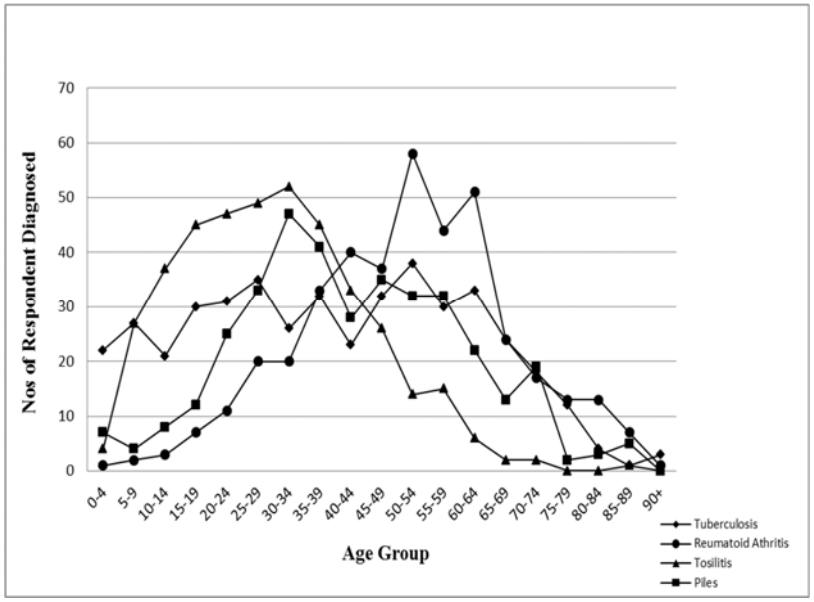


Table 1: Per cent of household members by SLI in North Eastern States (DLHS 4)

Standard of Living (SLI)	Name of the state							Total
	Sikkim	Arunachal P	Nagaland	Manipur	Mizoram	Tripura	Meghalaya	
Low	94.1	59.2	80.5	45.9	76.1	62	63.7	66.4
Medium	2.8	21.7	17.1	51.5	21.6	32.6	23.3	25.4
High	3.1	19.1	2.4	2.6	2.3	5.5	13	8.9
Total	17976	75780	39296	40873	38847	17900	33571	264243

Table 2: Per cent of household members by Caste and Tribe in North Eastern States (DLHS 4)

Tribe/ Caste	Name of the state							Total
	Sikkim	Arunachal P	Nagaland	Manipur	Mizoram	Tripura	Meghalaya	
SC	9.4	5.1	2.6	6.9	0.8	24.4	5.8	6.1
ST	45.5	80.7	93.7	46.4	95.9	28.8	90.1	74.9
OBC	25	4.8	0.2	10.6	0.9	19.4	0.7	6.3
other	15.9	2.8	0.2	15.6	0.5	17.9	0.6	5.7
Missing	4.1	6.7	3.3	20.5	1.9	9.5	2.7	7.1
Total	17978	75861	39298	40880	38886	17900	33571	264374

Table 3: Percentage of types of diseases symptoms pertaining to illness persisting for more than one month by state

	Name of the state							
	Sikkim	**Arunachal P**	**Nagaland**	**Manipur**	**Mizoram**	**Tripura**	**Meghalaya**	**Total**
Respiratory-system	13.5	9.8	10.3	8.9	8.7	20.5	4.4	10.0
Cardiovascular-system	10.9	4.3	4.0	8.8	3.6	2.7	2.1	5.9
Central-nervous-system	8.7	6.7	6.2	4.6	6.6	4.6	4.5	6.0
Musculoskeletal-system	7.5	12.1	6.7	10.2	5.5	3.4	6.0	9.4
Gastrointestinal-system	11.3	17.2	12.3	12.3	10.1	6.2	12.0	13.5
Genitourinary-system	2.9	2.7	4.0	6.6	2.6	2.1	2.4	3.8
Skin-diseases	2.4	2.2	4.5	3.5	1.3	6.8	7.5	3.2
Goitre	0.3	0.7	0.9	0.7	0.5	1.7	0.8	0.7
Elephantiasis	0.2	0.2		0.2		0.8	0.5	0.2
Eye-problems-diseases	1.9	4.4	7.9	4.9	2.4	3.5	4.8	4.3
ENT-problems-diseases	1.6	3.2	3.1	6.7	2.0	3.8	5.7	4.1
Mouth&dental-problem	1.0	2.8	5.5	1.9	1.4	1.7	3.0	2.4
Asymptomatic	1.1	2.8	1.7	2.4	0.5	3.5	0.9	2.2
Other	36.7	30.8	32.8	28.3	54.8	38.6	45.3	34.1
Total	**1347**	**5533**	**860**	**4267**	**1289**	**764**	**998**	**15058**

Table 4: Percentage of type of Diagnosed chronic diseases by states in North East.

	Sikkim	Arunachal P	Nagaland	Manipur	Mizoram	Tripura	Meghalaya	Total %
Not-diagnose	14.0	25.9	33.5	19.2	20.2	22.0	37.2	23.4
Diabetes	12.9	3.6	4.8	6.4	6.1	10.2	6.1	6.0
Hypertension	21.2	5.1	3.6	7.9	4.4	7.1	5.9	7.4
Chronic-Heart-Disease	3.7	2.1	3.1	3.6	2.2	4.5	2.7	2.9
Myocardial-infection-heart-attack	1.2	0.3	0.1	0.6	0.3	1.0	0.1	0.5
Stroke-cerebro-vascular-accident	1.2	0.8	1.0	0.5	0.9	1.8	0.7	0.8
Epilepsy	1.6	0.5	1.1	1.0	0.2	0.7	1.0	0.8
Asthma-Chronic-respiratory-Failure	3.9	4.5	4.8	4.5	5.7	7.9	3.4	4.7
Goitre-Thyroid-disorder	1.6	1.0	1.4	1.4	0.7	2.6	1.5	1.3
Tuberculosis	3.4	3.5	3.2	1.9	3.1	1.6	5.3	3.0
Leprosy	0.5	0.1		0.0	0.1	1.2	0.4	0.2
Cancer-Respiratory-System	0.4	0.4	0.7	0.2	0.5	0.5	0.2	0.4
Cancer-Gastrointestinal-system	1.1	1.7	2.1	0.5	1.5	0.7	0.1	1.2
Cancer-Genitourinary-System	0.3	0.5	0.5	0.2	0.5	0.4	0.1	0.3
Cancerâ€“Breast	NA	0.1	0.1	0.1	0.2	NA	0.1	0.1
Renal-Stone	1.7	1.3	2.2	3.5	1.2	1.8	1.6	2.1
Chronic-Renal-Diseases	0.7	0.5	2.0	0.7	1.4	2.4	0.3	0.8
Gall-Stone-Cholecystitis	2.3	1.7	3.1	4.3	1.9	2.4	2.0	2.6
Chronic-Liver-Diseases	4.1	6.7	2.7	3.6	0.6	3.0	0.9	4.3
Rheumatoid-Arthritis	1.9	3.2	1.2	3.3	1.6	2.0	1.8	2.7
Chronic-skin-Disease-Psoriasis	0.6	0.9	2.1	1.6	0.7	1.5	1.0	1.2
Cataract	0.5	2.0	0.7	2.2	0.6	0.5	0.6	1.6
Glaucoma	0.4	0.5	0.5	0.2	0.2	0.5	0.4	0.4
Sinusitis-Tonsillitis	0.8	1.8	1.1	5.5	2.3	0.1	2.6	2.8
Flourosis	0.2	0.5	0.4	0.1	0.2	NA	0.1	0.3
Pyorrhoea	0.1	0.6	NA	0.0	NA	0.1	0.1	0.2
Rheumatic-fever-heart-diseses	0.3	0.3	0.5	0.1	0.2	1.0	0.4	0.3
Tumor-any	0.8	0.7	1.9	0.4	0.6	2.6	0.2	0.7
Blood-cancer-Leukemia	NA	0.0	0.4	0.1	0.2	0.3	NA	0.1
Skin-cancer	0.2	0.2	0.2	0.0	0.1	1.1	0.3	0.2
Piles-anal-fisure-anal-fistula	2.6	1.5	1.6	4.7	1.0	2.9	1.0	2.5
Anaemia	0.2	0.5	0.7	0.5	1.0	0.5	2.3	0.6
hernia-Hydrocele-peptic-ulcer	15.7	27.1	18.5	21.0	39.8	15.0	19.6	23.9
Total(in actual numbers)	**1321**	**5436**	**809**	**4187**	**1240**	**735**	**971**	**14699**

Source: Extracted from DLHS 4 NA – data not available

Table 5a: Percentage of type of diagnosed chronic diseases for males in North East India.

Male	Name of the state							Total
	Sikkim	Arunachal P *	Nagaland	Manipur **	Mizoram **	Tripura **	Meghalaya	
Not-diagnose	13.1	25.1	35.5	18.6	19.4	21.3	43.8	23.2
Diabetes	15.2	4.9	5.2	7.3	6.6	10.4	8.3	7.2
Hypertension	17.0	4.7	3.8	8.0	3.7	6.4	3.7	6.6
Chronic-Heart-Disease	4.2	2.0	3.3	4.0	1.6	4.8	2.7	3.0
Myocardial-infection-heart-attack	1.1	0.3	0.2	0.6	0.3	0.5	NA	0.4
Stroke-cerebro-vascular-accident	1.3	0.8	1.4	0.7	1.1	1.9	0.7	0.9
Epilepsy	1.6	0.7	0.7	0.9	0.2	0.8	0.5	0.8
Asthma-Chronic-respiratory-Failure	3.6	4.8	4.5	4.3	5.8	10.9	4.2	4.9
Goitre-Thyroid-disorder	1.1	0.5	1.2	1.0	0.6	1.1	0.5	0.8
Tuberculosis	5.0	5.1	4.3	2.6	4.4	2.4	6.4	4.2
Leprosy	0.6	0.1		0.1	0.2	1.6	0.5	0.2
Cancer-Respiratory-System	0.5	0.4	0.7	0.2	0.8	0.5	0.5	0.4
Cancer-Gastrointestinal-system	0.8	1.4	1.7	0.8	1.8	0.3		1.1
Cancer-Genitourinary-System	0.5	0.5	0.5	0.1	0.8	0.3	NA	0.4
Cancerâ€“Breast	NA	0.0	NA	NA	NA	NA	NA	0.0
Renal-Stone	2.1	0.9	2.4	3.4	0.6	1.9	0.5	1.8
Chronic-Renal-Diseases	0.5	0.6	2.6	0.7	1.1	3.5	0.2	0.9
Gall-Stone-Cholecystitis	2.1	1.4	2.4	3.2	1.5	2.4	1.0	2.1
Chronic-Liver-Diseases	4.5	7.7	3.6	4.3	1.0	3.2	0.7	5.0
Rheumatoid-Arthritis	1.6	3.3	1.4	2.4	1.5	2.1	1.7	2.5
Chronic-skin-Disease-Psoriasis	0.6	1.0	1.4	1.4	0.6	1.3	0.2	1.1
Cataract	0.6	2.0	0.7	2.0	0.6	0.5	0.2	1.5
Glaucoma	0.6	0.4	0.2	0.1	0.2	NA	0.5	0.3
Sinusitis-Tonsillitis	0.5	1.5	0.5	5.3	1.1	0.3	2.0	2.3
Flourosis	0.2	0.4	0.5	0.1	0.3	NA	0.2	0.3
Pyorrhoea	0.2	0.6	NA	0.1	NA	NA	NA	0.2
Rheumatic-fever-heart-diseses	0.3	0.3	0.7	0.1	0.3	0.8	0.2	0.3
Tumor-any	0.5	0.7	0.9	0.4	0.6	2.7	NA	0.7
Blood-cancer-Leukemia	NA	0.1	0.5	0.2	NA	0.3	NA	0.1
Skin-cancer	0.2	0.1	0.5	0.1	0.2	1.6	0.2	0.2
Piles-anal-fisure-anal-fistula	2.8	1.9	1.7	5.9	1.0	4.0	0.7	3.1
Anaemia	0.2	0.2	0.7	0.4	0.2	1.1	1.0	0.4
hernia-Hydrocele-peptic-ulcer	16.7	25.7	16.4	20.8	41.7	11.4	18.8	23.2
Total(in actual numbers)	**617**	**2524**	**422**	**1941**	**618**	**376**	**409**	**6907**

Source: Extracted from DLHS 4, *Level of significance – 0.00, **Level of significance < 0.05

Table 5b: Percentage of type of diagnosed chronic diseases for females in North East India.

Females	Name of the state							Total
	Sikkim	Arunachal P *	Nagaland	Manipur **	Mizoram **	Tripura **	Meghalaya	
Not-diagnose	14.8	26.5	31.3	19.8	20.9	22.8	32.3	23.6
Diabetes	10.8	2.4	4.4	5.6	5.6	10.0	4.5	4.9
Hypertension	24.9	5.5	3.4	7.8	5.0	7.8	7.5	8.0
Chronic-Heart-Disease	3.3	2.2	2.8	3.2	2.7	4.2	2.7	2.8
Myocardial-infection-heart-attack	1.3	0.3	NA	0.7	0.3	1.4	0.2	0.5
Stroke-cerebro-vascular-accident	1.1	0.9	0.5	0.3	0.6	1.7	0.7	0.7
Epilepsy	1.6	0.3	1.6	1.0	0.2	0.6	1.4	0.7
Asthma-Chronic-respiratory-Failure	4.3	4.3	5.2	4.6	5.6	4.7	2.9	4.4
Goitre-Thyroid-disorder	2.0	1.4	1.6	1.7	0.8	4.2	2.3	1.7
Tuberculosis	2.0	2.1	2.1	1.3	1.8	0.8	4.5	2.0
Leprosy	0.3	0.1	NA	NA	NA	0.8	0.4	0.1
Cancer-Respiratory-System	0.3	0.4	0.8	0.2	0.2	0.6	NA	0.3
Cancer-Gastrointestinal-system	1.3	2.1	2.6	0.3	1.3	1.1	0.2	1.3
Cancer-Genitourinary-System	0.1	0.4	0.5	0.2	0.2	0.6	0.2	0.3
Cancerâ€“Breast		0.1	0.3	0.2	0.3	NA	0.2	0.1
Renal-Stone	1.4	1.6	2.1	3.6	1.8	1.7	2.5	2.3
Chronic-Renal-Diseases	0.9	0.5	1.3	0.7	1.6	1.4	0.4	0.8
Gall-Stone-Cholecystitis	2.4	1.9	3.9	5.2	2.4	2.5	2.7	3.1
Chronic-Liver-Diseases	3.7	5.8	1.8	2.9	0.3	2.8	1.1	3.6
Rheumatoid-Arthritis	2.1	3.2	1.0	4.1	1.8	1.9	1.8	3.0
Chronic-skin-Disease-Psoriasis	0.6	0.8	2.8	1.8	0.8	1.7	1.6	1.2
Cataract	0.4	2.1	0.8	2.4	0.5	0.6	0.9	1.7
Glaucoma	0.1	0.5	0.8	0.2	0.3	1.1	0.4	0.4
Sinusitis-Tonsillitis	1.1	2.2	1.8	5.7	3.4	NA	3.0	3.1
Flourosis	0.1	0.5	0.3	0.2	0.2	NA	NA	0.3
Pyorrhoea	NA	0.5	NA	0.0	NA	0.3	0.2	0.2
Rheumatic-fever-heart-diseses	0.3	0.3	0.3	0.1	NA	1.1	0.5	0.3
Tumor-any	1.1	0.6	2.8	0.5	0.6	2.5	0.4	0.8
Blood-cancer-Leukemia	NA	NA	0.3	0.1	0.3	0.3	NA	0.1
Skin-cancer	0.1	0.2	NA	NA	NA	0.6	0.4	0.2
Piles-anal-fisure-anal-fistula	2.4	1.1	1.6	3.7	1.0	1.7	1.2	2.0
Anaemia	0.3	0.7	0.8	0.6	1.8	NA	3.2	0.9
hernia-Hydrocele-peptic-ulcer	14.8	28.4	20.9	21.3	37.8	18.7	20.1	24.4
Total(in actual numbers)	**703**	**2912**	**387**	**2244**	**622**	**359**	**561**	**7788**

Source: Extracted from DLHS 4, *Level of significance – 0.00, **Level of significance < 0.05

Table 5c: Percentage of type of diagnosed chronic diseases by sex in North East

Type of Diagnoses	Sex	Sikkim	Arunachal P	Nagaland	Manipur	Mizoram	Tripura	Meghalaya
Diabetes	Male	55.3	63.7	56.4	52.8	53.9	52.0	57.6
	Female	44.7	36.3	43.6	47.2	46.1	48.0	42.4
Total		**170**	**193**	**39**	**267**	**76**	**75**	**59**
Hypertension	Male	37.5	42.8	55.2	47.1	42.6	46.2	26.3
	Female	62.5	57.2	44.8	52.9	57.4	53.8	73.7
Total		**280**	**278**	**29**	**331**	**54**	**52**	**57**
Asthma (Chronic-respiratory)	Male	42.3	49.2	48.7	44.7	50.7	70.7	51.5
	Female	57.7	50.8	51.3	55.3	49.3	29.3	48.5
Total		**52**	**244**	**39**	**188**	**71**	**58**	**33**
Peptic-ulcer (Hernia)	Male	49.5	44.0	46.0	45.9	52.3	39.1	40.5
	Female	50.0	56.0	54.0	54.1	47.7	60.9	59.5
Total		**208**	**1474**	**150**	**881**	**493**	**110**	**190**

Table 6a: Percentage of type of diagnosed chronic diseases by SLI in North East

Type of Diagnoses	SLI	Sikkim	Arunachal P	Nagaland	Manipur	Mizoram	Tripura	Meghalaya
Diabetes	Low	96.5	68.4	94.9	52.8	93.4	69.3	66.1
	Medium	2.9	29.5	5.1	46.1	3.9	29.3	23.7
	High	.6	2.1	.0	1.1	2.6	1.3	10.2
Total		**170**	**190**	**39**	**267**	**76**	**75**	**59**
Hypertension	Low	95.0	75.9	82.8	41.4	92.6	63.5	70.2
	Medium	2.5	19.1	10.3	56.8	7.4	36.5	21.1
	High	2.5	5.0	6.9	1.8	.0	.0	8.8
Total		**280**	**278**	**29**	**331**	**54**	**52**	**57**
Peptic-ulcer (Hernia)	Low	91.3	63.5	82.7	36.8	75.9	65.5	58.9
	Medium	3.8	17.3	13.3	58.0	22.5	33.6	23.2
	High	4.8	19.2	4.0	5.2	1.6	.9	17.9
Total		**208**	**1472**	**150**	**881**	**493**	**110**	**190**

Table 6b: Percentage of type of diagnosed chronic diseases for low SLI respondents in North East

Low Standard of Living (SLI)	Name of the state							Total
	Sikkim	Arunachal P *	Nagaland	Manipur *	Mizoram *	Tripura	Meghalaya	
Not-diagnose	13.5	24.1	31.3	15.7	17.3	21.0	33.8	21.3
Diabetes	13.2	3.7	5.7	8.2	7.6	10.7	6.8	7.0
Hypertension	21.4	6.1	3.7	7.9	5.4	6.8	7.0	8.4
Chronic-Heart-Disease	3.8	2.4	3.2	4.6	2.0	3.9	3.7	3.2
Myocardial-infection-heart-attack	1.3	0.3	0.2	0.9	0.3	1.0	NA	0.6
Stroke-cerebro-vascular-accident	1.2	0.9	1.1	0.7	1.1	1.9	0.7	1.0
Epilepsy	1.6	0.4	0.9	0.9	0.2	0.6	0.9	0.7
Asthma-Chronic-respiratory-Failure	3.9	4.3	4.9	5.4	5.6	8.7	2.8	4.8
Goitre-Thyroid-disorder	1.5	0.9	1.2	1.3	0.6	2.7	2.1	1.2
Tuberculosis	3.3	3.0	3.2	1.6	3.2	1.4	4.7	2.8
Leprosy	.5	0.1	NA	NA	NA	1.6	0.5	0.2
Cancer-Respiratory-System	.4	0.4	0.5	0.3	0.6	0.2	0.2	0.4
Cancer-Gastrointestinal-system	1.1	1.6	2.2	0.8	1.9	1.0	0.2	1.3
Cancer-Genitourinary-System	.3	0.5	0.6	0.2	0.6	0.4	NA	0.4
Cancerâ€“Breast	NA	0.1	0.2	0.1	0.1	NA	0.2	0.1
Renal-Stone	1.8	1.3	2.3	3.4	1.2	0.8	1.9	1.8
Chronic-Renal-Diseases	.7	0.5	2.0	0.9	1.7	2.9	0.5	1.0
Gall-Stone-Cholecystitis	2.4	1.5	3.2	5.3	1.6	3.1	2.6	2.6
Chronic-Liver-Diseases	4.4	7.8	3.2	3.5	0.6	2.5	0.7	4.7
Rheumatoid-Arthritis	1.8	3.6	1.4	3.5	1.4	2.7	2.1	2.8
Chronic-skin-Disease-Psoriasis	.6	0.8	2.3	1.4	0.6	1.6	1.0	1.0
Cataract	.5	2.1	0.8	2.0	0.4	0.8	0.5	1.4
Glaucoma	.4	0.5	0.5	0.1	0.2	0.4	0.5	0.4
Sinusitis-Tonsillitis	.9	1.8	0.9	6.8	2.8	0.2	3.5	2.7
Flourosis	.2	0.5	0.5	0.1	0.3	NA	NA	0.3
Pyorrhoea	.1	0.6	NA	NA	NA	NA	0.2	0.3
Rheumatic-fever-heart-diseses	.2	0.3	0.5	0.1	0.1	1.0	0.2	0.3
Tumor-any	.9	0.7	2.2	0.4	0.6	2.3	0.2	0.8
Blood-cancer-Leukemia	NA	NA	0.3	0.1	0.1	0.2	NA	0.1
Skin-cancer	.2	0.2	0.2	0.1	0.1	1.2	0.5	0.2
Piles-anal-fisure-anal-fistula	2.3	1.6	1.4	4.5	0.9	2.9	1.2	2.2
Anaemia	.2	0.5	0.6	0.5	0.3	0.4	1.4	0.5
hernia-Hydrocele-peptic-ulcer	15.3	26.8	19.0	18.8	40.2	14.8	19.5	23.4
Total(in actual numbers)	**1241**	**3479**	**651**	**1726**	**931**	**485**	**547**	**9087**

Source: Extracted from DLHS 4, *Level of significance – 0.00

Table 6c: Percentage of type of diagnosed chronic diseases for Medium SLI respondents in North East

Medium Standard of Living (SLI)	Name of the state							Total
	Sikkim	Arunachal P *	Nagaland	Manipur *	Mizoram *	Tripura	Meghalaya	
Not-diagnose	13.5	26.5	38.6	21.8	27.0	22.5	38.3	24.6
Diabetes	13.5	5.0	1.8	5.2	1.1	9.5	6.1	5.2
Hypertension	18.9	4.7	2.6	8.0	1.5	8.2	5.2	6.6
Chronic-Heart-Disease	2.7	2.1	2.6	2.9	3.0	5.6	1.7	2.8
Myocardial-infection-heart-attack	NA	0.4	NA	0.5	0.4	0.9	0.4	0.4
Stroke-cerebro-vascular-accident	NA	0.6	0.9	0.4	0.4	1.7	1.3	0.6
Epilepsy	NA	0.5	2.6	1.0	NA	0.9	1.3	0.9
Asthma-Chronic-respiratory-Failure	5.4	5.0	3.5	3.9	5.9	5.2	4.8	4.4
Goitre-Thyroid-disorder	NA	1.2	2.6	1.4	1.1	2.6	0.9	1.4
Tuberculosis	2.7	4.6	2.6	2.2	2.6	2.2	6.1	3.1
Leprosy	NA	0.2	NA	0.1	NA	0.4	0.4	0.1
Cancer-Respiratory-System	NA	0.5	2.6	0.1	NA	1.3	0.4	0.4
Cancer-Gastrointestinal-system	NA	2.0	2.6	0.4	0.4	NA	NA	0.8
Cancer-Genitourinary-System	NA	0.6	NA	0.1	NA	0.4	NA	0.3
Cancerâ€“Breast	NA	NA	NA	0.1	0.4	NA	NA	0.1
Renal-Stone	2.7	2.0	1.8	3.6	1.5	3.5	0.9	2.8
Chronic-Renal-Diseases	NA	0.4	NA	0.5	0.4	1.7	NA	0.5
Gall-Stone-Cholecystitis	NA	2.1	3.5	3.7	3.3	1.3	0.9	2.9
Chronic-Liver-Diseases	NA	5.7	0.9	3.7	0.7	4.3	0.9	3.8
Rheumatoid-Arthritis	5.4	2.7	0.9	3.3	2.2	0.9	0.4	2.8
Chronic-skin-Disease-Psoriasis	2.7%	1.7	1.8	1.8	0.7	1.3	1.7	1.7
Cataract	NA	2.1	0.9	2.4	1.1	NA	0.9	2.0
Glaucoma	NA	0.4	0.9	0.1	0.4	0.4	0.4	0.3
Sinusitis-Tonsillitis	NA	2.1	0.9	4.6	0.7	NA	1.3	3.2
Flourosis	NA	0.7	NA	0.1	NA	NA	0.4	0.3
Pyorrhoea	NA	0.3	NA	0.1	NA	0.4	NA	0.1
Rheumatic-fever-heart-diseses	2.7	0.6	0.9	0.1	0.4	0.9	0.9	0.4
Tumor-any	NA	0.4	0.9	0.5	0.4	3.0	0.4	0.6
Blood-cancer-Leukemia	NA	NA	0.9	0.1	0.4	0.4	NA	0.1
Skin-cancer	NA	0.1	NA	0.0	NA	0.9	NA	0.1
Piles-anal-fisure-anal-fistula	8.1	1.6	3.5	4.9	0.7	2.6	1.3	3.4
Anaemia		0.3	1.8	0.6	2.2	0.9	3.5	0.8
hernia-Hydrocele-peptic-ulcer	21.6	22.8	17.5	21.8	41.1	16.0	19.1	22.7
Total(in actual numbers)	**37**	**1120**	**114**	**2348**	**270**	**231**	**230**	**4350**

Source: Extracted from DLHS 4, *Level of significance – 0.00

Table 6d: Percentage of type of diagnosed chronic diseases for High SLI respondents in North East.

High Standard of Living (SLI)	Name of the state							Total
	Sikkim	Arunachal P *	Nagaland	Manipur *	Mizoram *	Tripura	Meghalaya	
not-diagnose	27.9	32.5	52.3	20.4	42.1	42.1	47.3	34.3
Diabetes	2.3	0.5		2.7	5.3	5.3	3.6	1.4
Hypertension	16.3	1.7	4.5	5.3	NA		3.0	2.7
Chronic-Heart-Disease	2.3	1.1	2.3	0.9	NA	5.3	0.6	1.1
Myocardial-infection-heart-attack		0.1	NA	0.9	NA	NA	NA	0.2
Stroke-cerebro-vascular-accident	2.3	0.7	NA		NA	NA	NA	0.6
Epilepsy	2.3	0.5		0.9		NA	1.2	0.6
Asthma	2.3	4.8	6.8	3.5	7.9	21.1	3.6	4.9
Goitre-Thyroid-disorder	4.7	1.0	NA	2.7	NA	NA	0.6	1.1
Tuberculosis	7.0	4.1	4.5	1.8	2.6	NA	6.0	4.1
Leprosy	NA	0.1	NA	NA	2.6	NA	NA	0.2
Cancer-Respiratory-System	NA	0.4	NA	NA	NA	NA	NA	0.2
Cancer-Gastrointestinal-system	NA	2.0	NA	NA	NA	NA	NA	1.4
Cancer-Genitourinary-System	NA	NA	NA	NA	NA	NA	0.6	0.1
Renal-Stone	NA	0.5	2.3	3.5	NA	5.3	1.8	1.0
Chronic-Renal-Diseases	NA	0.6	6.8	0.9	NA	NA	NA	0.7
Gall-Stone-Cholecystitis	NA	2.0	NA	0.9	NA	NA	1.2	1.6
Chronic-Liver-Diseases	NA	3.4	NA	1.8	NA	NA	1.8	2.6
Rheumatoid-Arthritis	2.3	2.6	NA	NA	2.6	NA	2.4	2.2
Chronic-skin-Disease-Psoriasis	NA	0.1	NA	0.9	2.6	NA	NA	0.2
Cataract	2.3	1.6	NA	0.9	NA	NA	0.6	1.3
Glaucoma	NA	0.6	NA	1.8	NA	5.3	NA	0.6
Sinusitis-Tonsillitis	NA	1.4	4.5	4.4	NA	NA	1.2	1.7
Flourosis	NA	0.4	NA	NA	NA	NA	NA	0.2
Pyorrhoea	NA	0.7	NA	NA	NA	NA	NA	0.5
Rheumatic-fever-heart-diseses	NA	0.1	NA	NA	NA	NA	0.6	0.2
Tumor-any	NA	0.8	NA	NA	NA	5.3	NA	0.6
Blood-cancer-Leukemia	NA	0.2	NA	0.9	NA	NA	NA	0.2
Skin-cancer	NA	0.1	2.3	NA	NA	NA	NA	0.2
Piles-anal-fisure-anal-fistula	4.7	0.8	NA	4.4	5.3	5.3	NA	1.4
Anaemia	NA	0.5	NA	NA	7.9	NA	3.6	1.0
hernia-Hydrocele-peptic-ulcer	23.3	34.0	13.6	40.7	21.1	5.3	20.4	30.9
Total(in actual numbers)	**43**	**832**	**44**	**113**	**38**	**19**	**167**	**1256**

Source: Extracted from DLHS 4, *Level of significance – 0.00

Table 7a: Percentage of type of Diagnosed chronic diseases for SC and ST respondents in North East

	Schedule caste(SC)					Scheduled Tribe(ST)				
	Name of the state				Total	Name of the state				Total
	SK *	AR *	MN *	TR **		SK *	AR *	MN *	TR **	
not-diagnose	15.7	29.5	17.1	20.6	21.3	13.4	25.5	27.0	29.2	24.8
Diabetes	9.0	11.9	4.1	6.3	7.6	9.1	2.4	3.4	7.5	3.3
Hypertension	24.6	7.5	6.0	9.5	9.9	24.5	4.7	4.8	2.5	6.5
Chronic-Heart-Disease	5.2	0.4	2.5	6.3	3.1	4.0	2.1	2.5	5.0	2.4
Myocardial-infection-heart-attack	1.5	0.4	1.0	0.5	0.8	1.0	0.2	0.6		0.4
Stroke-cerebro-vascular-accident	1.5	1.5	0.3	1.1	1.0	1.3	0.8	0.3	0.8	0.7
Epilepsy	NA	NA	1.6	0.5	0.7	2.7	0.5	1.0	0.8	0.8
Asthma-Chronic-respiratory-Failure	3.0	4.9	1.6	6.9	3.9	3.7	4.5	5.6	8.3	4.7
Goitre-Thyroid-disorder	4.5	1.5	0.3	2.1	1.7	1.5	0.9	1.6	5.0	1.1
Tuberculosis	3.0	1.9	1.6	2.6	2.1	4.0	3.5	3.0	0.8	3.4
Leprosy	2.2	0.4	NA	1.1	0.7	0.5	0.1	NA	0.8	0.1
Cancer-Respiratory-System	0.7	0.7	0.6	0.5	0.7	NA	0.4	0.3	0.8	0.3
Cancer-Gastrointestinal-system	0.7	4.1	0.3	NA	1.4	1.0	1.7	1.1	NA	1.5
Cancer-Genitourinary-System	1.5	0.4	0.3	0.5	0.6	NA	0.4	0.1	NA	0.3
Cancerâ€“Breast	NA	NA	0.6	NA	0.2	NA	0.0	0.1	NA	0.0
Renal-Stone	3.0	0.7	4.1	2.1	2.5	1.7	1.4	2.5	2.5	1.7
Chronic-Renal-Diseases	NA	1.1	0.6	1.6	0.9	0.5	0.5	1.2	5.8	0.7
Gall-Stone-Cholecystitis	3.0	2.2	2.9	1.6	2.4	1.8	1.4	3.5	3.3	1.9
Chronic-Liver-Diseases	5.2	3.4	2.2	0.5	2.6	4.0	7.1	3.5	7.5	6.1
Rheumatoid-Arthritis	0.7	2.2	3.2	3.2	2.5	1.8	3.5	3.2	0.8	3.2
Chronic-skin-Disease-Psoriasis	0.7	0.4	1.3	1.1	0.9	0.8	0.9	1.4	0.8	1.0
Cataract	NA	1.1	0.6	0.5	0.7	0.7	2.3	3.4	0.8	2.3
Glaucoma	NA	NA	NA	0.5	0.1	0.7	0.5	0.2	0.8	0.5
Sinusitis-Tonsillitis	0.7	2.2	7.6	NA	3.4	0.7	2.0	5.2	NA	2.5
Flourosis	NA	0.4	NA	NA	0.1	0.3	0.6	0.1	NA	0.4
Pyorrhoea	0.7	0.4	NA	NA	0.2	NA	0.7	0.1	NA	0.5
Rheumatic-fever-heart-diseses	NA	0.7	NA	1.1	0.4	0.3	0.3	NA	0.8	0.3
Tumor-any	0.7	NA	NA	2.1	0.6	0.5	0.7	0.2	0.8	0.6
Blood-cancer-Leukemia	NA	NA	NA	0.5	0.1	NA	0.0	0.1	0.8	0.1
Skin-cancer	0.7	NA	NA	1.6	0.4	NA	0.1	0.1	0.8	0.1
Piles-anal-fisure-anal-fistula	3.7	1.9	8.6	4.2	5.0	2.2	1.5	5.0	1.7	2.3
Anaemia	0.7	1.1	0.6	NA	0.7	0.2	0.5	0.6	NA	0.5
hernia-Hydrocele-peptic-ulcer	6.7	17.2	30.2	20.6	20.9	16.8	28.4	18.3	10.8	24.8
Total(in actual numbers)	**134**	**268**	**315**	**189**	**906**	**595**	**4452**	**1454**	**120**	**6621**

Source: Extracted from DLHS 4, *Level of significance – 0.00, **Level of significance < 0.05

Table 7b: Percentage of type of Diagnosed chronic diseases for OBC and Others respondents in North East

	Other Backward Classes(OBC)					Others				
	Name of the state				Total	Name of the state				Total
	SK *	AR *	MN *	TR **		SK *	AR *	MN *	TR **	
not-diagnose	13.1	10.7	12.1	24.1	13.7	17.0	25.6	13.5	13.7	15.1
Diabetes	20.0	10.3	8.9	9.0	11.9	15.6	5.3	10.0	15.2	11.1
Hypertension	13.8	6.8	5.0	7.8	7.9	21.6	9.0	11.3	8.1	12.2
Chronic-Heart-Disease	3.3	2.1	5.2	4.8	4.1	2.8	4.5	3.1	3.6	3.2
Myocardial-infection-heart-attack	0.7	0.4	1.1	2.4	1.0	1.8	2.3	0.7	1.0	1.0
Stroke-cerebro-vascular-accident	0.7	1.3	0.9	2.4	1.1	1.8	1.5	0.4	3.0	1.1
Epilepsy	0.7	NA	1.1	NA	0.6	0.9	NA	0.7	1.5	0.8
Asthma-Chronic-respiratory-Failure	4.6	4.7	4.8	12.0	5.7	4.1	6.0	2.7	6.6	3.7
Goitre-Thyroid-disorder	0.7	1.3	0.7	1.8	1.0	1.8	2.3	1.3	3.0	1.7
Tuberculosis	2.3	7.3	1.1	0.6	2.5	4.1	3.8	1.6	2.0	2.2
Leprosy	NA	0.4	0.2	2.4	0.5	NA	NA	NA	0.5	0.1
Cancer-Respiratory-System	1.0	NA	NA	NA	0.2	0.5	0.8	0.1	1.0	0.3
Cancer-Gastrointestinal-system	0.3	2.1	0.4	1.2	0.8	2.8	NA	0.3	1.0	0.8
Cancer-Genitourinary-System	0.7	0.4	0.4	0.6	0.5	NA	1.5	0.2	0.5	0.3
Cancerâ€“Breast	NA	NA	NA	NA	NA	NA	0.8	0.1	NA	0.1
Renal-Stone	1.6	0.4	5.0	1.8	2.9	1.8	NA	5.0	1.0	3.5
Chronic-Renal-Diseases	0.7	1.7	0.7	0.6	0.9	1.4	NA	0.3	3.6	0.9
Gall-Stone-Cholecystitis	3.3	3.8	6.3	3.0	4.7	1.8	3.0	4.8	2.5	3.9
Chronic-Liver-Diseases	3.0	7.7	3.7	3.0	4.2	1.8	6.0	2.8	3.0	3.0
Rheumatoid-Arthritis	2.3	3.8	3.9	1.8	3.2	1.4	0.8	3.9	2.5	3.0
Chronic-skin-Disease-Psoriasis	0.7	0.9	1.1	0.6	0.9	NA	0.8	1.7	3.6	1.6
Cataract	0.7	1.3	2.0	NA	1.3	NA	0.8	1.8	1.0	1.3
Glaucoma	NA	NA	NA	0.6	0.1	0.5	NA	0.4	0.5	0.4
Sinusitis-Tonsillitis	1.3	0.4	7.8	NA	3.8	0.9	0.8	7.2	0.5	4.8
Flourosis	NA	0.4	0.2	NA	0.2	0.5	0.8	0.2	0.5	0.3
Rheumatic-fever-heart-diseses	NA	NA	0.4	1.8	0.4	0.9	NA	0.3	4.6	1.0
Tumor-any	1.0	0.9	0.4	1.2	0.7	NA	NA	0.2	NA	0.1
Skin-cancer	NA	0.9	0.2	NA	0.2	NA	0.8	NA	1.0	0.2
Piles-anal-fisure-anal-fistula	3.6	2.1	3.0	3.0	3.0	1.4	3.0	5.8	2.5	4.4
Anaemia	0.3		0.7	0.6	0.5	NA	0.8	0.1	1.0	0.3
hernia-Hydrocele-peptic-ulcer	20.0	27.8	22.6	12.7	21.6	12.8	19.5	19.4	11.2	17.3
Total(in actual numbers)	**305**	**234**	**539**	**166**	**1244**	**218**	**133**	**899**	**197**	**1447**

Source: Extracted from DLHS 4, *Level of significance – 0.00, **Level of significance < 0.05
SK- Sikkim, AR- Arunachal Pradesh, MN- Manipur, TR- Tripura

Table 7c: Percentage of type of Diagnosed chronic diseases for OBC and Others respondents in North East

Type of Diagnoses		Sikkim	Arunachal P	Manipur	Tripura
Diabetes	SC	7.5	19.0	6.5	18.2
	ST	33.5	62.5	24.9	13.6
	OBC	37.9	14.3	23.9	22.7
	Others	21.1	4.2	44.8	45.5
Total(in numbers)		**161**	**168**	**201**	**66**
Hypertension	SC	12.3	7.8	8.7	36.0
	ST	54.5	81.3	32.1	6.0
	OBC	15.7	6.2	12.4	26.0
	Others	17.5	4.7	46.8	32.0
Total(in numbers)		**268**	**257**	**218**	**50**
Asthma (chronic respiratory failure)	SC	8.2	5.6	3.7	23.2
	ST	44.9	86.1	59.6	17.9
	OBC	28.6	4.8	19.1	35.7
	Others	18.4	3.5	17.6	23.2
Total(in numbers)		**49**	**231**	**136**	**56**
Tuberculosis	SC	9.1	2.7	7.2	45.5
	ST	54.5	85.3	63.8	9.1
	OBC	15.9	9.2	8.7	9.1
	Others	20.5	2.7	20.3	36.4
Total(in numbers)		**44**	**184**	**69**	**11**
Chronic-Liver-Diseases	SC	15.9	2.5	6.8	4.8
	ST	54.5	90.1	49.5	42.9
	OBC	20.5	5.1	19.4	23.8
	Others	9.1	2.3	24.3	28.6
Total(in numbers)		**44**	**353**	**103**	**21**
Peptic-ulcer (Hernia)	SC	4.5	3.3	14.5	41.1
	ST	50.5	90.2	40.5	13.7
	OBC	30.8	4.6	18.6	22.1
	Others	14.1	1.9	26.5	23.2
Total(in numbers)		**198**	**1400**	**657**	**95**

Authors Column

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