

Chapter IV

Economy, Education and Health of Patni

In previous chapter I introduced Patni community by highlighting their pre-historical and historical background. Contemporary Profile of Patni community in Cachar District of Assam is also discussed and analysed. This chapter deals with influence of economy and education on health in general and in case of Patni community in particular.

Idea of including economic and socio-cultural factor in studying distribution of etiology of disease is not new. Economic and socio-cultural factors become a part of cause of morbid episode. Socio-economic condition measured by occupation, income and education has more proximal influence upon adult health. A wide range of theoretical evidences on relationship between social structure and health come out of studies made in developed European nations. Western literature of health inequality are filled with ample data on inequality, unemployment, poverty, social class existing in Europe and America and their relationship with physical and mental health of individuals or groups¹.

¹Howard E. Freeman and Sol Levin, Handbook of Medical Sociology, Ed, Fourth Edition, Prentice Hall, New Jersey, 1989, Pp 46

Aspects of social structure generally influence health in three ways. First, social structure determines exposure to health-promoting or pathogenic circumstances. Second, social structure determines ability of individual to prevent or resist pathological outcomes of exposure to pathogenic circumstances and third, social structure determines access to health care².

Materialist approach of health inequality developed by western scholars is now prominent in field of sociology of health and illness. This approach deals with how material condition or economy being a part of social structure arranges different occupational categories and social classes within a society and patterns health status of individual or group of that society³.

With a view to examine relation between social class and health in empirical situation of UK, scholars analyse Black Report published under chairmanship of Sir Douglas Black in the year 1980. In this report authors survey situation of health inequalities in Britain from 1948 to 1970, a period of twenty five years from day of establishment of National Health Service (NHS) in Britain. Black report of Britain is mainly concerned with linking mortality data with occupational social class. By analysing data of

²Ibid Pp 47-53

³Michael Bury, Health and illness, Polity Press, Cambridge, 2005 Pp 21-22

Black report scholars view that for death of one male infant of professional parents, death of two children of skilled manual workers and three children of unskilled manual workers can be expected. Among females ratios are even greater. It is found that deaths from accidents and respiratory disease are closely related to class gradient. To scholars, respiratory disease of infants is closely linked with housing condition of poorer families in Britain. Scholars also find close link between adult mortality and social class in Britain during that period⁴.

Wilkinson further analyses Black Report and highlights socio-economic difference in mortality in term of their size and trend in England and Wales. He is of view that mortality differentials for occupational classes is continuously increasing from 1930 onwards. By analysing data on mortality of men of different occupational classes from age group of 15-64 years, he highlights increasing size and trends of mortality in British society. Different occupational classes are professional, managerial classes, skilled manual and non-manual, semi-skilled and unskilled workers. It is found that mortality rates for professional and managerial classes show a remarkable decline from 1930 to 1981. For skilled manual and non-manual labourers rate is neither increasing nor decreasing for same time period.

⁴Ibid Pp 23

But for semi-skilled and unskilled labourers mortality rate is increasing in every decade. Mortality rate for them in year 1930 is 111 which increased to 166 in year 1981. Thus it is observed that for higher occupational class mortality rate is lower and for lower occupational class mortality rate is higher. Wilkinson also finds difference in life expectancy at birth among different occupational classes in Britain. He also mentions that size and trends in class difference in mortality is important to know how health serves as a barometer of economic condition⁵.

Unemployment is another factor for differential rate of mortality in a society. In a longitudinal study based on data provided by Office of Population Census and Survey (**Moser, Fox and Jones**) relationship between unemployment and mortality in England and Wales is established. By making class wise distribution of unemployment it is observed that unemployed men are concentrated in lower social classes. Standardised Mortality ratio is found higher among groups who are unemployed and seeking work. Principal causes of mortality among job seeking unemployed men within age group of 15-64 are lung cancer, suicide, poisoning and violence. There are other causes of mortality like cancer,

⁵Richard G. Wilkinson, Class and Health, Ed, Tavistock Publications, New York, 1986, Pp1-4

cardiovascular diseases, respiratory diseases, accidents etc. But lung cancer, suicide, poisoning and violence are found higher than other causes of mortality in the decade when study is conducted. Impact of unemployment is also found among family members. It is found from the study that standardised mortality ratio is higher among women whose husbands are unemployed and seeking for work⁶.

Michael Marmot establishes relationship between social and economic environment with non-infectious disease by analysing World Development report published by World Bank in 1993. He views that for poor countries of the world, there is a clear relation between per capita gross national product (GNP) and life expectancy. Life expectancy is very low at lower end of range of GNP. Small increase in per capita GNP is related to relatively large increase in life expectancy. He also views that malnutrition and infectious diseases which cause high burden of maternal, infant and childhood deaths are related to poverty. Improvement in living conditions depends upon increase in GNP in poor countries which will result in improvement in life expectancy. To him, major causes of morbidity and mortality in developed countries are non-infectious diseases and some other external causes. All causes of death are related to social factors. By

⁶Ibid Pp 80-86

referring WHO Global burden of Disease Study (Murray and Lopez 1996), Marmot argues that by 2020 for every region of the world major causes of death will be non-infectious chronic diseases including cancer. Social causes are responsible for occurrence of non-infectious disease too⁷.

Another pathway through which economy and health is related by scholars of sociology of health is **access to health care**. Differential economic condition gives birth of inequality in access to health care. Access to better preventive and curative health care depends upon affordability. All individuals or group in society do not have equal capacity to afford better health care. Differential access to health care due to unequal economic condition leads to difference in health status. Sociologists are concerned with class, caste, race, gender wise access to health care⁸.

It is a common assumption that lower-income people have less access to health care than higher-income group. This assumption is scientifically proved by many scholars in different empirical situations (Davis, Gold, Kleinman and Makuc 1981). Lower income women are less likely to receive prenatal care (Aday, Anderson and Fleming 1980) and their

⁷Michael Marmot and Richard G. Wilkinson, Social Determinants of Health, Ed, Oxford, New York, 1999, Pp 4-6

⁸Howard E. Freeman and Sol Levin, Ed, Handbook of Medical Sociology, Fourth Edition, Prentice Hall, New Jersey, 1989, Pp 54-55

children are less likely to receive physical examinations (NCHS 1977). Poor people are incapable of receiving preventive services as Pap, smears, breast examination, childhood immunization and dental care (Dalton 1986). Physician's behavior too depends upon social status of patients (Waitzkin 1984)⁹.

Among the key socioeconomic measures education represents non-material resources and contributes to cognitive qualifications, attitudes and values shaping health-related behaviors, in particular. Occupational class relates people to social structure and labor market and contributes to their status and power. Occupational class also reflects working conditions and their influences on health. Income mainly derives from paid employment and contributes to material living standards and purchasing power which are needed in maintaining good health (Lahelma et al., 2004)¹⁰.

Economy and nutrition of Patni: Theoretical knowledge on relationship between socio-economic status and health give insight to find out how economy and education of a community is interrelated to their health. Economy of a community can be correlated to their health status through various pathways. For studying relationship between economy and health

⁹Ibid Pp 55-56

¹⁰Ibid Pp 55-58

status of Patni three pathways have been taken. These are economy and nutrition, economy and sanitation, economy and access to health care.

For finding out relationship between economic condition and nutritional status of Patni community three days survey of dietary supplement of respondent households have been conducted. From study it is observed that food items taken by most of the respondents for three days do not contain balanced nutritional dietary supplements. Adequate amount of nutrients were not taken on daily basis from food items. Quantity of dietary nutrients varies is not at par with their requirement. Following table shows per day requirement of nutrients for a person. It is observed from table IV.1 that on daily basis man and women having different load of physical work need differential quantity of energy, protein and fat. These requirements of energy, protein and fat are to be fulfilled daily through intake of food items which are enriched with these components. Energy is obtained by taking food items like rice, wheat and maize, protein is found from both animal and plant sources. Protein rich food items are fish, meat, egg, soybean, pulse etc. Fat rich food items are cheese, ghee, oils, nuts etc. Apart from energy, protein and fat an adequate quantity of vitamins and minerals are to be taken on daily basis which are found in vegetables, green leaves and

fruits (Park 2009). Sufficient quantity of pure water is to be taken daily for smooth functioning of body.

Table IV.1

Daily Requirement for Nutrients for Adults

Group	Particulars	Body Weight	Energy Kcal/d	Protein g/d	Fat g/d
Man	Sedentary word	60	2425	60	20
	Moderate Work	60	2875	60	20
	Heavy Work	60	3800	60	20
Women	Sedentary Work	50	1875	50	20
	Moderate Work	50	2225	50	20
	Pregnant	50	+300	+15	30
	Lactation 0-6 months	50	+500	+25	45
	Lactation 6-12 months	50	+400	+18	45

Source: Summary of RDA for Indians, Parks Text book of Preventive and Social Medicines

Table IV.2 shows dietary requirement of children on daily basis. Energy, protein and fat is required on daily basis for infants, children, adolescent girls and boys. Differential body weights of these group demand differential requirement of dietary intake to meet these nutrients. Infant, children and adolescents too need adequate quantity of vitamins, minerals and pure water.

Table IV.2**Daily Requirement for Nutrients for Children**

Group	Particulars	Body Weight	Energy Kcal/d	Protein g/d	Fat g/d
Infant	0-6 Months	5.4	108/Kg	2.05/Kg	-
	6-12 Months	8.6	98/Kg	1.65/Kg	-
Children	1-3Years	12.2	1240	22	25
	4-6Years	19	1690	30	25
	7-9Years	26.9	1950	41	25
Boys	10-12Years	35.4	2190	54	22
Girls	10-12Years	31.4	1970	57	22
Boys	13-15Years	47.8	2450	70	22
Girls	13-15Years	46.7	2060	65	22
Boys	16-18Years	57.1	2640	78	22
Girls	16-18Years	49.9	2060	63	22

Source: Summery of RDA for Indians, Parks Text book of Preventive and Social Medicines

If we look into food habit and daily dietary intake of respondent households we find most of respondent households are not in a position to take complete food due to economic consideration. All most all respondent households except few members of some households do not have any restriction to take both vegetarian and non-vegetarian food items. Cultural

consideration for selection and intake of food item is there but this does not restrict people to remain abstains from non-veg foods. All respondent households do not have any restriction to eat meat of some selected animals and birds, fish and egg. Cost of food items is sole reason to avoid meat, fish and egg by majority of households. Rice is taken by all households to meet carbohydrate and energy requirement of a day. Every family cannot afford food items like fish, meat, egg, pulse, soybean etc daily and thus their protein requirement does not get fulfilled on daily basis. Similarly fat rich food items like cheese, ghee, butter, nuts etc are not consumed by most of respondent households. Fruits are also not consumed by most of the respondent households on daily basis. Vegetable and green leaves are taken but quantity is not sufficient to meet daily requirement of minerals and vitamins. Milk is known as a source of complete food but very few respondent households can afford pure milk on daily basis due unavailability and lack of affordability. Seventy percent of respondent households are not able to provide nutritious food enriched with protein, fat, vitamins and minerals to children on daily basis. Thus, it is found from study that nutritional need on daily basis as per requirement mentioned in table IV.2 and IV.2 is not getting fulfilled for both adults and children of Patni community in Cachar district.

Economy and Sanitation: Another pathway to find out relationship between economy and health is sanitation. Sanitation of Patni community means the way Patni collectively or individually prevent human contact with hazards of wastes particularly human and animal feces, waste water, domestic waste etc. Their housing condition and their habit of remaining clean also come under their sanitation profile.

Table IV.3

Housing Pattern of Respondent Households

Housing Pattern	No of Households	Percentage
Pucca	21	7%
Semi-Pucca	57	19%
Katcha	222	74%
Total	300	100%

It is observed from study that 7% of total respondent households stay in pucca house made up of tin or concrete walls and tiled floor. Around 19% of respondent households are living in semi-pucca houses made up of tin roof and brick walls or bamboo made cemented walls and katcha floor. But around 74% of respondent household are living in katcha houses made up of tin or chawl roof, bamboo or mud walls and katcha floor. This indicates that housing condition of Patni is related to their economy.

Table IV.4
Condition of Drinking Water

Condition of Water	Households	Percentage
Filtered and boiled	51	17%
Only filtered	66	22%
Without filtering and boiling	183	61%
Total	300	100%

It is observed from table that only 17% of total respondent households take water by boiling and filtering. About 22% of respondent households drink water by only filtering and around 61% respondent households drink water without boiling and filtering. Members of majority of households reported that due to high price of fuel it does not become possible on their part to boil water and regularly they cannot purchase water filter. Therefore, it is observed that majority of Patni drink water without boiling due to poor economic condition.

Table IV.5
Condition of Latrine and Urinal

Condition of Latrine and Urinal	Households	Percentage
Sanitary Latrine and Urinal	69	23%
Insanitary but closed tank	153	51%
Insanitary and open tank	69	23%
No Latrine and urinal	9	3%
Total	300	100%

It is observed from table that only 23% of respondent households have sanitary latrines and urinals. Nearly 51% respondents have insanitary latrines but tank is closed with cover made of bamboo. Respondents reported that this kind of earthen tank lasts for two to three years. But 23% of respondents reported that they use insanitary latrine with open tank. Respondents who reside by bank of river use pipe to through waste material to river. Only 3% of respondents do not have latrines who use open field or river bank. From above table it is observed that concept of sanitation for human waste material is very much prevalent among Patni community but economic hardship is sole reason for using insanitary latrines and urinals. Respondents reported problems of using insanitary latrine due to flood during rainy season.



Insanitary latrine with closed tank. Majority of Patni in Cachar district have this type of latrine.



An open urinal. Majority of Patni make open urinal behind their house.

Table IV.6

Availability of Drainage in House

Drainage	Households	Percentage
Pucca Drainage	33	11%
Katcha Drainage	27	9%
No Drainage	240	80%
Total	300	100%

It is observed from study that only 11% respondents have drainage at their houses which is made up of concrete and bricks. Only 9% of respondents reported availability of katcha drainage at their house. But 80% of respondents reported that they do not have drainage at their house. Most of the respondents who live in village reported that they do not require drainage for waste water management or other purpose.

Personal cleanliness is another parameter through which health and economy of a community is measured. People's habit of remaining clean is not always determined by economy but it is found from study that educated and economically better people in Patni community remain cleaner than poor and illiterate people. In rural areas people are not even conscious about their children's cleanliness.

Economy and access to health care: Better health care facility needs more money. A comparative analysis has been made on preference of health care in government or private hospitals among poor and middle class respondents. It is observed that economic condition of respondents matters in preferring private hospitals for treatment than government hospital

Table IV.7

Income and Preference of Health Care Institution

Range of Income	Preference of responding to health care Institution		
	Govt. Hospital	Private Hospital	Total
Up to Rs. 2000	170	07	177
Rs. 2001- 4000	38	04	32
Rs. 4001- 6000	15	03	18
Rs. 6001- 8000	10	05	15
Rs. 8001 – 10000	10	08	18
Above Rs. 10000	05	25	30
Total	248	52	300

From above table it is found that around 96% of respondents having monthly income less than 2000 prefer government hospital for treatment of disease. Only 4% respondents of this income group express their preference

for private hospitals. Around 90% of respondents who belong to income range of Rs 2001 to 4000 prefer government hospital as compared to 10% respondents of this income group. Around 83% of respondents who fall in income range of Rs 4001 to 6000 prefer government hospital for treatment of disease than rest 17% respondent of this income group. More than 66% of respondents who belong to income range from Rs 6001 to 8000 per month prefer government hospital as compared to 34% of respondents of same income group. Next group belongs to income range of Rs 8001 to 10,000 per month and in this group percentage of respondents preferring government and private hospitals are almost same. But 84% of respondents in last group who belongs to income range of Rs 10,000 above prefer private hospitals. Above data clearly shows some relationship between range of income and preference to government or private hospitals. Respondent's income and access to health care can also be related from fact observed in the study that majority of respondents who belong to income range up to Rs 4000 do not go to doctors if illness is not serious. In government hospitals they are getting free medical checkup but their economic condition is not permitting them to purchase medicines they are prescribed by doctors. Moreover, they cannot afford cost of Para-medical tests.

Education and cognitive orientation of health and illness: Concept of health differs from person to person and community to community. It is believed that development of science and technology help to communicate day to day development in field of scientific study of health and illness. Formal education too helps in developing knowledge on some fundamental issues of health and illness. Following table IV.3 is prepared on the basis of response given by respondents on ten basic questions on health and illness. These questions are asked on basic knowledge of health and illness. These questions are as follows. 1. What causes diarrhea? 2. How is homemade saline prepared for a diarrhea patient? 3. What are germs? 4. How are germs harmful for human being? 5. Why is vaccine given to children? 6. How can we avoid attack of germs? 7. What instrument is used to measure body temperature during fever? 8. What medicine is used to control fever? 9. What diseases are caused due to use of tobacco? 10. What is function of heart? Questions were explained properly if these were not understood by respondents. Selection of family member for answering questions is made purposively so that from entire respondent households different levels of literate persons as well as some illiterate persons are found to ask these questions. Initially respondents hesitated to answer these questions but they were convinced later on and they agreed to reply.

Questions were asked to respondents in their familiar language and elaborately explained wherever necessary.

Table IV.8

Respondent's Basic Knowledge of Health

Educational Background of respondent	Answer to basic health question			
	All Correct	Few Correct	All Wrong	Total
Graduate and above	15	2	1	18
Higher Secondary passed	29	3	3	35
High School passed	30	8	10	48
Up to high school	30	26	18	74
Up to middle school	8	6	44	58
Up to primary school	2	5	47	54
Illiterate	-	-	13	13
Total	114	50	136	300

It is observed that out of 300 respondents 136 respondents (45.3%) could not at all answer these questions. All most all of them are illiterate and have very poor knowledge on health, disease and illness. This is not case with educated respondents. About 16.70% responded attempted to answer all questions but they could answer few questions properly. Most of them have received education up to class nine. About 38% respondents answered all

questions properly. Respondents who answered all questions properly have received more education from those who could not answer. All most all graduate and higher secondary passed respondents could answer all questions properly. Above fact clearly shows some connectivity of education with cognitive orientation of respondents towards health and illness.

Education, income and health: Income, though not always but in most cases becomes a function of educational attainment. Educated persons are always in better position in terms of earning than uneducated persons. Patni in Cachar district is not educationally forward. It is found from the study that only about 5% people who are working in government sector are earning more than Rs 10,000 per month. Educational attainment of few businessmen is also at par with government employees and their income is more than Rs 10,000 per month. Some employees of private farm are also earning more than Rs 10,000 per month. Only around 7% of total population is earning above ten thousand per month and they are more educated than those who are earning less than Rs 10,000 per month. Income of day labourers, carpenters, masons and their helpers range from Rs 2,000 to 6,000 per month. Most of the people belonging to this range of income are less educated than those who are earning more than ten

thousand per month. Apart from earning, educated Patni people who are engaged in government sectors have more life security than other workers. Physical work pressure of a government employee is less as compared to workers in other sectors. It is found from study that almost all employees in government and private sectors are having health insurance. Therefore, educated Patni are in advantageous position than less educated Patni in Cachar district.

Education and health behavior: It is observed from the study that educated Patni are more health conscious than uneducated Patni. Among educated Patni habit of smoking, drinking and chewing betel-nut is very less except addiction which is more among uneducated Patni. It is observed from study that chewing betel- nut is a common practice among Patni. It is an item which is not only consumed by self but offered to all guests and neighbours who are visiting house of a person. Recently some kind of consciousness has got developed among educated Patni people who can really realise evil effect of chewing betel-nut. Most of the uneducated Patnis those who regularly chew betel-nut are suffering from several dental problems. But they are still not conscious of harm caused by betel-nut. Smoking *birhi* is another habit which is harmful to health. *Birhi* is smoked by illiterate and uneducated male as well female Patni living in villages.

Good number of aged women confessed their habit of smoking *birhi*. Most of educated Patni are not habituated in smoking *birhi* but many of them favour other forms of tobacco. Education has made Patni people little conscious about harm of tobacco. Moreover, personal cleanliness of educated respondents is more than uneducated respondents. Many people of Patni community are found quite ignorant about harm of remaining unclean. Personal cleanliness costs some amount of money but one's willingness to remain clean is more important than its cost. It is observed that most of the members of respondent households who are less educated and living in villages do not comb hair regularly. Therefore, it can be said that education matters to influence habit to remain clean.

Mother's education and consciousness for child health: To find out relationship between mothers educational qualification and consciousness for child health in patni community, a comparative analysis has been made between educated mothers and uneducated mothers and corresponding health consciousness for their children. It is found from the study that the educated mothers are more concerned about vaccination and nutrition of their children. Uneducated mothers often forget to provide subsequent dose of a particular vaccine after the 1st dose. Government of Assam is providing nine vaccines at free of cost. Out of which six types of vaccines

are given for infants and children and three types of vaccines are given for pregnant mothers. These vaccines are TT-1,TT-2 (Tetanus) and TT Booster for pregnant women, BCG (Bacilli Chalmette-Guerin), OPV-0 (Oral Polio Vaccine), OPV1,2and3, DPT (Diphtheria, Tetanus and Pertussis) 1,2 and 3,HEP (Hepatitis) 1,2 and 3,Measles and Vitamin A (1st dose) for infants and DPT(Booster) , OPV(Booster) and Vitamin A (2nd and 3rd dose) for children. It is found in case of uneducated mothers that they start vaccines to the children but could not provide vaccine as per schedule to their children. Either they lose immunization card or they forget due date of next dose of vaccine. In many cases ASHAs and ANMs try to provide dose of vaccine by going to houses of beneficiaries but they reported that members of family do not always remain present in the house on that day. There are people who still do not prefer to give vaccines to their children but their percentage is very less. While concerned ANMs were asked about occurrence of any vaccine related adverse side effect, they replied there was no such case found anywhere to the best extent of their knowledge. Moreover, uneducated mothers do not even know the names of vaccines which are given to their children. Educated mothers are aware of both government aided vaccines and other vaccines required for children and infants not provided by government of Assam.

Education and maternity care: Most of the pregnant women, as reported by ANMs and ASHAs, who are not educated, remain ignorant about their LMP (Last Menstrual Period) and consequently they miss required medication during first phase of pregnancy. It is also reported that illiterate guardians are compelling pregnant women to do unhealthy practices based on their superstitious belief and practices. These guardians also impose diet restrictions on pregnant women. Despite of repeated suggestions given to guardians and pregnant women of this category by health personals like ANMs and ASHAs for following medical advice they do not listen to it. But this is not prevalent in households where pregnant women and their guardians are educated.

Conclusion: It is observed from the study that Patni those who are in poor economic condition have poor nutrition, poor sanitation, poor access to health care and consequently their health status is poor. Level of education of Patni also determines their health. Education is closely linked with their cognitive orientation to health and illness, their income, their consciousness to child care and many other health related aspects. Therefore, it can be concluded from our study that income and education are closely linked with health of Patni.