

## Chapter II

# PROFILE OF THE RESPONDENTS AND FACTORS RELATED TO HEPATITIS

In this chapter, an attempt has been made to provide the general background or the social profile of the respondents of both the experimental and control group. The social profile of the respondents is very important as several studies in medical sociology have found strong association between the social background and the disease occurrence as well as spread. It has been argued that unequal distribution of health and disease are the product of social inequality in societies. Social indicators are significant in promoting the susceptibility of illness and disability. They are also influential in augmenting prospects for disease prevention and health promotion. The greatest threat to an individual's health and physical well being stems largely from unhealthy life styles and high risk behaviour that are largely due to socio-economic background of an individual. John Snow the pioneer of modern epidemiology has identified social agent as one of the important agents alongside biological, nutritional, chemical and physical agent of disease. Social agents include occupation, social class, location of residence and lifestyle of an individual or a group of individual (Cockerham.1994). A person's occupation, his socio-economic background and location of residence can specify what health hazards are most likely to exist in that individual's life. Human hosts are examined in terms of both biological as well as behavioral characteristics that promote resistance or susceptibility of disease. Biological characteristics include age, sex, race, degree of immunity and other physical attributes whilst behavioral attributes are habit, custom and life style. Alongside

these two, the physical and social environments are too authoritative to identify the cause of agent of disease and illness. The term social environment in epidemiological research refers to the actual living conditions, such as poverty or crowding, and also the norms, values, and attitude that reflect a particular social and cultural context. The importance of norms and values are also provided in Durkheim's thought. Rejecting the influence of biological characteristics in human behavior Durkheim argues that an individual's behavior in different aspect and context is reinforced by the society and this is what is termed as social behaviour. And thus every society has socially prescribed pattern of behaviour and living arrangements as well as standards pertaining to the use of water, food, and food handling, household and personal hygiene that can be used not only to trace the transmission process, but also to assist the most effective means of treatment and prevention within that particular environment.

Diseases are the production of biological as well as behavioral aspects. They are affected by day to day behaviour of people as it is evidenced from a study on research project on coronary heart disease in USA in 1950. In this study it is observed, male having advance age, high blood pressure, cigarette smoking, diabetes and obesity constitute significant risk factors. But female who are diabetic, obese, have a high level of cholesterol are prone to heart disease (Daweber *et.al*, 1963). Further, the etiology of poor health status of women farmer and their children in Gombe state of Nigeria have been identified as owing to their incapacity in socio-economic inputs (Nabanita, Khuswha, Yahaya and Olajide, 2007).

The early nineteenth century witnessed the emergence of a social medicine with a number of important studies in Western Europe. Intricacy between disease

and social problem such as role of poverty in population death rate was studied by Edwin Chadwick(Chadwick,1842).Rudolf Virchow in his pioneering work on terrible typhus put forward the interface of disease with economy, the condition of work, and the organization of agriculture (Virchow,1868).

Disease is the action of socio cultural variables including social class, gender, life style which all varies on the basis of age, sex, occupation and other structural inputs. Variance of disease is also proposed by general susceptibility model that holds social tension, stress, lifestyle or combination of these make certain group more susceptible to disease and death. Max Weber's contribution on life style (Weber,1978) in general help the concept of "Health life style" perspective and also, provides an insight on the fact that health seeking behaviour are influenced by socio-economic condition. In Weber's notion a status group refers to people who share similar circumstances, prestige, education, political influence and above board they share a similar life style. Stylization of life, life conduct and life chances are three distinct term to express his view on life style. Life conduct refers to the choices that people have in life styles they wish to adopt, but life choices are influenced by life chances. Weber's ideas about style reflect that a person's location in social hierarchy is typically a combination of three indicators: income, education and occupation. Life style is a reflection of people's status in society and life chances are based on what people consume not produce. More over life style are depended on life choices that are on individual's capacity to realize them. Thus Weber's works insight that health life styles are the product of individual's position in hierarchy of socio-economic status in society.

Widespread variations in the life chances of people amongst different hierarchical segments are also highlighted in the studies of Lipworth 1970: and

Waldron *et.al.* They explore that in American society diseases are patterned by socio-cultural variables, including social class, gender and life style. Waldron's study further suggests the importance of cultural factors in producing death difference. In many countries female death rate is higher than the male at the age between one and forty. Higher mortality rate among female is observed most frequently in non-industrial countries also (Waldron 1975).

Differential mortality rate among various age and sex group exists in country such as United States. In USA, there is excess of mortality among married adults. It is 10 percent greater among single and widow, 50 percent greater amongst divorcee. The excess of mortality rate among maid is particularly higher for the causes like liver cirrhosis and tuberculosis which are strongly influenced by behaviour, health habits and health care taken. Thus behavioural factors emerge as an important determinant of death differentials. The importance of behavioural factors is obvious in case of accidents, respiratory diseases as well as cirrhosis of the liver that are largely due to smoking as well and alcohol consumption. The causes of death with clear behavioural components are responsible for one third of the excess of male mortality in European countries (Crockerham,1994).

A variety of evidences suggest the important causes of higher rate of coronary heart disease in many men may be due to their involvement in paid jobs and in aggressiveness in competitive roles, which are sharply contrast to women's supportive role and greater orientation towards family. Several studies have found that amongst men the risk of coronary heart disease is higher for those who have worked many hours over time or who have held two jobs simultaneously (ibid,1994).Coronary-prone behavioural pattern suggests the persons who are work oriented, aggressive, competitive, hurried are pre-occupied in dead lines.

Aggressiveness among male varies enormously, depending on their socialization and cultural conditions. Sex differences in competitiveness are fostered by parents and schools who push boys to achieve occupational world and girl to seek success in domestic affairs. Thus the variety of evidences suggest the cultural as well as socio-economic pressure in society push individual or group of individuals to develop diseases. Thus, the above discussion put forward to study the influence of socio-cultural factors to promote hepatitis and gallbladder stone in Barak valley.

#### *General Background of the respondents:*

From the above background, the social profile of the respondents has been presented. The social parameters such as sex, age, education, marital status, religion, social status, occupation of the respondent and the respondent's family, type of family, income of the family, and the type of house.

#### *Age:*

Age and sex are very closely related to disease and illness. Table No. 3:1 shows the details of distribution of respondents by age and sex in case of the hepatitis victims and controlled group. The respondents are equally distributed in all the age groups in this study. <sup>3</sup>

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<sup>1,4</sup> The epidemiological data suggests that in India hyper-endemic of HAV infection likely to occur in the first few years of life and most of the people acquire antibodies of HAV by 10 years of age (Kar, 2006 Internet). Further, studies in five cities including Kolkata, Cochin, Indore, Jaipur and Patna show that adult population is at risk of HAV infection (Mall et al 2001). Dhewan et al study explicates that sero prevalence of HAV is 20-22 percent in below 5 years of age while it reaches to 80 percent by 15 years (Dhewan 1998); in northern India 95 percent children above 10 years are likely to be infected every year (Batra, 2002); in rural Maharashtra, maximum number of cases are within 15-30 years of age (Gaurav et al www.ijcm.org.in).

**TABLE: 2.1. HEPATITIS RESPONDENTS' AGE AND SEX.**

	Age	SEX		Total
		Male	Female	
Experimental	6-17	18 (54.54)	15 (45.45)	33 (100.0)
	18-30	22(48.88)	23(51.11)	45 (100.0)
	31-45	20 (47.61)	22 (52.38)	42 (100.0)
	45 and above	20 (50.0)	20 (50.0)	40 (100.0)
	Total	80 (50.0)	80 (50.0)	160 (100.0)
Control	6-17	20 (50.0)	20(50.0)	40 (100.0)
	18-30	20 (50.0)	20 (50.0)	40(100.0)
	31-4	20(50.0)	20(50.0)	40(100.0)
	45 and above	20(50.0)	20(50.0)	40 (100.0)
	Total	80(50.0)	80(50.0)	320 (100.0)

An individual's or group of individual's health status is also depended on the living condition. Although people who are living with poor and crowded urban area are more exposed with communicable diseases like cholera, dysentery, typhoid and so on but it is reported that in Southeast Asia prevalence is higher in rural areas compared to urban area (Kar, 2006).

*Residence:*

Residence and sex wise distribution of the respondents illuminate the fact: the people living in urban fringe are more affected by viral hepatitis. Across the gender it is male folk who are at the high risk of jaundice.

**TABLE: 2.2. HEPATITIS RESPONDENTS' RESIDENCE AND SEX.**

	Residence	SEX		Total
		Male	Female	
Experimental	Rural	44 (56.41)	36 (43.59)	80 (100.0)
	Urban	36(51.12)	44(48.88)	80 (100.0)
	Total	80 (50.0)	80 (50.0)	160 (100.0)
Control	Rural	40 (50.0)	40(50.0)	80 (100.0)
	Urban	40 (50.0)	40 (50.0)	80(100.0)
	Total	80(50.0)	80(50.0)	320 (100.0)

Though the data shows preponderance of female respondents in urban fringe yet many of the male who are from rural areas are living in Silchar town for occupational purpose may affected by virus because they live in urban area. Moreover, since there is limitation of sample data have to be collected equally. But visiting different hospitals for data collection it is observed that trend is more among the males.

*Education:*

Education is the potent predictor of a person's health status. Educated people are well informed and know the pros and cons of a healthy life style as well as need of seeking preventive care. According to table 2.3, 90 percent of the respondents are literate. Majority of them are primary to secondary educated. The data highlights higher number of illiteracy amongst the female. Even amongst the literate, it is seen that although the number of female respondents are slightly more than their male counterpart in case of those who are primary to secondary educated. Male members are found to be preponderant among the respondents who have studied up to graduation level or more than that as well as amongst the technically qualified respondents as well.

**TABLE :2.3.HEPATITIS RESPONDENTS' EDUCATION AND SEX.**  
(Percentage in parenthesis)

	Education	SEX		Total
		Male	Female	
Experimental	Illiterate	6 (37.5)	10 (62.5)	16 (100.0)
	Primary to HSSLC	52(48.6)	55(51.4)	107 (100.0)
	Graduation and above	17 (58.6)	12 (41.4)	29 (100.0)
	Technical	5 (62.5)	3 (37.5)	8 (100.0)
	Technical	5 (62.5)	3 (37.5)	8 (100.0)
	Total	80 (50.0)	80 (50.0)	160 (100.0)

Control	Illiterate	4 (21.1)	15(78.9)	19 (100.0)
	Primary to HSSLC	56 (50.45)	55 (49.55)	111(100.0)
	Graduation and above	15(68.18)	7(31.82)	22(100.0)
	Technical	5(62.8)	3(37.2)	8 (100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

*Marital status:*

Age and marital status wise distribution (Table 3.4) of hepatitis respondents indicate amongst both male and female the married respondents are more affected by hepatitis than the unmarried. Only two married female respondents are married at the earliest stages of life. Amongst the male respondents married ones are more with in the age group of 45 years and above, while all of them are unmarried within the age group of 6-17 years .The gap between married and unmarried respondents is marginal within the age group of 18 years to 45 years.<sup>2</sup>

The lone divorcee man belongs to the age group of 31-45 years. Amongst the females it is seen that the number of married respondent is higher with in the age group of 18-45 years. About 75 percent respondents are within the age group of 18-30 years and 85 percent within the age group of 31-45 years and 80 percent respondents are within the age group of 45 years and above. Less than a third of the hepatitis control male respondents are married while majority of their female counterpart are married as it is evidenced from above below.

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<sup>2</sup>Present Study is reporting that there is a single cases of separation of marital tie in Barak Valley while in a study of Tamil Nadu it is reported to be 14.6 percent.



**TABLE :2.4. HEPATITIS RESPONDENTS' MARITAL STATUS AND SEX.**

	Marital status	SEX		Total
		Male	Female	
Experimental	Married	43 (41.0)	62 (59.0)	105 (100.0)
	Unmarried .	37(71.2)	15(28.8)	52 (100.0)
	Divorcee	1 (33.3)	2 (66.7)	3 (100.0)
	Total	81 (50.6)	79 (49.4)	160 (100.0)
Control	Married	29 (48.3)	31(51.7)	60 (100.0)
	Unmarried	50 (50.51)	49 (49.49)	99(100.0)
	Divorcee	1(100.0)	-----	1(100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

*Religion:*

Although the co-relation between disease and illness is a confusing phenomenon, yet it is seen that incidences of disease prevalence and mortality rate differ amongst the different religious groups. This may be partly due to differences in dietary habits, lifestyle and other characteristics that are induced to a great extent by religious tradition and practices.<sup>3</sup> The sample of hepatitis respondents according to the religion shows that more than three quarters of them are Hindu and about one quarter is Muslims. There is only one case from Jain community. In case of control group, the respondents have identified themselves as either Hindus or Muslims, and the people of farmer category are in higher proportion. Across the gender, the sample shows more number of females among the Hindus and more number of male among the Muslims.

<sup>3</sup> And it is evidenced in a study of Ehman *et al*; that those who are more adherent to religious belief are more affected in their health care than those who are less adherent.(Lehman *et al*;1996).

**TABLE :2.5.RESPONDENTS' RELIGION AND SEX**

	Religion	SEX		Total
		Male	Female	
Experimental	Hindu	59 (47.6)	65 (52.4)	124 (100.0)
	Muslim	21(60.0)	14(40.0)	35 (100.0)
	Other	-----	1 (100.0)	1 (100.0)
	Total	80 (50.0)	80 (50.0)	160 (100.0)
Control	Hindu	63 (45.65)	75(54.35)	138 (100.0)
	Muslim	17 (77.3)	5 (22.7)	22(100.0)
	Other	-----	-----	1(100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

*Social Status:*

Wide spread variations in the occurrence of disease and mortality rate in terms of education, occupation and so on assumes the significance of social-economic status in health matters. Education, income and occupation are three prime indicators of socio-economic status. Research indicates that, the people who are poor and living with crowded urban neighbour hood are at the high risk of dying with cancer than average men (Jenkinn,1983).Jenkins suggests ,the strong association between poverty and dieing cancer, specially for strong adult male who are unemployed or underemployed. In India traditionally people's status is determined in terms of the Caste system. Although the galloping pace of modernity has brought education, occupation and income as determinant of social status yet the position of caste system remains intact.Table2.6 indicates Kayastha. Vaisya and Sudra respondents are altogether constitute highest number amongst all respondents, followed by Schedule caste or other backward caste. A third of them

belong to schedule caste and other backward caste respondents. Other includes minority and other religion

**TABLE :2.6.RESPONDENTS' SOCIAL STATUS AND SEX**

	SOCIAL STATUS	SEX		Total
		Male	Female	
Experimental	Brahmin	13 (41.9)	19 (59.37)	32 (100.0)
	Kayastha\Vaisya	12(57.14)	9(42.86)	21 (100.0)
	Sudra\OBC	19(54.28)	16 (45.72)	35 (100.0)
	Schedule Cast	15(41.7)	21(58.3)	36 (100.0)
	Does not arise	21(60.0)	15 (40.0)	35(100.0)
	Total	80 (50.0)	50 (50.0)	160 (100.0)
Control	Brahmin	9 (47.4)	10(52.6)	19 (100.0)
	Kayastha\Vaisya	15 (75.0)	5 (25.0)	20(100.0)
	Sudra\OBC	20(46.65)	26 (54.35)	46(100.0)
	Schedule Caste	19 (35.84)	34 (64.15)	53(100.0)
	Does not arise	17(71.3)	5 (22.7)	22(100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

*Occupation:*

Table 2.7 indicates, of the total hepatitis respondents, a little more than half of them are either students or unemployed. The rest are either businessman and self employed or service men. They are all most equally divided. Amongst the sexes, women are largely unemployed, that is, they remain as housewives or without any job. However, from the businessmen, self-employed and service persons, a majority of the male are servicemen. But in case of females the majority of respondents are from the business and self-employed category.

**TABLE :2.7.RESPONDENTS' OCCUPATION AND SEX.**

	Age	SEX		Total
		Male	Female	
Experimental	Student and unemployed	32 (36.4)	56 (63.6)	88 (100.0)
	Businessmen and self employed	19(55.9)	15(44.1)	34 (100.0)
	Serviceman	30 (78.9)	8 (21.2)	38 (100.0)
	Total	81 (50.6)	79 (49.4)	160 (100.0)
Control	Student and unemployed	54 (46.95)	61(53.05)	115 (100.0)
	Businessmen and self employed	19 (55.9)	15 (44.1)	34(100.0)
	Serviceman	7(63.6)	4(36.4)	11(100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

*Size of the family:*

The Table 2.8 shows that the majority of the respondents' family size is limited to 4 numbers, which means it is a small family having a couple and two children. A third of the respondents come from the family having 5 to 10 members, which means that they are big families. There are a few cases having more than 10 members in their family.

**TABLE :2.8. RESPONDENTS' SIZE OF FAMILY AND SEX**

	Size of the family	SEX		Total
		Male	Female	
Experimental	Up to 4 member	47 (46.53)	54 (53.46)	103 (100.0)
	4 to 10 member	27(56.3)	21(43.8)	48 (100.0)
	More than 10 members	6 (66.7)	3 (33.3)	9 (100.0)
	Total	80 (50.0)	80 (50.0)	160 (100.0)

Control	Up to 4 member	53 (44.16)	67(55.83)	120 (100.0)
	4 to 10 member	24 (66.7)	12 (33.3)	36(100.0)
	More than 10 members	3(75.0)	1 (25.0)	4(100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

*Family Education:*

The Table 2.9 shows that education of the family of the respondents. It is considered important that if there is more number of educated members in the family, there are chances that the family takes care of its members from contagious diseases. But this hypothesis cannot be proved, as about 70 per cent of the respondents have educated members in their families.

**TABLE :2.9. RESPONDENTS' FAMILY EDUCATION AND SEX**

	Family Education	SEX		Total
		Male	Female	
Experimental	Illiterate	21 (44.7)	26 (55.3)	47 (100.0)
	Primary to HSSLC	47(52.22)	43(47.7)	90 (100.0)
	Graduation and above	12 (52.4)	10 (47.6)	21 (100.0)
	Technical	-----	-----	-----
	Total	80 (50.0)	50 (80.0)	160 (100.0)
Control	Illiterate	27 (49.1)	28(44.8)	55 (100.0)
	Primary to HSSLC	41 (47.12)	46 (52.87)	87(100.0)
	Graduation and above	10(76.9)	3(23.1)	13(100.0)
	Technical	2(40.0)	3(60.0)	5 (100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

### *Types of Family:*

Type of family determines people's living standard. Family is a unit of consumption. Since joint families are larger in size, in joint family consumption is more and hence its requirement is naturally more than the small family holding. In larger family, people have to spend more on to meet their daily necessity which hinders on the way to lead a healthy life style. Unequitable distribution of food in terms of the rank of the family member is a common phenomena of larger family. More over it is often observed that people in larger family are not able to take quality food that causes the problems of ill-fed and mal-nutrition and hence causes disease. Thus, type of the family is strongly associated with type of family.

According to Table 2.10 a majority of the respondents of both the sexes hail from nuclear families.<sup>4</sup>

**TABLE :2.10. RESPONDENTS' FAMILY TYPE AND SEX**

	Family Type	SEX		Total
		Male	Female	
Experimental	Nuclear	72 (50.3)	71 (49.7)	143 (100.0)
	Joint	8(47.5)	9(52.94)	17 (100.0)
	Total	81 (50.6)	79 (49.4)	160 (100.0)
Control	Nuclear	41 (47.1)	46(52.9)	87 (100.0)
	Joint	39 (53.42)	34 (46.57)	73(100.0)
	Total	80 ( 50.0)	80(80.0)	320 (100.0)

<sup>4</sup>.In a rural area of Maharashtra 56.15 percent have nuclear family and 28.01 have joint family (Gaurav et al,2007 ).

### *Family Income:*

Family income is the indicator of people's socio-economic status and life styles. People's living standard depends on the family income. Poor family income discards people to take proper health care. It is observed that when need for health service is taken in to account it seems that low income persons are appear to use fewer services relative to their needs. Moreover, it is also observed that poor people are visiting doctors in greater number than that of higher income group. But they are using public system of medicines. In public system people receive less quality care. People have to wait in queue and cope with bureaucratic system. The hospitals them selves are sources of contamination and spreads viruses that all are conducive to health.

Income seems to have some correlation with the occurrence of hepatitis, as the income increases there is less representation of hepatitis patients. In the income less than Rs. 5,000 a month, there is high representation. But in the income group of more than Rupees. 15, 000, there are a few cases of hepatitis. The Table 2.11 shows the details of income and respondents of hepatitis.

**TABLE :2.11. RESPONDENTS' FAMILY INCOME AND SEX**

	Family Income	SEX		Total
		Male	Female	
Experimental	Up to 5000	41 (47.12)	46 (52.48)	86 (100.0)
	5000-10000	30(55.6)	24(44.4)	54 (100.0)
	10000-15000	8(44.4)	9(55.60)	18 (100.0)
	>15000	2 (100.0)	-----	2 (100.0)
	Total	80 (50.0)	80 (50.0)	160 (100.0)

Control	Up to 5000	25 (92.6)	2(7.4)	27 (100.0)
	5000-10000	22 (39.28)	34 (60.7)	56(100.0)
	10000-15000	32 (82.01)	7 (17.09)	39 (100.0)
	>15000	1 (2.06)	37 (97.04)	38 (100.0)
	Total	80 ( 50.0)	80(50.0)	320 (100.0)

### *Social Background of the Respondents.*

Respondents social background is determined with the help of a four point scale for the items :(1) Age,(2) occupation,(3) education,(4)caste and(5) family income (6) type of family,(7) type of house,(8) type of toilet (9) sources of water and (10) process of water consumption. The highest age of people that is 45 years or above is awarded 4 points, 31-45 is awarded 3 points,18-30 years is awarded 2 points, and 6-17 years is awarded 1 points. Educationally, illiterate is awarded 1 point, primary to higher secondary is awarded e points and graduate and more is awarded 3 points. Occupation wise both private and government service is awarded 3 points while self employment and business is awarded as 2 and student and unemployed are awarded as 1 points. Caste wise categorization Brahmin is awarded 3 points, kayastha 2 and schedule caste and other backward caste are awarded 1 points. For monthly family income Rs 15,000 and above is awarded 4 points, Rs 10,000 to 15,000 is awarded 3 points, Rs 5,000 to 10,000 is awarded 2 points and up to 5,000 is awarded 1 points. For type of family nuclear family is awarded 2 points and joint family is awarded 1 point. Pucca house is awarded as 3 points, Assam type house is awarded as 2 points and semi-pucca and kuchha house is awarded as 1 points. So far as type of toilet is concern, sanitary is awarded 3 points kucha is awarded as 2 points and open space is awarded as q points.As far as



peoples sources of water is concern PHE water is awarded as 3 points, ring well and handpump is awarded 2 points and river canal and pond is awarded as 1 points. For process of water consumption boil or filter water is awarded as 3 points, only filtering is awarded as 2 points and without boiling is awarded as 1 points. Thus on the basis of this scale the background of the respondents is categorized as low social background, middle social background and upper social background.

Thus the maximum point one would be able to get is 37 and minimum 25. It is obviously that the respondents who would be able to score up to 25 is low of all background. Those who have scored 26 to 30 is of middle social background category and 31 to 37 is of high background category.

**TABLE : 2. 12. RESPONDENTS' SOCIAL BACKGROUND.**

Lower social background	Middle social background	Upper social background
i) Age –6-17 years	i) Age –18-30	i) Age –31—45 years or more
ii) Occupation-student and unemployment	ii) Occupation --- Business and self-employment	ii) Occupation ---Service
iii) Education –Illiterate	iii) Education –primary to higher secondary	iii) Education –graduate and more
iv) Caste—Schedule caste and other backward class	iv) Caste—Canasta \Vaisya\Sudra.	iv) Caste—Brahmin.
v) Income in less than Rs 5000	v)Income -- Rs 5000—10,000	v)Income -- Rs 10,000 and above.
vi) Family type – joint.	vi)Family type – Nuclear.	vi)Family type – Nuclear.
vii) Type of house-kucha	vii)Type of house-Assam type	vii)Type of house-RCC
viii) Type of toilet – open space	viii)Type of toilet –kucha	viii)Type of toilet – Sanitary
ix) Sources of water—river\canal\pond.	ix)Sources of water—ring well\hand pump.	ix)Sources of water—PHE.
x) Process of water-raw.	x) Process of water-filter	x) Process of water—Boil water.

Table 2.12 indicate that with in the age group of 6-17 years, a large segment of respondents of both the sexes hail from lower social background, 40 percent male and 35 percent female respondents hail from middle social

background, there is not a single male of this age group belonging to upper social background; But for control respondents half of male as well as half of the female belong to middle social background. Within the age group of 18 years to 30 years over a half of the male respondents (55 percent) and one fourth of the female respondents hail from lower social background, while 45 percent male and 70 percent female respondents hail from middle social background and only 5 percent of the female respondent belong to upper social background. Within the age group of 31-45 years a substantial number of respondents 40 percent male and one fourth of the female hail from lower social background while majority of them 60 percent male and 65 percent female respondents hail from middle social background followed by preceding age group only 10 percent female respondents belong to upper social background in this category as well. Within the age group of 45 years and more 45 percent male and 35 percent female respondents belong to lower social background while 35 percent male and 65 percent female belong to middle social background and only 20 percent male belong to upper social background but there is number female in this group. For control respondents except the adolescent and children male all of them irrespective of age and sex belong more in number middle social background.<sup>5</sup>

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<sup>5</sup> In rural Maharashtra 31.67 percent and 24.47 percent people belong to socio-economic background of class III and IV respectively (ibid.2007). Kari's study also suggest as well that people belonging to lower socio-economic background are more exposed to hepatitis. Arankale observes 64.5 percent of people belonging to higher socio-economic group and 85 percent of people belonging to the lower socio-economic group are exposed with hepatitis infection (Arankale,2006).

**TABLE : 2. 13.RESPONDENTS' SOCIAL BACKGROUND AND  
HIERARCHICAL DIVISION.**

(Percentage in Parenthesis)

Sl.No	Social Background			Total
		Experimental	Control	
1	Lower Social Background	55 (34.37)	20 (12.5)	75 (23.43)
2	Middle Social Background	76 (47.5)	87 (54.37)	163 (50.93)
3	Upper Social background.	29 (18.12)	53 (33.12)	82 (25.87)
4	Total	160 (100.0)	160 (100.0)	320 (100.0)

*Knowledge of the Respondents about Hepatitis.*

Awareness or knowledge leads to action. It is the proposition of sociologists or social scientist that all social agents are knowledgeable about the action they have to perform in the society. In the sense of Weittengstein knowledge is knowing rules. But some time consequences of action are not known to the agent, and diseases are one such consequence which may number have any concrete knowledge when action is being produced. Yet in many cases disease are outcome of negative consequences of action as later is influenced by life chances or life conduct of the agent. Giddens in his Central Problems in Social Theory (1979) states that every competent actor has a wide ranging ,yet intimate and subtle knowledge of the society. First, "Knowledge" has to be perceived in terms of both practical and discursive penetration of institutional forms. By practical and discursive knowledge he meant to say knowledge which is embodied in actors" know how to do", and discourse that in what actors are able to "talk about." Second, every individual actor is only one among others in a society. He must have to recognized that when an actor knows as a competent, but historically and

those of his or her day to day activity. Third the parameters of practical and discursive consciousness are bounded in a "situated" character of actor's activities are not reducible to it. (Giddens 1979;73). The exposition made by Giddens essentially pertains to individual actor's knowledge about the society that he/she lives. But any new knowledge that originates outside the social group will have to be acquired through individuals as conditioned by the social system. The new knowledge should be experienced and acquired through the existing social norms, rules and practices. In such situations it is generally believed that when the consequences of action are known, the actions that are detrimental to the individual, will not be undertaken. Thus, imparting knowledge has been considered essential for prevention of any harmful effect of actions. Thus, imparting knowledge has been considered essential for prevention of any harmful effect of actions.

New knowledge is gained through perception experiences, and from the information through other sources. One initially comes to know about anything and gradually accumulates the experiences. Then follows concrete formula, ideas and interferences. Therefore, the initial knowledge of anything may be categorized as "knowledge of". In this category details of phenomena are yet to be conceptually formulated. The next phase can be "knowledge about, in which phase the individual accumulates knowledge through various process of experiences, interpretation and interferences. Thirdly the final outcome of "Knowledge of" and "Knowledge about" together form "concrete knowledge" From this understanding, analysis of knowledge on hepatitis and gallbladder stone will be follows.

In this particular study knowledge of the respondents is examined in terms of their awareness on the source of the disease such as bed or stale food and bad or

contaminated water. However, since there are misconceptions that hepatitis is also caused due to physical contact with the person suffering from hepatitis or using same clothes or utensils. Other misconceptions are that it is also caused due to drinking alcohol and sexual relations outside the marriage. Questions were asked about these misconceptions also to estimate the levels of knowledge of the respondents. (Please see the scheduled appended.)

*Knowledge:*

The answers are analyzed with the help of a 3 point scale. Each correct answer is awarded 3 points, incorrect answer is awarded 2 points and 'do not know' answer is awarded 0 point. Thus the maximum one would be able to score 104, and minimum 70. Those scoring above 70 are considered knowledgeable, that score in between 40 to 70 are less knowledgeable and that score less than 40 are considered as not knowledgeable respondents.

According to Tables 2.14 not even 40 percent of the respondents know that stale food and contaminated water is a source of hepatitis but around 70 percent of the control respondents know that the bad water and more than 80 percent of them know that stale food is a source of hepatitis. As one fourth of the hepatitis victims have misconception that physical contact with respondents or use of the same utensils used by the hepatitis patients spreads the disease but it is only 5 percent in case of control group. Less than one fourth of them is equal portion among the experimental and control groups now that consumption of alcohol may cause hepatitis while a fourth of the hepatitis respondents and a few of the control respondents have wrongly conceived that sexual contact may spread the disease.

**TABLE NO: 2.14. HEPATITIS RESPONDENTS' KNOWLEDGE ABOUT SOURCES OF HEPATITIS**

Sl No	Awareness	Experimental	Control
1.	Bad food as a source of hepatitis	38.1	68.8
2.	Bad water as a source of hepatitis	38.1	81.9
3.	Physical contact as a source of hepatitis	24.4	5.0
4.	Using same cloth, utensils of infected person	25.0	16.9
5.	Drinking alcohol as a source of hepatitis.	23.1	24.4
6.	Sexual contact as a source of hepatitis.	23.1	6.3

Table 2.15 shows that majority of the hepatitis but a few of the control group respondents does not know that hepatitis is related to liver. Regarding kidney as a source of disease a good number of hepatitis respondents think kidney has association with hepatitis but all most all the control respondents know that kidney is not related to hepatitis. Less than a fifth of the hepatitis group and very few of the control respondents have informed that hepatitis is not related to eye and more than 16 percent of the hepatitis and 5 percent of the control group respondents have wrongly informed that heart is related with hepatitis.

**Table : 2.15. RESPONDENTS' KNOWLEDGE ABOUT HEPATITIS RELATED TO ORGAN OF BODY**

SL.NO	Awareness	Experimental	Control
1.	Liver	30.4	83.8
2.	Kidney	16.3.	1.9
3.	Eye	18.8	1.3
4.	Heart	16.9	5.0

Table 2.16 shows that the respondents who know that bad food as a source of hepatitis they are mainly the adults in the age group of 31-45 years and above. Although males constitute higher proportion yet female respondents are far behind than their male counterpart. Residence wise distribution reveals the fact that there

are not much significant differences between the rural and urban people in terms of knowledge rather data shows that former are better informed. Those who have studied up to secondary level are better informed. Respondents who are aware of the relation between bad food and hepatitis more than half of them hail from middle social background. Half of the respondents do not have any concrete knowledge about the disease

**Table : 2.16. BAD FOOD IS A SOURCE OF HEPATITIS AND KNOWLEDGE OF HEPATITIS RESPONDENTS.**

Sl.No	Yes	Bad food	
		Experimental	Control
1	Age		
	6-17	21(28.4)	21 (19.1)
	18-30	17 (23.0)	33(30.0)
	31-45	23.(31.1)	22(20.4)
	45<	13 (17.6)	34 (30.9)
	Total	74 (100.0)	110 (100.0)
2	Sex		
	Male	39 (52.7)	57(51.8)
	Female	35 (47.3)	58 (48.2)
3	Residence		
	Rural	38 (51.4)	56(50.9)
	Urban	36 (48.6)	54(49.1)
	Total	74 (100.0)	110 (100.0)
4	Education		
	Illiterate	9 (12.2)	15 (13.6)
	Primary to HSSLC	44 (59.5)	75 (68.2)
	Graduation and more	18(24.3)	13 (11.8)
	Technical	3 (4.1)	7 (6.4)
		74 (100.))	110 (100.0)
5.	Social Background		
	LowerLBackground	32(43.2)	-----
	Middle Back	39(52.7)	58 (58.27)
	Upper background	3(1.4)	52 (48.73)
		74 (100.0)	110 (100.0)
6	Knowledge		
	Not Knowledgeable	37(50.0)	-----
	Less Knowledgeable	24 (32.4)	24 (21.8)
	Knowledgeable	13 (17.6)	86 (78.2)
		74 (100.0)	110 (100.0)

According to table 2.17 those respondents who know that water is a source of hepatitis, the respondents in the age group of 18 to 30 years (32.4 percent) are more in proportion compares to others. In over all those respondents who are above 18 years of age have better knowledge. Sex wise male respondents are better informed than their female counterparts. More than half of them are urbanites yet notable number of them hail from rural area. Equal proportion of those illiterate or have studied from primary to higher secondary level are aware that water is a source of hepatitis. More than half of them belong to middle social background respondents are not knowledgeable about hepatitis. In the control group, the respondents are having better knowledge compared to the hepatitis group.

**TABLE: 2.17. BAD WATER IS A SOURCE OF HEPATITIS AND KNOWLEDGE OF HEPATITIS RESPONDENTS**

Sl.No	Yes	Bad water
	Experimental	Control
1	Age	
	6-17	19(26.8)
	18-30	17(23.9)
	31-45	23(32.4)
	45<	12(16.9)
	Total	71(100.0)
2	Sex	
	Male	38 (53.5)
	Female	33 (46.5)
	Total	71 (100.0)
3	Residence	
	Rural	32 (45.1)
	Urban	39 (54.9)
	Total	71 (100.0)
4	Education	
	Illiterate	11 (15.5)
	Primary to HSSLC	42 (59.2)
	Graduation and more	14(19.7)
	Technical	4(5.6)
		71 (100.))
5.	Social Background	
	Lower Background	28(39.4)
	Middle Background	39(54.9)



	Upper background	4(5.6)
		71 (100.0)
6	Knowledge	
	Not Knowledgeable	31(43.7)
	Less Knowledgeable	26 (36.6)
	Knowledgeable	14 (19.7)

*Relationship of hepatitis with liver:*

As regards to the respondents' knowledge about relationship between hepatitis and liver is concerned the respondents who are hepatitis victims are better informed (33.1 percent) than their counterparts (12.5 percent). It is because the respondents who have or had experienced the sufferings of disease know that disease is related with liver as the doctors had given treatment for livers also. It is interesting to note that even healers know that it affects liver and suggest some indigenous or allopathic medicines. The data further highlights that amongst the hepatitis victims younger respondents are better informed than the elder ones. Higher numbers of them are females and hail from rural areas. It is seen that illiterate and unmarried have better knowledge than the literates and married respondents. Over a third of both Hindu and Muslim respondents who have suffered from the hepatitis are aware that liver is related to hepatitis. Those who are in business or are self-employment are more informed than other two occupational categories. Respondents who belong to middle income group are more informed than others. But contrary to it, in case of control group respondents the older people who have correct information regarding the relationship between hepatitis and liver. It is interesting to note that among the control group female are more informed. But like experimental group in control group also rural people are better than the urban folk. Education and marital status wise it is the literate and married respondents who are better than others. Unlike the former not

knowledgeable respondents are more informed than others regarding the relationship between hepatitis and liver.

#### *Relationship of hepatitis with Heart:*

So far as the relationship between heart and hepatitis is concerned, there is no relationship between these two and hence those who replied “No” is considered as correct answer. Large segments of hepatitis victim are unable to relate these and replied “Do Not Know”. But amongst the control group it is seen that the respondent are more knowledgeable (30.6 percent) than the experimental group (14.4 percent). It is seen that in both the cases youth and male respondents are better knowledgeable. Residence wise it is rural folk and literate respondents who are better informed. But amongst the hepatitis victim it is unmarried respondents while amongst the control group it is the married respondents who constitute higher number to say that heart has no association with hepatitis. In both the cases percentages of Hindu is dominant than Muslims. Occupational category wise, hepatitis victim are different from the control group as the data reveal amongst the hepatitis victims students and unemployed respondents are more informed while the servicemen are more in numbers amongst the control group respondents. Family income wise it is the highest income group who are more informed amongst the hepatitis victim while amongst the control group it just opposite to it. In both the case it is the less knowledgeable respondents who have correct knowledge regarding the relationship of hepatitis with heart.

#### *Relationship between Kidney and Hepatitis:*

Since kidney has no relation with hepatitis therefore like the heart only those who are able reply “No” are considered as correct answer. It is seen, in this regard control respondents are better informed (21.9 percent) than the hepatitis

victim (13.8 percent) But amongst the victims, youth and amongst the control group, older people are more informed. In both the cases male are more informative. Locality wise, amongst the hepatitis victim rural and urban folk are equally informed but amongst the control group rural folk are ahead than the urban counterparts in having correct information in this aspect. In both the cases it is the literate respondents who are more informed but amongst the hepatitis victim unmarried respondents are more informative while they are far behind compared to the married counterpart amongst the control group respondents. Hindus are better informed in both the cases. Students and unemployed respondents are least knowledgeable regarding the relationship between hepatitis and kidney. Although amongst the hepatitis victims higher income group are more informed but amongst the control group lower income group respondents are found to be more knowledgeable. In both the cases it is the knowledgeable respondents who possess correct information.

Relationship between hepatitis and eye: The skin color of hepatitis victim turns yellow in hepatitis including eyes and as the color of the eye is prominent that is why people wrongly presume that eyes are affected by hepatitis virus. But eyes have no relationship with hepatitis virus. But it is seen that a few of both the victims and control respondents correctly know that eye is affected by hepatitis virus and amongst them control group are ahead of the victims. Amongst the hepatitis victims younger generation is less informed while reverse scenario is seen amongst the control group. It is the females who are much ahead of their male counterparts in possessing the correct information. Rural folk, literate, unmarried, Hindu, students and by occupation unemployed as well as businessmen respondents hail from higher income group and knowledgeable respondents are

more informed in this aspect. While amongst the control group urbanites, illiterate, unmarried are well informed. Amongst the Muslims, students and unemployed respondents hail from higher income group and knowledgeable respondents have correct information in this aspect.

**TABLE : 2.18 . HEPATITIS RESPONDENTS' KNOWLEDGE ABOUT ORGAN OF BODY AND SOCIAL PROFILE.**  
(Percentage in Parenthesis)

Item	Experimental				Control			
	Liver	Heart	Kidney	Eye	Liver	Heart	Kidney	Eye
Age								
6-17	15(37.5)	3(7.5)	4(10.0)	2(5.0)	3(7.9)	12(31.6)	1(2.6)	16(42.1)
18-30	16(39.0)	10(24.4)	9(22.0)	8(19.5)	5(12.2)	9(22.0)	4(9.8)	12(29.3)
31-45	15(37.5)	8(20.0)	6(15.0)	-----	4(9.8)	17(41.5)	12(29.3)	4(9.8)
45<	7(17.9)	2(5.1)	3(7.7)	3(7.7)	8(20.0)	11(27.5)	18(45.0)	-----
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Sex								
Male	35(43.2)	12(14.8)	11(13.6)	6(7.4)	10(11.5)	31(35.6)	17(19.5)	17(19.5)
Female	18(22.8)	11(13.9)	11(11.9)	7(8.9)	10(13.7)	18(24.6)	18(24.7)	15(20.5)
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Residence								
Rural	29(36.7)	14(17.7)	11(13.9)	10(12.7)	12(14.8)	27(33.3)	16(19.8)	16(19.8)
Urban	24(29.6)	9(11.1)	11(13.6)	3(3.7)	8(10.1)	22(27.8)	19(24.9)	16(20.3)
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Education								
Illiterate	10(62.5)	---	-----	-----	3(15.8)	1(5.3)	1(5.3)	10(52.6)
Primary-HSSLC	15(18.3)	6(7.3)	6(7.3)	2(2.4)	14(12.6)	38(34.2)	26(23.4)	17(15.3)
Graduate and more	12(46.2)	7(26.9)	6(23.1)	3(11.5)	1(5.3)	7(36.8)	3(15.8)	1(5.3)
Technical and other	16(44.4)	10(27.8)	10(27.8)	8(22.2)	2(18.2)	3(27.3)	5(45.5)	4(36.4)
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Marital Status								
Married	27(25.7)	11(10.5)	13(12.4)	7(6.7)	10(16.7)	22(36.7)	21(35.5)	4(6.7)
Unmarried	26(50.0)	12(23.1)	9(17.3)	6(11.5)	8(8.2)	27(27.6)	14(14.3)	27(26.0)
Divorcee	-----	-----	-----	-----	1(100.0)	-----	-----	-----
Widow	-----	-----	-----	-----	1(100.0)	-----	-----	1(100.0)
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Religion								
Hindu	42(33.9)	16(12.9)	17(13.7)	8(6.5)	18(13.0)	44(31.9)	34(24.6)	20(14.5)
Muslim	11(31.4)	7(20.0)	5(14.3)	5(14.3)	2(9.1)	5(22.7)	1(4.5)	12(54.5)
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Occupation								
Students\ Unemployed	29(33.7)	15(17.4)	13(15.1)	9(10.5)	13(11.3)	32(27.8)	17(14.8)	27(23.5)
Businessmn\ Selfemployed	12(35.3)	5(14.7)	6(17.6)	3(8.8)	5(14.7)	12(35.3)	11(32.4)	5(14.7)
Service	12(22.6)	3(7.5)	3(7.5)	1(2.5)	2(81.2)	5(45.5)	7(63.6)	-----
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Income								
<5000	29(33.7)	11(12.8)	10(11.6)	5(5.8)	16(10.6)	47(31.1)	33(21.9)	31(20.5)
5000-10000	16(29.1)	7(12.7)	7(12.7)	4(7.3)	3(75.3)	1(25.0)	1(25.0)	1(25.0)

10000-15000	6(35.3)	4(23.5)	4(23.5)	3(17.6)	1(20.0)	1(20.0)	1(20.0)	-----
15000<	2(3.8)	1(50.0)	1(50.0)	1(50.0)	-----	-----	-----	-----
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)
Knowledge								
Not knowledgeable	18(16.1)	5(4.5)	4(3.6)	2(1.8)	9(60.0)	-----	1(6.7)	3(20.0)
Less knowledgeable	23(69.7)	13(39.4)	12(36.4)	8(24.2)	-----	10(40.0)	4(16.0)	6(24.0)
Knowledgeable	12(80.0)	5(33.3)	6(27.3)	3(20.0)	11(9.2)	39(32.5)	30(25.0)	23(19.2)
Total	53(33.1)	23(14.4)	22(13.8)	13(8.1)	20(12.5)	49(30.6)	35(21.9)	32(20.0)

### *Symptoms of hepatitis:*

Hepatitis virus has multiple symptoms like yellowy of urine and whole body, fever, nausea weakness and when it is recognized as disease hepatitis. So the best symptom recognized by the sufferers is yellowy of eyes. But the control group has mentioned not only yellowy of eye but yellowy of urine too. There is no age and sex difference in this regard.

Those sufferer respondents who can reply yellowness in urine is a symptom of hepatitis majority of them are male but the preponderance of female are seen amongst those who replied both. Those respondents who have replied "Do not know" more than half of them are female. Those control respondents who have replied "Both" all most all of them are equally distributed between the sexes. Sex wise there is not any significant differences between the male and female respondents in other cases also. There are only two graduates respondents who could reply that yellowy eye is a symptom of hepatitis, half of them are illiterate and a little more than 46 percent of them are either primary educated or more than these even up to higher secondary level. Those who have replied yellowy of urine is a symptom of hepatitis more than half of them are illiterate but those who could reply both more than three fourth of them are either primary educated or more than this even many of them are qualified up to higher secondary level as well. Amongst the control respondents a large segment of them are educated. Majority

of the sufferer respondents who know that yellowy of eye is a symptom of hepatitis, are not knowledgeable, and a few them are knowledgeable as well. Three of them are knowledgeable and know that yellowy of urine is a symptom of hepatitis while 7 of them are less knowledgeable and only 1 less knowledgeable are able say so correctly. A few of the respondents know that both yellowy of eye and urine is a symptom of hepatitis irrespective of their any kind of knowledge, 3 of them are less knowledgeable and only one is not knowledgeable as well. Respondents who know other symptoms of hepatitis only one of them is knowledgeable and 4 of them are not knowledgeable as well. Those control respondents who are rightly informed that both yellowy of eye and urine is a symptom of hepatitis majority of them are knowledgeable only.

#### *Diagnosis of Hepatitis:*

Hepatitis is diagnosed through Blood test only. But most of the hepatitis respondents irrespective of any age groups do not know how to diagnose the disease. So far as control respondents are concerned, some of them say that hepatitis is detected by blood test. Amongst them more respondents come from rural background. Amongst the few hepatitis respondents who know that hepatitis is detected by blood test they are mostly males. They hail from rural areas but many of the urbanites have no idea about the diagnosis of hepatitis.

#### *Hepatitis B:*

As mentioned in the introduction, hepatitis B is more dangerous than hepatitis A. The medical department and NGOs disseminate this information encouraging the people to go for vaccination against hepatitis B. Therefore, attempt has been made to find out the knowledge about hepatitis amongst the respondents.

Only 34.75 percent respondents and 51.87 percent control respondents have heard about hepatitis B. But in general a fourth of the respondents of both the categories of respondents have heard about Hepatitis B. Majority of the disease male and less than half of the control male have heard of it. However it is interesting to note that majority of the victims of hepatitis hail from rural area and amongst the control respondents' majority of them are urbanites. Amongst the hepatitis respondents more than half of them are illiterate. In the control cases, three fourth of them have studied from primary to higher secondary level of education and a fourth of them are graduates. Over a half of both victims and hepatitis group belong to middle social background. Amongst the hepatitis respondents more than forty percent of them are less knowledgeable and more than 80 percent of them are knowledgeable respondents about hepatitis B.

It is seen from the above table that control respondents are more aware regarding the relationship between hepatitis B and occurrences of hepatitis. Control respondents are much ahead than their experimental counterpart in keeping the knowledge that hepatitis B has no relationship with gallbladder stone formation and any other disease

As hepatitis B is more dangerous and it takes the life of the people. It can be prevented rather to cure through behavioral practice and vaccination programme. In order to prevent the disease effort has been made by both government and non government agencies by conducting vaccination programme. NGOs are also making effort to disseminate information through posterings, kiosks and hording.

It is seen from table that those respondents who have heard about hepatitis B, the respondents have different sources of information. More than a tenth of the

hepatitis respondents and less than a fifth of the control group have admitted that they acquire the information through news paper as their sources of information. Medical personal and friends are next sources of information after they have consulted after contacting hepatitis. T.V is the important sources of information for the control group respondents. It is followed by news paper, medical personal, friends relatives and NGO worker.

It is interesting to note that about 32.5 percent of the respondents are aware of other varieties of hepatitis virus, but only 6.3 percent of the hepatitis control respondents have this knowledge. Therefore, the victims of hepatitis are ignorant about the sources of different kinds of the virus, the cause of the disease, and the control groups are better informed about all these. In the same manner, 83 percent of the control group is aware of the vaccine for hepatitis-B, but only 11.9 percent of the experimental group has an idea of the vaccine.

#### *Knowledge about the transmission of Hepatitis:*

Prevention of the disease can be managed if one knows about the transmission of hepatitis .Therefore an attempt has been made to find out if the respondents are aware of the mod of transmission of It has been found that that one fourth of the hepatitis respondents and more than 70 percent of the control respondents correctly know that hepatitis get transmitted through blood. Around 6 percent of the hepatitis and over forty percent of the control respondents have correctly stated water is the medium through which the virus spread. Other measure of transmission such as focal matter, saliva and sexual relations and infected needle and syringe the control group respondents are better informed than the hepatitis respondents.



Table 2.19 reveals the fact that in total 15 (9.4) percent of the respondents experimental group and 120 (75 percent) of the control group respondents are quite knowledgeable about hepatitis. The characteristics of the knowledgeable respondents are following:

Among the experimental group the younger segments are more knowledgeable than others. But in case of control group, all age group are well informed about hepatitis except those in 18-30 years. Though the control males and females are far more knowledgeable, the males in both the groups are better informed than females. Compared to urban respondents rural respondents are better informed, and difference between them is substantial. It is very surprising that among illiterate respondents the control groups are better informed than the literate in terms of awareness of hepatitis.

Marital status does not seem to have any relations with the awareness of hepatitis. More or less Hindu and Muslim respondents possess the same degree of knowledge about hepatitis. So far as occupation of the respondents is concerned, the students and unemployed are better informed than other in the control group. In case of experimental group the students\ unemployed and businessmen are equally aware of the hepatitis. It is interesting to note that low income group respondents are more knowledgeable about the hepatitis than the high income groups because or their neighbor often suffers from hepatitis.

**TABLE 2.19: RESPONDENTS' KNOWLEDGE REGARDING HEPATITIS AND SOCIAL PROFILE (Percentage in parenthesis).**

Item	Experimental	Control
Age		
6-17	9(22.5)	29(76.3)
18-30	2(4.9)	28 (68.3)
31-45	3 (7.5)	32 (78.0)
45<	1(2.6)	31 (77.5)
Total	15(9.4)	120 (75.0)

	Sex		
	Male	6(7.4)	68 (78.8)
	Female	9(11.4)	52(71.2)
	Total	15(9.4)	120 (75.0)
	Residence		
	Rural	9(11.4)	61(75.3)
	Urban	6(7.4)	59(74.7)
	Total	15(9.4)	120 (75.0)
	Education		
	Illiterate	7(43.8)	15(78.9)
	Primary-HSSLC	5(4.7)	85(76.6)
	Graduate and more	1(3.4)	13(68.4)
	Technical and other	2(25.0)	7(63.6)
	Total	15(9.4)	120 (75.0)
	Marital Status		
	Married	10(9.5)	46(76.7)
	Unmarried	5(9.6)	73(74.5)
	Divorcee	0	-----
	Widow	-----	1(100.0)
	Total	15(9.4)	120 (75.0)
	Religion		
	Hindu	14(11.3)	103(74.6)
	Muslim	1(2.9)	17(77.3)
	Join	-----	-----
	Total	15(9.4)	120 (75.0)
	Social Status		
	Brahmin	4(26.66)	15(12.5)
	Kayastha\Vaisya \OBC	5(33.33)	14(11.66)
	SC	4(26.66)	40(33.33)
	Total	2(13.33)	51(42.5)
	Occupation		
	Students\ Unemployed	10(11.6)	90(78.3)
	Businessmn\ Self-employed	4(11.8)	23(67.6)
	Service	1(2.5)	7(63.6)
	Total	15(9.4)	120 (75.0)
	Income		
	<5000	11(12.8)	117(77.5)
	5000-10000	3(5.5)	-----
	10000-15000	1(5.9)	3(40.0)
	15000<	-----	-----
	Total	15(9.4)	120 (75.0)

### *Respondents' Knowledge about gallbladder stone:*

As both Hepatitis and gallbladder stone are related to liver, occurrence of one may be followed by other. During the time of data collection it is observed that good number of respondents who are living with jaundice are also living with gall bladder stone or they have already had experience this problem and vice versa. Thus, it is felt pertinent to assess the both hepatitis experimental and control respondent's knowledge related to gall bladder stone formation. It is observed that large number of the respondents including both experimental and control group do not know that use of chemical fertilizer in food and food grains may accelerate the problem of gallbladder stone menace. But amongst the respondents who can assume rightly about the fact, experimental group respondents are slightly more amongst those who know correctly about the fact than that of control respondents. In this context it should note that around a fourth of the hepatitis respondents are either living with both the disease and already have had the experience of gall bladder stone formation. Surprisingly, across the gender female are more knowledgeable. Locality wise, more of them hail from rural areas and age wise hail from the younger group. Those who are married and unemployed in occupation are more aware about the fact. All of them are knowledgeable about hepatitis also.

'Is gall bladder an organ of body' the question is one of the most pertinent one regarding gall bladder stone formation. In contrast to the preceding one it is seen that control respondents have out numbered the experimental group in keeping the correct information regarding gall bladder that it is an organ of body. In both the case higher number of them are urbanites. Belong to younger age, literate and knowledgeable. Ultra sonography is the only method to detect gallbladder stone formation. Although a few respondents know that gallbladder

stone is detected by sonography yet control respondents are more knowledgeable in this respect too.

Bailey pain is the commonest symptom of gall bladder stone formation known to every body followed by gas -acidity. With in the both experimental and control group respondents more of the respondents know about bailey pain than gas acidity. But regarding the symptom of gallbladder stone too control group respondents are more knowledgeable and the differences in having the information between bailey pain and gas acidity are also narrow amongst the control group respondents.

#### *Factors related to hepatitis:*

In the following pages, analysis has been carried out to find out various factors associated with the occurrence of hepatitis among the respondents whose general background is provided. This analysis pertains to the use of toilets .sources of water, process for water consumption and sources of water for both domestic consumption and drinking water.

#### *Type of House:*

Various kinds of houses that the people of Barak Valley inhabit can be categorised as pacca, Assam type, semi-pucca and kachha houses. Pucca houses are made of cement and bricks; semi pucca houses are made with roof mud floor and mud or bricks wall. The Assam type house are constructed with tin roof and brick walls and cement floor. Kachha houses are made of bamboo thatched roof and with locally available materials. It is seen form the Table that majority of the experimental respondents are living in the second category of house

**TABLE: 2.20. HEPATITIS RESPONDENTS AND TYPE OF HOUSE BY SEX (Percentage in parenthesis).**

	Experimental			Control		
	Male	Female	Total	Male	Female	Total
Kachha	17(65.38)	9(34.62)	26(100.0)	25(51.0)	24(49.0)	49(100.0)
Semipucca\As sam type	53(50.9)	53(49.1)	106(100.0)	40(52.63)	36(47.36)	76(100.0)
RCC	10(55.6)	18(44.4)	28(100.0)	15(42.85)	20(57.14)	35(100.0)
Total	80(50.0)	80(50.0)	160(100.0)	80(50.0)	80(50.0)	160(100.0)

*Type of toilet:*

Sanitary type of toilet is flush and latrine with most modern kind of technology are used by most of the people of Barak valley for defecation. Pit latrine are constructed and that pit is covered with a lid. The open category means people do not have latrines but use open space keeping bushes or earth mounds as screen.

Table 2.21 indicates that there is no such correlation between the type of toilet that people use and occurrences of hepatitis. The difference of using the sanitary toilet between experimental and control group and use of pit latrine is 10 percent in control group. Accordingly, the difference between the use of sanitary and pit latrine in both experimental and control group is proportional. Similar pattern may be noticed in sex also. Therefore it appears that occurrence of hepatitis has no relation with the type of toilet used by the people.

**TABLE: 2.21. HEPATITIS RESPONDENTS AND TYPE OF TOILET BY SEX (Percentage in parenthesis).**

	Experimental			Control		Total
	Male	Female	Total	Male	Female	
Sanitary	43(46.2)	50(53.8)	93(100.0)	43(55.5)	34(44.4)	77(100.0)
Pit	36(54.54)	30(45.45)	66(100.0)	37(44.57)	46(55.42)	83(100.0)
Open	1(100.0)	-----	1(100.0)	-----	-----	-----
Total	80(50.0)	80(50.0)	160(100.0)	80(50.0)	80(50.0)	160(100.0)

Water is a major vehicle of transmission of disease. In India the quality of water is abysmally poor due to heavy contamination soil and fecal matters. This sorts of water contributes to diarrhoeas morbidity, hepatitis and so on. In Barak Valley water there are four sources of water. Apart from ring well, handpump, river canal and pond. There is government's public health department also supplies water. But the source of water of public health department (PHE) is local rivers only. But it is seen that PHE water is contaminated because water is not purified properly and treated well. Very often the pipes that supplies water breaks where contamination enters. In Silchar town the point from where water for PHE is supplied has been exposed with all daficated materials of people of a slum area called Kalibari Char which is situated on the bank of the river Barak. And this is not a scenario of Silchar town only even other places where PHE water is available. More over the valley witnesses the problem of flood every year. During these days all the water bodies are covered by the water of flood and get infected. Table 2.22 shows more use of PHE and pond\ river\ canal water among the hepatitis victims whereas the use of ring well \hand pump is more amongst the control group. As the hand pumps\ring well are better protected from contamination perhaps the respondents from the control group are facing less problem of hepatitis. In case of experimental group, we find the frequent use of PHE, pond, river and canal water. As mentioned above water is more contaminated hence more occurrences of hepatitis.

**TABLE : 2.22. HEPATITIS RESPONDENTS AND SOURCE OF WATER BY SEX (Percentage in parenthesis).**

	Experimental			Control		
	Male	Female	Total	Male	Female	Total
PHE	29(51.8)	27(48.2)	56(100.0)	12(75.0)	4(25.0)	16(100.0)
Ringwell\Handpump	3(21.4)	11(78.6)	14(100.0)	52(44.44)	65(55.55)	117(100.0)
River canal\Pond	48(53.3)	42(46.7)	90(100.0)	19(59.3)	18(40.7)	37(100.0)
Total	80(50.0)	80(50.0)	160(100.0)	80(50.0)	80(50.0)	160(100.0)

As there are multiple sources of water in Barak Valley of which pond is most popular because pond is associated with Bengalee culture. As it is already mentioned, the Barak Valley was a part of Bangladesh and 80 percent of people had migrated from Bangladesh during the partition of 1947. In Bangladesh all most all of them have ponds in their houses and that liking of pond and habit of using pond for different purposes could not be gave up. Perhaps for this reason people use to have constructed pond in all most every houses either in rural area or in urban area. Nowadays, owing to non availability of space in urban areas people do not get chance to construct pond. More over pond is closely associated with Bengalee ritual practices. Pond is used to perform different ritual practices on marriage and other social events. In pond is the hub for numerous water lotuses which people use to eat, and these are useful for ritual purposes also. More over, water of pond is used for all types of domestic work, bathing and drinking also. In pond people use to cultivate fish also which is principal food item of Bengalees. As pond is used for different purposes and all types of washings and cleanings are done in the ponds, so in most of the time it is found that the water of pond are contaminated and carrying germs of different water born diseases. Every ring well or hand pump are other alternative of pond are also not free from the germs of contamination. It is already mentioned that river\canal\ponds water are highly

contaminated. The PHE supplied water is also contaminated to some extent. Hence the best way to keep safe is to take boiled water. But it is seen that hardly a few people are drinking boil water. Although the data substantiates the fact, experimental respondents are drinking boiled water more than their control group counterpart. The fact is that they are taking boiled water because of their illness. In general, it is found that people are apathetic in drinking boil water. The reason behind the fact is the lack of scientific attitude in behavior, dearth of fuel and poor economic condition. Filter water is the second best method to avoid taking contaminated water. More over to have filter water is cheaper but it is seen that it is about half of the experimental respondents are taking filter water than those of their control counterparts who are taking filter water. So far as raw water is concerned sufferers of hepatitis are more than the controlled respondents.

**Table 2.23: HEPATITIS RESPONDENTS AND PROCESS OF WATER BY SEX. (Percentage in parenthesis).**

	Experimental			Control		
	Male	Female	Total	Male	Female	Total
Boil	16(43.2)	21(56.8)	37(100.0)	2(13.3)	13(86.7)	15(100.0)
Filter	3(21.42)	11(78.58)	14(100.0)	59(59.6)	40(40.4)	99(100.0)
Raw	61(55.96)	48(44.03)	109(100.0)	19(41.31)	27(58.69)	46(100.0)
Total	80(50.0)	80(50.0)	160(100.0)	80(50.0)	80(50.0)	160(100.0)

As it is already mentioned that use of a water body for multiple purpose contaminate water. Hence it is pertinent to examine the respondents who are using same water body except PHE for both the purpose. And It is evidenced from the table in experimental group respondents are 10 percent more than the control respondents.



**Table 2.24: HEPATITIS RESPONDENTS AND USE OF SAME WARE & BODY BY SEX. (Percentage in parenthesis).**

	Experimental			Control		
	Male	Female	Total	Male	Female	Total
YES	22(55.5)	18(44.5)	40(25.0)	10(45.83)	13(54.17)	23(15.0)
No	29(46.31)	35(23.44)	64(40.0)	58(49.16)	63(50.84)	121(75.0)
Does not arise	29(51.8)	27(48.2)	56(35.0)	12(75.0)	4(25.0)	16(10.0)
Total	80(50.0)	80(50.0)	160(100.0)	80(50.0)	80(50.0)	160(100.0)

In case of hepatitis and gall bladder stone health seeking behavior such as food habit like non-vegetarianism, cooking with mustard oil excessive consumption of egg meat or chicken, as well as milk and other products of milk like ghee as well as butter and dalda are considered as inductive to these two diseases. While vegetarianism, cooking with sunflower or soybeans oil less consumption of milk and other milk product and fat is considered as improved ways of living. Pleasure with consumption of pan and alcohol is not considered as rationale behavior regarding health in general and hepatitis and gall bladder stone in general. Although smoking has no direct relation with hepatitis and gall bladder stone but it is detrimental to health in general. Proper sleeping, avoidance of day sleep, doing regular physical exercise, games and domestic work are also considered as healthy practice. Taking help of professional doctor frequency of visiting doctor, motivation or intention of treatment are all different facets of health seeking behavior of any disease. And will be studied in context of health seeking behavior of people in hepatitis and gall bladder stone respondents in Barak valley.

Table 2.26 suggests that except a few respondents all most all the respondents of either group are basically non-vegetarian. It shows that the percentage of vegetarians among the control group and percentage of non

vegetarian among the experimental group is slightly higher than others. Thus, it appears that there is slightly more probability of the occurrences of hepatitis among the non-vegetarians.

**TABLE :2.25. FOOD HABITS AND HEPATITIS RESPONDENTS.**

SL.NO	FOOD HABIT	Experimental	Control
1.	Vegetarian	4.4	5.6
2.	Non-vegetarian	95.6	93.8

The above table shows that people of Barak valley are accustomed to use mustard oil. Only a few of them are using sunflower oil, may be suggested by doctor for controlling heart disease or any other disease that are induced by consumption of mustard oil. The difference in the use of these oils among the both respondents is marginal. Hence there is perhaps no association of hypothesis also.

A large segment of hepatitis respondents consume fish all most daily compared to the control group. But amongst the control respondents the habit of consuming fish daily are less but their percentage are higher with reference to consuming fish from times a week. These seems to be an association with high consumption of fish with the occurrence of disease.

**TABLE : 2.26. TYPE OF OIL FOR COCKING OF HEPATITIS RESPONDENTS.**

SL.NO		Experimental	Control
Type Of Oil For Cocking			
1.	Mustard oil	94.3	95.5
2.	Sunflower oil	5.7	4.5
3.	Soya bean	—	—
4.	Groundnut	—	—
5.	Any Other	—	—

According to table 2.27 the intake although all most 40 percent of the disease and all most half of the control respondents intake dry fish is more among

the control group respondents compared to experimental group. Only in case of those who take dry fish four \five times in a week the consumers are more in the experimental group. Therefore it appears that there is less proximity of hepatitis among the dry fish consumers. These assumptions when co-related with raw fish consumption, the case of hepatitis are more among the raw fish consumers.

Chicken consumption has been more than goat meat, because it is cheaper and available easily it is considered better than meat from the good health point of view. There fore generally people prefer chicken after the raw fish. The consumption patterns show that the consumption pattern of chicken is high among the respondents of controlled group. The experimental group respondents seems to have been preferring raw fish compared to dry fish and chicken as revealed in the analysis.

Though in terms of cultural values meat enjoys higher position than chicken, but because of the health considerations and higher cost of the meat it is least preferred .The consumption pattern of meat indicates that there are more consumers of meat on almost daily basis among the controlled group. A fourth of the hepatitis respondents consume meat five times or four times a week but such of them are half in the controlled groups. However, good percentages of them eat meat rarely.

Egg is <sup>the</sup> most popular among the respondents. Even in this case the consumption of egg by the controlled group is higher than the control group. Therefore, there seems to be some connections between the egg consumption and hepatitis, which could not be determined by the present study. Although large proportion the hepatitis victims as well as control respondents are taking egg rarely and .substantiates similar pattern of egg consumption between the two groups yet

the number of daily consumers of egg is more in control group. All most all the respondents do not consume milk. Only 10 percent of the hepatitis respondents consume milk rarely but there are a few of the hepatitis control group who consume milk daily or five days or thrice or twice in a week. If this marginal difference is considered, more number of control group respondents consume milk than those in the experimental group.

It may seen from the table that more than ninety percent of the respondents of both the groups take dal daily or six time in a week. Only a few of the control respondents take dal twice and 2.5 percent of the hepatitis respondents take dal fortnightly and only a few of them consume dal rarely. Thus dal is the simple diet along with rice. Butter consumption of the respondents indicates that there are a few respondents of the control group consume butter. None of the hepatitis respondent takes butter\ghee on daily or four times in a week.

**TABLE: 2.27. FREQUENCY OF CONSUMPTION FOR DIFFERENT FOOD SUBSTANCES BY HEPATITIS RESPONDENTS.**

	<b>Raw fish</b>	<b>Experimental</b>	<b>Control</b>
1.	Daily\ Six time	86.9	62.0
2.	Five\Four time	8.1	32.0
3.	Thrice\Twice	1.3	5.0
4.	Fortnightly	3.8	-----
5.	Rarely	-----	-----
	<b>Dry fish</b>		
6.	Daily\Six time	15.6	19.4
7.	Five\Four time	30.0	3.1
8.	Thrice\Twice	15.6	29.4
9.	Fortnightly	38.8	48.2
10.	Rarely	-----	
	<b>Chicken</b>		
11.	Daily\Six time	3.1	16.9

12.	Five\Four time	.6	13.8
13.	Thrice\Twice	30.6	31.3
14.	Fortnightly	65.1	61.9
15.	Rarely	-----	6.8
	<b>Meat</b>		
16.	Daily\Six time	2.5	12.5
17.	Five\Four time	26.9	17.5
18.	Thrice\Twice	35.0	2.5
19.	Fortnightly	35.6	35.6
20.	Rarely		36.3
	<b>Egg</b>		
21.	Daily\Six time	1.9	6.9
22.	Five\Four time	28.1	27.5
23.	Thrice\Twice	-----	36.9
24.	Fortnightly	35.6	35.6
25.	Rarely	46.3	46.3
	<b>Milk</b>		
26.	Daily\Six time	5.6	8.8
27.	Five\Four time	.6	-----
28.	Thrice\Twice	3.8	-----
29.	Fort nightly	-----	-----
30.	Rarely	10.0	61.8
	<b>Dal</b>		
31.	Daily\Six time	93.8	94.7
32.	Five\Four time	-----	2.5
33.	Thrice\Twice	3.1	3.8
34.	Fortnightly	2.5	
35.	Rarely	.6	
	<b>Ghee\Butter</b>		
36.	Daily\Six time	-----	11.3
37.	Five\Four time	-----	5.0
38.	Thrice\Twice	3.1	3.1

39.	Fortnightly		
40.	Rarely	96.9	81.9
	<b>Dalda</b>		
41.	Daily\Six time	-----	3.1
42.	Five\Four time	-----	-----
43.	Thrice\Twice	6.3	
44.	Fortnightly	6.9	
45.	Rarely	-----	12.5

From the above discussion it is evident that there are differences in the food habits and intake of foods in respect of these two categories of respondents. Now if the differences are recognized in more précised manner it will be possible to identify where a co-relation can be found between the hepatitis and intake of foods. For this purpose, the data are computed on average number of days that these foods are considered by the respondents. The results are presented in the following table

**TABLE : 2.28. RESPONDENTS' AVERAGE CONSUMPTION OF THE FOOD ITEMS.**

Item	Experimental	Control	Difference
Raw fish	6.43	3.48	--3.05
Dry Fish	4.16	3.42	-0.74
Chicken	2.55	3.06	+0.74
Meat	3.28	3.12	-0.16
Egg	2.27	3.13	+0.16
Milk	1.29	0.16	-1.13
Dal	6.39	3.68	-2.79
Ghee\Butter	2.37	1.06	-1.67
Dalda	1.34	0.81	-0.53

Table 2.28 shows that fish consumption is more among the hepatitis respondents. Of these the consumption of raw fish is more than the dry fish by them. About chicken and meat consumption, it is more or less same. Though there is slight increase in case of chicken by the control group and slight increase in case of experimental group. There are differences between the two groups respondents in case of egg consumption. The consumptions of milk, dal, ghee or dalda are higher among the experimental group respondents. Thus, the hepatitis group respondents are found to be consumes more fish, milk, dal, ghee and dalda compared to control group respondents. Of these items, fish is closely related to water compared to others. As pointed out earlier there seems to be an association of hepatitis with PHE, river/canal/and pond water. During flood days, locally available fish becomes the more risk prone to hepatitis because during these days fishes are likely to be exposed with flood water and carries the germ of hepatitis. Hence flood water related food s appears to have an association with hepatitis.

Pan is considered as an auspiciousness in Bengalee culture. It is compulsory to offer pan in religious performances. It is the custom of Bengalis to receive guest with offering pan. In Bengali culture consumption of pan by an adult is the normative behavior but it is beyond the normative behavior for children, teenagers and unmarried youth as well. But as people consume pan with beetle nut and other substances like “Jarda”, “Sadargura” those are not innocuous to health. That is why consumption of pan is discouraged.

Table 2.29, indicates that substantial numbers of the respondents of both the cases use to consume pan while a little more than half of them don't consume pan. It may be noted that the percentage of pan chew is higher among the respondents than the controlled group. Though pan chewing by teen agers an

unmarried youth is not encouraged but among the hepatitis respondents some starting chew pan in young age. But in case of controlled group it is less among the young people.

**TABLE 2.29: CONSUMPTION OF PAN AND HEPATITIS RESPONDENTS.**

SL.NO	Pan	Experimental	Control
1.	Yes	43.1	30.62
2.	No	56.9	69.38

The Sadar gura pan does not contain tobacco, but it contains beetel nut and live along with beetle leaf. Chewing of this kind of pan is very common, but it is chewed by hepatitis victims more than that of controlled group. The jarda contains tobacco substance which is harmful. This kind of pan is consumed more by the experimental groups.

**TABLE: 2.30. TYPE OF PAN CONSUMPTION AND HEPATITIS RESPONDENTS.**

SL.NO	Type Of Pan	Experimental	Control
1.	Sadargura	82.89	88.5
2.	Jarda	10.45	8.8
3.	Plain	7.5	2.5

Smoking bidi or cigarette is common in Barak Valley, but it is mostly confined to men. It is clear from the following table smoking is more common among the hepatitis respondents compared to controlled group.

**TABLE : 2.31. SMOKING AND HEPATITIS RESPONDENTS.**

SL.NO	Smoking	Experimental	Control
1.	Cigarette	38.25	10.0
2.	Bidi	58.82	1.9
3.	Other	3.75	



Table 2.32 indicates that more than half of the hepatitis respondents and a lone control group respondent consume liquor regularly. In this context it is to be mentioned that regularly means not only daily but who consumes alcohol in regular intervals of weekly or fortnightly etc. Thus it is clear that, the regular consumers of liquor are more prone to hepatitis.

**TABLE :2.32. FREQUENCY OF ALCOHOL CONSUMPTION AND HEPATITIS RESPONDENTS.**

SL.NO	Alcohol	Experimental	Control
1.	Regular	56.0	0.6
2.	Rare	44.0	

Table 2.33 shows significance difference between the respondents in case of 5 hour to 8 hours sleep. As more than half of the controlled group respondents sleep 5 to 8 hours only 8 percent of the experimental group respondents refer to have 8 hour sleep. On the other hand as only 0.6 percent respondents in controlled group sleep more than 8 hours, nearly half of the experimental group respondents sleep more than 8 hours.

**TABLE :2.33 HOURS OF SLEEPING IN A DAY AND HEPATITIS RESPONDENTS.**

SL.NO	Hours of sleeping	Experimental	Control
1.	Up to 4 hours	42.15	45.6
2.	5 hr to 8 hours	8.8	53.1
3.	More than 8 hours	48.8	0.6

Table 2.34 suggests that majority of the respondents sleep normally, a quarter of the hepatitis respondents and very few control group respondents have reported to have disturbed sleep. While less than ten percent of the experimental

group respondents are reported to have sound sleep. Thus there appears to be some relations between hepatitis and sleeping patterns. The hepatitis respondents, a large proportion have disturbed and long hours of sleeping.

**TABLE: 2.34.QUALITY OF SLEEPING AND HEPATITIS RESPONDENTS.**

SL.NO	Quality of sleeping	Experimental	Control
1.	Sound	8.8	28.8
2.	Disturbed	25.6	3.1
3.	Normal	65.6	66.3

It is seen from table 2.35 respondents a vast majority of the respondents do not sleep at day. Those who sleep at day amongst the hepatitis respondents they do not constitute even a fifth of total respondents and amongst the control respondents a third of them sleep at day .

**TABLE 2 .35:DAY-SLEEP AND HEPATITIS RESPONDENTS.**

SL.NO	Day –sleep	Experimental	Control
1.	Yes	18.8	34.4
2.	No	81.3	65.6

It may be seen from the table 2.36 that majority of the hepatitis respondents have no activity like exercise and games. Only a tenth of them play games and little less than a quarter of them of them do exercise. Over a half of the control respondents use to use do exercise and a few of them use to play games also.

**TABLE 2.36: PHYSICAL EXERCISE AND HEPATITIS RESPONDENTS.**

SL.NO	Physical exercise	Experimental	Control
1.	Games	10.8	8.8
2.	Exercise	24.4	53.1
3.	No-activity	64.8	36.9

Respondents who have domestic work 40 percent of them are with in the age group of 18 years to 30 years, a fifth of them are at juvenile stages of their life also. Less than a quarter of them are with in the age group of 31 years to 45 years and 10 of them are also above 45 years of age. So far as sex wise distribution of the respondents it is seen that those respondents who have domestic work majority of them are female. Amongst the control respondents over a third of them are youth and little less than a third of them are over 45 years of age. And a few of them are distributed in other age group. And around majority of them are female.

Thus, the chapter reveals respondents keeping a control over age of the respondents in both experimental and control group, it is seen that a there is hardly any differences among the disease victims in rural and urban dwelling. Except a few all most all of them are literate and number of literacy is slightly more among the control group respondents. Disease occurred among the married respondents more than among the unmarried respondents. Majority of the respondents hail middle social background but those who belong to higher social background except a few all of them hail from control group. With in this background control group respondents are seems to have more knowledge and less disease inducing behavior while experimental group respondents are just reverse to it.