Chapter-VI

Summary and Important Findings

6.1 Summary:

Considering the importance of Health in achieving economic development and also human development in general and particularly in the context of a poverty stricken developing region, the present study is designed with a set of objectives and hypothesis to find out the health status of a select heterogeneous group of people, the determinants/correlate of health for policy formulation etc. The specific objectives of the study are as under: (i) to estimate health measures such as BMI, Bicep Circumference, etc for representing the health status of individuals. (ii) To study the socio-economic and other determinants of health and to identify the important correlate. (iii) To study the socio-economic and other determinants of health, category wise i.e, rural-urban, occupation etc. and (iv) To examine the two way relationship between Health and Income. The hypothesis is (i) there exist simultaneity between health and income. The primary survey for the study is conducted in North Tripura District. The units of the study are adult individuals who are the earning members of the households. The health status of individuals is measured with the help of recognized indicators such as BMI, Bicep circumference etc. The Data for the purpose is collected with the help of a pre-tested structured questionnaire from sample individuals through personal interview method. The study sample comprises of 350 individuals who are the earning members of households belonging to age-group 19-55 years, drawn from rural and urban areas- 200 from rural and 150 from urban areas. People belonging to different castes, religions, occupations- formal, informal sector, rural-urban areas etc. – are selected. The survey is conducted in the rural-urban areas of the North Tripura District which is one of the most backward developing regions of the state of Tripura. Simple statistical methods, graphs,
diagrams, tables are used for sample data analysis purpose. Further, to meet the objectives and hypothesis of the study several models of regression equations are formulated. For the estimation purpose of the models Regression Analysis, Two Stage Least Square method, Logistic Regression Methods are applied.

The tabular and diagrammatic presentation of data reveals the following picture of the health status and socioeconomic condition of the people. The average age of all respondents is 40.03 years implying that the respondents, in an average, are in the prime stage of their lifespan. Caste-wise, out of 350 respondents, 11.43 percent are SCs, 28.57 percent are STs, 30.29 percent are OBCs and remaining 29.71 percent are in general category. Religion-wise, 76.29 percent are Hindus, 8 percent are Muslims, 5.14 percent are Christians and remaining 10.57 percent are Buddhist in the sample. Educationally urban females are a little bit advanced in education in comparison to the males, average education level of the urban female respondents is 11.27 years which is marginally higher than that of the male respondents whose average education level is 11.17 years. In rural areas, male respondents are in a better position than the females with average education level of 9.30 and 8.07 years respectively.

Regarding marital status, out of 350 respondents, 327 are found to be married. Government service is the main occupation of the largest segment of the respondents in the sample. A total of 99 mortality cases have been reported at the average age of 21.034 years. The average education level of persons died is found to be only 6.55 years. The persons died in urban areas belong to older cohorts in comparison to those of rural areas. The mortality rate is higher in urban areas, a total of 52 cases out of which 35 are male and 17 females. In rural areas, the total mortality cases reported are 47, out of which 28 are male and 19 females. Number of death cases due to non-communicable diseases is largest with a total of 63 cases in the sample households. Out of 350 respondents, 347 respondents are found to be physically normal and active.
Morbidity mapping is used to supplement mortality data to describe the health status of a population. Out of the total 350 respondents, a total of 115 rural and urban respondents suffer from chronic diseases and a total of 235 respondents are found to have suffered/ben suffering from seasonal diseases, seasonal disease is almost common to those who have suffered or are suffering from chronic diseases. The prevalence of the seasonal as well as chronic diseases is more in rural areas of the district. However, the average urban medical expenditure is almost 3 folds higher than rural average medical expenditure. So far as economic and job status is concerned, it is observed that the urban respondents are earning more than rural respondents irrespective of sex, the male respondents are earning about three folds more than the female respondents. Out of the total of 350 respondents, 208 respondents are permanent in their occupation or job and 142 are in temporary jobs. The average asset value of the respondents, combining both rural and urban, is Rs.1855822 where urban share is of Rs. 2434900 as against rural average asset value of Rs. 1421514. The figures are big because of the presence of 10 to 11 very rich families in the sample.

The anthropometric and nutritional measures reveal that in rural areas the lowest BMI value is recorded for the age group of 18-25 years for both male and female respondents with BMI value 20.17 and 20.18 respectively. In urban areas, the male age group 18-25 years recorded lowest BMI value amongst all male age groups. Amongst the female respondents the age group 36-45 years recorded lowest average BMI compared to all other age groups. However, in an average all respondents irrespective of age groups and place of residence have BMI in the normal range. According to the Bicep circumference or Mid-Upper Arm Circumference (MUAC) in cm, in an average in the sample, there is no case of moderate and acute adult under nutrition case in the study sample. According to data on average calorie intake, the daily intake of nutrient is higher than the recommended daily intake nutrients in both rural and urban areas, the recommended intake being 2400 and 2100 kilocalories per day per-
capita. However, when the respondents are divided into five categories on the basis of their BMI values, the field data reveals that a total of 10 rural respondents are suffering from acute malnutrition where males are 8 in number and females only 2 respondents as against 11 such respondents in municipalities (urban areas) comprising of 8 males and 3 females whose BMI value is less than 18.5. The obesity cases are rare both in rural and urban areas, only a single respondent suffers from obesity in rural areas as against only 2 such cases, 1 male and 1 female, in municipalities. But the problem of overweight and malnutrition is significant in both rural and urban localities. All together 39 rural respondents (31 males and 8 females) are suffering from malnutrition as against 26 such cases in urban North Tripura out of which 21 are males and remaining are females. But the problem of overweight is severe in urban areas than the rural society. It has been found that a total of 28 overweight cases are there in urban areas where male figured 23 against 5 female respondents. In rural areas the figure is 24 with 17 male and 7 female respondents. Remaining respondents in the study are in the normal range of BMI with 126 rural and 83 urban cases.

The data pertaining to respondents’ personal behaviour and habits present an interesting picture. It is observed that out of the 200 rural respondents, 155 respondents are either smoker or tobacco, pan chewer though the intensity of addiction may differ. Again such habits is more common among the males as out of the total of such 155 respondents, the males constitute 124. In towns, out of the 150 respondents, 77 males and 11 female respondents are either regular or irregular smoker, tobacco chewer or pan consumer. Among the rural respondents, 55 respondents are either regular or irregular drinker out of which males constitute 54. In towns out of the 150 respondents 24 males are either regular or irregular drinker. No such case is found among the female respondents. A dismal picture of vaccination has come out in rural areas. Only 38 respondents, 26 males and 12 female respondents have taken vaccination. Out of 71 urban respondents who have taken
vaccination, 53 are male and 18 females. Only 20 rural respondents (16 male and 4 female respondents) go for regular medical check up as against 25 such cases in urban areas where male constitute 19 and remaining 6 are female respondents.

This is the summary picture of the household background characteristics, socioeconomic and health status of the respondents. The data is further analysed with the help of econometric models. The results obtained there from corroborate the following: The average daily calorie intake of the respondents (DCIR) per capita, considering the entire sample, is 2317.74 with SD value of 166.38. Although the Minimum value (1500 kcl) proves the fact that there are undernourished cases in the sample, the high Mean value and low SD value of the sample indicate that such cases of undernourishment at best may be very few in the study areas. A respondent’s monthly income, in average, is Rs.20, 133.98 with very high SD value of 128382.59. Similar is the case in household size of assets, the mean of the money value of which is Rs.1835822.00 with a very high SD value of 4126326.91. It is evident that there exists high degree of income and asset inequality in the study sample. The household dependency ratio (HDR) indicates that more than half of the family members on average are dependent and the average age of the respondent (AR) is 40 years with near about 10 SD value. The respondents are in their prime stage of lifespan. However, the respondents’ education level (EDLR) is found to be low at 9 years only on average. Near about 74 percent of the respondents are male (SEX) and 29 percent of them (ST) belong to ST category. The income source of the respondents (RIS) is largely salary; near about 41 percent of the respondents belong to salaried class. Respondents’ monthly medical expenditure (RMME), in an average, is Rs 280.73 with high SD value of 1067.36 which together imply that there are some health related problems among the respondents. The per capita square feet area under roof (PCSFAUR) available to respondent shows low space availability for the respondents. The mean value of Destructive Habit Index (DHI) and its SD value indicate that the
respondents, in an average, suffer from a moderate degree of destructive habits and therefore, they have health risk. Lastly, the mean value of RELH (Religion) indicates that 76 percent of the respondents are Hindu by religion. Among the variables selected to capture their individual impact on health when measured in terms of average Daily Calorie Intake of the Respondents (DCIR), education level of the respondent (EDLR) has positive statistically significant impact on the daily calorie intake of the respondent. Respondents having higher level of education have higher per day calorie intake. The variable RESI (Respondent’s place of Residence, 1 if in urban area, 0 otherwise) has negative statistically significant impact on DCIR. The result is in expected line. The urban dwellers have generally lower per day calorie intake in comparison to rural people. This is reflected in the result. The variable RMME represents respondent’s monthly medical expenditure. The result shows that an increase in RMME has negative statistically significant impact on DCIR. The inference drawn from this is: in the study sample the respondent who has high monthly medical expenditure (implying sickness) will have low calorie intake. The result also shows in a statistically significant way that respondent’s calorie intake per day increases as there is an increase in space availability per capita under roof of respondent’s household members (PCSFAUR). The result points towards the fact that the calorie intake is better of respondents who have better living condition.

When Morbidity is considered as an indicator of health, the regression results throw the following picture. The result of the logistic regression analysis shows that morbidity (chronic diseases) is significantly related to age of the respondent (AR), education level of the respondent (EDLR), sex of the respondent (SEX), residence of the respondent in urban or rural areas (RESI), respondent’s monthly medical expenditure (RMME), destructive habit index value of respondent (DHI) and DCIR. On the other hand respondent’s average monthly income (RAMI), household size of asset (HSA), income source (RIS), caste (ST), average
monthly family income (AFI), PCSFAUR and religion Hindu (RELH) have no statistically significant impact on morbidity (chronic diseases). The result reveals that with an increase in age, the probability of suffering from chronic illness increases. The risk of being chronically ill decreases with an increase in respondent’s educational attainment (EDLR). The risk of being chronically ill is more for women compared to male respondents. Similarly, urban respondents have less probability of suffering from chronic illness in comparison to rural respondents. With the increase in RMME, the probability of suffering from chronic illness increases significantly. Calorie intake is important for being fit physically. With the increase in calorie intake the chances of illness decreases. What is surprising is the revealed connection between DHI (Destructive Habit Index) and chronic illness. The result indicates that as DHI increases, the probability of suffering from chronic illness decreases, the odds are against the event. It is possible that controlled and limited extent of destructive habits practised by the respondents have no serious impact on the health of the respondents in the sample.

The model on Investigator Assessed Health Status of the Respondent (IAHSR, 1 if Respondent’s health condition is found good ignoring his/her state of minor illness/indisposition as it be at the time of survey; 0 otherwise indicating bad) identified the following determinants of health. In the set of statistically significant variables, the results reveal that with increase in Household Size of Assets (HSA) the chances of having good health increases. The risk of being ill health decreases with increase in educational attainment (EDLR) of the Respondent. Being ST, the respondent’s odds of enjoying good health increases by a factor of 4.620 times in comparison to other caste groups. Likewise urban respondents have higher probability of having good health. With the increase in calorie intake the chances of enjoying good health also increases. Here also RMME is found to be having statistically significant negative bearing on IAHSR. The result implies that an increase in
RMME will mean less probability of having good health by the Respondent which is a logical conclusion.

In case of assessing health in terms of nutrition, a paired regression model approach is designed to find out the important determinants of health. From the original sample, two subsamples are drawn, one representing underweight vs normal cases and the other, overweight/obese vs normal. Age and education of the respondent are controlled in both the models to find differential impact of these on health. The results show that HSA (Household Size of Asset) is not significant in Underweight vs Normal weight equation, but it turned out statistically significant in Overweight/Obesity vs. Normal equation at 3 percent level. This implies that as HSA increases, the probability of Respondent’s becoming overweight/ Obese improves. The variables Age of the Respondent (AR2- if respondent is in the age group of above 30 to 45 years) and AR3 (if respondent’s age is in the age group of above 45 to 55 years) are also not statistically significant in Underweight vs. Normal equation, but these turned out statistically significant at 1 percent level in Overweight/Obese vs. Normal equation implying that while age has no bearing on Respondent’s becoming underweight, in case of elder respondents, there is high probability of being overweight/ Obese. In case of EDLR, there is mixed result. Lower level of education of the Respondents has no statistically significant impact on Respondent’s underweight or overweight heath status. But as educational attainments of Respondents increase in the range of 8-12 completed years (EDLR3) and above 12 completed years (EDLR4), the probability of being underweight and overweight respectively decreases. The EDLR3 is statistically significant in Underweight vs Normal equation and EDLR4 is found to be statistically significant in Overweight vs. Normal equation at 4 percent and 7 percent respectively. The variable ST is found to be statistically significant both in Underweight vs. Normal equation and Overweight/Obese vs. Normal equation at 6 percent and 8 percent significance level. The Exp (B) values indicate that while
there is less probability of ST respondent being underweight, there is high probability of ST respondent being overweight/obese. The overall result corroborates the fact that particularly education level and age of the respondent have great bearing on the health status of the respondents.

The results of rural-urban models reveal the in rural areas sex, income source of the respondent and medical expenditure variables have statistically significant impact of calorie intake of the respondent. In urban areas, on the other hand, education, sex, medical expenditure and destructive habit index (DHI) have statistically significant impact on the calorie intake of the respondent. In these rural–urban segregated models, variable DHI is found to have expected negative impact on calorie intake in rural areas but it has turned statistically insignificant in the model.

In non-salaried category of respondents, education Level of the Respondent (EDLR) has positive impact on the daily calorie intake of the respondent and the variable has turned up statistically significant. The variable RESI (Respondent’s Place of Residence, 1 if in urban area, 0 otherwise) has negative impact on DCIR and it is statistically significant at below 1 percent level. The variable RMME represents Respondent’s Monthly Medical expenditure. The result shows that an increase in RMME has negative impact on DCIR. This is also in expected line since higher medical expenditure of respondent means his/her poor health and illness. Another variable which has turned up statistically significant is PCSFAUR. This variable represents per capita space availability of household members in respondent’s household. This is an indicator of the living condition of the respondent. Higher space availability per capita under roof implies better living condition. The result shows that respondent’s calorie intake per day increases as there is an increase in space availability per capita under roof of respondent’s household members. Respondent’s income, however, is
found to have statistically significant negative impact on calorie intake. On the other hand, family income has positive statistically significant impact on calorie intake of the respondent. In salaried category, the variable RESI (Respondent’s Place of Residence, 1 if in urban area, 0 otherwise) has statistically significant negative impact on DCIR. The variable RMME represents Respondent’s Monthly Medical Expenditure. The result shows that an increase in RMME has negative impact on DCIR. This is also in expected line since higher medical expenditure of respondent means his/her poor health and illness. The other variables of the model have no statistical significant impact on the dependent variable DCIR. Respondent’s Income, Household Asset, Age, Education Level etc. have no significant impact on the Daily Calorie Intake of the Respondents.

Briefly the results of the Models identify Education Level of the Respondent (EDLR), Per capita Floor Availability under Roof (PCSFAUR) as proxy for living condition, place of Residence (RESI), Per Capita daily Calorie Intake (DCIR), Middle Level of Education (EDLR3) as proximate determinants of good health. Obesity/Overweight is also a health problem and cannot be considered as a good state of health. The study indicates that variables such as HSA of respondent’s household, respondents at higher age and having high level of education and respondents belonging to ST community have higher probability of suffering from overweight/obesity. On the other hand, as education level increases, the probability of being malnourished deceases. Being ST also reduces the probability of suffering from malnutrition.

6.2 Hypothesis:

As has already been discussed in the preceding chapters that income is considered as a correlate of health where, the literature suggests that, there may be a two way relationship between health and income. Health may depend on the income of the respondent. Conversely, income may depend on the health status of the respondent. In order to test this possible
simultaneity between Health and Income, the single hypothesis of the study was formulated. The hypothesis is:

(i) There exist simultaneity between health and income.

The test has been carried out, details of what has been given in Chapter-V (Section-B). On the basis of result obtained the Null hypothesis is rejected as; there is no simultaneity between DCIR and RAMI, as per Hausman Specification Test.

6.3 Important Findings:

The current study has estimated health status of people of North Tripura District with the help of different measures of health. It has also identified important determinants/correlates of health. The data on which the study is based has come from 350 respondents, rural and urban.

The main findings of the present study are stated as under-

Mortality:

- Total of 99 mortality cases in conceivable period have been reported at the average age of 21.034 years.
- The average education level of persons died is found to be only 6.55 years. The persons died in urban areas belong to older cohorts in comparison to those of rural areas.
- Number of death cases due to non communicable diseases is largest with a total of 63 cases. Out of 350 respondents, 347 respondents are found to be physically normal and active.

Morbidity:
Out of the total 350 respondents, a total of 115 rural and urban respondents suffer from chronic diseases in which rural respondents constitute the major part comprising of 63 persons including 36 male and 27 female respondents.

A total of 235 respondents are found to have suffered/suffering from seasonal diseases. However, seasonal disease is almost common to those who have suffered or are suffering from chronic diseases. The prevalence of the seasonal diseases is more in rural areas of the district, 137 rural respondents suffer from seasonal diseases where male respondents figured 104 and female respondents figured 33.

A total of 98 respondents, 79 male and 19 female of municipality areas suffer from seasonal diseases.

Prevalence of seasonal diseases is more in rural areas recording 102 males and 31 female respondents who reported that they suffer from seasonal diseases as against 78 males and 18 female respondents in urban areas.

Medical Expenditure:

Health status and expenditure on health shows a direct relationship.

In this study it is found that average medical expenditure is higher for female respondents at an average of Rs. 3969.99 (Rs. 9773.33 for urban respondents and Rs. 1602.50 for rural female respondents) as against average medical expenditure of male respondents of Rs 3037.35 (Rs. 4280.33 for urban male and 1971.93 for rural male respondents).

Result also conveys another important message that average urban medical expenditure is almost 3 folds higher than rural average medical expenditure which are Rs. 5378.93 as against only Rs. 1861.10 in urban and rural areas respectively.

Anthropometry (BMI and MUAC):
Regarding Rural average BMI, all age groups are in normal range in average BMI value ranging from lowest 20.17 to highest 22.69 irrespective of male and female.

Here the respondents (male and female) belonging to the age group of 46-55 years are reporting highest BMI value of 22.56.

The average BMI of males of the age group of 46-55 years is a little bit higher at 22.69. But highest BMI value for females is 22.59 in the age group of 36-45 years.

Lowest BMI value is recorded for the age group of 18-25 years for both male and female respondents with BMI value 20.17 and 20.18 respectively.

Regarding average urban BMI all age groups are in normal range in average BMI value ranging from 20.23 to 23.53 irrespective of male and female respondents.

Here the male age group of 46-55 years has the highest BMI value of 22.94. For the same age group of 46-55 years, the female respondents have the average BMI value of 23.53 which is the highest among female respondents.

The male age group 18-25 years recorded lowest BMI value amongst all male age groups.

Amongst the female respondents the age group 36-45 years recorded lowest average BMI compared to all other age groups. What is noticeable is the fact that in an average all respondents irrespective of age groups and place of residence have BMI in the normal range.

The average MUAC of rural respondents is 26.66 cm where male recorded an average of 27.43 cm and female recorded 24.86 cm. Which are above the recommended level of WHO. Hence, there is no risk of severe and moderate level of under nutrition.

The average MUAC of urban respondents is 27.34 cm where male recorded an average of 27.70 cm and female recorded an average of 25.90 cm. Which are above
the recommended level of WHO. Hence, there is no risk of severe and moderate level of under nutrition

- In an average the MUAC picture suggests that there is no case of moderate and acute adult under nutrition in the study sample.

**Nutrition:**

- Average rural respondents of all age groups consume an average of 2412.82 kilocalories per day per-capita and age group 18-25 consume highest calorie of 2431.002 kilocalories per day per-capita in an average, male-female taken together.

- The lowest calorie intake is 2404.93 kilocalories per day per-capita in an average in the age group of 36-45 years, male –female combined.

- The male age group enjoying highest calorie consumption is 26-35 years with an average calorie consumption of 2425.71 per-day per-capita as against the lowest calorie consumption of the male age group of 18-25 years with an average calorie consumption of 2420.67 kilocalories per day per-capita.

- The female age group 18-25 is consuming highest calorie per day per-capita figuring an average of 2462 kilocalories as against the lowest calorie consuming group of 36-45 whose average calorie consumption is 2376.54 per day per-capita in an average.

- Daily intakes of nutrient per-capita in rural areas are higher than the recommended daily intake in rural areas i.e. 2400 kilocalories.

- The urban respondents of all age groups consume an average of 2190.96 kilocalories per day per-capita in an average. Age group 18-25 where there is no female respondent, consumes the lowest calorie, an average of 2155 kilocalories per day per-capita as against the highest calorie consumption in the age group of 36-45 with an
average calorie consumption of 2233.33 kilocalories per day per capita, male-female combined.

➢ In urban areas the male age group enjoying highest calorie intake is 36-45 with an average calorie consumption of 2227.44 per day per-capita as against the lowest calorie consuming male age group of 46-55 with an average calorie consumption of 2144.79 kilocalories per day per-capita.

➢ For females, the female age group 36-45 is consuming highest calorie per day figuring an average of 2255.56 kilocalories per day per-capita as against the lowest calorie consuming group of 46-55 whose average calorie consumption is 2213.33 per day per-capita in urban areas. A daily intake of nutrient is higher than the recommended daily intake nutrients in both rural and urban areas of 2400 and 2100 kilocalories per day per-capita.

➢ The field data reveals that a total of 10 rural respondents are suffering from acute malnutrition where males are 8 in number and females only 2 respondents as against 11 such respondents in municipalities (urban areas) comprising of 8 males and 3 females whose BMI value is less than 18.5.

➢ The obesity cases are rare both in rural and urban areas, only a single respondent suffers from obesity in rural areas as against only 2 such cases, 1 male and 1 female, in municipalities. But the problem of overweight and malnutrition is significant in both rural and urban localities.

➢ All together 39 rural respondents (31 males and 8 females) are suffering from malnutrition as against 26 such cases in urban North Tripura out of which 21 are males and remaining are females. But the problem of overweight is severe in urban areas than the rural society.
It has been found that a total of 28 overweight cases are there in urban areas where male figured 23 against 5 female respondents. In rural areas the figure is 24 with 17 male and 7 female respondents. Remaining respondents in the study are in the normal range of BMI with 126 rural and 83 urban cases.

Destructive habits:

- Out of the 200 rural respondents, 155 respondents are either smoker or tobacco, pan chewer though the frequency may differ. Again such habits are more common among the males as out of the total of such 155 respondents, the males constitute 124.
- In towns, out of the 150 respondents, 77 males and 11 female respondents are either regular or irregular smoker, tobacco chewer or pan consumer.

Model wise important findings:

The important determinants of health so far has been found in all the models applied to Measure health status are EDLR, PCSFAUR, RMME, AR, EDLR, SEX, RESI, DHI, DCIR, HSA, ST, EDLR3, EDLR4, AR2 and AR3

**Model-1: Determinants of Daily Calorie Intake of the Respondent (DCIR).**

1. Factors which affect Daily Calorie Intake of the respondents positively are EDLR, PCSFAUR
2. Factor which affects Daily Calorie Intake of the respondents negatively is RMME

**Model-2: Simultaneity Test.**

1. It is found that there is no simultaneity between DCIR and RAMI, as per Hausman Specification Test.

**Model -3: Morbidity as Indicator of Health**
1. Factors which affect Morbidity of the respondents positively are AR and RMME

2. Factors which affect Morbidity of the respondents negatively are EDLR, SEX, RESI, DHI and DCIR

**Model-4: Investigator Assessed Health Status of Respondents (IAHSR)**

1. Factors which affect Investigator Assessed Health Status positively of the Respondents are HSA, EDLR, ST, RESI and DCIR

2. Factor which affects Investigator Assessed Health Status of the Respondents negatively is RMME

**Model-5 Determinants of Malnutrition (Logistic with control, 1 if underweight; 0 otherwise)**

1. Factors which affects BMI (1 if underweight; 0 otherwise) of the respondents negatively are EDLR3 and ST

2. And no variable showing statistically significant positive impact.

**Model-6: Determinants of Malnutrition (Logistic with control, 1 if Overweight/Obese; 0 otherwise)**

1. Factors which affects BMI (1 if Overweight/Obese; 0 otherwise) of the respondents positively are HSA, AR2, AR3, EDLR4, ST

2. No negative statistically significant variable.

**Model -7: Determinants of Daily Calorie Intake of the Respondent (DCIR): Rural category**

1. Factors which affect Daily Calorie Intake positively of the respondents in rural case is SEX only
2. Factors which affect Daily Calorie Intake negatively of the respondents in rural case are RIS and RMME.

**Model-8: Determinants of Daily Calorie Intake of the Respondent (DCIR): Urban category**

1. Factors which affect Daily Calorie Intake positively of the respondents in urban case are EDLR, DHI
2. Factors which affect Daily Calorie Intake negatively of the respondents in urban case are SEX and RMME

**Model-9: Determinants of Daily Calorie Intake of the Respondent (DCIR): Salaried category**

1. Factors which affect Daily Calorie Intake negatively of the respondents in salaried case are RESI and RMME
2. No positive determinants

**Model-10: Determinants of Daily Calorie Intake of the Respondent (DCIR): Non Salaried category**

1. Factors which affect Daily Calorie Intake positively of the respondents in case of non salaried respondents are EDLR, AFI, PCSFAUR and DHI
2. Factors which affect Daily Calorie Intake negatively of the respondents in case of non salaried respondents are RAMI, RESI and RMME

Among the set of selected variables, education and particularly higher education, indoor space availability, household asset level and to some extent income of the family are found to have positive impact on the health of the respondents. Destructive habits of the respondents
including alcoholism, smoking etc. are found to have no significant negative impact on health. However, the intensity of such addictions is not considered in the present study.