CHAPTER-VII

SUMMARY AND CONCLUSION

The present study highlights the prevalence of overweight and obesity among Meitei population of Manipur. The patterns of overweight and obesity is different for different age groups and varies by sex. On the whole, adult men and women are more frequently overweight and obese compared to the adolescent boys and girls, which suggests increasing risks of overweight and obesity with advancing age. Furthermore, women are more prone to become overweight and obese than men among Meitei population.

Rapid socio-economic development along with ever-increasing urbanization has brought tremendous changes among Meitei population in terms of occupation, economy, food consumption, dietary intake, physical activity levels and overall lifestyles. Family income has been identified as an important determinant explaining the increasing prevalence of overweight and obesity. Individuals belonging to high-income families, the results suggest, are more prone to become overweight or obese. Married men and women in the study population have higher BMI, and are more overweight and obese than their never married age and sex peers. There is an association between fatness and marital status with married individuals being more prone to become overweight and obese. With the changing educational composition of the world, the prevalence of overweight and obesity are observed more among the educated Meitei men and women. Furthermore, it shows a gradual increase with increasing levels of education from the secondary schooling onwards. Occupation has also come out as another important determining factor. The occupational physical activities are the key determinant of energy expenditure. Among the adolescent boys and girls, the prevalence of both overweight and obesity are found only among the students. However, government employees have shown positive association with increasing levels of obesity when compared to other occupations in both adult men and women. Furthermore, the overall results indicated a positive association between the government employees and obesity in both the sexes.
Lifestyle factors such as watching television are significantly associated with levels of overweight and obesity among the adolescent boys and girls. However, among adults the association between television time and obesity shows variation in both the sexes. Physical activities, in turn, are found to be inversely associated with overweight and obesity among Meitei population as it has also been reported in other studies. Physical activity is a key in maintaining healthy weight status. Physical activities cause a larger reduction in body fat even if it is slightly below the recommended levels. Prevailing insurgency problems, kidnapping, neighbourhood crimes, restricted sport grounds and parks could also be a cause behind the relative decrease in physical activity by restricting people to the confines of the home environment. Sleeping duration shows mixed results among the adolescents and adults. However, the overall frequency of overweight and obesity is more among the short sleep in both the sexes. Therefore, the present study indicates the risks of overweight/obesity among the short sleep like in other studies.

Frequency of specific food items also matter in the prevalence of overweight and obesity. Dietary fat intake has been widely considered as the main determinant of body weight. The frequent consumption of fish shows positive association with increasing overweight and obesity in both men and women. However, the consumption of meat indicates positive association among men, whereas it is negatively associated with obesity among women. Furthermore, a positive association has been found with daily consumption of other fatty items (cooking oils) with level of obesity in both the sexes. Fruits, egg and milk consumption shows mixed results. Consumption of fast food comes out as another important food items for increase level of BMI. Higher prevalence on obesity in both the sexes is associated with daily consumption of fast foods. Sweet consumption is found negatively associated in the present study.

The distribution of blood pressure in association with overweight and obesity shows variation among the adolescents and adults. Among the adolescent boys and girls, both overweight and obesity are found only in association with normal levels of blood pressure. However, among the adult men and women, the prevalence of both overweight and obesity are significantly associated with high blood pressure. The
result further shows that the overall frequency of overweight and obesity is also significantly associated with high blood pressure. Proportions of the different types of self-reported morbidities are found more among men and women having normal BMI in present research. However, some of the morbidity cases are found very high among overweight/obese men and women. The study further shows that most of morbidities are found among the adult men and women, and it increases along with the increase in the level of obesity.

In conclusion, this study highlights the prevalence of overweight and obesity among the Meitei population of Manipur. The prevalence of obesity shows increasing trends with increasing age in both the sexes. It is essential to educate and create awareness programs to check the increasing problems of obesity. Prevention should begin early in life, in childhood and adolescence. Regular monitoring of BMI and fat distribution for adults would be useful to control even modest weight gain with advancing age. Government and non-governmental organizations should be involved in creating and protecting an environment that supports the healthy growth and development of children and adolescents. Health education programs and effective policies are urgently required to promote healthy eating and physical activity from early childhood period. Further studies designed to investigate dietary factors, physical activity patterns and other lifestyle factors related to weight change are needed to further improve our understanding of how obesity develops and how it can be prevented. Research work incorporating the different communities would be helpful to show the clear picture of overweight and obesity in regards to above mentioned determinants in Manipur.