Chapter 6

CONCLUSION
(A) The objectives of this study were to get a profile of distribution of blood pressure in a local sample population of Gujarati ethnic school going children and adolescents and to determine association of variation in blood pressure with ethnicity, physical activity, diet, family history of hypertension and related disorders, socioeconomic status and, to determine association of variation in blood pressure with the anthropometric parameters like height, weight, and the body composition (body fat percentage, body fat mass, lean body mass etc.) in children and adolescents.

(B) In the present study, we could get a profile of blood pressure distribution in the selected sample population of Gujarati ethnic school going children. Also an idea of the prevalence of hypertension in this area could be surfaced by this study. The prevalence rates of hypertension were found to be high, alarming us about the need for including regular blood pressure measurement as a part of health check-ups in school children.

(C) In this study, major determinants of blood pressure in children and adolescents were found to be the age, height and weight. Associations of cardiovascular parameters with gender, physical activity, socioeconomic status, diet and various body composition parameters were determined.

(D) Although the number of vegetarians in the enrolled subjects was much greater than those are on mixed diet (which may have influenced the results of analysis), Gujarati ethnic school children with vegetarian diet
were having significantly lower blood pressure than their counterparts with mixed diet. Separate studies targeting only on the effects of dietary patterns on blood pressure of school children is required.

(E) Knowing the fact that the fat content in girls should be categorized differently in girls than boys (i.e. girls normally have a higher fat content than males), a criterion to determine the amount of fatness according to gender had been used as a tool to get correlations of blood pressure and resting pulse rate to it. Here the criteria for declaring body fat percentage as low, normal slightly high and high are different in each gender.

(F) In this study, we tried to determine the effect of Resting Metabolic Rate on the blood pressure of children adolescents. This, to our knowledge has not been done in any other Indian study yet.

(G) There were many limitations of this study for e.g. this was a cross-sectional study. Thus, in future, longitudinal studies can give a better idea of blood pressure profile and factors affecting it. Furthermore, like Japanese, some criteria specific to the Indian children for declaring them as normotensive, prehypertensive and hypertensive can be developed. Finally, some physiological approaches for early prevention and treatment of hypertension and related disorders in children and adolescents should be researched and developed.