Chapter 7

Summary, Conclusions and Recommendations
7.1 SUMMARY AND CONCLUSIONS

The change in household age composition is responsible for shift in household expenditure pattern, particularly, due to the increasing elderly population and declining number of children. The relative share of expenditure by elderly consumers has increased considerably for health care while that of children for education. This study is an attempt to understand the influence of the dynamics of household age-sex composition on changing expenditure pattern over time that is, 1993 to 2007-08. The changing expenditure pattern is studied for expenditure items under health, education, food and non-food. Further the pattern of change in age-sex composition of households and variation in expenditure pattern by states also investigated.

The data used for this study are based on the consumer and expenditure surveys of National Sample Survey Organization (NSSO) 49th, 55th, and 64th rounds conducted in 1993, 1999-2000 and 2007-08. The sample sizes of these surveys are 29995, 120309 and 50297 households respectively comprising of 149826, 600016 and 242369 individuals. In all these surveys sex ratio of household members has marginally more male members. For the purpose of this study three broad age groups 0-14, 15-59 and 60 & above years are considered as children, adults and elderly. For the educational expenditure the age of the individuals are divided into five groups 6-11 years for primary, 12-13 years for upper primary, 14-15 years for secondary, 16-17 years for higher secondary and 18-34 years for higher educational levels group.
CHAPTER ONE provides background of the study and its importance. The chapter also includes critical review of literature and points out the research gap in Indian context. A conceptual framework describes the inter-linkages of socio-demographic background and household expenditure. This introductory chapter also provides details of research questions, objectives, hypothesis under consideration and concludes with the summary about organization of the thesis. Furthermore, this chapter provides complete information about the sources of data used in this study, describes variables and terms used in this study and provides methods used for data analysis in each chapter.

CHAPTER TWO makes an assessment of changing household age-sex composition for the years 1993, 1999-00 and 2007-08. Further the implication of change in the age-sex structure on household expenditure pattern over time is analysed. Findings from the chapter reveal that in course of time age-sex composition of households has undergone considerable change and found that proportion of child population in 0-14 years has declined while the proportion of adult in 15-59 years and elderly in 60 & above years have increased. Further the results of analysis provide evidence that the average household size is declining and mean age is increasing over time. The results supported that percapita household expenditure has increased for all age groups. On the other hand it is observed that the change in the distribution of household expenditure among different age groups over the period is strongly associated with the change in household age-sex composition. Out of the total household expenditure, the share for children has significantly reduced, however that of adults and elderly shares in household expenditure have increased from 1993 to 2007-08 and it is true regardless of males or females. Findings from the
multivariate analysis have shown significant association between the changing age-sex composition and the household expenditure pattern over time. Distribution of household expenditure among different age groups in the states of India is almost same; moreover it is observed that the share of household expenditure for children in all the states has been declining rapidly from 1993 to 2007-08. Nevertheless, the household share has increased steadily for adults and elderly over time.

In **CHAPTER THREE** an endeavour has been made to study the changing pattern in the share of household expenditure on food and non-food items from 1993 to 2007-08 and attempt has been made to find how the change is related to the change in household age-sex composition over time. Over time the share of household expenditure on food has declined substantially although the share of some food items like, milk and milk products, fresh fruits, dry fruits, non-veg and beverages have slightly increased. The overall decline in share of food expenditure is the result of considerable decline in the proportion of child population and considerable increase in the proportion of adults and elderly population.

However, percapita household spending on food has increased from 1993 to 2007-08. The change in food expenditure in households among males and females by age over the period follows similar pattern. The implication of increase in the proportion of adult population resulted increase in percent spent on cereals, pulse and pulse products, non-veg items, fruits and beverages from 1993 to 2007-08. Similarly because of the increase in the share of elderly population, percent spent on elderly for the items like cereals, cereal substitutes, pulse and pulse products, milk and milk products, fruits, non-veg items and beverages have increased from
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1993 to 2007-08 and the changing pattern is same for both the male and female elderly. Results from decomposition analysis reveal that the food expenditure gap between children and adults; and children and elderly has been increasing over time; conversely the difference between adults and elderly has been decreasing over time which it is due to the change in age structure.

The change in household share for non-food expenditure is not same as food as the two are complementary to one another. Share of household expenditure on non-food items like pan, tobacco, intoxicants, fuel and light, cloth, footwear and durable goods has considerably increased over time. For children expenditure on non-food has declined and that by adults and elderly has increased over time and the pattern is similar for males and females. The percapita household expenditure on non-food items have increased from 1993 to 2007-08 and even among the children percapita spending on pan, tobacco and durable goods have increased over the period. As for the elderly percent spent on intoxicants, fuel and light, cloth, foot wear, miscellaneous consumer goods and services have increased during this period.

Findings from decomposition analysis reveal that in general adults and elderly spend more than children in non-food items. Hence the expenditure gap is significant between children and adults; and children and elderly, though not much changed over time. However, elderly and adults have shown much reduction in non-food expenditure gap over time. From the findings it can be concluded that that change in child population composition has a significant impact on change in food expenditure over time, but it does not strongly affect the change in non-food expenditure. On the other hand, the shift in adult and elderly population over time
significantly contributes in changing food and non-food expenditure pattern among them.

**CHAPTER FOUR** is devoted to study the change in the pattern of household expenditure on education in 1993, 1999-00 and 2007-08. The chapter also examines how the change in the pattern of educational spending is influenced by the change in age-sex structure. For this purpose age of the children were categorized into 6-11, 12-13, 14-15, 16-17 and 18-34 years corresponding to primary, upper primary, secondary, higher secondary and higher educational level studies respectively.

It is that share of household expenditure on education has substantially increased during 1993 to 2007-08. However, the increase during 1993 to 1999-00 is marginal but drastically increased in 2007-08. Findings too indicate a considerable decline in the proportion of population in 6-11 and 12-13 years, while the composition of population in 14-15, 16-17 and 18-34 years have increased from 1993 to 2007-08. Household spending on education for primary and upper primary school going age group of children has reduced over time, conceivably due to the government spending to increase the enrolment and the another reason may be the decline in the proportion of population for these age groups. On the other hand as for age groups eligible for the higher secondary and higher education household expenditure have increased significantly during 1993 to 2007-08 especially in 2007-08. The institutional grants for higher education by government have substantially increased, but still household expenditure for this age group has increased due to the increase in the composition of higher educational group.
Percapita expenditure on education for all age groups has increased and it has tremendously increased for higher secondary and higher educational level age groups, that is, eighty times from 1993 to 2007-08.

The share of household spending on books/journals and tuition fee has increased more than two times from 1993 to 2007-08. Likewise, the share of expenditure on the same has increased for higher secondary and higher education. The result from multivariate analysis asserts that the pattern of educational expenditure is changing with the change in the age composition. It has also been found that the inequality in educational expenditure for children in between age groups 6-14 and 15-34 years has escalated over time, which indicates that the change has occurred due to the decline in the proportion of population in 6-14 years and shift in the composition of population in 15-34 years.

**CHAPTER FIVE** is on understanding the changing pattern of household health care expenditure and how it relates to the change in the population age-sex composition. The chapter first has studied the change in the share of household health expenditure out of the total household expenditure. It is found that though share of expenditure on health compared to other items is much less for the years 1993, 1999-00 and 2007-08, the proportional share has increased during this period. The share of household health care expenditure for the broad age groups 0-14, 15-59 and 60 & above has changed over time. Also the change in percapita spending by all the age-sex groups follows similar pattern. It is also evident that the change has occurred due to the decline in child population composition and the shift in adult and elderly population composition. There is also a shift in the household share of
expenditure on medicine, pathological tests, doctor’s fee and hospital charges over the period. Spending on most of the medical items for children has reduced, however the spending has increased for medicine, pathological tests and doctor’s fee for both the adults and elderly from 1993 to 2007-08. Result from multivariate decomposition analysis asserts that with the increase in the adult and elderly population composition health care expenditure is increasing over time. Household expenditure on health care seems to be biased in favour of male as health care expenditure for female is not at par as that of male. The chapter concludes that the change in age-sex composition has a strong impact on the change in health care expenditure over time.

**CHAPTER SIX** deals with the regional variation in change in population age-sex structure and change in the household expenditure pattern in 1993, 1999-00 and 2007-08. The findings reveal that the distribution of child population has significantly declined; while that of adult and elderly population have substantially increased over the period of time across states in India. Southern region has experienced a faster decline in the proportion of child population and much speedy increase in elderly population as compared to the other regions. Household expenditure pattern for different items under education, health, food and non-food in all the regions have changed over time. The change is characterized by declining share of food expenditure and increasing share of expenditure on non-food, education and health care. A contrasting feature of regional variation is that household share on educational expenditure in northern and central regions have shifted faster than the states in other regions.
Household share of food for children has declined and for elderly have increased over time in all the regions. Share of food for adults in all regions have increased from 1993 to 2007-08, but the proportion has slightly declined in 2007-08 as compared to 1999-00 due to the shift in the proportion of elderly population at the cost of adult population during 1999-00 to 2007-08. Change in the household share of non-food expenditure follows the same pattern like the food expenditure in all the regions as the share for children has been declining and that for adults and elderly have been increasing over the period. In northern region increase in the proportional share of expenditure on non-food items for adults from 1993 to 2007-08 is more as compared to the other regions. In the case of southern region spending on elderly has significantly increased because of the fast increasing adult and elderly population in these regions.

Household spending on health care for children has reduced, but it is the other way for adults and elderly in all the regions. In southern and eastern regions percent increase in health care expenditure for elderly is much higher than in other regions. The result also depicts that all the regions have experienced a substantial decline in the share of household educational expenditure for primary and upper primary educational level age groups. The plausible reason for this change may be due to the government enhances expenditure on primary and secondary education to promote the education for all. Most of the regions have experienced considerable shift in the share of educational expenditure on higher education. Mostly for higher education individuals are funded by government, but still the household expenditure on higher education has been increasing over time because of the faster shift in the composition of population of age 18 years and above. Amongst all the regions the
pace of increment in the share of household educational expenditure on higher education from 1993 to 2007-08 is higher in the southern region.

Outcomes from multilevel analysis indicate that for the period 1993 household food expenditure on children has positive and significant association with state gross domestic product, whereas in 2007-08 state GDP and household food expenditure on children are inversely associated. For the year 2007-08 household food expenditure on adults and elderly increases with the increase in state gross domestic product. As discussed above, it is due to the compositional shift in adult and elderly population is responsible for the increase in food expenditure among them. In 1993, household health expenditure for children increases with the increase in government percapita health care spending. However, in 2007-08, household health care expenditure for children decreases with the increase in percapita government health expenditure. On the contrary, in 2007-08 household spending on adults and elderly increases with the increase in government percapita health expenditure. Also health expenditure among female elderly is relatively less as compared to male elderly. It can be concluded that the change in the expenditure pattern in all the regions is due to the change in the household age-sex structure where proportion of child population has declined and of adult and elderly population has shifted from 1993 to 2007-08. Since Southern region has experienced a faster decline in the proportion of child population and much speedy increase in elderly population as compared to the other regions, the shift in the household share of food, non-food and health expenditure for elderly is faster in this region than the other regions.
7.2 RECOMMENDATIONS

Most of India's health programmes and policies have been focusing on issues like population stabilisation, maternal and child health and disease control. However, the demographic transition resulting in increasing proportion of adults and older population in India particularly females gives a prelude to a new set of social, medical, and economic problems that could arise if timely initiative in this direction is not taken in the national policies and programmes. Public funding for human resource development is inadequate to reduce the burden of household expenditure on higher education. At the same time most of India's elderly are economically dependent for food and health care; as the public expenditure on health and social security is less to meet the growing need of ever increasing elderly population.

On the basis of the findings from this thesis, the following recommendations are drawn:

- Public policy and scheme for education, health care and food security should change with changing age-sex composition.
- Policies and programmes should be region specific and prioritize according to the age-sex composition and changing demographics.
- Subsidization on health care costs in terms of reduction in the cost of medicines, doctors' fee, pathological tests and hospital charges; provision for separate queues and reservation of beds for elderly patients in hospitals and nursing homes and effective execution of strong social security options should be done to manage the bare necessities for elderly and special attention should be given on females which may reduce the burden of the family.
7.3 LIMITATIONS OF THE STUDY

The study highlights some unfathomed aspects of the change in household expenditure in respects of food, non-food, health and education in India at three point of time 1993, 1999-00 and 2007-08. Furthermore, the research explores the change in the pattern of household spending by different age groups like children, adults and elderly over the period. However, the study is based on household consumer expenditure survey it undergoes from following limitation-

- As the data provides information on expenditure for food, non-food, education and health at household level, various methods were adopted for the allocation of household expenditure to individual members.
- The study lacks the information on income of the households as well as individuals to understand the dynamics of income over time which would have given a more evened approach to this research.

7.4 SCOPE FOR FUTURE RESEARCH

In India there are dearths of studies on consumption expenditure related to household composition. Research on the changing expenditure pattern of food, non-food, health and education is limited in the Indian context. The findings from this study indicate a strong influence of changing household age-sex composition on expenditure pattern of different items of consumption. Also it is expected by the researchers that the demographic structure of India is going to change over time. Hence, there is a scope to do further research in coming decades on changing household age-sex composition and expenditure pattern in India.