

# Report on Health in Kerala

NSS 71<sup>st</sup> Round January – June 2014-

### **Preface**

The World Health Organization (WHO) has provided a whole some definition of health-"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The Survey on Social Consumption relating to Health, conducted by National Sample Survey Office as a part of its 71<sup>st</sup> round survey (January-June 2014) are primary source of data on basic quantitative information on Health sector like morbidity, hospitalisation, extent of receipt of pre-natal and post-natal care by women, expenditure incurred on treatment received from health services in public and private sectors, use of cost of treatment by AYUSH etc. These are used for planning, policy formulation, decision support and as input for further analytical studies by various Government organisations, academicians, researchers and scholars.

As the National Sample Survey (NSS) samples were small, the State Governments were invited to participate with matching samples so as to enable the preparation of estimates at sub-state level which was not possible with 'Central Sample' alone. Thus, Kerala has been participating in the National Sample Surveys from the very beginning with matching samples by collecting data adopting the same sampling design, schedules and instructions for field staff.

This report titled 'Health in Kerala' based on the 71<sup>st</sup> round (January-June 2014) 'State Sample data' on 'Consumption relating to Health' collected by the Department of Economics and Statistics, Kerala. The technical assistance provided by NSSO, Government of India and the cooperation extended by the sample households is acknowledged.

I use this opportunity to place on record the work done by the supervisors, field staff who worked hard to make the survey a success and all other staff in the Directorate who have contributed in different ways to the success of the survey and the subsequent production of the report.

I hope that this report will be useful to the planners, policy makers, academicians and researchers. Suggestions to improvement of the content of report will be highly appreciated.

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Dated: 19 10 2016

#### **HIGHLIGHTS**

The report is based on information collected through NSS Schedule 25.0 (Social Consumption: Health), conducted in the 71<sup>st</sup> round during January - June 2014 from 2544 households (1264 in rural and 1280 in urban) in 318 sample First Stage Units spread over the State.

#### 1. Morbidity and Hospitalisation

- About 19% of rural population and 22% of urban population reported ailment during a 15 day reference period. Proportion (no. per 1000) of ailing person (PAP) was highest for the age group of 60 & above (505 in rural, 533 in urban) followed by that among children below 14 years (110 in rural, 120 in urban).
- ➤ In India about 9% of rural population and 12% of urban population reported ailment during a 15 day reference period.
- Around 90% in both the sectors treatment was prevalent towards Allopathy. Around 5 percent depends on ISM (Ayurveda, Yoga or Naturopathy Unani, Siddha and homoeopathy) has been reported both in rural and urban area.
- Around 3 percent depends on Homoeopathy both in rural and urban area. The users of Yoga & naturopathy and others were negligible in figures.
- Around 3 percent has not taken any treatment in rural sector.
- ➤ Private doctors were the most important single source of treatment in both the sectors. They accounted for around 62% of the treatments in the state in which 59 percent in rural and 65 percent in urban areas consisting of private doctors, nursing homes, private hospitals, charitable institutions, etc.
- Among the hospitalised cases 8.8 percent were below 4 years age group. It is also remarkable that for both the sectors among the youngest age group (0-4) rate of hospitalisation is higher in male than female.
- ➤ Private institutions remained the main provider of inpatient health care in both rural and urban areas. Around 37% hospitalisation took place in public hospital, and 63% in private hospital in both rural and urban area. The corresponding percentages in urban sector were 32% and 68% respectively.
- The use of Allopathy was most prevalent (98%) in treating the hospitalised cases of ailments irrespective of gender.
- The rural population spent, on an average, Rs.14001 for a hospitalised treatment and Rs.18324 for that in urban sector.
- It is seen that as high as 97% of rural population and 95% of urban population were still not covered under any scheme of health expenditure support.

Department of Economics & Statistics, Government of Kerala

- ➤ Major source of finance expenditure for hospitalisation expenditure for households in the state is Household Income / Savings (73 percent).
- Contribution for hospitalisation expenditure for households from Friends and Relatives in rural area was 6.1 percent and for urban area it was 4.6 percent.

#### II. Childbirth and Maternity Care Services

In NSS 71st round survey detailed information was collected on childbirth, special emphasis was given on institutional child birth and results were derived based on 687000 (approx.) pregnant women of age 15-49 (427300 in rural and 259700 in urban).

- Among women in the age-group 15-49 years, about 8% in the rural areas and 7% in the urban areas were reported as pregnant during the 365 days preceding the date of survey.
- ➤ Of all pregnancies reported to the survey, around 80 percent in rural areas and 82 percent in urban areas were completed within the year while about 21% in rural areas and 18 percent in urban areas were on going.
- In terms of pregnancy outcomes of those pregnancies which were completed, percentage of still birth was about 1% in rural and nil in urban areas while same for abortion was 3% in rural and 5% in urban.
- In the rural areas, about 0.4% of the childbirths were at home or any other place other than the hospitals. It is seen that 31% of childbirths took place in public hospital and 68% in private hospital.
- Lower the economic quintile class the higher the proportion of institutional childbirths that take place in public hospitals as compared to private hospitals.
- In the highest quintile class 90 percent of childbirth took place in private hospital.
- Free bed was utilized for 90% of childbirths at public hospital.
- Contrary to public hospital scenario, in private hospitals, 98% childbirth took place in paying.
- In rural around 7 days stay in public hospital and 6 days stay in private hospital were reported for institutional childbirth. In urban sector these were reported as 8 days and 6 days respectively.
- An average of Rs. 2057 was spent per childbirth in public hospitals and Rs. 20737 in private hospitals which is around 10 times more than public expenditure.
- In the rural areas about 99.8 per cent of pregnant women took some pre-natal care, where as in urban area corresponding figures was 97.8 per cent.
- About 90.4 per cent of pregnant women took some post-natal care, where as in urban area corresponding figures was 94.5 per cent.

#### III. Status of the Aged Persons (60 and above)

- During January-June 2014, about 97 per cent of the aged had at least one surviving child for both the sectors. That is about 3 per cent of the aged had no surviving children on the date of survey.
- The results show that 4.5% of the aged both in rural and urban (in which 7 percent were women) stayed alone.
- > Around 53 per cent in rural and 47 per cent in urban were living with their spouses and other members.
- Around 26% of the aged in rural and 31% in urban not depend on others for their day-to-day needs.
- The dependence was very high for elderly females. Among them, about 85 per cent aged women in rural and 80% women in urban were economically dependent either partially or fully.
- Most of the economically dependent aged persons-89% in rural and 85% in urban depend on their children for financial support and a sizable proportion (6% in rural and 8% in urban) on their spouses.
- About 2 per cent of the aged persons were confined to their home and 4 per cent in were confined to bed.
- ➤ Only 2% aged with chronic ailment in felt as being in a better state of health as compared to the previous year. About 32% among them felt worse state of health as compared to the previous year.

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# CHAPTER 1 INTRODUCTION

#### 1.1 Introduction

The National Sample Survey Office (NSSO) was set up in 1950, with the idea of having a permanent survey organisation to collect data on various facets of the economy. In order to assist in socio-economic planning and policy making, NSSO conducts nationwide sample surveys known as National Sample Survey (NSS). The NSS is a continuing survey in the sense that it is carried out in the form of successive 'rounds', each round usually of a year's duration covering several topics of current interest.

The subject coverage of socio-economic enquires for different rounds are decided on the basis of a 10 year cycle. Certain topics like Labour force, Household consumer expenditure, Social consumption, Housing condition of people, Unorganized non agriculture enterprise surveys, Household land and livestock holding and Debt and investment are repeated at quinquennial or decadal intervals while the remaining years are allocated to subjects of special interest. The remaining years are for open rounds in which subjects of current/special interest are undertaken on the demand of other central ministries, and national and international organizations, etc.

The Survey on Social Consumption relating to Health, conducted by NSSO are primary source of data on basic quantitative information on Health sector like morbidity, hospitalisation, extent of receipt of pre-natal and post-natal care by women, expenditure incurred on treatment received from health services in public and private sectors, use of cost of treatment by AYUSH etc.

As the National Sample Survey samples were small, the state governments were invited to participate with matching samples so as to enable the preparation of estimates at sub-state level which was not possible with the 'Central Sample' alone. Considering the demands for district level estimates, Kerala has been participating in the National Sample Surveys from the very beginning with matching samples to provide more disaggregated results at regional level.

The present report titled 'Health in Kerala' is based on the household survey on 'Consumption relating to Health' during the period January to June 2014 was carried out by the Department of Economics and Statistics, Kerala as part of the 71<sup>st</sup> round of National Sample Survey (NSS). The data were collected through a schedule of enquiry (Schedule 25.0).

#### 1.2 Background

NSS made its first attempt to collect information on health in its 7<sup>th</sup> round (October 1953- March 1954). This survey and those conducted in the three subsequent rounds (the 11<sup>th to</sup> the 13th round, 1956-58 and the follow-up pilot survey during 17<sup>th</sup> round) were all exploratory in nature. With the aid of the findings of these exploratory surveys, a full-scale survey on morbidity was conducted in the 28<sup>th</sup> round (October 1973 - June 1974). Subsequently, reports based on the data of the NSS surveys of social consumption carried out in the 42<sup>nd</sup> round (July 1986 - June 1987) and the 52<sup>nd</sup> round (July 1995 - June 1996) gave information on the public distribution system, health services, educational services and the problems of the aged. In the 60<sup>th</sup> round of NSS (January-June 2004), a survey on morbidity and health care, including the problems of aged persons, was carried out. Since then there has been no NSS survey on health.

#### 1.3 Objective of the Survey

The survey on Social Consumption: Health in 71<sup>st</sup> round aimed to generate basic quantitative information on the health sector. One of the vital components of the schedule was dedicated to collect information which was relevant for determination of the prevalence rate of different diseases among various age-sex groups in different regions of the country. Further, measurement of the extent of use of health services provided by the Government was an indispensable part of this exercise. Special attention was given to hospitalisation, or medical care received as in-patient of medical institutions. The ailments for which such medical care was sought, the extent of use of Government hospitals as well as different (lower) levels of public health care institutions, and the expenditure incurred on treatment received from public and private sectors, were investigated by the survey. Break-up of expenditure by various heads was estimated for expenses on medical care received both as inpatient and otherwise. Emphasis was laid on collecting information on 'out of pocket' expenditure for various episodes of illness.

For the first time in an NSS health survey, the data collected had enabled assessment of the role of alternative systems of medicine in respect of prevalence of use, cost of treatment and type of ailments covered. Besides, the survey was meant to ascertain the extent of use of private and public hospitals for childbirth, the cost incurred and the extent of receiptof pre-natal and post-natal care by women who gave childbirth. Finally, information on certain aspects of the condition of the 60-plus persons was also obtained which have a bearing on their state of health, economic independence, and degree of isolation. For most important parameters, the survey provided estimates separately for males and females.

#### 1.4 Comparability with Previous Round Survey

Due to the change in coverage and difference in concepts and definitions in respect of some important parameters followed in the two rounds, the results of NSS  $71^{\text{st}}$  round are not strictly comparable with the results of NSS  $60^{\text{th}}$  round. While making any comparison, these differences may be taken into consideration.

In the 60<sup>th</sup> round and earlier surveys on health, persons with disabilities were regarded as ailing persons. In this round, pre-existing disabilities were considered as chronic ailments provided they were under treatment for a month or more during the reference period, but otherwise were not recorded as ailments. Disabilities acquired during the reference period (that is, whose onset was within the reference period) were, however, recorded as ailments.

In the earlier NSS health surveys, only treatment of ailments administered on medical advice was considered as medical treatment. Self-medication, use of medicines taken on the advice of persons in chemists' shops, etc. were not considered as medical treatment and ailments for which only such medication was taken were considered as untreated ailments. In this round, all such treatment was considered as medical treatment. But for each ailment treated, it was ascertained whether the treatment was taken on medical advice or not.

Childbirths were given a dummy ailment code so that details of treatment and expenditure of childbirth could be recorded. However, childbirths were, as usual, not considered in generating estimates of Proportion of Ailing Persons (PAP). In addition, in the light of the experience of earlier surveys, more emphasis has been laid on identification of chronic ailments and information was collected in such a way as to enable to estimate separately for the incidence of chronic ailments.

Information on expenditure incurred on treatment was collected with a 'paid' instead of a 'payable' approach; as such information was considered to be much more readily available.

In the earlier surveys, for each person aged 60 years or more, the ailments reported on the date of survey and the nature of treatment of such ailments was recorded in addition to information on ailments during the reference period of last 15 days. In this round, the additional information on ailments as on the date of survey was not collected for any age group.

A more detailed and updated code list for ailments was adopted in the current round as per the requirements of the Ministry of Health and Family Welfare. Whenever information on nature of treatment was collected, the options 'Indian System of Medicine' (including Ayurveda, Unani and Siddha), Homeopathy and 'Yoga or Naturopathy' were provided in the list of responses to enable tabulation of data separately for treatments by different systems of medicine.

In this round NSS has marginally deviated from its definition of *Household*. As usual, a group of persons normally lived together and taking food from a common kitchen constituted a household. It included temporary stay-aways (those whose total period of absence from the household is expected to be less than 6 months) but excluded temporary visitors and guests (expected total period of stay less than 6 months). This time, assuming that expenditure related information could be better collected from the person who actually funded it, some exceptions were allowed as follows:

- (i) Students residing in student hostels were considered as members of the household to which they belonged before moving to the hostel irrespective of the period of absence from the household they belonged. Hence, they were not regarded as forming single-member households unlike previous rounds.
- (ii) Any woman who has undergone childbirth during last 365 days was considered a member of the household which incurred the cost of childbirth irrespective of her place of residence during the last 365 days.
- (iii) A child aged less than 1 year was considered a member of the household to which its mother belongs.

#### 1.5 Contents of this Document

This document brings out the key results of NSS 71<sup>st</sup> round for use in decision support, policy inferences and economic analysis. This report contains five Chapters and three Appendices. Following the present introductory Chapter, Chapter Two outlines the basic concept and definitions and procedures followed in the survey along with the definitions/terms used in this document. A summary of the information on morbidity and hospitalisation is presented in Chapter Three, followed by childbirth and maternity health care in Chapter Four. In Chapter Five, status of aged (age 60 and above) is presented separately. In Appendix A, detailed tables at State level are presented. Appendix B contains details of the sample design and estimation procedure followed and Appendix C consists of the schedule of enquiry (Schedule 25.0) that was canvassed in the surveyed households.

#### 1.6 Schedules of enquiry

The survey period of the 71<sup>st</sup> round was from January to June 2014. The required information was collected from a set of sample households using *schedule 25.0* (*see Appendix C for details*)

In addition to the household characteristics and demographic particulars, the following information was collected in this round from each household:

- I. Particulars of medical treatment received as in-patient of a medical institution during the last 365 days and expenses incurred during the last 365 days for treatment of members as in-patient of medical institution.
- II. Particulars of spells of ailment of household members during the last 15 days (including hospitalisation) and expenses incurred during the last 15 days for treatment of members (not as an in-patient of medical institution).
- III. Particulars of economic independence and state of health of persons aged 60 years and above
- IV. Particulars of pre-natal and post-natal care for pregnant women of age 15-49 years during the last 365 days

#### 1.7 Scope and coverage

Geographical coverage: The survey covered the whole of the Indian Union.

Population coverage: The following rules regarding the population coverage were adhered to compile listing of households and persons:

Under-trial prisoners in jails and indoor patients of hospitals, nursing homes etc., were excluded, but residential staffs therein were listed whenever listing was done in such institutions. The persons of the first category was considered as members of their parent households and counted there. Convicted prisoners undergoing sentence was outside the coverage of the survey.

Floating population, i.e., persons without any normal residence were not listed. But households residing in open space, roadside shelter, under a bridge, etc., more or less regularly in the same place, were listed.

Neither the foreign nationals nor their domestic servants were listed, if by definition the latter belong to the foreign national's household. If, however, a foreign national became an Indian citizen for all practical purposes, he or she was covered.

Persons residing in barracks of military and paramilitary forces (like police, BSF, etc.) were kept outside the survey coverage due to difficulty in conduct of survey therein. However, civilian population residing in their neighbourhood, including the family quarters of service personnel, were covered.

Orphanages, rescue homes, ashrams and vagrant houses were outside the survey coverage. However, persons staying in old age homes, ashrams/hostels (other than students) and the residential staff (other than monks/ nuns) of these ashrams were listed. For orphanages, although orphans were not listed, the persons looking after them and staying there were considered for listing.

Students residing in the students' hostels were excluded from the hostel as they were considered as members of the household to which they belonged before moving to the hostel. However, residential staff was listed in the hostel. In this round, however, following exceptions in the definition of household was integrated:

- Students residing in students' hostels were considered as members of the household to which they belonged before moving to the hostel irrespective of the period of absence from the household they belonged.
- Any woman who has undergone childbirth during last 365 days before the date of survey was considered a member of the household which incurred the cost of childbirth irrespective of her place of residence during the last 365 days.3. A child aged less than 1 year was considered amember of the household to which its mother belongs.

Table 1.1 Shows the numbers of villages and urban blocks surveyed, the numbers of rural and urban sample households, and also the number of persons surveyed.

Table 1.1: No. of Villages, Households And Persons Surveyed For Schedule 25.0, NSS 71st Round, State Sample: Rural, Urban											
	Number of surveyed										
Sector	Persons reporting ailment during last hospitalization hospitalization chronic ailment hospitalization hospital										
RURAL	158	1264	5851	775	1139	1420	715	180	913		
URBAN	160	1280	5892	863	1151	1338	810	180	1079		
RURAL+URBAN	318	2544	11743	1638	2290	2758	1525	360	1992		

#### SAMPLE SIZE

- I. First-stage units: As usual, most States and Union Territories participated in the survey: a "State sample" was surveyed by State Government officials in addition to the "Central sample" surveyed by NSSO. For rural sector, the number of FSU' surveyed in the State sample was 158 and the number of urban sector surveyed was 160. This document is based on the estimates obtained from the State sample only.
- II. Second-stage units: Stratification of households was done on the basis of (i) with at least one child of age less than 1 year, and (ii) households with at least one member (including deceased former member) hospitalised during last 365 day. For the survey, from each sample FSU and urban block, 8 households were surveyed. Detailed sampling design and estimation procedure is presented in Appendix C of this document. In 1264 households in rural areas and 1280 households in urban areas this schedule 25.0 schedule was canvassed.

#### 1.8 Conceptual Framework

The estimates of number of households presented in this report are based on data with a moving reference point, from 1.1.2014 to 30.6.2014, which spans a period of six months. These estimates, therefore, may be taken to represent the number of households existing as on 31.03.2014, the mid-point of the six-month period.

Reference period: Details of all ailments (as in-patient or otherwise) during last 15 days were

collected for all current members and former members. On the other hand, the number of 'hospitalised' members and the number of 'death occurred' were collected with a different reference period as follows:

- I. Details of hospitalisation for all current and former members were collected for last 365 days (hospitalisation occurred from January 2013 to June 2014).
- II. Details of death were collected for last 365 days (death occurred from January 2013 to June 2014). Thus the estimates of number of 'hospitalised' members as well as number of 'death occurred' may be taken to represent the same as on 30.09.2014.

Using current population plus estimated former members during last 365 days as denominator cannot represent the actual size of population that suffered from ailment at a particular time during the reference period or the population exposed to the risk during the same time point. Thus to determine PAP, ratio of current population (excluding former/deceased members) reporting ailment and the current population exposed to the risk is considered for this report.

Rate of hospitalisation for any population category is calculated as a ratio of hospitalised members among current population & the former members and estimated current population (plus estimated former members) during last 365 days.

Quintile class of UMPCE (Usual Monthly Per Capita Expenditure):

This refers to the 5 quintile classes of the Rural/Urban distribution (estimated distribution) of households by MPCE. In the tables, the different quintile classes are referred to simply as 1 (lowest quintile class), 2, 3, 4 and 5.

Thus, for example, the words "quintile class 2" (or "20-40%") in a table for the State KERALA, RURAL sector, means households of the rural Kerala falling in the second (second lowest) quintile class of the estimated distribution of RURAL households by MPCE of KERALA . These 5 classes are demarcated separately for each sector based on the amount of usual consumer expenditure of the household in a month.

Following table 1.2 shows the lower and upper limits of the all-Kerala quintiles to have an idea of level of living of the households belonging to these quintile classes.

Table 1.2: Lower and upper limits of UMPCE in different quintile classes for each sector

Quintile class of MPCE		MPCE	in Rs.		
	Ru	ral	Urban		
02	Lower limit	Upper limit	Lower limit	Upper limit	
1	0	800	0	1182	
2	800	1000	1182	1600	
3	1000	1264	1600	2200	
4	1264	1667	2200	3200	
5	1667	-	3200	-	

# **CHAPTER 2**

# **Concepts and Definitions**

#### 1.0 Household and related terms:

- 1.1 **Household**: A group of person normally living together and taking food from a common kitchen constitutes a household. The word "normally" means that temporary visitors are excluded but temporary stay-aways are included. "Living together" is usually given more importance than "sharing food from a common kitchen" in drawing the boundaries of a household in case the two criteria are in conflict; however, in the special case of a person taking food with his family but sleeping elsewhere (say, in a shop or a different house) due to space shortage, the household formed by such a person's family members is taken to include that person also. Under-trial prisoners in jails and indoor patients of hospitals, nursing homes, etc., are considered as members of the households to which they last belonged. In this round, however, following exceptions in the definition of household was integrated:
  - (a) students residing in students' hostels was considered as members of the household to which they belonged before moving to the hostel irrespective of the period of absence from the household they belonged. Hence, they were not regarded as forming single-member households unlike previous rounds.
  - (b) any woman who has undergone childbirth during last 365 days was considered a member of the household which incurred the cost of childbirth irrespective of her place of residence during the last 365 days.
  - (c) a child aged less than 1 year was considered a member of the household to which its mother belongs.
- 1.2 **Household size:** The size of a household is the total number of persons in the household.

#### 2.0 NATURE OF TREATMENT

- **2.1 Allopathy:** In this survey the term 'allopathy' is used to refer to the broad category of medical practice that is sometimes called Western medicine, biomedicine, evidence-based medicine, or modern medicine. According to MedTerms Dictionary, allopathic medicine is defined as 'the system of medical practice which treats disease by the use of remedies which produce effects different from those produced by the disease under treatment'. The term 'allopathy' was coined in 1842 by C.F.S. Hahnemann to designate the usual practice of medicine (allopathy) as opposed to homeopathy.
- **2.2 Indian System of Medicines (ISM):** This includes Ayurveda, Siddha, Unani and Sowa-Rig-Pa medicines. These medicines are also called *Desi Dawaiyan* in India. Herbal medicines are also included in this category of medicines. The practitioners of these systems may be called Vaidji, Vaidya, Siddha Vaidya, Hakim, etc. (Sometimes people also say *Jadi-Booti wale* Vaidji, Hakimji, etc.) This category also includes Home-made medicines and Gharelu Nuskhe, Herbal Medicines (*Jadi-Bootiyan or Desi Dawa*), and the medicines given by local Vaidya/Hakim. e.g. Neem leaves for skin diseases, Tulsi leaves for common cold, Haldi

(turmeric) for injuries and fracture, Adarak (ginger) for cough, cold, throat problem etc., Lahasun (Garlic) for gathiya/ joint pain, Kali Mirch (pepper) and honey for dry and productive cough, Ashwagandha, Chyawanprash as tonic /Rasayana for energy, Gulab Jal for eye diseases and face wash, Saunf for indigestion, Ajowain and Hing for stomach pain, *Methi seeds, Ajawain, Pudina* (mint), *Jeera, Sunthi* (dry ginger), *Laung* (clove), *Triphala* powder for problems like indigestion, loss of appetite, constipation, *Laung* (clove) oil for toothache, *Bilva* (Bel) powder for diarrhoea, etc.

- **2.3 Homoeopathy**: Homeopathy is a system of medicine that uses highly diluted doses from the plant, mineral and animal kingdoms to stimulate natural defenses in the body. Oral Homoeopathy medicine is available in many forms, including the traditional homoeopathic pellets (balls), liquid dilution, tablets (lactose-based) and mother tincture.
- **2.4** Yoga and Naturopathy: Yoga is a combination of breathing exercises (*pranayam*), physical postures (*asanas*) and meditation for curing illness and releasing stress, both physical and mental. In Naturopathy treatments are based on five elements of nature, namely, (i) Earth (mud baths, mud packs, mud wraps) (ii) Water (hydrotherapy methods like baths, jets, douches, packs, immersions, compresses/fomentations) (iii) Air (breathing exercises, outdoor walking, open-air baths) (iv) Fire (sun baths, magnetized water) (v) Ether (fasting therapy).
- **2.5 AYUSH:** Each letter of the word AYUSH represents a specific system of medicine: A for Ayurveda, Y for Yoga and Naturoathy, U for Unani, S for Siddha, and H for Homeopathy. Thus AYUSH encompasses the Indian System of Medicines, Yoga and Naturopathy, and Homeopathy. Treatment by any of these systems were therefore qualify as **AYUSH treatment**, and medicines used by any of these systems were called **AYUSH medicines**.

#### 3.0 LEVEL OF CARE: EXPLANATIONS OF ASSOCIATED TERMS

- **3.1 Medical institution:** This refers to any medical institution having provision for admission of sick persons as in-patients for treatment. Thus it covers all HSC, PHC, CHC, public dispensaries with facilities for in-patient treatment, any public hospital (district hospital/state general hospitals/ medical college hospitals etc.), and private hospital of any kind (private nursing home, day care centre, private medical college and hospital, superspeciality hospital, etc.).
- **3.2 ASHA** (Accredited Social Health Activist): ASHAs are local women trained to act as health educators and promoters in their communities. There is one ASHA for every 1000 population. Their tasks include motivating women to give birth in hospitals, bringing children to immunization clinics, encouraging family planning (e.g., usage of condoms, IUDs, surgical sterilization), treating basic illness and injury with first aid, keeping demographic records, and improving village sanitation. They have a drug kit which has tablets like paracetamol, anti-malarials, oral contraceptives, co-trimoxazole (an antibiotic), etc.

- **3.3 AWW** (Anganwadi worker): These are the staff of the Anganwadi centre in the village. There is one Anganwadi centre for every 1000 population. These centres provide supplementary nutrition, non-formal pre-school education, nutrition and health education, immunization, health check-up and referral services. They are provided with a drug kit and may give tablets for about 1 to 3 children in a day.
- **3.4** HSC (Health Sub-Centre): This is the most peripheral facility in the primary health care system. There is one sub-centre for every 3000 population in hilly/tribal/difficult areas and 5000 population in plains. Each Sub-Centre is staffed by one or two
- **3.5** Auxiliary Nurse Midwives (ANM¹) (female health worker) and may have a male health worker. Their main task (as perceived) is to provide immunization to children and antenatal care. Some sub-centres also conduct normal delivery but they have no beds and the subcentre is not considered as an institution with in-patients. They perform some outpatient care largely in the form of treatment for basic illnesses. Any treatment taken from ANM during her visit to the village can be considered as treatment taken at sub-centre.
- **3.6 Dispensary**: This is a public institution from which medical supplies, preparations, and treatments are dispensed, but which does not have facilities for treatment of in-patients. Dispensaries are staffed by one or more doctors.
- **3.7 PHC (Primary Health Centre)** is staffed by a Medical Officer (MBBS or AYUSH) and Para medical staff. They provide curative OPD services and ante natal checkups and deliveries. They usually have 4-6 beds to conduct delivery. They may or may not have facilities for in-patient treatment. There is one PHC for every 30000 population in the plains and for every 20,000 populations in hilly/tribal/difficult areas. The terms 'additional PHC', 'mini-PHC' and 'new PHC' are considered synonymous to 'PHC'.

PHCs in Bihar and Uttar Pradesh are the equivalent of CHCs in other States that their area of coverage is a block and may even have 30 beds. Admissions/in-patients are always there in this facility type. Their equivalent of a PHC in these States is called an additional PHC.

- **3.8** CHC (Community Health Centre): CHC is usually located at block/division or *taluk* level and serves as a referral centre for PHCs. It is to be staffed by medical specialists and medical officers and AYUSH doctors but in practice there are usually only medical officers. It always has provision for in-patients and 10 to 30 beds. It usually has an OT, X-Ray, Labour Room and laboratory facilities.
- **3.9 Public Hospital:** All other government hospitals, including district hospitals in the district headquarters town (which acts as referral site for all the CHCs and PHCs and subcenters), government medical college hospitals, ESI hospitals, other government hospitals like maternity hospitals, cancer hospitals, TB or leprosy hospitals, railway hospitals, etc. run

<sup>&</sup>lt;sup>1</sup> An ANM is a nurse, usually with 18 months training, who is expected to provide a range of services as required in a health sub-centre. In some States the post is called village health nurse, or junior public health nurse.

by the government covered under the category 'public hospital' for the purposes of this survey.

**3.10 Private Hospital, private clinic**: Any other hospital/ nursing home/ day care centre with facilities for in-patient treatment called a private hospital. A private clinic with facilities for consultation with private doctor(s) but no in-patient facility.

#### 4.0 Ailment and Related Terms:

- **4.1 Ailment illness or injury:** Ailment, i.e. illness or injury, meant any deviation from the state of physical and mental well-being. In this round whether a person suffered an ailment during a particular period, it was judged by some deviation from physical or mental well-being was felt<sup>2</sup> by the person during the period subject to the following inherent limitations:
  - An ailment may not cause any necessity of hospitalisation, confinement to bed or restricted activity.
  - An ailment may be untreated or treated.

For the purpose of this survey, ailments are INCLUSIVE of:

- All types of injuries, such as cuts, wounds, haemorrhage, fractures and burns caused by an accident, including bites to any part of the body
- Cases of abortion natural or accidental.

However, following

- Cases of sterilisation, insertion of IUD, getting MTP etc.
- A state of normal pregnancy without complications
- Cases of pre-existing visual, hearing, speech, locomotor and mental disabilities. were NOT INCUDED in ailment
- **4.2** Spell of ailment: A spell is a continuous period of sickness due to a specific ailment.
- **4.3 Hospitalisation:** Admission as in-patient to a medical institution (as defined above) for treatment of some ailment or injury, or for childbirth, was called hospitalisation. The birth of a baby in a hospital was not a case of hospitalisation of the baby. If, however, a baby who had never left the hospital after birth contracts an illness for which it had to stay in hospital, was regarded as a case of hospitalisation. Surgeries undergone in temporary camps set up for treatment of ailments (say, eye ailments) were treated as cases of hospitalisation for the purpose of the survey. For such cases it was possible for admission and discharge to take place on the same day.
- **5.0** Medical expenditure for treatment: The total expenditure during the last 365 days for medical treatment during the stay in the hospital or not as inpatient was accounted against the following items:

<sup>&</sup>lt;sup>2</sup> Note that the identification of ailments is necessarily subjective as it depends on the feeling or perception of the person concerned. This is a problem inherent in all surveys of general morbidity or illness.

- **5.1 Package component (Rs.):** "Packages" of treatment involving specific surgical or non-surgical medical procedures, inclusive of different items like operation theatre (OT) charges, OT consumables, medicines, doctor's fees, bed charges, etc. are common nowadays in all private hospitals. Normally, packages do not include additional diagnostic tests, attendant charges, physiotherapy, personal medical appliances, blood, oxygen, etc. When some treatment is received as a package (with pre-determined total cost) from the hospital, the information for constituent for this treatment, were not separately available. The total cost of the package treatment received will, however, as informed by the informant was recorded against "package component". However, even when treatment has a package component, some extra medical expenses might have been incurred over and above the package component and those information were also recorded.
- **5.2 Doctor's/surgeon's fee**: This was inclusive of the total amount paid on account of doctor's/surgeon's fees chargeable for the period of treatment within the reference period during the stay in hospital.
- **5.3 Medicines:** The total amount paid for medicines (including drips) used for treatment whether of AYUSH or other were recorded.
- **5.4 Diagnostic tests:** The total amount paid for diagnostic tests carried out on the patient as in-patient or otherwise within the reference period whether using the hospital's diagnostic facilities or not were recorded here.
- **5.5 Bed charges:** Amount paid for bed charges during stay in hospital within the reference period was recorded here.
- 5.6 Other medical expenses (attendant charges, physiotherapy, personal medical appliances, blood, oxygen, etc.): All other expenditure <u>involved in medical treatment were recorded as 'Other'</u>.
- **5.6.1** Attendant charges: This refers to charges for services of hired attendant(s) (caregivers) who stay with the patient in the hospital or not otherwise to attend to their needs. If any household member or relative attends to the patient, no imputation of charges for his/her services was made.
- **5.6.2 Physiotherapy:** If the patient had any physiotherapy during the stay at hospital, the amount chargeable was included in this 'Other'
- **5.6.3 Personal medical appliances:** This refers to personal medical appliances of durable nature like spectacles, contact lenses, intro-ocular lenses, hearing aids, trusses, crutches, catheter, nebulizer, artificial limbs, pacemaker, etc. for the purpose of treatment.
- **5.6.4 Blood, oxygen cylinder, etc.:** Charges for blood, oxygen cylinders and other consumables such as gloves, bandages, plaster, etc., used.

**5.6.5** Apart from these, expenses on any other item used in medical treatment or diagnosis during stay in the hospital, or otherwise such as thermometer, infra-red lamp, blood pressure measuring equipment, blood sugar measuring kit, bed-pan, urinal, etc., were included in 'Other' if borne by the household.

#### 6.0 Non-Medical expenditure

- **6.1 transport for patient:** Here the amount paid for transport charges (by ambulance or other vehicle) for the patient whether accompanied by other household members or not for the journey to hospital, Clinic or any other and for the return journey, were recorded addition to the expenditure incurred to undergo a diagnostic test which the doctor advised.
- **6.2** other non-medical expenses incurred by the household (food, transport for others, expenditure on escort, lodging charges if any, etc.): All other non-medical expenses were recorded here. Some important ones are:
  - *Food:* will include expenses incurred on food supplied by the hospital for inpatienttreatment and/or purchased from outside for the patient. The cost of meals supplied from home for the patient will not be included.
  - Transport (other than ambulance): This includes transport expenses incurred by household members for travelling to the hospital to visit the patient and attend to the patient's needs, and for return journeys, including travel for procuring medicines, blood, oxygen, etc. for the hospitalised person or just to accompany the ailing person. Lodging charges of escort(s): Charges for lodging incurred by those household members who were required to stay in a hotel or a lodge for attending to the patient's needs during hospital stay were included.
  - Other expenses incurred by the household: Other incidental charges paid and expenses incurred due to hospitalisation, such as telephone charges made from PCO, and expenditure on soap, towel, toothpaste, etc. for the patient and escort(s), were included
- **7.0** Total amount reimbursed by medical insurance company or employer: The following points are important in this regard:
- 1. Expenses incurred, as recorded here are basically the expenditure made by the household ("out-of-pocket" expenditure) even if it was reimbursed later.
- 2. However, expenses met through "cashless facility" of medical insurance (paid directly to hospital by the insurance company) and expenses directly met by the employer to the hospital was excluded.

Thus, of the out-of-pocket expenditure as recorded, the amount reimbursed or expected to be reimbursed by the employer (public/private) or any insurance companies (public/private) or any other agencies was defined as 'amount reimbursed by medical insurance company or employer'. Entry was made only in those situations where the household initially bears the

medical expenditure, which the employer or the insurance company subsequently reimbursed partly or fully.

**8.0 Source of finance for expenses:** The total expenditure exclusive of the amount reimbursed was borne by the household. The money needed for this might have been spent from current household income or accumulated household savings. It might have been partly or wholly spent from the proceeds of sale of cattle or draught animals, jewellery or other physical assets or financed by borrowing. Part of it might have been contributed by friends and relatives as outright assistance.

# CHAPTER 3 Morbidity and Hospitalisation

#### 3.1 General

The goals of health systems are improved health status of the population, a responsiveness to health care needs, financial protection for the costs of health care and health equity. The NSSO survey on 'Social consumption in India: Health' is one of the important tools that throws light on the nation's progress towards these goals. The objective of the survey was primarily to study the self-reported morbidity rates, the utilisation of public and private health services by various sections of the population to address these morbidities, and the out of pocket expenditure incurred on health care.

In recent years in addition to the challenges of ensuring access to health care, financial protection against the growing costs of care have also gained importance. This present survey, therefore, assumes special significance for a comprehensive study on the health care systems. It measures the morbidity and hospitalization rates, the utilization of both public and private health care institutions. It has a special emphasis on 'out of pocket expenses' as well as on access to government financed health insurance programmes'. Also, for the first time in an NSS health survey, the data collected has enabled assessment of the role of alternative schools of medicine (AYUSH) in respect of prevalence of use, cost of treatment and type of ailments covered.

This chapter summarises the important findings of the survey and discusses the salient features pertaining to the (i) Morbidity and changing trend and pattern in morbidity rates (ii) Hospitalisation and cost of hospitalisation in private and public hospitals.

This may be important to note in this perspective that, households (or persons within households) are segregated in sector (rural/urban) by their place of domicile, and not by the place of treatment. This may be also kept in mind that all these data are summarised based on the information 'as reported by the informant.' It is well recognized in literature that "self- reported morbidity" differs from morbidity rates measured by clinical examination or examination of biomarkers. But if due caution is exercised in interpretation, especially for disease-specific data, this information is still very useful- especially with regards to utilization of ambulatory and in-patient health care services and the costs of such health care.

#### 3.2 Morbidity Rates

Table 3.1 gives the survey estimates on the morbidity rate. For the purpose of the survey, it is termed as Proportion of Ailing Persons (PAP), measured as the number of living persons reporting ailment (per 1000 persons) during 15-day reference period for different gender in rural and urban sector. The morbidity rate shows a difference of 30 points between the rural and urban areas. For the age group 0-14 a gender difference in PAP seems to more for male than female in both rural and urban areas while the difference in urban males was higher (50 points). In rest of the age group PAP is more for females. The difference in PAP between the female and male populations was around 25 points in rural and urban Kerala. It may be noted once again that the normal pregnancy and childbirth related events were not treated as ailment in the survey; only the complications of pregnancy/child birth were considered as ailments.

Table 3.	Table 3.1: Proportion (Per 1000) of Ailing Persons during Last 15 Days for Different Age Group Separately For Gender: Rural, Urban													
Age-	Rural				Urban			Rural +Urb	an					
group	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons					
0-14	124	94	110	144	94	120	131	94	114					
15-29	81	64	72	75	108	91	78	82	80					
30-44	107	128	119	149	174	162	124	146	136					
45-69	265	376	324	317	389	355	288	382	337					
70+	683	632	656	613	593	604	651	618	635					
60+	449	556	505	496	571	533	469	562	517					
All	175	201	188	205	230	218	187	213	200					

The morbidity rate (PAP) presented in this document gives the estimated proportion of persons reporting ailment at any time during 15-day reference period and are not strictly the *prevalence rates* as recommended by the Expert Committee on Health Statistics of the WHO.

The WHO defines *prevalence rate* as the ratio between the number of spells of ailment at any time during the reference period and the population exposed to the risk. It measures the *frequency of illnesses* prevailing during the reference period, whereas Table 3.1 gives the *number of (living) persons reporting ailments* during a 15-day period per 1000 (living) persons.

As the estimates are based on self-reported morbidity data, rather than on medical examination, the information on number of spells of different ailments during the reference period likely to under-estimate the illness-status of the patients, particularly latent diseases that have not presented with clear symptoms. It would also be less reliable for disease specific morbidity rates. Thus, the main morbidity rate that this report presents is termed the estimated *Proportion (number per 1000) of Ailing Persons (PAP)*. It may be noted in this connection that hospitalization in the last 15 days is included in estimating PAP though we exclude it when we are estimating costs of care.

A comparison with, state and all India proportion (number per 1000) of Ailing Persons) during last 15 days are given in Table 3.2.

Table 3.2 Proportion (per 1000) of ailing persons (PAP) during last 15 days: India , Kerala										
		India		Kerala						
Sector	Male	Female	Persons	Male	Female	Persons				
Rural	80	99	89	175	201	188				
Urban	101	135	118	205	230	218				

#### 3.3 Level of Morbidity for different age groups

The survey estimates on PAP for some broad age-groups are also given in Table 3.3. The PAPs were found to be higher for children 0-9 age group and much higher for the higher age groups. The lowest being the PAPs for the youth age bracket 10-34 years. The PAP for female is less than male for all age group up to 34 except 15-19, and above 35 age group male PAP is lesser. The age-bracket 0-9 for male child, the proportion was higher than female child.

Proportion	Table 3.3 Proportion (per 1000) of ailing persons (PAP) during last 15 days for different age group separately for gender: Rural, Urban												
		RURAL		Ĭ	URBAN		RL	JRAL+URBA	AN				
Age-group	М	F	M+F	М	F	M+F	М	F	M+F				
0 - 4	120	79	102	210	150	182	151	106	131				
.5-9	165	113	138	186	95	136	172	106	138				
.9-14	95	87	91	60	42	52	82	70	77				
15-19	99	70	85	96	169	133	98	117	107				
20 - 24	55	53	54	42	87	64	50	66	58				
25 - 29	93	70	80	89	68	78	91	69	79				
30 - 34	63	74	70	99	49	73	77	66	71				
35 - 39	74	128	102	83	135	112	77	131	106				
40 - 44	183	187	185	261	329	296	215	242	230				
45 - 49	199	276	241	170	266	225	187	272	234				
50 - 59	258	330	296	311	325	318	282	328	306				
60 - 64	330	468	412	467	483	476	393	474	439				
65 - 69	319	607	438	374	667	527	341	638	478				
70 & above	683	632	656	613	593	604	651	618	635				
60 & above	449	556	505	496	571	533	469	562	517				
NR	0	0	0	0	0	0	0	0	0				
Total	175	201	188	205	230	218	187	213	200				

#### 3.4 Level of Morbidity for different quintile classes

The relationship between morbidity and level of living, measured by per capita monthly consumption expenditure (UMPCE) given in Table 3.4. It reveals a broad positive association between UMPCE and PAP, in both rural and urban areas. The range in variation in PAP was larger in the urban areas than in the rural areas except for first two lower levels. If UMPCE is considered to be a proxy for level of living of the households, the data appear to depict that the level of morbidity increased with the level of living. This may also mean that the reporting of morbidity improves with improvement in the level of living. It is generally understood that this morbidity reporting and level of health consciousness is somewhat related; and this level of health awareness may be attributed to level of education, access to health services, purchasing power, etc.

Proportion of ailing	Table 3.4 Proportion of ailing persons (per 1000) during last 15 days by quintile class of UMPCE: Rural, Urban										
Quintile class of		PAI	•								
UMPCE	Rural	Urban	Rural+Urban								
1	153	126	143								
2	166	138	159								
3	193	245	205								
4	200	208	207								
5	229	373	287								
All	188	218	200								

#### 3.5 Treatment of Ailments

Persons who were ailing had different nature of treatment like Allopathy, Ayurveda Homoeopathy, etc. even sometimes no medical care was taken for their ailments. From this round the options of 'Indian System of Medicine' (including Ayurveda, Unani and Siddha), Homeopathy and 'Yoga or Naturopathy' has been included for nature of treatment. Table 3.5 gives the percentage distribution of spells of ailments by different nature of treatments.

Table 3	Table 3.5:Per 1000 distribution of spells of ailments treated (through different types of treatment) during last 15 days for each quintile class of UMPCE												
Quintile class of MPCE	None	Allopathy	naturopatny										
	RURAL												
1	21	909	43	26	0	0							
2	23	912	55	5	6	0							
3	8	917	50	23	0	0							
4	99	820	44	38	0	0							
5	11	841	74	56	0	18							
All	31	876	55	32	1	5							
				URBAN									
1	3	889	65	44	0	0							
2	36	936	21	6	0	0							
3	4	910	22	59	0	5							
4	0	919	29	47	0	2							
5	9	904	67	20	0	0							
All	9	910	44	35	0	2							

Clearly around 90% in both the sectors treatment was prevalent towards allopathy. Around 5 percent depends on ISM (Ayurveda, Yoga or Naturopathy Unani, Siddha and homoeopathy) has Department of Economics & Statistics, Government of Kerala

been reported both in rural and urban area. Maximum usage of ISM was under 5<sup>th</sup> quintile class of MPCE in both the sectors. Around 3 percent depends on Homoeopathy both in rural and urban area. The users of Yoga & naturopathy and others were negligible in figures. It was however, interesting to note higher usage (1.8 percentage point) of such 'Other' treatment by 5<sup>th</sup> quintile class of MPCE than its rural counterpart. Moreover, un-treated spell was higher in rural than urban. This statement also reveals the relationship between the percentages of un-treated spells of ailments and level of living separately for the rural and urban areas. Around 3 percent has not taken any treatment in rural sector.

This survey results throw some idea on the choice of health-care providers at the rural and urban area i.e. from whom people took treatment and at which level. Table 3.4 describes the *share* of public providers in treatment of ailment. The public providers for health care include government hospitals, clinics, dispensaries, Primary Health Centres (PHCs) and the Community Health Centres (CHCs), Mobile Medical Unit (MMU) and the state and central government assisted ESI hospitals and dispensaries. The lowest level of care viz. Health Sub Centre (HSC), *ANM/ASHA/AWW*, were also included in this round. But possibility of misclassification of these 'levels of care' (other than public hospital) by the informant cannot be ruled out, due to plausible positional overlapping of these units. Thus in this document the figures are shown as a combined one. Rest of the providers belong to the category of 'private' sources. The 'private' sources include private doctors, nursing homes, private hospitals, charitable institutions, etc. Table 3.6 shows how the share of public provider in treatment of ailments varies with gender and sector.

Table 3.6: Per thousand distribution of spells of ailment treated on medical advice over levels of care for each gender

	Per 1000 no. of spells of ailment treated on medical advice receiving specific level of care										
Level of care		RURAL			URBAN		RURAL+URBAN				
	М	F	M+F	М	F	M+F	М	F	M+F		
HSC/PHC/others*	124	193	162	107	90	97	116	146	132		
Public hosp.	237	252	246	257	258	258	246	255	251		
Pvt. doctor	219	237	229	298	356	330	256	291	275		
Private hosp.	421	317	364	338	296	315	382	308	341		
All	1000	1000	1000	1000	1000	1000	1000	1000	1000		
* includes ANM, AS	HA, AWW, d	ispensary, (	CHC, MMU								

It is seen that private doctors were the most important single source of treatment in both the sectors. They accounted for around 62% of the treatments in the state in which 59 percent in rural and 65 percent in urban areas consisting of private doctors, nursing homes, private hospitals, charitable institutions, etc.

#### 3.6 Hospitalised Treatment of Ailments excluding Childbirth (EC)

Proportion of Persons Hospitalised: Medical treatment of an ailing person as an inpatient in any medical institution having provision for treating the sick as in-patients was considered as hospitalised treatment. Table 3.7 gives the estimates of number (per 1000) of persons hospitalised during a reference period of 365 days for different age group and gender.

Table 3.7: Per thousand distribution of hospitalisation cases (EC) during last 365 days over age-groups for each gender

	1								
			Per 1000 nu	mber of hos	oitalisation c	ases during la	ast 365 days		
Age-group		Rural			Urban		Rural + Urban		
	М	F	M +F	М	F	M +F	М	F	M +F
0-4	119	76	97	84	63	74	105	71	88
.5-9	35	34	35	50	20	35	41	29	35
.9-14	57	12	34	35	30	32	48	19	34
0-14	211	123	166	169	113	141	194	120	157
15-19	25	29	27	22	16	19	24	24	24
20-24	52	32	42	53	63	58	52	43	48
25-29	36	34	35	36	45	41	36	38	37
15-29	113	95	103	111	124	117	112	106	109
30-34	30	58	44	34	53	43	32	56	44
35-39	46	54	50	47	57	52	47	55	51
40-44	51	51	51	36	72	54	45	59	52
30-44	127	163	145	117	183	149	123	170	147
45-49	74	77	75	40	42	41	60	64	62
50-54	99	64	81	100	78	89	99	70	84
55-59	78	135	107	74	136	104	76	136	106
45-59	250	277	264	213	256	234	236	269	253
60 & above	299	343	321	390	324	357	335	336	335
All	1000	1000	1000	1000	1000	1000	1000	1000	1000

There is no substantial difference between the rural and the urban areas in estimated proportion of hospitalised persons. Among the hospitalised cases 8.8 percent were below 4 years. It is also remarkable that for both the sectors among the youngest age group (0-4) rate of hospitalisation is higher in male than female. For the other age group it is the just opposite. For 15.7 percent were below the age 14, then showed decrease in percentage. Number of hospitalisation increased above the age 30 years. Maximum percent hospitalisation reported for 45-59 age group. Among adult, gender difference is more for 30-44 age group. The rate of hospitalisation, when looked corresponding to age group, it is observed that the rate increased with the age of a person and was the highest for the aged (60+) persons, both in rural and urban areas. As per the survey results, there were no systematic gender differential in the rural or in the urban areas.

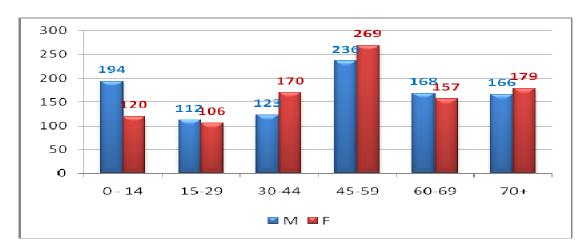


Fig. 1: Per thousand number of persons hospitalised in different age-groups: rural, urban

Hospitalised Cases and Level of Living: The share of government and private institutions in treating the hospitalised cases of ailments in the rural and urban areas are given in Table 3.8. It is seen that the private institutions dominate the field in treating the inpatients, both in the rural and urban areas. Private institutions remained the main provider of inpatient health care in both rural and urban areas. Around 37% hospitalisation took place in public hospital, and 63% in private hospital in both rural and urban area. The corresponding percentages in urban sector were 32% and 68% respectively.

Per thou	Table 3.8 Per thousand distribution of hospitalised cases (EC) over levels of care for each gender											
	Per 1000 no. of hospitalised cases in State											
Level of care	of care RURAL URBAN						RU	RURAL+URBAN				
	М	F	M+F	М	F	M+F	М	F	M+F			
Public hospital	398	351	374	331	354	342	372	353	362			
Private hospital	602	649	626	669	646	658	628	648	638			
All (incl. NR)	1000	1000	1000	1000	1000	1000	1000	1000	1000			

Table 3.9 reveals the relationship between the type of hospital (for hospitalisation cases during the 365 days preceding the date of survey) and average monthly per capita consumption expenditure (UMPCE), type of hospital and type of ward used for the rural and urban areas.

Considering UMPCE as a proxy for level of living, the estimates suggest a positive association between level of living and *type of hospital* used. The percentage share of the public sector in hospitalised treatment in different quintile classes varied over a very wide range – from 52% to 19% (a steady decline in the reliance on public provider for hospitalised treatment with a rise in UMPCE), and private sector from 48% to 81% (a steady increase). The table strongly reflects the facts that for the upper quintile class, people depends more on private hospitals. On the whole, the poorer households appear to depend more on the public sector for hospitalised treatment than the better-off sections of the population, both in rural and urban areas, which conform to the general notion.

Considering UMPCE as a proxy for level of living, the estimates suggest a positive association between level of living and *type of ward* used. For the lower quintile class, 48% people depends on *free ward* in public hospitals. In the upper quintile class 57% people depend on *paying special ward* in private hospital.

Table 3.9:
Per thousand distribution of hospitalisation cases(EC) during the last 365 days by type of hospital and type of ward, separately for each quintile class of MPCE

	Per 1000 no. of hospitalised cases								
	Public hospital				Private hospital				
Quintile class		Type of ward			Type of ward		Aall incl. NR		
of MPCE	Free	Paying general	Paying special	Free	Paying general	Paying special			
	Rural + Urban								
1	477	26	14	31	255	198	1000		
2	384	12	9	16	322	258	1000		
3	320	7	23	24	230	395	1000		
4	220	39	12	10	337	382	1000		
5	167	14	9	18	218	574	1000		
All	295	19	13	19	271	383	1000		

A comparison with, State and all India, per thousand distribution of hospitalised cases (EC) over level of care are given in Table 3.10.

Table 3.10: Per thousand distribution of hospitalised cases (EC) over levels of care for Kerala and India

Sector	Ke	rala	India		
	Public	Private	Public	Private	
Rural	374	626	419	581	
Urban	342	658	320	680	

Hospitalised Cases and nature of treatment: The relationship between hospitalisation cases by nature of treatment received during hospitalisation, separately for each quintile class of UMPCE and gender are described in Table 3.11. In general, the use of allopathy was most prevalent in treating the hospitalised cases of ailments irrespective of gender and quintile class of UMPCE. Use of Indian System of Medicine for hospitalised treatment was 2%, and for other nature of treatments the percentage is negligible.

Table 3.11
Per thousand distribution of hospitalisation cases (EC) by nature of treatment received during hospitalisation, separately for each quintile class of MPCE and gender

		Per 1000 no. of hospitalised cases treated during hospitalisation by							
Quintile class of MPCE	Gender	Allopathy	Indian System Of Medicine	Homoeopathy	Yoga Naturopathy	All			
	М	990	6	4	0	1000			
1	F	997	3	0	0	1000			
	M+F	993	5	2	0	1000			
	M	964	33	3	0	1000			
2	F	994	6	0	0	1000			
	M+F	978	20	1	0	1000			
	М	996	4	0	0	1000			
3	F	965	35	0	0	1000			
	M+F	980	20	0	0	1000			
	M	955	45	0	0	1000			
4	F	975	21	0	6	1000			
	M+F	964	34	0	2	1000			
	М	971	29	0	0	1000			
5	F	988	12	0	0	1000			
	M+F	980	20	0	0	1000			
	М	974	25	1	0	1000			
All	F	983	16	0	1	1000			
	M+F	979	20	1	0	1000			

#### 3.7 Cost of Treatment: Hospitalisation and Other

For the hospitalised treatments, information on expenses was collected separately for each different event of hospitalisation during the reference period. Besides the expenses treated as medical expenses for non-hospitalised treatment, expenditure on items like bed charges, and cost of medicines and other materials and services supplied by the hospital, charges for diagnostic tests done at the hospital were included in the medical expenditure for a hospitalised treatment.

The 'other expenses' constituted all expenses relating to treatment of an ailment incurred by the household in connection with treatment of an ailing member of the household, but other than the exclusive expenditure regarding medical treatment. This category of expenditure included all transport charges paid by the household members in connection with the treatment, food and lodging charges of the escort(s) during the reference period. The estimates of 'total expenditure' were arrived at as the sum of 'medical expenditure' and 'other expenditure'.

#### 3.8 Cost of Hospitalised Treatment

Average Expenditure for Medical Treatment per Hospitalisation: Table 3.12 gives the estimates of average medical expenditure incurred per hospitalised case of treatment 'excluding childbirth' during the reference period of 365 days.

	Table	3.12:				
Average total medical expenditure (`) for						
treatment	t per hospital	isation case (I	EC) during			
	stay at	hospital				
_	Average total medical expenditure for treatment (`) per hospitalization case					
Gender	RURAL	URBAN	All			
Male	16250 22155 18555					
Female	11839 14360 12780					
All	14001	18324	15650			

The Table 3.12 provides Average total medical expenditure (`) for treatment per hospitalisation case during stay at hospital for treatment of male and female patients of rural and urban areas. It is seen that, on an average, a higher amount was spent for hospitalised treatment by the urban population than the rural population and higher amount was spent for male than female. All such hospitalisation cases are excluding childbirth (EC).

Expenditure on Hospitalisation and Level of Living: The following Table 3.13 gives the average expenditure incurred on a case of hospitalisation by households belonging to quintile classes of monthly per capita consumer expenditure, widely considered to reflect the level of living of a household, separately for medical and other expenditure for both the sectors. It is seen that the expenditure incurred on hospitalisation was broadly positively linked with levels of living irrespective of type of expenses (medical/other). The relationship seems to be stronger in the urban areas than in the rural areas. A sudden drop in medical expenditure and 'other expenditure' on hospitalisation as one moves from the second quintile class to the third quintile class can be seen in rural sector. This drop, which is difficult to explain, was more pronounced in medical expenditure than in 'other expenditure'.

Table 3.13:  Average medical expenditure and non-medical expenditure (Rs.) on account of hospitalisation per hospitalisation case (EC), gender and sector									
Quintile `class of MPCE	Average medical expenditure* during stay at hospital (Rs.)			of during stay at hospital (Rs.)		Total expenditure (Rs.)		e (Rs.)	
IVIPCE	Rural	Urban	All	Rural	Urban	All	Rural	Urban	All
1	4248	8571	5656	1923	2497	2128	6171	11068	7784
2	7862	12517	9557	1813	2347	1956	9675	14865	11513
3	11206	12240	10404	2297	2203	2226	13503	14442	12630
4	9945	14840	12095	1967	2418	2217	11911	17258	14312
5	23347	25544	24465	3473	2279	2904	26820	27823	27369
All	11681	15986	13323	2320	2338	2327	14001	18324	15650

There is distinct variation with reference to hospitalisation expenditure in different type of hospitals (public/private) during the reference period. It is seen that the average *medical expenditure* for hospitalised treatment from a public sector hospital was much lower than that from a private sector hospital in the reference period under consideration. The average amount spent for treatment per hospitalised case, if treated in private hospital, was around 4 times of that if treated in public hospital.

Coverage of health expenditure support: Along with the expenditure incurred per hospitalisation case, it is interesting to know the extent of coverage of health expenditure support for the present population. Following Table 3.14 reveals the same for each quintile class.

Proportion of cases of reimbursement of hospitalisation expenses and per hospitalisation case (EC) in the state was 3.7 percent. It is thus seen that as high as 97% of rural population and 95% of urban population were still not covered under any scheme of health expenditure support. It is also observed that such coverage was broadly correlated with levels of living in both rural and urban sector. The relationship seems to be stronger in the urban areas than in the rural areas. The values reflect a steady increase in the proportion of coverage by some scheme of health expenditure support with a rise in UMPCE level. On the whole, the poorer households appear not to recognize the efficacy of the coverage, both in rural and urban areas. It is see n that the amount reimbursed as a percentage of medical expenditure incurred was only 4 percentage. For all UMPCE level, this share is negligible.

Table 3.14  Proportion of cases of reimbursement of hospitalisation expenses and per hospitalisation case (EC) for each quintile class of MPCE, gender and type of hospital							
Sector	Quintile class of MPCE	Per 1000 no. of cases reimbursed			Amount reimbursed as a percentage of medical expenditure incurred*		
300001	IVIPCE	М	F	M + F	М	F	M + F
RURAL	1	9	19	14	2	0	1
	2	45	30	38	1	9	5
	3	6	26	16	1	2	1
	4	29	8	18	0	0	0
	5	76	27	47	9	1	6
	All	32	21	27	5	2	3
URBAN	1	44	23	35	13	6	10
	2	52	36	43	3	15	7
	3	54	43	49	1	2	2
	4	67	32	49	2	8	4
	5	63	39	51	18	2	11
	All	77	27	53	10	5	8
R+U	1	22	20	21	7	3	6
	2	47	32	40	2	11	6
	3	6	21	13	1	2	1
	4	43	16	29	1	3	2
	5	120	28	70	13	1	8
	All	50	23	37	7	3	5

Source of Finance for Hospitalised Treatment during the last 365 days: The contributions of different sources of financing, if not covered by some health protection scheme, to meet the total expenditure on hospitalisation are tabulated in Table 3.15.

Major source of finance expenditure for hospitalisation expenditure for households in the state is *Household Income/ Savings* (73 percent). No difference was noted in *Household Income/ Savings categories* in rural and urban sector. *Contribution from Friends and Relatives* in rural area was 6.1 percent and for urban area it was 4.6 percent. While the rural households primarily depended on their 'household income/savings' (73%) and on 'borrowings' (16%), the urban households relied on their 'income/saving' (73%) for financing expenditure on hospitalisation, much on 'borrowings' also (18 per cent).

Table 3.15: Major Source of finance for hospitalization expenditure for households in different quintile classes of UMPCE (percentage distribution): rural, urban Per 1000 number of cases for which major source of financing expenditure was Quintile class Contributio Sector Househol Sale Of Other of MPCE **Borrowing** n From d Income/ Physica Source NR Total Friends And Savings **I** Assets S Relatives **RURAL** ΑII **URBAN** ΑII **RURAL+ URBAN** ΑII 

#### 3.9 Cost of non-hospitalised Treatment

In the present survey, data on expenses incurred for medical treatment was collected separately for each case of hospitalisation for hospitalised treatment, but in the case of non hospitalised treatment, expenditure for the ailing person irrespective of the

number of spells and type of ailment was recorded. Along with the medical expenses, the 'other expenses' also

were recorded separately. *Medical expenses* included expenditure on items like cost of medicines (for non-hospitalised treatment cost of medicine was split into AYUSH and non-AYUSH), charges for diagnostic tests, and fees for doctor/surgeon. The 'other expenses' constituted all expenses relating to treatment of an ailment incurred by the household in connection with treatment of an ailing member of the household, but other than the exclusive expenditure on medical treatment. This category of expenditure included all transport charges paid by the household members in connection with the treatment, food and lodging charges of the escort(s) during the reference period. The estimates of 'total expenditure' were arrived at as the sum of 'medical expenditure' and 'other expenditure.'

Average Expenditure for Non-hospitalised Treatment per Ailing Person and level of living: The following Table 3.16 gives the estimates of *medical expenditure* incurred pertreated person for non-hospitalised treatment during a period of 15 days for each quintile class. The statement provides separate estimates for treatment of male and female patients in rural and urban areas. It is seen that, on an average, a higher amount was spent for non-hospitalised treatment for an ailing person in the rural areas than that for an ailing person in the urban areas.

Table 3.16:
Average total medical expenditure (`) for non-hospitalised treatment per ailing person for each quintile class of UMPCE

Quintile class of	Average total medical expenditure (`) for treatment per ailing person							
MPCE		Rural			Urban			
	Male	Female	All	Male	Female	All		
1	268	333	304	516	271	371		
2	484	346	416	474	265	374		
3	1389	289	820	313	322	317		
4	388	406	399	388	444	421		
5	684	593	629	665	558	604		
All	687	412	533	482	418	448		

### **CHAPTER 4**

## **Childbirth and Maternity Health Care Services**

#### 4.1 General

The survey results on issues related to child birth and maternity health care services received before and after childbirth and expenditure incurred on these services will be discussed in this chapter. In 71<sup>st</sup> round, for the first time, comprehensive information regarding institutional childbirth was collected, and therefore there is more detailed information available on this as compared to the previous rounds.

The information collected includes detailed information on incidence of childbirth, and proportion of childbirths that happen in institutional settings, childbirths occurring at different levels of care, and nature of treatment (AYUSH/Allopathy) received. Moreover, detailed expenditure on account of institutional childbirth as well as incidence and cost associated with pre-natal and post-natal care have been derived for many socio-economic categories and some selected States to understand the situation in utilization of maternity services.

#### 4.2 Pregnancy of women of age 15-49 years and outcome of pregnancy

Estimates on Age-Specific Pregnancy Rate (ASPR) during the 365 days prior to the date of survey is given in Table 4.1 for broad age groups of women.

ASPR is defined as Per 1000 no. of women belonging to a specific age group years who were pregnant any time during last 365 days

In deriving this indicator, one needs to know - if a woman was pregnant anytime during a reference period, and if so, the outcome of each of the pregnancies during that period. In this round information in respect of 'number of times pregnant during that period' was also collected. It can be seen that among women in the age group 15–49 years, ASPN was about 8 in the rural areas and 7 in the urban areas.

Table 4.1 shows percentage distribution by outcome of pregnancy separately for each age-group and for each sector. Of all pregnancies reported to the survey, around 80 percent in rural areas and 82 percent in urban areas were completed within the year while about 21% in rural areas and 18 percent in urban areas were ongoing. In terms of pregnancy outcomes of those pregnancies which were completed 96% in rural areas and 94% in urban areas ended with a live birth (or in other words of all pregnancies reported, 75% in rural and 77% in urban was ended with a live birth). In terms of pregnancy outcomes of those pregnancies which were completed, percentage of still birth was about 1% in rural and nil in urban areas while same for abortion was 3% in rural and 5% in urban.

Table 4.1: Per thousand number of women aged 15-49 who were pregnant any time during last 365 days and their distribution by outcome of pregnancy separately for each age-group

		Rural				
Age-	No. per 1000 of women		Outcome	e of pregi	nancy	
group	who were pregnant at some time during last 365 days	Pregnancy continuing	Live birth	Still birth	Abortion	All
< 20	22	0	1000	0	0	1000
20 - 24	214	213	769	0	18	1000
25 - 29	176	211	714	24	13	1000
30 - 34	102	249	702	0	49	1000
35 - 39	15	0	780	0	220	1000
40 - 44	1	0	1000	0	0	1000
> 45	0	0	0	0	0	0
All	81	208	745	8	27	1000
		Urban				
< 20	11	0	1000	0	0	1000
20 - 24	154	108	821	0	70	1000
25 - 29	192	228	736	0	35	1000
30 - 34	119	268	672	0	60	1000
35 - 39	32	88	912	0	0	1000
40 - 44	4	0	1000	0	0	1000
> 45	0	0	0	0	0	0
All	71	181	770	0	48	1000
		All				
< 20	17	0	1000	0	0	1000
20 - 24	190	179	786	0	35	1000
25 - 29	183	218	723	14	22	1000
30 - 34	108	256	690	0	53	1000
35 - 39	22	56	863	0	81	1000
40 - 44	2	0	1000	0	0	1000
> 45	0	0	0	0	0	0
All	77	198	754	5	35	1000

#### 4.3 Place of Childbirth

Table 4.2 gives the distribution of women of age 15 to 49 years by the place of childbirth separately for each quintile class MPCE. In the rural areas, about 0.4% of the childbirths were at home or any other place other than the hospitals. It is seen that 31% of childbirths took place in public hospital and 68% in private hospital.

Table 4.2: Per thousand number of women aged 15-49 who were pregnant any time during last 365 days and place of childbirth, separately for each quintile class MPCE

Quintile class	Per 1000 no.	T . 1 ( 1110)		
of MPCE	Public hospital	l Private hospital At home		Total (incl.NR)
		ALL		
1	495	488	17	1000
2	355	644	0	1000
3	266	734	0	1000
4	186	793	0	1000
5	100	900	0	1000
All	307	684	4	1000

includes ANM, ASHA, AWW, HSC, PHC, dispensary, CHC, MMU, Public Hospital

It is observed that the lower the economic quintile class the higher the proportion of institutional childbirths that take place in public hospitals as compared to private hospitals. But utilization of private hospital increases with improvement in economic status. Around 50 percent of childbirths occurred in public hospital for lowest quintile class. This proportion gradually decreases and in the highest quintile class 90 percent of childbirth took place in private hospital. Since one of the aims of public hospitals is to provide access and financial protection for maternity service needs of the poor- this gradient is to be welcomed.

#### 4.4 Incidence of Institutional Childbirth and age of mother vis-à-vis level of living

Per thousand distribution of cases of hospitalisation for childbirth by age of the mother for each quintile class of UMPCE separately for the rural and urban areas is given in Table 4.3. Incidence of institutional childbirth also was highest in the age group 20-24 years in rural area and in the age group 25-29 in urban area, and lowest is seen in the youngest age bracket (<20) for both the sector. Around 4.1% in the youngest (<20) and 2.6 percent in oldest (>35) childbirth occurred in rural area, and corresponding percentage in urban area was 2.7 and 8.8 respectively.

Table 4.3: Per thousand distribution of cases of hospitalisation for childbirth by age of the mother for each quintile class of MPCE

Quintile class of	Per	1000 no. o	f hospitalis	ed cases w	here age of	the mothe	r was					
MPCE	< 20	20 -24	25-29	30-34	35-39	9 40-4	4 >45					
			RURAL									
1	41	501	286	143	29	0	0					
2	94	562	244	94	6	0	0					
3	28	282	380	265	45	0	0					
4	0	334	526	134	6	0	0					
5	22	399	206	318	44	11	0					
All classes	41	426	325	181	26	1	0					
URBAN												
1	35	390	337	171	47	20	0					
2	46	358	316	78	203	0	0					
3	14	372	415	176	22	0	0					
4	0	403	225	294	78	0	0					
5	33	183	540	166	58	19	0					
All classes	27	353	359	173	79	9	0					
			ALL									
1	38	452	308	156	37	9	0					
2	77	491	269	88	74	0	0					
3	23	314	393	233	37	0	0					
4	0	361	409	196	34	0	0					
5	27	314	338	258	49	14	0					
All classes	36	397	338	178	46	4	0					

As expected, in richest class (5<sup>th</sup> quintile) pregnancy rates in the age group of 35 and above group in the highest economic quintile of urban areas, pregnancy rates are quite high (6.3%).

#### 4.5 Incidence of Institutional Childbirth and type of ward vis-à-vis level of living

The percentage distribution of childbirth by type of ward for each quintile class of UMPCE separately is given in Table 4.4.

It is observed that free bed was utilized for 90% of childbirths at public hospital. As expected, contrary to public hospital scenario, in private hospitals, 98% childbirth took place in paying. Paying beds are available in larger public hospitals

As expected, access of free bed in public hospital was highest (95%) in the 1<sup>st</sup> quintile, that is the poorest echelon of the population, and this proportion decreases as one moves up in the quintile class, and in the 5th quintile it dropped below 73% level. In private hospitals, however, the percentage of childbirth in free beds is about the same in all quintiles.

Table 4.4: Per thousand distribution of cases of hospitalisation for childbirth by type of ward, separately for each type of hospital (public/private) and each quintile class of MPCE

Quintile		Public hospita	al	Private hospital									
class of MPCE	Free bed	Paying*	All	Free bed	Paying*	All							
ALL													
1	953	47	1000	36	964	1000							
2	907	93	1000	32	968	1000							
3	872	128	1000	26	974	1000							
4	899	101	1000	17	983	1000							
5	728	271	1000	2	998	1000							
All classes	903	98	1000	23	977	1000							

#### 4.6 Institutional Childbirth and average duration as in-patient vis-à-vis level of living:

The average duration as in-patient for childbirth for each quintile class of UMPCE separately for the rural and urban areas are given in Table 4.5.

It is observed that in rural around 7 days stay in public hospital and 6 days stay in private hospital were reported for institutional childbirth. In urban sector these were reported as 8 days and 6 days respectively. Apparently there is little effect of level of living in connection with average duration of stay in hospital for childbirth.

Table 4.5: Average duration of stay in hospital, separately for Public and private hospitals for each quintile class of UMPCE

Quintile		A	v. Duration of	f stay (0.0 day)	s)		
class of MPCE	Ru	ıral	Ur	ban	All		
	Public	Private	Public	Private	Public	Private	
1	7.1	5.9	8.4	5.3	7.8	5.7	
2	5.8 5.7		7.3	5.3	6.5	5.6	
3	5.9	5.6	11.6	5.4	7.9	5.6	
4	9.8	4.6	5.1	5.3	7.5	4.8	
5	7.1	6.8	5.3	6.5	6.4	6.7	
All classes	6.8	5.7	8	5.6	7.4	5.7	

#### 4.7 Cost of Institutional Childbirth

The medical expenditure incurred per childbirth at public and private source separately for the rural and urban areas are given in Table 4.6.

Perceptibly there was a considerable difference in the medical expenditure incurred for childbirth in the rural and urban areas as well as between the treatment at public and private hospitals. An average of Rs. 2057 was spent per childbirth in public hospitals and Rs. 20737 in private hospitals which is around 10 times more than public expenditure.

Similar phenomenon was observed for all quintile classes. Moreover, it is observed that the average medical expenditure per childbirth increased as one moves from the lower to the higher quintile class. In the rural area, it was recorded as Rs.12059 in the first quintile, and it reaches to Rs.22077 (around 1.83 times) in the fifth quintile class. The corresponding figures at urban sector was Rs.9542 and `26843 (more than 2.19 times) respectively.

Table 4.6 Average total medical expenditure per childbirth during stay at hospital (as inpatient) over last 365 days by type of hospital (public/private) and quintile class of MPCE

	Ave	erage total	medical o	expenditu	ıre (Rs.) p	er childb	oirth hosp	italisation	case		
Quintile		RURAL			URBAN		RURAL+ URBAN				
class of MPCE	Ty	pe of hosp	oital	Тур	e of hosp	ital	Ty	Type of hospital			
	Public	Private	All	Public	Private	All	Public	Private	All		
1	1645	19742	12059	1736	20817	9542	1693	20132	10938		
2	1315	20610	15072	800	19437	9628	1061	20304	13183		
3	2839	20201	15829	1435	19757	15291	2348	20041	15637		
4	3625	21410	18198	2865	20340	16676	1714	17854	17157		
5	4305	24381 2207		17551	551 28072 26843		9594 25837		23960		
All	1880	20183	15326	2250	21771	14292	2057	20737	14923		

#### 4.8 Pre-natal and Post-natal care

Information on maternal care taken by women who were pregnant anytime during the last 365 days was collected in the survey together with the expenditure incurred for availing prenatal and post-natal services. Table 4.7 gives the proportion of such women availing these services.

Table 4.7: Per thousand distribution of women who availed prenatal post-natal care services

Maternity services	% of woman availing services in						
waterinty services	Rural	Urban					
Pre-natal	998	978					
Post-natal	904	945					

In the rural areas about 99.8 per cent of pregnant women took some pre-natal care, where as in urban area corresponding figures was 97.8 per cent. Compared to the pre-natal care, about 90.4 per cent of pregnant women took some post-natal care, where as in urban area corresponding figures was 94.5 per cent.

#### **CHAPTER5**

#### Status of the Aged Persons (age 60 and above)

#### 5.1 Demographic Burden

Population ageing is an inevitable consequence of the demographic transition experienced by all the countries across the world. Declining fertility and increasing longevity have resulted in an increasing proportion of elderly persons aged 60 years and above, concomitant with the demographic transition process traversed by most of the now developed countries. India has around 1038 lakhs elderly persons (8.6% of the population comprises 60 plus population, Census 2011) and Kerala has 41.93 lakhs elderly persons (12.55% of the population comprises 60 plus population, Census 2011). An overwhelming majority of elderly live in rural areas and there is an increasing proportion of old-oldest age category with feminization of ageing being more pronounced at this age.

#### 5.2 General

The results relating to the condition and health care of persons aged 60 and above, to be referred to as the aged persons. The results are based on the information collected in the field through a particular module of the survey schedule (see block [10] of Schedule 25.0 given in Appendix C).

One of the objectives of collecting information through this survey was to assess the structure and composition of the aged with respect to age and sex, and their health and well-being. In the survey, those who were of age 60 years and above were considered aged. Information was collected on number of surviving children, on living arrangements, on economic independence and when independent the number of dependants and when dependent the persons supporting them. Their self-perception of wellbeing was also collected. The morbidity in the aged is also presented. The main findings of this survey at the State level are discussed in this section.

#### 5.3 Aged Persons and their living condition

Aged Persons and their Surviving Sons and Daughters: Percentage of aged persons by number of their surviving children for each sex is given Table 5.1.

During January-June 2014, about 97 per cent of the aged had at least one surviving child for both the sectors. That is about 3 per cent of the aged had no surviving children on the date of survey.

Table 5.1: Per 1000 distribution of aged persons of each gender by number of living children

Gender	Per 1000 no. of aged persons with number of living sons and daughters											
	0	1	2	3	4	5	.6-7	.8+	Total			
Male	14	83	349	289	120	59	42	43	1000			
Female	45	79	287	275	115	99	64	35	1000			
Male +Female	30	81	317	282	117	79	54	39	1000			

Living Arrangement: The extended family system remains the dominant form of family in Kerala. In such a system, most of the aged, particularly those who have lost their spouses, depend on their children for maintenance. Besides the number of surviving children, information on living arrangement of the elderly persons was collected in the survey. Table 5.2 shows per thousand distribution of aged persons by type of living arrangement separately for rural and urban sector.

Table 5.2: Per thousand distribution of aged persons of each gender by type of living arrangement

		Pe	er 1000 no. of age	d persons									
Gender	Living	Living with	Living with	Living without	spouse but with								
	alone	spouse only	spouse & other members	Children	Other Relations								
RURAL													
Male	1	106	733	154	6								
Female	70	82	355	470	24								
Male +Female	37	93	534	320	15								
		ι	JRBAN										
Male	41	223	659	73	4								
Female	71	162	286	428	54								
Male +Female	57	192	472	251	29								
			ALL										
Male	19	157	701	118	5								
Female	71	115	326	453	36								
Male +Female	45	136	508	291	21								

The results show that 4.5% of the aged both in rural and urban (in which 7 percent were women) stayed alone. Only 9 per cent aged in rural and 19 per cent in urban areas were living with their spouses. Another 53 per cent in rural and 47 per cent in urban were living with their spouses and other members. Around 32 per cent in rural and 25 per cent in urban were living without their spouses with their children. 1.5 percent in rural and 3 percent in urban living without their spouses but with their other relations.

Economic Independence: The living arrangement is an indication of how the physical well-being of the aged is taken care of in the family in our society. Similarly, the reported economic dependence reveals the associated problem of day-to-day maintenance of livelihood of the elderly persons. Per 1000 distribution of aged persons by state of economic independence is given in Table 5.3 for each sex, separately for rural and urban sectors.

Table 5.3: Per thousand distribution of aged persons of each gender by state of economic independence

		Per 1000 no. of a	iged persons	
Gender	Not Dependent On Others	Partially Dependent On Others	Fully Dependent On Others	All
		RURAL		
Male	377	183	441	1000
Female	150	148	702	1000
Male +Female	258	164	578	1000
URBAN				
Male	416	190	394	1000
Female	202	136	662	1000
Male +Female	309	163	528	1000
		ALL		
Male	394	186	420	1000
Female	172	143	685	1000
Male +Female	279	164	557	1000

Around 26% of the aged in rural and 31% in urban not depend on others for their day-to-day needs. 74 per cent of the aged in rural and 69% in urban depend on others for their day-to-day needs. As expected, the dependence was very high for elderly females. Among them, about 85 per cent aged women in rural and 80% women in urban were economically dependent either partially or fully. In this respect, 38% males in rural and 42% in urban were fully economically independent for their livelihood.

Economic Support Providers: As has been observed, a large proportion of the elderly are economically dependent on others for their livelihood. It is, therefore, pertinent to know economic support provider to these elderly. Such information was collected in the survey and the results are presented in Table 5.4 separately for each sector.

Table 5.4: Per thousand distribution of economically dependent aged persons of each gender by category of persons financially supporting the aged person

Gender	Per 1000 no.	of economically dep support	pendent aged persons ted by	s financially									
Gender	Spouse	Own children	Grand children	Others									
RURAL													
Male	22	967	2	10									
Female	80	841	3	75									
Male +Female	57	891	3	49									
URBAN													
Male	33	938	6	23									
Female	108	779	17	96									
Male +Female	76	846	12	65									
		ALL											
Male	27	954	3	15									
Female	91	816	9	83									
Male +Female	65	873	7	56									

It is seen that most of the economically dependent aged persons-89% in rural and 85% in urban - depend on their children for financial support and a sizable proportion (6% in rural and 8% in urban) on their spouses. A small in urban and rural areas were supported by their grandchildren or *others* ('others' is inclusive of non-relatives).

#### 5.4 Physical Condition

For the aged persons the ability to move is an important indicator of their physical condition of health and also indicates the degree of their dependence on others for movement and performing their daily routine.

Table 5.5 shows percentage of aged persons not able to move and is confined to bed or home.

Table 5.5 Per thousand distribution of aged persons of each age-group and gender by state

of physical mobility

		Per 1000 no. o	of aged persons						
		Immobile							
Age-group	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair					
60-64	986	4	8	3					
64-69	975	9	11	4					
70-74	904	6	88	3					
75-79	882	7	111	0					
80 & above	704	139	149	8					
All	934	19	44	3					

About 2 per cent of the aged persons were confined to their home and 4 per cent in were confined to bed. Those reporting that though immobile they are not limited to bed or home due to use of wheel chair are negligible. The proportion of aged persons reporting confinement to their home or bed was found to increase with the age for all categories. For the age group 80+ it sharply increases to as high. The incidence of such confinement is seen to be higher among women than among men in both rural and urban areas.

Own Perception about Health: Per thousand distribution of aged persons of with chronic ailments by perception about change in state of health compared to previous year are given in Table 5.6. The perception about one's health is an important factor is an important dimension of assessing health – which is defined as well-being- and not only the absence of disease or disability.

Table 5.6: Per thousand distribution of aged persons (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE

	Aged per	son with chronic ill	ness						
Quintile class of MPCE	No. per 1000 of aged persons	Own perception about current state of health							
	reporting illness	Excellent/ very good	Good/ fair	Poor					
1	401	7	413	577					
2	424	27	731	242					
3	678	9	712	279					
4	461	1	680	318					
5	603	37	694	270					
All classes	518	20	663	317					

A person may be considered as being in good health if he feels so - even if technically that person has a chronic illness. For example an aged person with hypertension which is well controlled may be said to have well-being. This self-perception of illness is the criterion generally used in NSS surveys to classify an individual as sick or otherwise. With this idea, information about the perception of aged persons about their current health was collected in the survey and is presented in Table 5.6 separately for those with chronic ailment. It can be seen that only 2% aged with chronic ailment in felt as being in a better state of health as compared to the previous year. About 32% among them felt worse state of health as compared to the previous year.

# Appendix A Detailed Tables

TABLE (1): NUMBER OF VILLAGES/BLOCKS, HOUSEHOLDS, PERSONS, AGED (60 YEARS AND ABOVE) PERSONS SURVEYED, NUMBER OF PERSONS HAVING CHRONIC AILMENTS, AND NUMBER OF HOSPITALISED AND AILING PERSONS SURVEYED SEPARATELY FOR EACH STATE/UT, FOR SCHEDULE 25.0: NSS 71<sup>ST</sup> ROUND, CENTRAL SAMPLE

			]	Number	of surv	eyed				Estimated number (00) of						
KERALA	blocks)		col.5)	morethan 60 yerars	Persons hospita-lised during last 365 days (bl.4, col.9)	of hospitalisation (bl.4,	ng chronic ,col.11)	repo aili durii 15 da whic	rsons orting ment ng last nys for th they ere			Persons aged morethan 60 years	Hospita-lisation cases during last 365 days	ing chronic	repo aili during days f	rsons rt-ting ment g last 15 or wich were
	FSU's(villages/blocks)	House- holds	Persons(bl.4, co	Persons aged mo (bl.4, col.5)	Persons hospita- 365 days (bl.4, o	Cases of hospita col.10)	Persons reporting chroailment(block4,col.11)	Hospita-lised*	Not hospitalised^	House-holds	Persons	Persons aged mo	Hospita-lisation 365 days	Persons report-ting chronic ailment	Hospita-lised*	Not hospitalised^
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
RURAL	158	1264	5851	775	1139	1420	715	180	913	46014	191257	26678	18987	24861	3956	32739
URBAN	160	1280	5892	863	1151	1338	810	180	1079	33158	131110	19948	12537	19630	2353	26759
RURAL+URBAN	318	2544	11743	1638	2290	2758	1525	360	1992	79172	322367	46626	31524	44492	6308	59498

TABLE (2): PROPORTION OF PERSONS AILING DURING THE LAST 15 DAYS BY AGE-GROUP AND GENDER

**RURAL** 

A ga graup		PAP		Estimat	ed no. (00) of	persons	No. of sample persons			
Age-group	M	F	M+F	M	F	M+F	M	F	M+F	
1	2	3	4	5	6	7	8	9	10	
0 - 4	120	79	102	8080	6251	14331	337	344	681	
.5-9	165	113	138	7315	7666	14981	220	194	414	
.9-14	95	87	91	9092	6680	15772	204	178	382	
0-14	124	94	110	24486	20597	45084	761	716	1477	
15-19	99	70	85	6505	5940	12445	178	178	356	
20 - 24	55	53	54	7341	8222	15563	193	301	494	
25 - 29	93	70	80	6468	8063	14531	206	300	506	
15-29	81	64	72	20314	22224	42538	577	779	1356	
30 - 34	63	74	70	6279	8376	14655	241	238	479	
35 - 39	74	128	102	6540	7078	13618	204	183	387	
40 - 44	183	187	185	6416	7800	14216	163	194	357	
30 -44	107	128	119	19235	23254	42489	608	615	1223	
45 - 49	199	276	241	6321	7443	13764	151	215	366	
50 - 59	258	330	296	9758	10944	20702	305	349	654	
60 - 64	330	468	412	4070	6043	10113	135	148	283	
65 - 69	319	607	438	4192	2954	7145	109	91	200	
45- 60	265	376	324	24341	27384	51725	700	803	1503	
70 & above	683	632	656	4380	5040	9420	137	155	292	
60 & above	449	556	505	12642	14037	26678	381	394	775	
NR	0	0	0	0	0	0	0	0	0	
Total	175	201	188	92757	98500	191257	2783	3068	5851	

TABLE (2): PROPORTION OF PERSONS AILING DURING THE LAST 15 DAYS BY AGE-GROUP AND GENDER

### **URBAN**

A ~~ ~~~~		PAP		Estimat	ed no. (00) of	persons	No. of sample persons			
Age-group	M	F	M+F	M	F	M+F	M	F	M+F	
1	2	3	4	5	6	7	8	9	10	
0 - 4	210	150	182	4243	3772	8015	361	312	673	
.5-9	186	95	136	3493	4238	7731	175	185	360	
.9-14	60	42	52	5205	4030	9235	177	148	325	
0-14	144	94	120	12941	12040	24981	713	645	1358	
15-19	96	169	133	5180	5260	10439	187	171	358	
20 - 24	42	87	64	5752	5443	11195	196	304	500	
25 - 29	89	68	78	4972	5130	10102	237	322	559	
15-29	75	108	91	15903	15833	31736	620	797	1417	
30 - 34	99	49	73	4198	4373	8571	258	226	484	
35 - 39	83	135	112	4467	5500	9967	224	193	417	
40 - 44	261	329	296	4581	4930	9511	138	171	309	
30 -44	149	174	162	13246	14803	28049	620	590	1210	
45 - 49	170	266	225	4262	5712	9974	150	191	341	
50 - 59	311	325	318	8187	8235	16422	319	384	703	
60 - 64	467	483	476	3414	4059	7473	137	173	310	
65 - 69	374	667	527	2798	3052	5850	113	118	231	
45- 60	317	389	355	18662	21057	39719	719	866	1585	
70 & above	613	593	604	3741	2885	6625	167	155	322	
60 & above	496	571	533	9953	9995	19948	417	446	863	
NR	0	0	0	0	0	0	0	0	0	
Total	205	230	218	64493	66618	131110	2839	3053	5892	

TABLE (2): PROPORTION OF PERSONS AILING DURING THE LAST 15 DAYS BY AGE-GROUP AND GENDER

RURAL+URBAN

A === ======		PAP		Estimate	ed No. (00) of	persons	No. of sample persons			
Age-group	M	F	M+F	M	F	M+F	M	F	M+F	
1	2	3	4	5	6	7	8	9	10	
0 - 4	151	106	131	12322	10023	22346	698	656	1354	
.5-9	172	106	138	10808	11904	22712	395	379	774	
.9-14	82	70	77	14296	10710	25007	381	326	707	
0-14	131	94	114	37427	32637	70065	1474	1361	2835	
15-19	98	117	107	11685	11199	22884	365	349	714	
20 - 24	50	66	58	13093	13665	26757	389	605	994	
25 - 29	91	69	79	11440	13193	24632	443	622	1065	
15-29	78	82	80	36217	38057	74274	1197	1576	2773	
30 - 34	77	66	71	10477	12749	23226	499	464	963	
35 - 39	77	131	106	11007	12578	23585	428	376	804	
40 - 44	215	242	230	10997	12730	23727	301	365	666	
30 -44	124	146	136	32482	38057	70539	1228	1205	2433	
45 - 49	187	272	234	10583	13155	23739	301	406	707	
50 - 59	282	328	306	17946	19179	37125	624	733	1357	
60 - 64	393	474	439	7484	10102	17586	272	321	593	
65 - 69	341	638	478	6990	6005	12995	222	209	431	
45- 60	288	382	337	43003	48441	91445	1419	1669	3088	
70 & above	651	618	635	8120	7925	16045	304	310	614	
60 & above	469	562	517	22595	24032	46626	798	840	1638	
NR	0	0	0	0	0	0	0	0	0	
Total	187	213	200	157250	165117	322367	5622	6121	11743	

TABLE (3a): PER THOUSAND DISTRIBUTION OF HOSPITALISATION CASES (EC) DURING LAST 365 DAYS OVER AGE-GROUPS FOR EACH GENDER

			Per 1000 n	umber of Hos	spitalisation c	ases during l	ast 365 days		
Age-group		Rural			Urban		F	Rural + Urban	
	M	F	M+F	M	F	M+F	M	F	M+F
1	2	3	4	5	6	7	8	9	10
0-4	119	76	97	84	63	74	105	71	88
.5-9	35	34	35	50	20	35	41	29	35
.9-14	57	12	34	35	30	32	48	19	34
0-14	211	123	166	169	113	141	194	120	157
15-19	25	29	27	22	16	19	24	24	24
20-24	52	32	42	53	63	58	52	43	48
25-29	36	34	35	36	45	41	36	38	37
15-29	113	95	103	111	124	117	112	106	109
30-34	30	58	44	34	53	43	32	56	44
35-39	46	54	50	47	57	52	47	55	51
40-44	51	51	51	36	72	54	45	59	52
30-44	127	163	145	117	183	149	123	170	147
45-49	74	77	75	40	42	41	60	64	62
50-54	99	64	81	100	78	89	99	70	84
55-59	78	135	107	74	136	104	76	136	106
45-59	250	277	264	213	256	234	236	269	253
60 & above	299	343	321	390	324	357	335	336	335
NR	0	0	0	0	0	0	0	0	0
All	1000	1000	1000	1000	1000	1000	1000	1000	1000
Estd. no. of hosp. cases (00)	10829	11269	22098	6933	6702	13635	17761	17971	35732
No. of sample hosp. cases	592	556	1148	573	512	1085	1165	1068	2233

# TABLE (3b): PER THOUSAND DISTRIBUTION OF HOSPITALISED CASES (EC) OVER BROAD AGE GROUPS IN KERALA FOR EACH GENDER

State /LIT	Candan		Pe	r 1000 no. o	of Hospitalis	sed cases in	age group	)		Cases of Hospitalisation	
State /UT	Gender	0 - 14	15-29	30-44	45-59	60-69	70+	60+	all	Estd. (00)	Sample
1	2	3	4	5	6	7	8	9	10	11	12
	M	211	113	127	250	164	135	299	1000	10829	592
RURAL	F	123	95	163	277	130	213	343	1000	11269	556
	M+F	166	103	145	264	147	175	321	1000	22098	1148
	M	169	111	117	213	175	215	390	1000	6933	573
URBAN	F	113	124	183	256	203	121	324	1000	6702	512
	M+F	141	117	149	234	189	169	357	1000	13635	1085
	M	194	112	123	236	168	166	335	1000	17761	1165
ALL R+U	F	120	106	170	269	157	179	336	1000	17971	1068
	M+F	157	109	147	253	163	172	335	1000	35732	2233
Estd. no. of hosp. cas	es (00)	5598	3886	5249	9026	5811	6163	11974	35732	×	×
No. of sample hosp.	cases	364	253	313	539	366	398	764	2233	×	×

TABLE (4): PER THOUSAND DISTRIBUTION OF HOSPITALISED CASES (EC) OVER LEVELS OF CARE FOR EACH GENDER

		Per 1000	no. of hos	spitalised c	ases in Sta	te	R/U/R+U					
Level of care (bl.6, item 6)		RURAL			URBAN			RURAL+URBAN			Cases of Hospitalisation	
	1	2	3	4	5	6	7	8	9	10	11	
-1	M	F	M+F	M	F	M+F	M	F	M+F	Estd.	sample	
PHC/ CHC/ dispensary/Mobile Medical Unit*	21	21	21	16	1	8	19	14	16	578	28	
Public hospital	377	330	353	315	353	334	353	339	346	12358	712	
private hospital	602	649	626	669	646	658	628	648	638	22796	1493	
All (incl. NR)	1000	1000	1000	1000	1000	1000	1000	1000	1000	35732	2233	
Estd. no. of hosp. cases (00)	10829	11269	22098	6933	6702	13635	17761	17971	35732	X	X	
No. of sample hosp. cases	592	556	1148	573	512	1085	1165	1068	2233	X	X	

TABLE (5): PER THOUSAND DISTRIBUTION OF HOSPITALISATION CASES(EC) DURING THE LAST 365 DAYS BY TYPE OF HOSPITAL AND TYPE OF WARD, SEPARATELY FOR EACH QUINTILE CLASS OF MPCE

**RURAL** 

			Per 1000 i	no. of hospital	ised cases					
Ouintile aless			Type o	f ward				Estd. no.	Eo. of	
Quintile class of MPCE	]	Public hospital	[	I	Private hospita	.1	All incl.	(00) of hosp.	sample hosp.	
	Free	Paying General	Paying Special	Free	Paying General	Paying Special	NR	cases*	cases*	
1	2	3	4	5	6	7	8	9	10	
1	513	14	4	37	262	169	1000	3227	199	
2	382	19	6	20	316	257	1000	3321	163	
3	305	10	7	10	243	426	1000	3864	205	
4	266	32	12	1	315	374	1000	4781	227	
5	143	16	5	15	275	546	1000	4380	249	
all	306	19	8	15	283	369	1000	19573	1043	
Est.hos.cas(00)	5998	366	147	298	5545	7220	19573	XX	XX	
Samp.hosp.case	305	13	10	28	283	404	1043	XX	XX	

TABLE (5): PER THOUSAND DISTRIBUTION OF HOSPITALISATION CASES(EC) DURING THE LAST 365 DAYS BY TYPE OF HOSPITAL AND TYPE OF WARD, SEPARATELY FOR EACH QUINTILE CLASS OF MPCE

**URBAN** 

			Per 1000 i	no. of hospital	ised cases					
Ovintile class			Type o	f ward				Estd. no. (00) of	Eo. of sample hosp.	
Quintile class of MPCE	]	Public hospital	I	I	Private hospita	ıl	All incl.	hosp.		
	Free	Paying Paying General Special		Free	Paying General	Paying Special	NR	cases*	cases*	
1	2	3	4	5	6	7	8	9	10	
1	392	50	22	14	264	258	1000	1713	162	
2	367	0	18	34	301	281	1000	2392	172	
3	288	5	54	24	251	378	1000	2322	196	
4	268	30	0	34	266	403	1000	2720	197	
5	148	24	20	17	197	593	1000	3318	259	
all	276	21	22	25	251	406	1000	12466	986	
est.hos.cas(00)	3439	256	274	309	3132	5055	12466	XX	XX	
samp.hosp.case	236	15	22	27	265	421	986	XX	XX	

TABLE (5 ALL): PER THOUSAND DISTRIBUTION OF HOSPITALISATION CASES(EC) DURING THE LAST 365 DAYS BY TYPE OF HOSPITAL AND TYPE OF WARD, SEPARATELY FOR EACH QUINTILE CLASS OF MPCE

			Per 1000 i	no. of hospital	ised cases					
Ouintile elece			Type o	f ward				Estd. no.	Eo. of	
Quintile class of MPCE	]	Public hospital		F	Private hospital			(00) of hosp.	sample hosp.	
	Free	Paying General	Paying Special	Free	Paying General	Paying Special	NR	cases*	cases*	
1	2	3	4	5	6	7	8	9	10	
1	471	26	11	29	262	200	1000	4940	361	
2	375	11	11	26	310	267	1000	5713	335	
3	299	8	25	15	246	408	1000	6186	401	
4	266	31	8	13	297	384	1000	7501	424	
5	145	19	12	16	242	566	1000	7698	508	
all	295	19	13	19	271	383	1000	32039	2029	
est.hos.cas(00)	9436	622	422	607	8677	12275	32039	XX	XX	
samp.hosp.case	541	28	32	55	548	825	2029	XX	XX	

# TABLE (6): PER THOUSAND DISTRIBUTIONS OF HOSPITALISATION CASES (EC) BY NATURE OF TREATMENT RECEIVED DURING HOSPITALISATION, SEPARATELY FOR EACH QUINTILE CLASS OF MPCE AND GENDER

R+U

		Per 1	000 no. of hos	pitalised case	s treated during	hospitalisation	n by	Hospitali	sed cases
Quintile class of MPCE	Gender	Allopathy	Indian System Of Medicine	Homoeo- Pathy	Yoga Naturopathy	Other Sources	All	Estd. No. (00)	Sample
1	2	3	4	5	6	7	8	9	10
	M	990	6	4	0		1000	3013	220
1	F	997	3	0	0		1000	2765	183
	M+F	993	5	2	0		1000	5777	403
	M	964	33	3	0		1000	3472	201
2	F	994	6	0	0		1000	3101	187
	M+F	978	20	1	0		1000	6574	388
	M	996	4	0	0		1000	3382	215
3	F	965	35	0	0		1000	3662	206
	M+F	980	20	0	0		1000	7045	421
	M	955	45	0	0		1000	3958	244
7	F	975	21	0	4	2	1000	3512	203
	M+F	964	34	0	2		1000	7470	447
	M	971	29	0	0		1000	3936	285
5	F	988	12	0	0		1000	4931	289
	M+F	980	20	0	0		1000	8867	574
	M	974	25	1	0		1000	17761	1165
ALL	F	983	16	0	1		1000	17971	1068
	M+F	979	20	1	0		1000	35732	2233

Table (7): per thousand distributions of hospitalisation cases (ec) by nature of treatment received during hospitalisation, separately for each quintile class of mpce and gender (Contd....)

R+U

		Per 1	000 no. of hos	pitalised case	s treated during	hospitalisatio	n by	Hospitalised cases		
Quintile class of MPCE	Gender	Allopathy	Indian System Of Medicine	Homoeo- Pathy	Yoga Naturopathy	Other Sources	All	Estd. No. (00)	Sample	
1	2	3	4	5	6	7	8	9	10	
MALE										
Estd.hop.cases(00)	17304	436	22	0	0	17761	XXX	XXX		
Sample	1137	26	2	0	0	1165	XXX	XXX		
FEMALE										
Estd.hop.cases(00)	17667	290	0	0	14	17971	XXX	XXX		
Sample	1045	17	0	0	6	1068	XXX	XXX		
ALL										
Estd.hop.cases(00)	34971	726	22	0	14	35732	XXX	XXX		
Sample	2182	43	2	0	6	2233	XXX	XXX		

TABLE (8): PER THOUSAND DISTRIBUTION OF HOSPITALISATION CASES (EC) BY NATURE OF TREATMENT RECEIVED DURING HOSPITALISATION, SEPARATELY FOR EACH STATE/UT AND GENDER

RURAL

		Per 1	000 no. of hos	pitalised case	s treated during	hospitalisatio	n by	Hospitalised cases	
Quintile class of MPCE	Gender	Allopathy	Indian System Of Medicine	Homoeo- Pathy	Yoga Naturopathy	Other Sources	All	Estd. No. (00)	Sample
1	2	3	4	5	6	7	8	9	10
	M	971	26	2	0	0	1000	1082878	592
1	F	989	11	0	0	0	1000	1126879	556
	M+F	980	19	1	0	0	1000	2209757	1148
	M	978	22	0	0	0	1000	693264	573
2	F	973	25	0	0	2	1000	670215	512
	M+F	976	23	0	0	1	1000	1363479	1085
	M	974	25	1	0	0	1000	1776142	1165
3	F	983	16	0	0	1	1000	1797094	1068
	M+F	979	20	1	0	0	1000	3573236	2233
	M	974	25	1	0	0	1000	1776142	1165
ALL	F	983	16	0	0	1	1000	1797094	1068
	M+F	979	20	1	0	0	1000	3573236	2233

Table (9): Per thousand distribution of hospitalisation cases (EC) by nature of treatment received before hospitalisation, separately Kerala and gender

		Per 1000 n	o. of hospita		vith nature o		before hos	pitalisation	Hospitali	sed cases
KERALA	Gender	None	Allopathy	Indian System Of Medicine	Homoeo- Pathy	Yoga & Naturo- Pathy	Other Sources	All	Estd. no.(00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
	M	355	638	6	1	0	0	1000	10829	592
RURAL	F	372	615	9	3	1	0	1000	11269	556
	M+F	364	626	8	2	1	0	1000	22098	1148
	M	420	564	9	6	0	0	1000	6933	573
URBAN	F	331	625	27	18	0	0	1000	6702	512
	M+F	376	594	18	12	0	0	1000	13635	1085
	M	381	609	7	3	0	0	1000	17761	1165
R+U	F	357	619	16	8	1	0	1000	17971	1068
	M+F	369	614	12	6	0	0	1000	35732	2233

Table (10): Per thousand distribution of hospitalisation cases (EC) by nature of treatment received after discharge from hospital, separately for Kerala and gender

		Per 10	00 no. of hosp		with nature o	f treatment a	ıfter hospital	isation	Hospitali	sed cases
KERALA	Gender	None	Allopathy	Indian System Of Medicine	Homoeo- Pathy	Yoga & Naturo- Pathy	Other Sources	All	Estd. no.(00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
	M	95	886	17	2	0	0	1000	10829	592
RURAL	F	102	868	24	1	0	0	1000	11269	556
	M+F	99	877	20	2	0	0	1000	22098	1148
	M	152	826	19	3	0	0	1000	6933	573
URBAN	F	117	852	27	2	0	0	1000	6702	512
	M+F	135	839	23	2	0	0	1000	13635	1085
	M	117	863	18	2	0	0	1000	17761	1165
R+U	F	108	862	25	2	0	0	1000	17971	1068
	M+F	113	862	21	2	0	0	1000	35732	2233

Table (11): Average total medical expenditure for treatment per hospitalisation case (EC) during stay at hospital (as inpatient) over last 365 days by State/UT and gender

## Estimate/RSE

					Average	total me	dical exp	enditure	for treat	ment (Rs.)	per case	<b>;</b>			
Quintile			Rural					Urban				Rı	ural + Ur	ban	
class of MPCE		F.	ME	•	alisation ises		F	ME	•	alisation ises		F	ME	•	alisation ases
WI CE	M	F	M+F	Estd. (00)	Sample	M	F	M+F	Estd. (00)	Sample	M	F	M+F	Estd. (00)	Sample
1	5537	2958	4248	4006	236	9025	7982	8571	1957	187	6778	4455	5667	5964	423
2	7982	7719	7862	3963	188	16440	8801	12517	2557	185	11081	8174	9688	6519	373
3	13493	8567	11206	4180	220	15350	9400	12240	2503	211	14139	8903	11593	6683	431
4	10546	9403	9945	5161	246	21160	8761	14840	2849	209	14404	9179	11686	8010	455
5	33155	16373	23347	4788	258	28507	22228	25544	3768	293	30831	18648	24315	8556	551
All	13873	9574	11681	22098	1148	19484	12367	15986	13635	1085	16063	10615	13323	35732	2233
Estd. no. of hosp. cases (00)	10829	11269	22098	X	X	6933	6702	13635	X	X	17761	17971	35732	X	X
No. of sample hosp. cases	592	556	1148	X	X	573	512	1085	X	X	1165	1068	2233	X	X

Table (12): Average total medical expenditure per hospitalisation case (EC) for treatment during stay at hospital (as inpatient) in last 365 days by level of care and gender and sector

						Estin	nate/RS	E						
		Avera	ge total n	nedical e	xpenditu	re for tre	eatment (1	Rs.) per c	ase of ho	spitalisat	tion in		No. of o	cases of
KERALA	disp	PHC/CHC ensary/mo edical uni	bile	Pul	olic hosp	ital	Pri	vate hosp	ital		All		hospital	
	M	F	M+F	M	F	M+F	M	F	M+F	M	F	M+F	Estd.(00)	Sample
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RURAL	1290	1397	1345	5045	2827	3988	19846	13274	16371	13873	9574	11681	22098	1148
Estd. no. of hosp. cases (00)	225	237	463	4088	3721	7809	6516	7310	13826	10829	11269	22098	X	X
No. of sample hosp. cases	11	11	22	211	174	385	370	371	741	592	556	1148	X	X
URBAN	15633	0	14745	5905	3519	4664	25962	17220	21743	19484	12367	15986	13635	1085
Estd. no. of hosp. cases (00)	109	7	115	2183	2366	4549	4641	4330	8970	6933	6702	13635	X	X
No. of sample hosp. cases	5	1	6	170	157	327	398	354	752	573	512	1085	X	X
ALL	5960	1359	4018	5345	3096	4237	22390	14742	18485	16063	10615	13323	35732	2233
Estd. no. of hosp. cases (00)	334	244	578	6271	6087	12358	11157	11640	22796	17761	17971	35732	X	X
No. of sample hosp. cases	16	12	28	381	331	712	768	725	1493	1165	1068	2233	X	X

Table (13): Average medical expenditure and non-medical expenditure (Rs.) on account of hospitalisation per hospitalisation case (EC) for each quintile class of MPCE, gender and sector

Sector	Quintile `class of	C	medical expe stay at hospit		C	of other exp f hospitalisa			Total (Rs.)		total exp. (Rs. 000) for hospital  12 2472199 3833839 5644091 6147751 12840192 30938073 22  X	-	alisation
	MPCE	М	F	M+F	М	F	M + F	М	F	M + F	_	Estd. (00)	Sample
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1	5537	2958	4248	2272	1573	1923	7809	4532	6171	2472199	4006	236
	2	7982	7719	7862	2157	1405	1813	10139	9125	9675	3833839	3963	188
RURAL	3	13493	8567	11206	2566	1987	2297	16059	10554	13503	5644091	4180	220
RUI	4	10546	9403	9945	1938	1993	1967	12484	11396	11911	6147751	5161	246
	5	33155	16373	23347	3044	3777	3473	36200	20151	26820	12840192	4788	258
	All	13873	9574	11681	2376	2266	2320	16250	11839	14001	30938073	22098	1148
Estd. to (Rs. 00)	otal exp. 0)	15023178	10788233	25811411	2573283	2553378	5126661	17596461	13341611	30938073	X	X	X
	1	9025	7982	8571	2354	2683	2497	11379	10664	11068	2166353	1957	187
	2	16440	8801	12517	2715	2000	2347	19155	10801	14865	3800204	2557	185
AN	3	15350	9400	12240	2530	1904	2203	17880	11304	14442	3615546	2503	211
URBAN	4	21160	8761	14840	3023	1835	2418	24182	10596	17258	4916986	2849	209
	5	28507	22228	25544	2658	1854	2279	31165	24081	27823	10484804	3768	293
	All	19484	12367	15986	2671	1993	2338	22155	14360	18324	24983893	13635	1085
Estd. to (Rs. 000	otal exp. 0)	13507451	8288649	21796099	1851841	1335952	3187794	15359292	9624601	24983893	X	X	X

Table (14): Average medical expenditure and non-medical expenditure (Rs.) on account of hospitalisation per hospitalisation case (EC) for each quintile class of MPCE, gender and sector (Contd...)

Sector	Quintile `class of	_	medical expo stay at hospit			of other exp f hospitalisa			Total (Rs.)		Estd. total exp. (Rs. 000)	_	alisation
	MPCE	M	F	M+F	М	F	M + F	М	F	M + F	for hospital	Estd. (00)	Sample
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1	6829	4377	5656	2277	1966	2128	9106	6343	7784	4496980	5777	403
	2	11040	7896	9557	2360	1505	1956	13400	9401	11513	7568270	6574	388
D.II	3	11899	9024	10404	2399	2065	2226	14299	11089	12630	8897254	7045	421
R+U	4	14016	9930	12095	2378	2036	2217	16395	11966	14312	10691224	7470	447
	5	33198	17494	24465	2965	2855	2904	36162	20349	27369	24268237	8867	574
	All	16063	10615	13323	2491	2164	2327	18555	12780	15650	55921965	35732	2233
Estd. to	otal exp. 0)	28530629	19076882	47607511	4425124	3889330	8314455	32955753	22966212	55921965	X	X	X

Table (15): Per thousand distribution of hospitalised cases (EC) by major source of finance of expenditure, separately for each quintile class of MPCE

# **RURAL**

	Pe	er 1000 number	of cases for wh	ich major source	e of financing e	xpenditure was		No. of hospita	alisation cases
Quintile class of MPCE	Household Income/ Savings	Borrowings	Sale Of Physical Assets	Contribution From Friends And Relatives	Other Sources	NR	Total	Estd. (00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
1	709	199	1	85	0	6	1000	4006	236
2	621	262	0	47	16	54	1000	3963	188
3	740	107	0	97	13	42	1000	4180	220
4	750	146	3	57	0	45	1000	5161	246
5	798	120	18	26	15	23	1000	4788	258
All	728	163	5	61	9	34	1000	22098	1148
Estd. total exp. (Rs. 000)	21093377	6058956	399833	2228357	1157550	0	30938073	XXX	XXX
Av. exp. per hosp. case (Rs.)	13117	16775	38923	16457	60212	0	14001	XXX	XXX
Estd. no. of hosp. cases (00)	16080	3612	103	1354	192	756	22098	XXX	XXX
Sample no. of hosp. cases	881	172	4	58	7	26	1148	XXX	XXX

Table (16): Per thousand distribution of hospitalised cases (EC) by major source of finance of expenditure, separately for each quintile class of MPCE

# **URBAN**

Quintile class of		Per 1000 numb		No. of hospitalisation case					
MPCE	Household Income/ Savings	Borrowings	Sale Of Physical Assets	Contribution From Friends And Relatives	Other Sources	NR	Total	Estd. (00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
1	873	91	0	9	13	15	1000	1957	187
2	661	234	0	66	4	36	1000	2557	185
3	690	253	0	24	18	15	1000	2503	211
4	759	190	7	38	2	3	1000	2849	209
5	716	133	0	73	4	74	1000	3768	293
All	732	180	1	46	7	33	1000	13635	1085
Estd. total exp. (Rs. 000)	15589075	7346147	85952	1857505	105215	0	24983893	XXX	XXX
Av. exp. per hosp. case (Rs.)	15609	29967	42600	29491	10475	0	18324	XXX	XXX
Estd. no. of hosp. cases (00)	9987	2451	20	630	100	446	13635	XXX	XXX
Sample no. of hosp. cases	847	158	1	38	7	34	1085	XXX	XXX

Table (17): Per thousand distribution of hospitalised cases (EC) by major source of finance of expenditure, separately for each quintile class of MPCE

ALL R+U

	Per 1000 nu	mber of cases	for which ma	ijor source of fin	ancing expen	diture (bl.7, ii	<i>tem 16)</i> was	No. of hosp	
Quintile class of MPCE	Household Income/ Savings	Borrowings	Sale Of Physical Assets	Contribution From Friends And Relatives	Other Sources	NR	Total	Estd. (00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
1	762	164	1	60	4	9	1000	5964	423
2	637	251	0	54	11	47	1000	6519	373
3	721	161	0	70	15	32	1000	6683	431
4	753	162	4	50	1	30	1000	8010	455
5	762	126	10	47	10	46	1000	8556	551
All	730	170	3	56	8	34	1000	35732	2233
Estd. total exp. (Rs. 000)	36682452	13405103	485784	4085862	1262764	0	55921965	XXX	XXX
Av. exp. per hosp. case (Rs.)	14072	22108	39527	20595	43144	0	15650	XXX	XXX
Estd. no. of hosp. cases (00)	26067	6063	123	1984	293	1202	35732	XXX	XXX
Sample no. of hosp. cases	1728	330	5	96	14	60	2233	XXX	XXX

Table (18): Hospitalisation cases (EC) per 100,000 persons during the last 365 days by age-group

Age-		R			U			R+U		Estd. no. (00) of	No. of sample
Group	M	F	M+F	M	F	M+F	M	F	M+F	hosp. cases*	hosp. cases*
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12
0-14	9310	6741	8136	9042	6300	7720	9217	6578	7988	5598	364
15-29	6000	5357	5681	4841	5755	5276	5491	5524	5507	3886	253
30-44	7166	8081	7661	6094	8582	7384	6728	8275	7551	5249	313
40-59	16838	16884	16863	11795	12261	12041	14630	14890	14768	9026	539
60-69	21409	16231	18713	19291	19027	19151	20495	17468	18904	5811	366
70+	31669	45794	39176	35885	26321	31817	33665	38593	36063	6163	398
60+	25080	27104	26142	25893	21221	23582	25443	24647	25036	11974	764
All	11634	11747	11691	10647	10313	10480	11228	11168	11198	35732	2233

Table (19): Cases of hospitalisation (EC) reported per 100,000 persons during the last 365 days by State, gender and agegroup

KERALA	Gender				Age ş	group				Estd. no. (00) of	No. of sample
		0-14	15-29	30-44	40-59	60-69	70+	60+	All	hosp. cases*	hosp. cases*
1	2	3	4	5	6	7	8	9	10	11	12
	M	9310	6000	7166	16838	21409	31669	25080	11634	10829	592
RURAL	F	6741	5357	8081	16884	16231	45794	27104	11747	11269	556
	M+F	8136	5681	7661	16863	18713	39176	26142	11691	22098	1148
	M	9042	4841	6094	11795	19291	35885	25893	10647	6933	573
	F	6300	5755	8582	12261	19027	26321	21221	10313	6702	512
	M+F	7720	5276	7384	12041	19151	31817	23582	10480	13635	1085
	M	9217	5491	6728	14630	20495	33665	25443	11228	17761	1165
	F	6578	5524	8275	14890	17468	38593	24647	11168	17971	1068
	M+F	7988	5507	7551	14768	18904	36063	25036	11198	35732	2233

<sup>\*</sup>excluding childbirth

<sup>\*</sup>reported in last 365 days

Table (20): Per thousand distribution of spells of ailment by nature of treatment received, separately for each quintile class of MPCE and gender

Ovintile close of		Per 1000	no. of spells of ail	ment with tre	atment received f	rom^		No. of spell	s of ailment
Quintile class of MPCE	none	allopathy	Indian system of medicine	homoeo- pathy	yoga & naturo-pathy	other sources	all	estd. (00)	sample
1	2	3	4	5	6	7	8	9	10
RURAL					MALE				
1	18	864	64	54	0	0	1000	2755	111
2	33	897	55	4	11	0	1000	4285	90
3	6	927	58	6	0	0	1000	4208	115
4	120	856	16	8	0	0	1000	3374	115
5	9	950	28	12	0	0	1000	4698	130
All	34	905	44	14	2	0	1000	19319	561
Estd.	664	17479	846	273	47	0	19319	X	X
Samp.	11	506	32	10	1	0	561	X	X
RURAL					FEMALE				
1	24	944	27	5	0	0	1000	3621	135
2	10	930	54	6	0	0	1000	3479	96
3	11	907	43	40	0	0	1000	4287	153
4	84	794	63	59	0	0	1000	4802	126
5	11	765	106	86	0	31	1000	6763	184
All	28	851	65	47	0	9	1000	22952	694
Estd.	647	19533	1487	1075	0	210	22952	X	X
Samp.	13	622	37	21	0	1	694	X	X
RURAL					ALL				
1	21	909	43	26	0	0	1000	6376	246
2	23	912	55	5	6	0	1000	7764	186
3	8	917	50	23	0	0	1000	8494	268
4	99	820	44	38	0	0	1000	8176	241
5	11	841	74	56	0	18	1000	11460	314
All	31	876	55	32	1	5	1000	42271	1255
Estd.	1311	37012	2333	1348	47	210	42271	X	X
Samp.	24	1128	69	31	1	1	1255	X	X

Table (21): Per thousand distribution of spells of ailment by nature of treatment received, separately for each quintile class of MPCE and gender

Quintile class of MPCE	Per 1000 no. of spells of ailment with treatment received from^							No. of spells of ailment	
	none	allopathy	Indian system of medicine	homoeo- pathy	yoga & naturo-pathy	other sources	all	estd. (00)	sample
1	2	3	4	5	6	7	8	9	10
URBAN	MALE								
1	0	953	23	24	0	0	1000	1400	100
2	40	939	15	6	0	0	1000	1903	89
3	8	889	11	84	0	7	1000	4416	144
4	1	837	55	101	0	4	1000	2792	122
5	0	903	86	11	0	0	1000	5977	250
All	7	897	47	46	0	3	1000	16487	705
Estd.	114	14781	774	766	0	46	16487	X	X
Sample	7	641	36	16	0	4	705	X	X
URBAN	FEMALE								
1	5	845	93	57	0	0	1000	2031	104
2	32	934	27	6	0	0	1000	2124	119
3	0	934	33	30	0	2	1000	3876	165
4	0	980	10	7	0	0	1000	3774	150
5	15	905	53	26	0	0	1000	7682	246
all	10	922	42	24	0	0	1000	19487	784
estd.	195	17973	824	475	0	9	19487	X	X
Sample	5	707	48	20	0	2	784	X	X
ALL									
1	3	889	65	44	0	0	1000	3431	204
2	36	936	21	6	0	0	1000	4026	208
3	4	910	22	59	0	5	1000	8291	309
4	0	919	29	47	0	2	1000	6565	272
5	9	904	67	20	0	0	1000	13659	496
all	9	910	44	35	0	2	1000	35974	1489
estd.	309	32754	1598	1241	0	55	35974	X	X
Sample	12	1348	84	36	0	6	1489	X	X

Table (22): Per 1000 distribution of aged persons of each gender and State/UT by number of living children

#### R/U/R+U

					Per 100	0 no. of age	d persons	with numb	er of living	sons and	daughters	No. of ag	ged persons
KERALA	0	1	2	3	4	5	.6-7	.8-9	10 & above	NR	total	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
RURAL	•												
MALE	4	51	338	296	130	85	26	69	2	0	1000	12642	381
Estd.(00) aged per.	51	648	4270	3747	1639	1069	327	866	24	0	12642	X	X
Sample aged per.	5	21	116	113	59	32	19	14	2	0	381	X	X
FEMALE	36	43	279	271	144	102	80	39	7	0	1000	14037	394
Estd.(00) aged per.	504	602	3912	3798	2016	1435	1117	552	101	0	14037	X	X
Sample aged per.	9	21	86	99	68	40	45	24	2	0	394	X	X
MALE +FEMALE	21	47	307	283	137	94	54	53	5	0	1000	26678	775
Estd. no. of aged persons (00)	555	1250	8182	7545	3655	2504	1444	1418	125	0	26678	X	X
No. of sample aged persons	14	42	202	212	127	72	64	38	4	0	775	X	X

Table (23): Per 1000 distribution of aged persons of each gender and State/UT by number of living children (Contd...)

					Per 100	0 no. of age	d persons	with numb	er of living s	sons and	daughters	No. of ag	ged persons
KERALA	0	1	2	3	4	5	.6-7	.8-9	10 & above	NR	total	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	•					URB	AN						
MALE	27	124	363	281	107	26	64	7	1	0	1000	9953	417
Estd.(00) aged per.	272	1238	3615	2794	1065	257	632	73	8	0	9953	X	X
Sample aged per.	8	32	139	110	65	28	27	7	1	0	417	X	X
FEMALE	57	130	299	282	76	94	43	17	3	0	1000	9995	446
Estd.(00) aged per.	568	1298	2993	2817	757	936	428	172	25	0	9995	X	X
Sample aged per.	18	40	109	114	66	53	33	11	2	0	446	X	X
MALE +FEMALE	42	127	331	281	91	60	53	12	2	0	1000	19948	863
Estd. no. of aged persons (00)	840	2536	6608	5611	1822	1193	1060	246	34	0	19948	X	X
No. of sample aged persons	26	72	248	224	131	81	60	18	3	0	863	X	X

Table (24): Per 1000 distribution of aged persons of each gender and State/UT by number of living children (Contd...)

					Per 100	0 no. of age	d persons	with numb	per of living s	sons and	daughters	No. of ag	ged persons
KERALA	0	1	2	3	4	5	.6-7	.8-9	10 & above	NR	total	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						AL	L						
MALE	14	83	349	289	120	59	42	42	1	0	1000	22595	798
Estd.(00) aged per.	323	1886	7885	6541	2703	1326	959	940	32	0	22595	X	X
Sample aged per.	13	53	255	223	124	60	46	21	3	0	798	X	X
FEMALE	45	79	287	275	115	99	64	30	5	0	1000	24032	840
Estd.(00) aged per.	1072	1900	6905	6615	2773	2370	1545	724	127	0	24032	X	X
Sample aged per.	27	61	195	213	134	93	78	35	4	0	840	X	X
MALE +FEMALE	30	81	317	282	117	79	54	36	3	0	1000	46626	1638
Estd. no. of aged persons (00)	1395	3786	14790	13156	5477	3696	2504	1664	159	0	46626	X	X
No. of sample aged persons	40	114	450	436	258	153	124	56	7	0	1638	X	X

Table (25): Per thousand distribution of aged persons of each gender and State/UT by state of economic independence

		of aged persons			No. of age	d persons	
State/UT	Not Dependent On Others	Partially Dependent On Others	Fully Dependent On Others	NR	all	Estd. (00)	Sample
1	2	3	4	5	6	7	8
		RURA	L				
MALE	377	183	441	0	1000	12642	381
Estd.(00) aged per.	4763	2309	5570	0	12642	X	X
Sample aged per.	129	82	170	0	381	X	X
FEMALE	150	148	702	0	1000	14037	394
Estd.(00) aged per.	2110	2075	9852	0	14037	X	X
Sample aged per.	48	66	280	0	394	X	X
MALE +FEMALE	258	164	578	0	1000	26678	775
Estd. no. of aged persons (00)	6873	4384	15422	0	26678	X	X
No. of sample aged persons	177	148	450	0	775	X	X
		URBA	N				
MALE	416	190	394	0	1000	9953	417
Estd.(00) aged per.	4139	1889	3925	0	9953	X	X
Sample aged per.	166	86	165	0	417	X	X
FEMALE	202	136	662	0	1000	9995	446
Estd.(00) aged per.	2020	1362	6613	0	9995	X	X
Sample aged per.	64	65	317	0	446	X	X
MALE +FEMALE	309	163	528	0	1000	19948	863
Estd. no. of aged persons (00)	6159	3251	10538	0	19948	X	X
No. of sample aged persons	230	151	482	0	863	X	X

Table (26): Per thousand distribution of aged persons of each gender and State/UT by state of economic independence (Contd...)

		Per 1000 no.	of aged persons			No. of aged persons	
State/UT	Not Dependent On Others	Partially Dependent On Others	Fully Dependent On Others	NR	all	Estd. (00)	Sample
1	2	3	4	5	6	7	8
		ALL					
MALE	394	186	420	0	1000	22595	798
Estd.(00) aged per.	8902	4198	9495	0	22595	X	X
Sample aged per.	295	168	335	0	798	X	X
FEMALE	172	143	685	0	1000	24032	840
Estd.(00) aged per.	4130	3437	16465	0	24032	X	X
Sample aged per.	112	131	597	0	840	X	X
MALE +FEMALE	279	164	557	0	1000	46626	1638
Estd. no. of aged persons (00)	13031	7635	25960	0	46626	X	X
No. of sample aged persons	407	299	932	0	1638	X	X

Table (27): Per thousand distribution of economically dependent aged persons of each gender and State/UT by category of persons financially supporting the aged person

M/F/M+F

	Per 1000	no. of econom	supported by	persons				
KERALA	Spouse	Own children	Grand children	Others	NR	Total	Estd. (00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9
			RURAL					
MALE	22	967	2	10	0	1000	7879	252
Estd.(00) aged per.	175	7615	13	76	0	7879	X	X
Sample aged per.	7	237	3	5	0	252	X	X
FEMALE	80	841	3	75	0	1000	11927	346
Estd.(00) aged per.	953	10036	40	898	0	11927	X	X
Sample aged per.	34	293	5	14	0	346	X	X
MALE +FEMALE	57	891	3	49	0	1000	19806	598
Estd. no. of aged persons (00)	1128	17651	53	974	0	19806	X	X
No. of sample aged persons	41	530	8	19	0	598	X	X
			URBAN					
MALE	33	938	6	23	0	1000	5814	251
Estd.(00) aged per.	192	5454	33	135	0	5814	X	X
Sample aged per.	9	233	2	7	0	251	X	X
FEMALE	108	779	17	96	1	1000	7975	382
Estd.(00) aged per.	860	6211	133	762	8	7975	X	X
Sample aged per.	40	300	12	29	1	382	X	X
MALE +FEMALE	76	846	12	65	1	1000	13789	633
Estd. no. of aged persons (00)	1052	11665	166	898	8	13789	X	X
No. of sample aged persons	49	533	14	36	1	633	X	X

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Table (28): Per thousand distribution of economically dependent aged persons of each gender and State/UT by category of persons financially supporting the aged person (Contd...)

						M/F/M+F				
KERALA	Per 1000	no. of econom	ically dependent ag (bl. 10, iten	_	financially	supported by	econor depende	of nically ent aged		
	Spouse	pouse Own children Other -2 -3 -4 -5				Total	Estd. (00)	Sample		
-1	-8	-9								
			ALL							
MALE	27	954	3	15	0	1000	13693	503		
Estd.(00) aged per.	367	13070	46	211	0	13693	X	X		
Sample aged per.	16	470	5	12	0	503	X	X		
FEMALE	91	816	9	83	0	1000	19902	728		
Estd.(00) aged per.	1813	16247	174	1660	8	19902	X	X		
Sample aged per.	74	593	17	43	1	728	X	X		
MALE +FEMALE	65	33595	1231							
Estd. no. of aged persons (00)	2180	29316	219	1871	8	33595	X	X		
No. of sample aged persons										

economically dependent aged persons:

Table (29): Per thousand distribution of aged persons of each gender and State/UT by type of living arrangement

Rural/Urban M/F/M+F

				Per 1000 no	o. of aged per	sons			No. of age	d persons
	Living	galone	Living	Living	Livi	ng without spouse l	but with			
KERALA	As an inmate of old age home	Not as as an inmate of old age home	with spouse only	with spouse & other members	Children	Other Relations	non-relations	Total (incl.NR	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
				]	RURAL					
MALE	0	1	106	733	154	6	0	1000	12642	381
Estd.(00) aged per.	0	12	1340	9268	1942	79	0	12642	X	X
Sample aged per.	0	1	37	292	45	6	0	381	X	X
FEMALE	0	70	82	355	470	24	0	1000	14037	394
Estd.(00) aged per.	0	976	1151	4978	6601	332	0	14037	X	X
Sample aged per.	0	11	26	145	199	13	0	394	X	X
MALE +FEMALE	0	37	93	534	320	15	0	1000	26678	775
Estd. no. of aged persons (00)	0	987	2491	14246	8543	411	0	26678	X	X
No. of sample aged persons	0	12	63	437	244	19	0	775	X	X

Table (30): Per thousand distribution of aged persons of each gender and State/UT by type of living arrangement Contd...)

				Per 1000 no	o. of aged per	sons			No. of age	d persons
	Living	galone	Living	Living	Livii	ng without spouse b	out with			
KERALA	As an inmate of old age home	Not as as an inmate of old age home	with spouse only	with spouse & other members	Children	Other Relations	non-relations	Total (incl.NR	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
				1	URBAN					
MALE	0	41	223	659	73	4	0	1000	9953	417
Estd.(00) aged per.	0	410	2217	6561	727	38	0	9953	X	X
Sample aged per.	0	7	64	305	35	5	1	417	X	X
FEMALE	11	60	162	286	428	54	0	1000	9995	446
Estd.(00) aged per.	111	598	1616	2859	4275	535	0	9995	X	X
Sample aged per.	2	12	43	145	221	23	0	446	X	X
MALE +FEMALE	6	51	192	472	251	29	0	1000	19948	863
Estd. no. of aged persons (00)	111	1009	3833	9420	5002	573	0	19948	X	X
No. of sample aged persons	2	19	107	450	256	28	1	863	X	X

Table (31): Per thousand distribution of aged persons of each gender and State/UT by type of living arrangement Contd...)

				Per 1000 no	o. of aged per	sons			No. of age	d persons
	Living	galone	Living	Living	Livi	ng without spouse l	out with			
KERALA	As an inmate of old age home	Not as as an inmate of old age home	with spouse only	with spouse & other members	Children	Other Relations	non-relations	Total (incl.NR	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					ALL					
MALE	0	19	157	701	118	5	0	1000	22595	798
Estd.(00) aged per.	0	422	3557	15829	2669	117	0	22595	X	X
Sample aged per.	0	8	101	597	80	11	1	798	X	X
FEMALE	5	66	115	326	453	36	0	1000	24032	840
Estd.(00) aged per.	111	1574	2767	7837	10876	867	0	24032	X	X
Sample aged per.	2	23	69	290	420	36	0	840	X	X
MALE +FEMALE	2	43	136	508	291	21	0	1000	46626	1638
Estd. no. of aged persons (00)	111	1996	6324	23666	13545	984	0	46626	X	X
No. of sample aged persons	2	31	170	887	500	47	1	1638	X	X

Table (32): Per thousand distribution of aged persons of each age-group and gender by state of physical mobility

		Per 10	000 no. of aged pers	sons		No. of aged persons		
			Immobile					
Age-group (bl. 6, item 2)	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair	Total	Estd. (00)	Sample	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
RURAL		Mal	le					
60-64	987	0	13	0	1000	4070	135	
64-69	978	6	4	12	1000	4192	109	
70-74	879	15	105	0	1000	2414	71	
75-79	892	0	108	0	1000	1295	37	
80 & above	728	106	140	26	1000	670	29	
All	940	10	44	5	1000	12642	381	
Estd. no. of aged persons (00)	11885	132	555	69	12642	X	X	
No. of sample aged persons	353	7	19	2	381	X	X	
		Fema						
60-64	997	3	0	0	1000	6043	148	
64-69	969	14	17	0	1000	2954	91	
70-74	835	0	165	0	1000	1754	61	
75-79	795	22	184	0	1000	1382	33	
80 & above	696	183	112	9	1000	1904	61	
All	910	31	57	1	1000	14037	394	
Estd. no. of aged persons (00)	12772	441	807	18	14037	X	X	
No. of sample aged persons								

Table 34): Per thousand distributions of aged persons of each age-group and gender by state of physical mobility (Contd...)

		Per 10	000 no. of aged pers	sons		No. of age	ed persons
			Immobile				
Age-group (bl. 6, item 2)	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair	Total	Estd. (00)	Sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			ALL				
60-64	993	2	5	0	1000	10113	283
64-69	974	9	9	7	1000	7145	200
70-74	861	9	131	0	1000	4168	132
75-79	842	11	147	0	1000	2677	70
80 & above	704	163	119	14	1000	2574	90
All	924	21	51	3	1000	26678	775
Estd. no. of aged persons (00)	24657	573	1362	86	26678	X	X
No. of sample aged persons	705	23	44	3	775	X	X

Table (35): Per thousand distribution of aged persons of each age-group and gender by state of physical mobility

		Per 1000 i	no. of aged perso	ons		No. of aged persons		
			Immobile					
Age-group (bl. 6, item 2)	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair	Total	Estd. (00)	Sample	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
URBAN		Male						
60-64	974	0	23	4	1000	3414	137	
64-69	971	10	20	0	1000	2798	113	
70-74	985	0	4	10	1000	1906	80	
75-79	925	0	75	0	1000	754	44	
80 & above	614	128	258	0	1000	1080	43	
All	932	17	48	3	1000	9953	417	
Estd. no. of aged persons (00)	9279	166	476	32	9953	X	X	
No. of sample aged persons	384	7	24	2	417	X	X	
		Female						
60-64	977	13	1	9	1000	4059	173	
64-69	983	7	9	2	1000	3052	118	
70-74	920	5	75	0	1000	1460	71	
75-79	1000	0	0	0	1000	640	31	
80 & above	826	77	98	0	1000	785	53	
All	960	14	22	4	1000	9995	446	
Estd. no. of aged persons (00)	9596	140	216	43	9995	X	X	
No. of sample aged persons	410	16	17	3	446	X	X	

Table (36): Per thousand distribution of aged persons of each age-group and gender by state of physical mobility (Contd...)

		Per 1000 i	no. of aged perso	ons		No. of ageo	d persons	
			Immobile					
Age-group (bl. 6, item 2)	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair	Total	Estd. (00)	Sample	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
		ALL						
60-64	976	7	11	7	1000	7473	310	
64-69	977	8	14	1	1000	5850	231	
70-74	957	2	35	6	1000	3366	151	
75-79	959	0	41	0	1000	1394	75	
80 & above	703	107	190	0	1000	1865	96	
All	946	15	35	4	1000	19948	863	
Estd. no. of aged persons (00)	18875	305	693	75	19948	X	X	
No. of sample aged persons	794	23	41	5	863	X	X	

Table (37): Per thousand distribution of aged persons of each age-group and gender by state of physical mobility

		Per 100	00 no. of aged per	sons		No. of aged persons		
			Immobile					
Age-group (bl. 6, item 2)	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair	Total	Estd. (00)	Sample	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
All		Mal	le					
60-64	981	0	17	2	1000	7484	272	
64-69	975	7	10	7	1000	6990	222	
70-74	926	9	61	5	1000	4320	151	
75-79	904	0	96	0	1000	2049	81	
80 & above	658	120	213	10	1000	1751	72	
All	937	13	46	4	1000	22595	798	
Estd. no. of aged persons (00)	21164	298	1032	101	22595	X	X	
No. of sample aged persons	737	14	43	4	798	X	X	
		Fema	ale			<u>.</u>		
60-64	989	7	0	4	1000	10102	321	
64-69	976	11	13	1	1000	6005	209	
70-74	874	2	124	0	1000	3215	132	
75-79	860	15	125	0	1000	2022	64	
80 & above	734	152	108	7	1000	2688	114	
All	931	24	43	3	1000	24032	840	
Estd. no. of aged persons (00)	22368	580	1023	60	24032	X	X	
No. of sample aged persons	762	32	42	4	840	X	X	

Table (38): Per thousand distribution of aged persons of each age-group and gender by state of physical mobility (Contd...)

		Per 100	00 no. of aged per	sons		No. of age	ed persons	
			Immobile					
Age-group (bl. 6, item 2)	Physically mobile	Confined to bed	Confined to home	Able to move outside but only in a wheelchair	Total	Estd. (00)	Sample	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
		AL						
60-64	986	4	8	3	1000	17586	593	
64-69	975	9	11	4	1000	12995	431	
70-74	904	6	88	3	1000	7535	283	
75-79	882	7	111	0	1000	4071	145	
80 & above	704	139	149	8	1000	4439	186	
All	934	19	44	3	1000	46626	1638	
Estd. no. of aged persons (00)	43532	878	2054	161	46626	X	X	
No. of sample aged persons	1499	46	85	8	1638	X	X	

Table (39): Per thousand distribution of aged persons of each gender (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE

	Aged person with chronic illness											
	No. per 1000 of		Own perception at	oout current state or	f health		No. of aged persons					
Quintile class of MPCE	aged persons reporting illness	Excellent/ very good	Good/ fair	Poor	NR	Total	Estd. (00)	Sample				
-1	-2	-3	-4	-5	-6	-7	-8	-9				
RURAL			MALE									
1	371	17	254	728	0	1000	748	27				
2	331	63	724	213	0	1000	883	24				
3	680	24	659	318	0	1000	1225	39				
4	469	7	701	293	0	1000	671	36				
5	433	0	680	320	0	1000	1185	35				
All classes	449	22	618	360	0	1000	4712	161				
Estd. no. of aged (00)	X	102	2912	1698	0	4712	X	X				
Sample aged persons	X	7	90	64	0	161	X	X				
RURAL			FEMALE									
1	522	0	364	636	0	1000	1081	29				
2	587	18	697	286	0	1000	1478	27				
3	647	0	656	344	0	1000	1459	48				
4	491	0	611	389	0	1000	1240	35				
5	544	0	442	558	0	1000	1789	43				
All classes	557	4	557	439	0	1000	7047	182				
Estd. no. of aged (00)	X	26	3927	3094	0	7047	X	X				
Sample aged persons	X	1	104	77	0	182	X	X				

Table (40): Per thousand distribution of aged persons of each gender (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE (Contd...)

	Aged person with chronic illness											
	No. per 1000 of		Own perception al	oout current state of	f health		No. of aged persons					
Quintile class of MPCE	aged persons reporting illness	Excellent/ very good Good/ fair		Poor	NR	Total	Estd. (00)	Sample				
-1	-2	-3	-4	-5	-6	-7	-8	-9				
RURAL		ALL										
1	446	7	319	674	0	1000	1830	56				
2	457	34	707	259	0	1000	2361	51				
3	664	11	657	332	0	1000	2684	87				
4	481	2	642	355	0	1000	1911	71				
5	497	0	537	463	0	1000	2974	78				
All classes	506	11	582	408	0	1000	11759	343				
Estd. no. of aged (00)	X	128	6839	4792	0	11759	X	X				
Sample aged persons	X	8	194	141	0	343	X	X				

Table (41): Per thousand distribution of aged persons of each gender (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE

		Aged	l person with ch	ronic illness				
	No. per 1000	Ov	vn perception ab	out current state	of health		No. of age	ed persons
Quintile class of MPCE	of aged persons reporting illness	E×cellent/ very good	Good/ fair	Poor	NR	Total	Estd. (00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9
URBAN			MALE					
1	361	14	402	576	8	1000	534	28
2	312	19	832	149	0	1000	460	21
3	754	15	760	225	0	1000	998	35
4	370	0	683	317	0	1000	448	28
5	625	11	920	69	0	1000	1605	77
All classes	496	12	776	211	1	1000	4046	189
Estd. no. of aged (00)	X	49	3139	854	4	4046	X	X
Sample aged persons	X	5	141	42	1	189	X	X
URBAN			FEMALE					
1	319	0	756	236	8	1000	517	32
2	414	0	752	248	0	1000	540	29
3	639	0	813	187	0	1000	965	40
4	526	0	767	233	0	1000	822	36
5	803	104	740	156	0	1000	2231	63
All classes	574	46	761	192	1	1000	5076	200
Estd. no. of aged (00)	X	233	3863	976	4	5076	X	X
Sample aged persons	X	4	146	49	1	200	X	X

Table (42): Per thousand distribution of aged persons of each gender (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE (Contd...)

	Aged person with chronic illness										
	No. per 1000	Ov	vn perception ab	out current state	of health		No. of aged persons				
Quintile class of MPCE	of aged persons reporting illness	Excellent/ very good	Good/ fair	Poor	NR	Total	Estd. (00)	Sample			
-1	-2	-3	-4	-5	-6	-7	-8	-9			
URBAN		ALL									
1	339	7	576	409	8	1000	1051	60			
2	365	9	789	203	0	1000	1000	50			
3	697	7	786	206	0	1000	1963	75			
4	437	0	737	263	0	1000	1270	64			
5	719	65	815	120	0	1000	3836	140			
All classes	535	31	768	201	1	1000	9121	389			
Estd. no. of aged (00)	X	281	7002	1830	8	9121	X	X			
Sample aged persons	X	9	287	91	2	389	X	X			

Table (43): Per thousand distribution of aged persons of each gender (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE

Rural + Urban

		Ag	ed person with o	chronic illness				
	No. per 1000 of aged	Own perce	eption about curr	m 11)	No. of aged persons			
Quintile class of MPCE	persons reporting illness^	persons		Total	Estd. (00)	Sample		
-1	-2	-3	-4	-5	-6	-7	-8	-9
ALL			MALE					
1	367	16	316	665	3	1000	1283	55
2	325	48	761	191	0	1000	1343	45
3	711	20	704	276	0	1000	2223	74
4	418	4	694	302	0	1000	1119	64
5	530	6	818	176	0	1000	2790	112
All classes	469	17	691	291	0	1000	8758	350
Estd. no. of aged (00)	X	150	6052	2552	4	8758	X	X
Sample aged persons	X	12	231	106	1	350	X	X
ALL			FEMALE					
1	434	0	490	507	3	1000	1598	61
2	524	13	711	276	0	1000	2018	56
3	644	0	719	281	0	1000	2424	88
4	505	0	673	327	0	1000	2062	71
5	662	58	607	335	0	1000	4020	106
All classes	564	21	643	336	0	1000	12123	382
Estd. no. of aged (00)	X	259	7790	4070	4	12123	X	X
Sample aged persons	X	5	250	126	1	382	X	X

Table (44): Per thousand distribution of aged persons of each gender (a) with illness and (b) without illness by own perception about current state of health, separately for each quintile class of MPCE (Contd..)

Rural + Urban

Aged person with chronic illness												
	No. per 1000 of aged	No. of aged persons										
Quintile class of MPCE	persons reporting illness^	Excellent/ very good Good/ fair		Poor	Poor NR		Estd. (00)	Sample				
-1	-2	-3	-4	-5	-6	-7	-8	-9				
ALL		ALL										
1	401	7	413	577	3	1000	2881	116				
2	424	27	731	242	0	1000	3361	101				
3	678	9	712	279	0	1000	4647	162				
4	461	1	680	318	0	1000	3181	135				
5	603	37	694	270	0	1000	6810	218				
All classes	518	20	663	317	0	1000	20881	732				
Estd. no. of aged (00)	X	409	13842	6622	8	20881	X	X				
Sample aged persons	X	17	481	232	2	732	X	X				

Table (45): Per thousand distribution of cases of hospitalisation for childbirth by age of the mother for each quintile class of MPCE

	Per 100	00 no. of ho	ospitalised	cases wher	e age of th	e mother (	Per 1000 no. of hospitalised cases where age of the mother (bl. 6, item 3) was								
Quintile class of MPCE	< 20	20 -24	25-29	30-34	35-39	40-44	>45	All(incl. NR)	stay^ per case (0.0 days)	Estd. (00)	Sample				
	2	3	4	5	6	7	8	9	10	11	12				
RURAL															
1	41	501	286	143	29	0	0	1000	6.4	792	76				
2	94	562	244	94	6	0	0	1000	5.7	731	53				
3	28	282	380	265	45	0	0	1000	5.7	680	77				
4	0	334	526	134	6	0	0	1000	5.3	522	54				
5	22	399	206	318	44	11	0	1000	6.8	448	46				
All classes	41	426	325	181	26	1	0	1000	6	3173	306				
Estd. no. of cases of hospitalisation for childbirth (00)	130	1352	1030	575	81	5	0	3173	X	X	X				
No. of sample hosp. cases	12	111	113	62	7	1	0	306	X	X	X				
URBAN															
1	35	390	337	171	47	20	0	1000	7.1	636	94				
2	46	358	316	78	203	0	0	1000	6.3	388	51				
3	14	372	415	176	22	0	0	1000	6.9	378	67				
4	0	403	225	294	78	0	0	1000	5.2	330	61				
5	33	183	540	166	58	19	0	1000	6.4	292	48				
All classes	27	353	359	173	79	9	0	1000	6.5	2025	321				
Estd. no. of cases of hospitalisation for childbirth (00)	55	714	726	351	160	18	0	2025	X	X	X				
No. of sample hosp. cases	7	111	117	62	22	2	0	321	X	X	X				

Table (46): Per thousand distribution of cases of hospitalisation for childbirth by age of the mother for each quintile class of MPCE(Contd..)

	Per 100	0 no. of ho	ospitalised	Average duration of stay^ per	No. of cases of hospitalisation for childbirth							
Quintile class of MPCE	Quintile class of MPCE	< 20	20 -24	25-29	30-34	35-39	40-44	>45	All(incl. NR)	case (0.0 days)	Estd. (00)	Sample
	2	3	4	5	6	7	8	9	10	11	12	
ALL												
1	38	452	308	156	37	9	0	1000	6.7	1429	170	
2	77	491	269	88	74	0	0	1000	6	1119	104	
3	23	314	393	233	37	0	0	1000	6.1	1059	144	
4	0	361	409	196	34	0	0	1000	5.3	851	115	
5	27	314	338	258	49	14	0	1000	6.6	740	94	
All classes	36	397	338	178	46	4	0	1000	6.2	5198	627	
Estd. no. of cases of hospitalisation for childbirth (00)	185	2066	1757	926	241	23	0	5198	X	X	X	
No. of sample hosp. cases	19	222	230	124	29	3	0	627	X	X	X	

Table (47): Per thousand distribution of cases of hospitalisation for childbirth by type of ward, separately for each type of hospital (public/private) and each quintile class of MPCE

Quintile class of MPCE	Public ho	spital (bl. 6,	item 6: code	s 1, 2 & 3)	Private hospital (bl. 6, item 6: code 5)				Cases of hospitalisation for childbirth	
Quintile class of MI CE	Free bed	Paying general	Paying special	All (inc. NR)	Free bed	Paying general	Paying special	All (inc. NR)	Estd. (00)	Sample
1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
					RUI	RAL				
1	879	28	92	1000	57	252	690	1000	792	76
2	907	54	40	1000	0	118	882	1000	731	53
3	868	93	39	1000	15	140	845	1000	680	77
4	978	22	0	1000	78	66	856	1000	522	54
5	780	128	92	1000	0	99	901	1000	448	46
All classes	886	53	60	1000	29	136	835	1000	3173	306
Estd. no. of cases of hospitalisation for childbirth (00)	746	45	51	842	69	317	1946	2331	X	X
No. of sample hosp. cases	90	8	7	105	6	39	156	201	X	X
					URI	BAN				
1	931	25	44	1000	0	227	773	1000	636	94
2	1000	0	0	1000	0	122	878	1000	388	51
3	879	84	37	1000	18	280	702	1000	378	67
4	816	0	184	1000	22	124	853	1000	330	61
5	650	350	0	1000	5	81	914	1000	292	48
All classes	921	37	42	1000	10	172	818	1000	2025	321
Estd. no. of cases of hospitalisation for childbirth (00)	714	29	33	776	12	215	1022	1249	X	X
No. of sample hosp. cases	88	6	5	99	4	40	178	222	X	X

Table (48): Per thousand distribution of cases of hospitalisation for childbirth by type of ward, separately for each type of hospital (public/private) and each quintile class of MPCE (Contd...)

				ALL						
1	907	26	67	1000	36	243	721	1000	1429	170
2	953	27	20	1000	0	119	881	1000	1119	104
3	872	90	38	1000	16	190	793	1000	1059	144
4	899	12	89	1000	57	88	855	1000	851	115
5	728	216	55	1000	2	92	906	1000	740	94
All classes	903	46	52	1000	23	148	829	1000	5198	627
Estd. no. of cases of hospitalisation for childbirth (00)	1460	74	83	1618	81	531	2968	3580	X	X
No. of sample hosp. cases	178	14	12	204	10	79	334	423	X	X

Table (49): Average total medical expenditure per childbirth during stay at hospital (as inpatient) over last 365 days by type of hospital (public/private) and quintile class of MPCE

		Average total medical expenditure (Rs.) per childbirth hospitalisation case									case				
		RURAL					URBAN					RURAL+ URBAN			
Quintile class of MPCE	Type of hospital			No. of childbirth hospitalisation cases		Type of hospital			No. of childbirth hospitalisation cases		Type of hospital			No. of childbirth hospitalisation cases	
	Public	Private	All (incl. NR)	Estd. (00)	Sample	Public	Private	All (incl. NR)	Estd. (00)	Sample	Public	Private	All (incl. NR)	Estd. (00)	Sample
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1645	19742	12059	792	76	1736	20817	9542	636	94	1693	20132	10938	1429	170
2	1315	20610	15072	731	53	800	19437	9628	388	51	1061	20304	13183	1119	104
3	2839	20201	15829	680	77	1435	19757	15291	378	67	2348	20041	15637	1059	144
4	625	16410	14198	522	54	2865	20340	16676	330	61	1714	17854	15157	851	115
5	4305	24381	22077	448	46	17551	28072	26843	292	48	9594	25837	23960	740	94
All	1880	20183	15326	3173	306	2250	21771	14292	2025	321	2057	20737	14923	5198	627
Estd.(00) hosp. cases	842	2331	3173	X	X	776	1249	2025	X	X	1618	3580	5198	X	X
Sample hosp.	105	201	306	X	X	99	222	321	X	X	204	423	627	X	X

Table (50): Per thousand number of women aged 15-49 who were pregnant any time during last 365 days and their distribution by outcome of pregnancy separately for each age-group and MPCE class

			RU	JRAL					
Age-group (bl.	No. per 1000 of women		No. of pregnant women 15-49						
11, col. 2)/ quintile class of MPCE / Social group	who were pregnant at	Pregnancy continuing	Live birth	Still birth	Abortion	Other	All(incl.NR)	Estd. 00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
< 20	22	0	1000	0	0	0	1000	130	12
20 - 24	214	213	769	0	18	0	1000	1757	126
25 - 29	176	211	714	24	13	0	1000	1422	132
30 - 34	102	249	702	0	49	0	1000	855	73
35 - 39	15	0	780	0	220	0	1000	104	8
40 - 44	1	0	1000	0	0	0	1000	5	1
> 45	0	0	0	0	0	0	0	0	0
all (incl. NR)	81	208	745	8	27	0	1000	4273	352
MPCE class									
1	109	211	750	0	7	0	1000	1089	88
2	93	197	729	35	39	0	1000	950	56
3	88	304	696	0	0	0	1000	983	88
4	58	58	829	0	113	0	1000	639	63
5	59	222	747	0	0	0	1000	612	57
All	81	208	745	8	27	0	1000	4273	352

Table (51): Per thousand number of women aged 15-49 who were pregnant any time during last 365 days and their distribution by outcome of pregnancy separately for each age-group and MPCE class

			UI	RBAN					
Age-group /	No. per 1000 of women			No. of pregnant women 15-49					
quintile class of MPCE / Social group	who were pregnant at some time during last 365 days	Pregnancy continuing	Live birth	Still birth	Abortion	Other	All(incl.NR)	Estd. 00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
< 20	11	0	1000	0	0	0	1000	55	7
20 - 24	154	108	821	0	70	0	1000	840	120
25 - 29	192	228	736	0	35	0	1000	986	131
30 - 34	119	268	672	0	60	0	1000	519	66
35 - 39	32	88	912	0	0	0	1000	178	23
40 - 44	4	0	1000	0	0	0	1000	18	2
> 45	0	0	0	0	0	0	0	0	0
all (incl. NR)	71	181	770	0	48	0	1000	2597	349
MPCE class									
1	89	83	909	0	8	0	1000	682	98
2	56	16	984	0	0	0	1000	395	52
3	67	168	742	0	89	0	1000	510	74
4	80	354	560	0	85	0	1000	566	71
5	64	274	669	0	57	0	1000	444	54
All	71	181	770	0	48	0	1000	2597	349

Table (52): Per thousand number of women aged 15-49 who were pregnant any time during last 365 days and their distribution by outcome of pregnancy separately for each age-group and MPCE class

	ALL								
Age-group (bl.	No. per 1000 of women		No. of pregnant women 15-49						
11, col. 2)/ quintile class of MPCE / Social group	who were pregnant at some time during last 365 days(bl.11,col.5)	Pregnancy continuing	Live birth	Still birth	Abortion	Other	All(incl.NR)	Estd. 00)	Sample
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
< 20	17	0	1000	0	0	0	1000	185	19
20 - 24	190	179	786	0	35	0	1000	2597	246
25 - 29	183	218	723	14	22	0	1000	2408	263
30 - 34	108	256	690	0	53	0	1000	1374	139
35 - 39	22	56	863	0	81	0	1000	282	31
40 - 44	2	0	1000	0	0	0	1000	23	3
> 45	0	0	0	0	0	0	0	0	0
All (incl. NR)	77	198	754	5	35	0	1000	6870	701
MPCE class									
1	100	162	811	0	7	0	1000	1771	186
2	78	144	804	25	27	0	1000	1345	108
3	79	257	712	0	31	0	1000	1493	162
4	67	197	703	0	100	0	1000	1206	134
5	61	244	715	0	24	0	1000	1056	111
All	77	198	754	5	35	0	1000	6870	701

# **Appendix C**

Note on
Sample Design
and
Estimation Procedure

### Note on Sample Design and Estimation Procedure

- 1.1 **Subject Coverage**: The 71<sup>st</sup> round (January 2014 June 2014) of NSS was devoted to the subject of Social Consumption and earmarked for surveys on 'Health' and 'Education'. The last survey on health was conducted in 60<sup>th</sup> round of NSS (January 2004 June 2004) and the same on education was conducted during 64<sup>th</sup> round of NSS (July 2007 June 2008).
- 1.2 Geographical coverage: This survey covered the whole of the Indian Union.

#### 2.0 Outline of Survey Programme

- 2.1 **Period of survey and work programme**: The period of survey was of six months duration starting on 1<sup>st</sup> January 2014 and ending on 30<sup>th</sup> June 2014.
- 2.2 **Sub-rounds:** The survey period of this round was divided into two sub-rounds of three months' duration each as follows:

sub-round 1: January - March 2014 sub-round 2: April - June 2014

- 2.3 In each of these two sub-rounds equal number of sample villages/ blocks (FSUs) was allotted for survey with a view to ensuring uniform spread of sample FSUs over the entire survey period. Attempt had been made to survey each of the FSUs during the sub-round to which it was allotted. Because of the arduous field conditions, this restriction was not strictly enforced in Andaman and Nicobar Islands, Lakshadweep, Leh (Ladakh) and Kargil districts of Jammu & Kashmir and rural areas of Arunachal Pradesh and Nagaland.
- 2.4 **Schedules of enquiry**: During this round, the following schedules of enquiry were canvassed:

Schedule 0.0 : List of Households

Schedule 25.0 : Social consumption: Health Schedule 25.2 : Social consumption: Education

2.5 **Participation of States:** In this round all the States and Union Territories except Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli and Lakshadweep participated. The following was the matching pattern of the participating States/UTs.

State/UT	Extent of matching
Nagaland (U)	triple
Andhra Pradesh, Telangana, Jammu & Kashmir, Manipur	double
Maharashtra (U)	one and half
Remaining States/ UTs	equal

#### 3.0 Sample Design

- 3.1 **Outline of sample design:** A stratified multi-stage design was adopted for the 71<sup>st</sup> round survey. The first stage units (FSU) were the census villages (Panchayat wards in case of Kerala) in the rural sector and Urban Frame Survey (UFS) blocks in the urban sector. The ultimate stage units (USU) were households in both the sectors. In case of large FSUs, one intermediate stage of sampling was the selection of two hamlet-groups (hg's)/ sub-blocks (sb's) from each rural/ urban FSU.
- 3.2 Sampling Frame for First Stage Units: For the rural sector, the list of 2011 census villages (henceforth the term 'village' would mean Panchayat wards for Kerala) constituted the sampling frame. In case of Kerala, due to the non-availability of Panchayat wards based on census 2011, the available list of Panchayat wards based on census 2001 was used as the rural frame. For the urban sector, the latest updated list of UFS blocks (phase 2007-12) was considered as the sampling frame.
- 3.3 **Stratification**: Stratum had been formed at district level. Within each district of a State/UT, generally speaking, two basic strata were formed: (i) rural stratum comprising of all rural areas of the district and (ii) urban stratum comprising of all the urban areas of the district. However, within the urban areas of a district, if there were one or more towns with population 1 lakh or more as per Census 2011, each of them formed a separate basic stratum and the remaining urban areas of the district had been considered as another basic stratum.
- 3.3.1 **Special stratum in the rural sector**: There are some villages in Nagaland and Andaman & Nicobar Islands which remain difficult to access. As in earlier rounds, a special stratum was formed at State/UT level comprising these villages in the two State/UTs.

#### 3.4 Sub-stratification:

- 3.4.1 **Rural sector**: If 'r' was the sample size allocated for a rural stratum, the number of sub-strata formed was 'r/2'. The villages within a district as per frame were first arranged in ascending order of population. Then sub-strata 1 to 'r/2' were demarcated in such a way that each sub-stratum comprised a group of villages of the arranged frame and had more or less equal population.
- 3.4.2 **Urban sector:** If 'u' was the sample size allocated for an urban stratum, the number of sub-strata formed was 'u/2'. For all strata, if u/2 >1, implying formation of 2 or more sub-strata, all the UFS blocks within the stratum were first arranged in ascending order of total number of households in the UFS Blocks as per UFS phase 2007-12. Then sub-strata 1 to 'u/2' were demarcated in such a way that each sub-stratum had more or less equal number of households.
- 3.5 **Total sample size (FSUs):** 8300 FSUs were allocated for the central sample at all-India level.

Allocation of total sample to States and UTs: The total number of sample FSUs were allocated to the States and UTs in proportion to population as per *Census 2011* subject to a minimum sample allocation to each State/UT. While doing so, the resource availability in terms of number of field investigators was kept in view.

- 3.7 **Allocation of State/ UT level sample to rural and urban sectors**: State/UT level sample size was allocated between two sectors in proportion to population as per *Census 2011* with double weightage to urban sector subject to the restriction that urban sample size for bigger states like Maharashtra, Tamil Nadu etc. did not exceed the rural sample size. A minimum of 16 FSUs (minimum 8 each for rural and urban sector separately) were allocated to each State/ UT.
- 3.8 **Allocation to strata:** Within each sector of a State/UT, the respective sample size was allocated to the different strata in proportion to the population as per Census 2011. Stratum level allocation was adjusted to multiples of 2 with a minimum sample size of 2. For special strata in the rural areas of Nagaland and A & N Islands, 4 FSUs were allocated to each.
- 3.9 **Allocation to sub-strata:** Allocation for each sub-stratum was 2 in both rural and urban sectors.
- 3.10 **Selection of FSUs:** For the rural sector, from each stratum/sub-stratum, required number of sample villages was selected by Probability Proportional to Size With Replacement (PPSWR), size being the population of the village as per Census 2011.

For the urban sector, from each stratum/sub-stratum, FSUs were selected by Probability Proportional to Size With Replacement (PPSWR), size being the number of households of the UFS Blocks.

Both rural and urban samples were drawn in the form of two independent sub-samples and equal number of samples was allocated among the two sub rounds.

#### 3.11 Selection of hamlet-groups/ sub-blocks

3.11.1 **Criterion for hamlet-group**/ **sub-block formation:** After identification of the boundaries of the FSU, it was determined whether listing will be done in the whole sample FSU or not. In case the approximate present population of the selected FSU was found to be 1200 or more, it was divided into a suitable number (say, D) of 'hamlet-groups' in the rural sector and 'sub-blocks' in the urban sector by more or less equalising the population as stated below.

approximate pre	sent population of the sample FSU	no. of hg's/sb's formed
less than 1200	(no hamlet-groups/sub-blocks)	1
1200 to 1799	· · · · · · · · · · · · · · · · · · ·	3
1800 to 2399		4
2400 to 2999		5
3000 to 3599		6
and so on		-

For rural areas of Himachal Pradesh, Sikkim, Uttarakhand (except four districts Dehradun, Nainital, Hardwar and Udham Singh Nagar), Poonch, Rajouri, Udhampur, Reasi, Doda, Kistwar, Ramban, Leh (Ladakh), Kargil districts of Jammu and Kashmir and Idukki district of Kerala, the number of hamlet-groups was formed as follows:

approximate present population of the sample village no. of hg's formed							
less than 600	(no hamlet-groups)	1					
600 to 899		3					
900 to 1199		4					
1200 to 1499		5					
1500 to 1799		6					
and so on		-					

3.11.2 **Formation and selection of hamlet-groups/ sub-blocks:** In case hamlet-groups/ sub-blocks were formed in the sample FSU, the same was done by more or less equalizing population. Note that while doing so, it was ensured that the hamlet-groups/ sub-blocks formed were clearly identifiable in terms of physical landmarks.

Two hamlet-groups (hg)/ sub-blocks (sb) were selected from a large FSU wherever hamlet-groups/ sub-blocks were formed in the following manner — one hg/ sb with maximum percentage share of population was always selected and termed as hg/ sb1; one more hg/ sb was selected from the remaining hg's/ sb's by Simple Random Sampling (SRS) and termed as hg/ sb2. Listing and selection of the households was done independently in the two selected hamlet-groups/ sub-blocks. The FSUs without hg/ sb formation was treated as sample hg/ sb number 1.

#### 3.12 Formation of second stage strata and allocation of households:

Three SSS were formed for Schedule 25.0 as per following criteria:

		number of households surveyed				
SSS	composition of SSS within a sample FSU	FSU without hg/sb formation	FSU with hg/sb formation (for each hg/sb)			
SSS 1	households having at least one child of age less than 1 year	2	1			
SSS 2	from the remaining, households with at least one member (including deceased former member) hospitalised during last 365 days	4	2			
SSS 3	other households	2	1			

3.13 **Selection of households:** From each SSS, the sample households were selected by SRSWOR.

#### 4.0 Estimation Procedure

#### 4.1 Notations:

s = subscript for s-th stratum

t = subscript for t-th sub-stratum

m = subscript for sub-sample (m = 1, 2)

i = subscript for i-th FSU [village (panchayat ward)/ block]

d = subscript for a hamlet-group/ sub-block (d = 1, 2)

j = subscript for j - th second stage stratum in an FSU/ hg/sb [ j = 1, 2 or 3]

k = subscript for k-th sample household under a particular second stage stratum within an FSU/ hg/sb

D = total number of hg's/sb's formed in the sample FSU

 $D^* = (D-1)$  for FSUs with  $D \ge 1$ 

Z = total size of a rural/urban sub-stratum (= sum of sizes for all the FSUs of a sub-stratum)

z = size of sample village/UFS block used for selection.

n = number of sample FSUs surveyed including 'uninhabitated' and 'zero cases' but excluding casualty for a particular sub-sample and sub-stratum.

H = total number of households listed in a second-stage stratum of an FSU / hamlet-group or sub-block of sample FSU

h = number of households surveyed in a second-stage stratum of an FSU / hamlet-group or sub-block of sample FSU

x, y = observed value of characteristics x, y under estimation

 $\hat{X}$ ,  $\hat{Y}$  = estimate of population total X, Y for the characteristics x, y

Under the above symbols,

 $y_{stmidjk}$  = observed value of the characteristic y for the k-th household in the j-th second stage stratum of the d-th hg/ sb (d = 1, 2) of the i-th FSU belonging to the m-th sub-sample for the t-th sub-stratum of s-th stratum.

However, for ease of understanding, a few symbols have been suppressed in following paragraphs where they are obvious.

## 4.2 Formulae for Estimation of Aggregates for a particular sub-sample and stratum × sub-stratum:

#### 4.2.1 Schedule 0.0:

#### 4.2.1.1 Rural/Urban:

(i) For estimating the number of households in a stratum × sub-stratum possessing a characteristic:

$$\hat{Y} = \frac{Z}{n} \sum_{i=1}^{n} \frac{1}{z_i} \left[ y_{i1} + D_i^* \times y_{i2} \right]$$

where,  $y_{i1}$ ,  $y_{i2}$  are the total number of households possessing the characteristic y in hg's 1 & 2 of the i-th FSU respectively.

(ii) For estimating the number of villages in a stratum × sub-stratum possessing a characteristic:

$$\hat{Y} = \frac{Z}{n} \sum_{i=1}^{n} \frac{1}{z_i} y_i$$

where  $y_i$  is taken as 1 for sample villages possessing the characteristic and 0 otherwise.

#### 4.2.2 Schedules 25.0 & 25.2:

#### 4.2.2.1 Rural/ Urban:

(i) For j-th second-stage stratum of a stratum × sub-stratum:

$$\hat{Y}_{j} = \frac{Z}{n_{j}} \sum_{i=1}^{n_{j}} \frac{1}{z_{i}} \left[ \frac{H_{i1j}}{h_{i1j}} \sum_{k=1}^{h_{i1j}} y_{i1jk} + D_{i}^{*} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right]$$

(ii) For all second-stage strata combined:

$$\hat{Y} = \sum_{i} \hat{Y}_{j}$$

#### 4.3 Overall Estimate for Aggregates for a sub-stratum:

Overall estimate for aggregates for a sub-stratum ( $\hat{Y}_{st}$ ) based on two sub-samples in a sub-

stratum is obtained as: 
$$\hat{Y}_{st} = \frac{1}{2} \sum_{m=1}^{2} \hat{Y}_{stm}$$

#### 4.4 Overall Estimate for Aggregates for a stratum:

Overall estimate for a stratum ( $\hat{Y}_s$ ) will be obtained as

$$\hat{Y}_s = \sum_t \hat{Y}_{st}$$

#### 4.5 Overall Estimate of Aggregates at State/UT/all-India level:

The overall estimate  $\hat{Y}$  at the State/UT/all-India level is obtained by summing the stratum estimates  $\hat{Y}_s$  over all strata belonging to the State/UT/all-India.

#### 4.6 Estimates of Ratios:

Let  $\hat{Y}$  and  $\hat{X}$  be the overall estimates of the aggregates Y and X for two characteristics y and x respectively at the State/UT/all-India level.

Then the combined ratio estimate  $(\hat{R})$  of the ratio  $(R = \frac{Y}{X})$  will be obtained as  $\hat{R} = \frac{\hat{Y}}{\hat{Y}}$ .

4.7 **Estimates of Error**: The estimated variances of the above estimates will be as follows:

#### 4.7.1 For aggregate $\hat{Y}$ :

$$V\hat{a}r(\hat{Y}) = \sum_{s} V\hat{a}r(\hat{Y}_{s}) = \sum_{s} \sum_{t} V\hat{a}r(\hat{Y}_{st})$$
 where  $V\hat{a}r(\hat{Y}_{st})$  is given

by

 $Va\hat{r}(\hat{Y}_{st}) = \frac{1}{4}(\hat{Y}_{st1} - \hat{Y}_{st2})^2$ , where  $\hat{Y}_{st1}$  and  $\hat{Y}_{st2}$  are the estimates for sub-sample 1 and sub-sample 2 respectively for stratum 's' and sub-stratum 't'.

#### 4.7.2 For ratio $\hat{R}$ :

$$\hat{MSE}(\hat{R}) = \frac{1}{4\hat{X}^2} \sum_{s} \sum_{t} \left[ \left( \hat{Y}_{st1} - \hat{Y}_{st2} \right)^2 + \hat{R}^2 \left( \hat{X}_{st1} - \hat{X}_{st2} \right)^2 - 2\hat{R} \left( \hat{Y}_{st1} - \hat{Y}_{st2} \right) \left( \hat{X}_{st1} - \hat{X}_{st2} \right) \right]$$

#### 4.7.3 Estimates of Relative Standard Error (RSE):

$$R\hat{S}E(\hat{Y}) = \frac{\sqrt{V\hat{a}r(\hat{Y})}}{\hat{Y}} \times 100$$

$$R\hat{S}E(\hat{R}) = \frac{\sqrt{M\hat{S}E(\hat{R})}}{\hat{R}} \times 100$$

#### 5.0 Multipliers:

The formulae for multipliers at stratum/sub-stratum/second-stage stratum level for a sub-sample and schedule type are given below:

sch type	sector	formul	a for multipliers
sen type	Sector	hg/sb1	hg / sb 2
25.0/ 25.2	rural/urban	$\frac{Z_{st}}{n_{stmj}} \times \frac{1}{z_{stmi}} \times \frac{H_{stmi1j}}{h_{stmi1j}}$	$\frac{Z_{st}}{n_{stmj}} \times \frac{1}{z_{stmi}} \times D_{stmi}^* \times \frac{H_{stmi2j}}{h_{stmi2j}}$
	(j = 1, 2, 3)		

#### Note:

- (i) For estimating any characteristic for any domain not specifically considered in sample design, indicator variable may be used.
- (ii) Multipliers have to be computed on the basis of information available in the listing schedule irrespective of any misclassification observed between the listing schedule and detailed enquiry schedule.
- (iii) For estimating number of villages possessing a characteristic,  $D_{stmi}^* = 0$  in the relevant multipliers and there will be only one multiplier for the village.

## Appendix D

Schedule 25.0

RURAL	*
URBAN	

## GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY OFFICE SOCIO-ECONOMIC SURVEY

CENTRAL	١,
STATE	

#### SEVENTY-FIRST ROUND: JANUARY TO JUNE, 2014 HOUSEHOLD SCHEDULE 25.0: SOCIAL CONSUMPTION: HEALTH

[0] desc	riptive identification of sample hous	sehold				
1. state/ι	ı.t.:		5. hamle	et name:		
2. distric	et:		6. invest	tigator ui	nit /block:	
3. tehsil/	town:*		7. name	of head	of household:	
4. village	e name:		8. name	of infor	mant:	
[1] iden	tification of sample household					
item	item	coc	de	item	item	code

[1] idea	ntification of sample household										
item	item		cod	le		item	item		cod	e	
1.	srl. no. of sample village/ block			no.	sub-round						
2.	round number	7 1		11.	sub-sample						
3.	schedule number	2	5		0	12.	FOD sub-region				
4.	sample (central-1, state-2)			13.	sample hg/sb number						
5.	sector (rural-1, urban-2)					14.	second-stage stratum number				
6.	NSS region					15.	sample household number				
7.	district					16.	serial number of informant (as in column 1 of block 4)				
8.	stratum					17.	response code				
					18.	survey code					
9.	sub-stratum					19.	reason for substitution of original household				

#### **CODES FOR BLOCK 1**

- item 17: **response code:** informant: co-operative and capable -1, co-operative but not capable -2, busy -3, reluctant -4, others -9.
- item 18: survey code: original -1, substitute -2, casualty -3.
- item 19: **reason for substitution of original household:** informant busy -1, members away from home -2, informant non-cooperative -3, others -9.

<sup>\*</sup> tick mark ( $\sqrt{\ }$ ) may be put in the appropriate place

[2] p	articulars of field operation	ons											
sl. no.	item				erint	_	or (FI) / ng office	er s		eld offi			SO)
(1)	(2)		(3)							(4	<del>1</del> )		
1.(a)	(i) name (block letters)												
	(ii) code												
	(iii) signature												
1.(b)	(i) name (block letters)												
	(ii) code												
	(iii) signature												
2.	date(s) of:		DI	)	M	M	YY	I	DD	MN	1	Y	Y
	(i) survey/ inspection												
	(ii) receipt												
	(iii) scrutiny												ļ
	(iv) despatch												
3.	number of additional shee	t(s) attached											
4.	total time taken to canvass team of investigators (FI/A (in minutes) [no decimal p	ASO)											
5.	number of investigators (I canvassed the schedule	FI/ASO) in the team who											
6.	whether any remark has been entered by	(i) in block 12/13											
	FI/ASO/supervisory officer (yes-1, no-2)	(ii) elsewhere in the schedule											
[12]	remarks by investigator (l	FI/ASO)											
[13]	comments by supervisory	officer(s)											

[3] household	characteristics						
1. household six	ze			6. social group (code)			
2. principal industry (NIC-2008)	description:	•		7. type of latrine (code)			
	code (5-digit)			8. type of drainage (code)			
3. principal occupation (NCO-2004)	description:	1 1		9. major source of drinking water (code)			
	code (3-digit)			10. primary source of energy for cooking during the last 30 days (code)			
4. household ty	. household type (code)			11. amount of medical insurance premium paid for household members in last 365 days (Rs.)			
5. religion (cod	5. religion (code)			12. household's usual consumer expenditure (Rs.) in a month			

item 4: household type: for rural areas: self-employed in agriculture -1, self-employed in non-agriculture -2, regular wage/salary earning -3, casual labour in agriculture -4, casual labour in non-agriculture -5, others-9

for urban areas: self-employed -1, regular wage/salary earning - 2, casual labour -3, others - 9

- item 5: religion: Hinduism -1, Islam -2, Christianity -3, Sikhism-4, Jainism -5, Buddhism -6, Zoroastrianism -7, others -9
- item 6: social group: Scheduled Tribes-1, Scheduled Castes -2, Other Backward Classes -3, Others-9
- item 7: type of latrine: latrine: service -1, pit -2, septic tank/ flush system -3, others 9; no latrine -4
- item 8: type of drainage; drainage: open kutcha 1, open pucca- 2, covered pucca 3, underground 4; no drainage 5
- item 9: major source of drinking water: bottled water 1, tap 2, tube-well/hand pump-3, tankers 4, pucca well -5, tank/pond reserved for drinking 6, river/canal 7, others 9
- item 10: primary source of energy for cooking: coke, coal 01, firewood and chips -02, LPG -03, gobar gas -04, dung cake -05, charcoal -06, kerosene -07, electricity -08, others -09; no cooking arrangement -10

[5] pai	rticulars of former household me	mbers who	died duri	ng the last 365	days				
				whether medical	whether	if 1 in col. 6,	*if 2 in col. 3 and age 15-49 in col.4,		
srl. no.	name of deceased member	sex (male -1, female-2)	age at death (years)	attention received before death (yes-1, no-2)	hospita- lised (yes-1, no-2)	no. of times hospita- lised	whether pregnant any time during last 365 days (yes-1, no-2)	if 1 in col. 8, time of death (code)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
91									
92	•								
93									

information not to be sought for unmarried females, but may be recorded if voluntarily provided:

#### **CODES FOR BLOCK 5**

col.9: time of death: deaths related to pregnancy: during pregnancy -1, during delivery -2, during abortion -3, within 6 weeks of delivery/abortion -4,

other deaths -9

		2); is						
	report	ting o column 11-13 (self-1) proxy	(15)					
	whether covered by	any scheme for health expenditu re support (code)	(14)					
	whether suffering from any other ailment	before the for health scheme survey re (yes-1, support no-2) (code)	(13)					
	ai pe	ne S S S (es	(12)					
	whether	from any chronic ailment (yes -1, no -2)	(11)					
	ast 365	if 1 in col. 9, no. of times hospitalised	(10)					
	whethe during last 365 residen	whether hospita- lised (yes-1, no-2)	(6)					
	whethe r residen	t of student s' hostel (yes-1, no-2)	(8)					
		relation to (male age tal (code) femal (code) femal (code) femal (code) e-2)  relation to (male age tal ledu-sudent (code) femal (code) femal (code) femal (code) femal (code) femal (code) femal (code) (cod						
bers		age (yrs)	(5)					
mem	sex	(male -1, femal e-2)	(4)					
household members		rela- tion to head (code)	(3)					
[4] demographic particulars of hou		name of member	(2)					
[4]		sl. no	(1)					

col. relation to head: self - 1, spouse of head - 2, married child - 3, spouse of married child - 4, unmarried child - 5, grandchild - 6, brother/sister/brother-in-law/sister-in-law/other father/mother/father-in-law/mother-in-law servant/employees/other non-relatives - 9

col. marital status: never married - 1, currently married - 2, widowed - 3, divorced/separated - 4

,

col. general education: not literate -01, literate without any schooling: 02, literate without formal schooling: through NFEC -03, literate 7: through TLC/ AEC -04, others-05; literate with formal schooling: below primary-06, primary-07, upper primary-middle-08, through TLC/ AEC -04, others-05; literate with formal schooling: below primary-06, primary-07, upper primary/middle-08, secondary-10, higher secondary -11, diploma/certificate course (up to secondary)-12, diploma/certificate course (higher secondary)-13, diploma/certificate course (graduation & above)-14, graduate-15, postgraduate and above-16

col. whether covered by any scheme for health expenditure support: government funded insurance scheme (e.g. RSBY, Arogyasri, CGHS, ESIS, etc.) -1, employer supported health protection (other than govt.) -2, arranged by household with insurance companies-3,

others-4, not covered-5

[6] <sub>]</sub>	particulars o	f med	ical treatment received as in-patient of a med	ical institu	ition durin	g the last 3	65 days	
1.	srl. no. of tl	ne hos	pitalisation case	1	2	3	4	5
2.	srl. no. of m	embe	r (as in col. 1, block 4/5) hospitalised					
3.	age (years)	(as in	col.5, block 4/ col.4, block 5)					
1.	nature of ail	ment	(code list on pages 11-12)					
5.	nature of tre	atmer	nt (code)					
ó.	level of care	(code	e*)					
7.	type of ward	l (free	e-1, paying general -2, paying special -3)					
3.	when admit	ted (co	ode)					
€.	when discha	rged (	(code)					
10.	duration of	stay ir	n hospital (days)					
leta	nils of medica	ıl serv	vices received (not received -1; received: free -2	, partly fre	ee -3, on pa	yment -4)		
l 1.	surgery							
2.	medicine							
13.	X-ray/ECG/	EEG/	Scan					
14.	other diagno	stic to	ests					
15.	whether trea	ited oi	n medical advice before hospitalisation (yes -1,					
		16.	nature of treatment (code)					
if 1	in item 15	17.	level of care (code)					
		18.	duration of treatment (days)					
19.	whether trea from hospita		t on medical advice continued after discharge s -1, no-2)					
		20.	nature of treatment (code)					
if :	l in item 19	21.	level of care (code)					
		22.	duration of treatment (days)					

<sup>\*</sup>For item 6, code 4 is not applicable. Code 1 is also not applicable, except for ailment code 88.

item 9:

item 5, 16, 20:	nature of treatment:			
, ,	Allopathy	-1	Homoeopathy	-3
	Indian system of medicine		Yoga & Naturopathy	-4
	(desi dawai: ayurveda, unani or siddha)	-2	other	-9
items 6, 17, 21:	level of care:			
	HSC/ANM/ASHA/AWW	-1	private doctor/clin	ic -4
	PHC/dispensary/CHC/mobile medical unit	<b>-</b> 2	private hospital	<b>-</b> 5
	public hospital	<b>-</b> 3		
item 8:	when admitted: during last 15 days - 1, 16 d	days to 365	days ago - 2, more than 3	65 days ago <b>-</b> 3

when discharged: not yet -1, during last 15 days -2, 16 days to 365 days ago -3

[7] ex	xpenses incurred during the last 365 days for treatment	of members a	s in-patient of	f medical ins	titution	
1.	srl. no. of the hospitalisation case (as in item 1, block 6)	1	2	3	4	5
2.	srl. no. of member hospitalised (as in item 2, block 6)					
3.	age (years) (as in item 3, block 6)					
4.	whether any medical service provided free (yes: Govt1, private -2; no -3)					
expe	enditure for treatment during stay at hospital (Rs.)		•			•
5.	package component (Rs.)					
non-	package component (Rs.):	########		#############	<del>.</del> !#########	<del>.</del> #####
6.	doctor's/ surgeon's fee (hospital staff/ other specialists)					
7.	medicines					
8.	diagnostic tests					
9.	bed charges					
10.	other medical expenses (attendant charges, physiotherapy, personal medical appliances, blood, oxygen, etc.)					
11.	medical expenditure (Rs.): total (items 5-10)					
12.	transport for patient				Ī	
13.	other non-medical expenses incurred by the household (Rs.) (food, transport for others, expenditure on escort, lodging charges if any, etc.)					
14.	expenditure (Rs.): total (items 11-13)					
15.	total amount reimbursed by medical insurance company or employer (Rs.)					
16.	major source of finance for expenses (code)					
17.	2 <sup>nd</sup> most important source of finance (code)					
18.	place of hospitalisation (state code)					

items 16, 17:	source of finance for expenses:			
,	household income/ savings	-1	contributions from friends and relatives	-4
	borrowings	<b>-</b> 2	other sources	-9
	sale of physical assets	<b>-</b> 3		

•

[8] parti	iculars	s of spells of ailment of household members during the l	ast 15 day	ys (includi	ng hospital	lisation)	
1.	srl. no	o. of spell of ailment	1	2	3	4	5
2.	srl. no	o. of member reporting ailment (as in col.1 of block 4/5)					
3.	age (y	years) (as in col.5, block 4/ col.4, block 5)					
no. of	4.	ill					
days within	5.	on restricted activity					
the ref. period	6.	confined to bed					
7.	natur	e of ailment (code list on pages 11-12)					
8.	whether chronic (yes-1, no-2)						
9.	status	of ailment (code)					
10.	total o	duration of ailment (days)					
11.	natur	e of treatment (code)					
12.	wheth	ner hospitalised (yes-1, no-2)					
13.		or 9 in item 11, whether treatment taken on medical e (yes -1, no -2)					
if 1 in	14.	level of care (code)					
item 13	15.	if 4 or 5 in item 14, reason for not availing govt. sources (code)					
if 2 in	16.	reason for not seeking medical advice (code)					
item 13	17	whom consulted (code)					
18.	loss o	f household income, if any, due to ailment (Rs.)					

item 9:	status of ailment: started more than 15 days ago and is continuing started more than 15 days ago and has ended	-1 started within 15 days and is continuing -3 -2 started within 15 days and has ended -4
	nature of treatment: Allopathy -1 Indian system of medicine (desi dawai: ayurveda, unani or siddha) -2	Homoeopathy -3 No treatment -5 Yoga & Naturopathy -4 Other -9
item 14:	HSC/ANM/ASHA/AWW -1 PHC/dispensary/CHC/mobile medical unit -2 public hospital -3	private doctor/clinic -4 private hospital -5
item 15:	reason for not availing govt. sources: required specific services not available -1 available but quality not satisfactory -2 quality satisfactory but facility too far -3	quality satisfactory but involves long waiting financial constraint -5 other -9
item 16:	reason for not seeking medical advice: no medical facility available in the neighbourhoo facility of satisfactory quality not available facility of satisfactory quality too expensive	d -1 facility of satisfactory quality involves long waiting - 2 ailment not considered serious - 3 other -

es inc	curred during the last 15 days for treatment of members (	not as in-pat	ient of med	lical institutio	on)	I
1.	srl. no. of ailing member (as in item 2, block 8)					T
2.	age (years) (as in item 3, block 8)					Ī
3.	whether any medical service provided free					Ī
	(yes: Govt1, pvt2; no -3)					
detai	ls of medical services received (not received - 1; received: fi	ree - 2, partly	free <b>-</b> 3, or	n payment <mark>- 4</mark> )		
4.	surgery					Ī
5.	medicine received (AYUSH)					
6.	medicine received (other than AYUSH)	1				
7.	X-ray/ECG/EEG/Scan					
8.	other diagnostic tests					
medi	cal expenditure for treatment (Rs.)					
9.	doctor's/ surgeon's fee (hospital staff/ other specialists)					Ī
10.	medicines: AYUSH					Ī
11.	medicines: other than AYUSH					
12.	diagnostic tests					Ī
13.	other medical expenses (attendant charges, physiotherapy, personal medical appliances, blood, oxygen, etc.)	1				Ī
14.	medical expenditure (Rs.): total (items 9-13)					
15.	transport for patient					Ī
16.	other expenses (Rs.) incurred by the household (food, transport for others, expenditure on escort, etc.)					
17.	expenditure (Rs.): total (items 14-16)					
18.	total amount reimbursed by medical insurance company or employer (Rs.)					
19.	major source of finance for expenses (code)					ſ
20.	2 <sup>nd</sup> most important source of finance for expenses (code)					
21.	place of treatment (state code)					ſ

items 19, 20:	source of finance for expenses:			
	household income/ savings	-1	contributions from friends and relatives	-4
	borrowings	-2	other sources	-9
	sale of physical assets	-3		

[10]	[10] particulars of economic independence and state of health of persons aged 60 years and above							
1.	srl. no. of member (as in col. 1, block 4)							
2.	age (years) (as in col. 5, block 4)							
3.	number of sons living							
4.	number of daughters living							
5.	state of economic independence (code)							
6.	if 1 in item 5, no. of dependants							
7.	if 2 or 3 in item 5, person financially supporting aged person (code)							
8.	living arrangement (code)							
9.	physical mobility (code)							
10.	<b>if 1 or 2 in item 9</b> , person helping (household member -1, other than household member -2, none -3)							
11.	own perception about current state of health (code)							
12.	own perception about change in state of health (code)							

- *item 5: state of economic independence*: not dependent on others 1, partially dependent on others 2, fully dependent on others 3
- item 7: person financially supporting aged person: spouse -1, own children -2, grandchildren -3, others -9
- Item 8: living arrangement:

living alone:as an inmate of old age home -1 living alone:not as an inmate of old age home -2 living with spouse only - 3

living with spouse and other members - 4 living without spouse but with: children -5 other relations - 6 non-relations - 9

- *item 9: physical mobility*: *physically immobile*: *confined to bed 1, confined to home 2, able to move outside but only in a wheelchair 3; physically mobile 4*
- item 11: own perception about current state of health: excellent/very good 1, good/fair 2, poor 3
- item 12: own perception about change in state of health: compared to previous year: much better 1, somewhat better 2, nearly the same 3, somewhat worse 4, worse 5

			if 1-6 in col. 12	any post-natal expenditure post-care incurred on care 1, non-care (AYUSH-post-natal care (Rs.) code) 2, both-3)	(14)			
			i 1-6 i	whether nature of any post-natal post- care natal care 1, non-received AYUSH-(code) 2, both-3)	(13)			
days			if 1-3 in col. 10	whether any post-natal care received (code)	(12)			
last 365			ıf 1-3 in	come of place of preg-delivery/nancy abortion (code)	(11)			
ing the			,	out- come of preg- nancy (code)	(10)			
[11] particulars of pre-natal and post-natal care for women of age 15-49 years during the last 365 days	49 years	if 1 in col. 3		total expenditure incurred on pre-natal care (Rs.)	(6)			
of age 15-	for women aged 15-49 years		if 1-6 in col. 7	other nature of pre-natal care care (AYUSH-received AYUSH-code) 2, both-3)	(8)			
r womer	for wom			whether	other pre- natal care ceivec	(7)		
atal care fo			whether	tetanus taken IFA toxoid during during pregnancy (yes-1, no-2)	(9)			
and post-n				whether received	tetanus toxoid vaccine during pregnancy (yes-1, no-2)	(5)		
-natal				serial no. of preg- nancy (1/2)	(4)			
ars of pre			serial, age pregnant no. (years) any time serial fetanus as in last 365 block block block ays) (4/5) 4/5) (yes-1), no-2) (location) age whether serial fetanus taken IFA during hock days nancy pregnancy (yes-1, no-2) (yes-1, no-2) (yes-1, no-2)		(3)			
articul			age	(years) (as in block 4/5)	(2)			
[11] p			serial.	no. (as in block 4/5)	(1)			

# cols. 7, 12: whether any other pre-natal any post-natal care received:

4	-5	8-			4-	<u>ئ</u>	9-
yes, from private doctor/clinic	yes, from private hospital	OU	regnancy continuing -4		in private clinic	in private hospital	at home
<i>[-</i>	-7	£-	tion-3, <sub>I</sub>		<i>I</i> -	7-	ئ.
yes, from HSC/ANM/ASHA/AWW	yes, from PHC/dispensary/CHC/mobile medical unit	yes, from public hospital	outcome of pregnancy: live birth -1, stillbirth -2, abortion-3, pregnancy continuing -4	place of delivery/ abortion:	in HSC	in PHC/dispensary/CHC/mobile medical unit	in public hospital
			col. 10:	col. II:			

#### CODES FOR "NATURE OF AILMENT"

Block 6: item 4; Block 8: item 7

Reported Diagnosis and/or Main Symptom	Code	Reported Diagnosis and/or Main Symptom	Code
INFECTION		EYE	
Fever with loss of consciousness or altered	01	Discomfort/pain in the eye with redness or	27
consciousness		swellings/ boils	
Fever with rash/eruptive lesions	02	Cataract	28
Fever due to DIPHTHERIA, WHOOPING COUGH	03	GLAUCOMA	29
All other fevers	04	Decreased vision (chronic) NOT including	30
(Includes malaria, typhoid and fevers of		where decreased vision is corrected with	
unknown origin, all specific fevers that do		glasses	
not have a confirmed diagnosis)		Others (including disorders of eye	31
TUBERCULOSIS	05	movements – strabismus, nystagmus,	
	05	ptosis and adnexa)	
Filariasis	06	EAR	
Tetanus	07	Earache with discharge/bleeding from ear/	32
HIV/AIDS	08	infections	
Other sexually transmitted diseases	09	Decreased hearing or loss of hearing	33
Jaundice	10	CARDIO-VASCULAR	
Diarrheas/ dysentery/ increased frequency of stools	11	HYPERTENSION	34
with or without blood and mucus in stools		Heart disease: Chest pain, breathlessness	35
Worms infestation	12	RESPIRATORY	
CANCERS		Acute upper respiratory infections (cold,	36
CANCERS (known or suspected by a physician)	13	runny nose, sore throat with cough,	
and occurrence of any growing painless		allergic colds included)	
lump in the body		Cough with sputum with or without fever	37
BLOOD DICE ICEC		and NOT diagnosed as TB	20
BLOOD DISEASES	1.4	Bronchial asthma/recurrent episode of	38
Anaemia (any cause)	14	wheezing and breathlessness with or without cough over long periods or known	
Bleeding disorders	15	asthma)	
ENDOCRINE, METABOLIC,		GASTRO-INTESTINAL	
NUTRITIONAL		Diseases of mouth/teeth/gums	39
DIABETES	16	Pain in abdomen: Gastric and peptic	40
Under-nutrition	17	ulcers/ acid reflux/ acute abdomen	
Goitre and other diseases of the thyroid	18	Lump or fluid in abdomen or scrotum	41
Others (including obesity)	19	Gastrointestinal bleeding	42
PSYCHIATRIC & NEUROLOGICAL		SKIN	
Mental retardation	20	Skin infection (boil, abscess, itching) and	43
Mental disorders	21	other skin disease	
Headache	22	MUSCULO-SKELETAL	
Seizures or known epilepsy	23	Joint or bone disease/ pain or swelling in	44
Weakness in limb muscles and difficulty in	24	any of the joints, or swelling or pus from	
movements		the bones	
Stroke/ hemiplegia/ sudden onset weakness or	25	Back or body aches	45
loss of speech in half of body			
Others including memory loss, confusion	26		

Reported Diagnosis and/or Main Symptom	Code	Reported Diagnosis and/or Main Symptom	Code
GENITO-URINARY		INJURIES	
Any difficulty or abnormality in urination	46	Accidental injury, road traffic accidents and	52
Pain the pelvic region/reproductive tract	47	falls	
infection/ Pain in male genital area		Accidental drowning and submersion	53
Change/irregularity in menstrual cycle or	48	Burns and corrosions	54
excessive bleeding/pain during menstru-		Poisoning	55
ation and any other gynaecological and		Intentional self-harm	56
andrological disorders incl. male/female infertility		Assault	57
<b>OBSTETRIC</b>		Contact with venomous/harm-causing	58
Pregnancy with complications before or	49	animals and plants	
during labour (abortion, ectopic pregnancy, abortion, hypertension, complications during labour)		Symptom not fitting into any of above categories	59
Complications in mother after birth of child	50	Could not even state the main symptom	60
		Childbirth – Caesarean/ normal/ any other	88
Illness in the newborn/sick newborn	51	(for both live birth and stillbirth)	