C h a p t e r - 8

ECONOMIC REFORMS AND HEALTH SECTOR IN INDIA WITH SPECIAL REFERENCE TO ORISSA, KARNATAKA AND MAHARASHTRA-- REFLECTIONS FROM NSS 28TH, 42ND AND 52ND ROUNDS

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India is a signatory to Alma Ata Declaration (1978) of Health for All by 2000 A.D. Even after three decades of its commitment, the progress made in health sector is not impressive. Though there has been a substantial fall in total fertility rate and infant mortality rate along with increased life expectancy, eradication of small pox and guinea worm diseases, morbidity and mortality rates continue to be high in the country. Malaria, which was eradicated came back in 1980s.Water-borne diseases and TB continue to be the major causes of morbidity. There is emergence of new diseases viz. AIDS and hepatitis-A, which are communicable and for which there is no guaranteed remedy. Structural adjustments that have been introduced in the country over the last decade have brought in changes in all the sectors of the Indian economy. Health sector is one of the most influenced sector due to changes in pattern of resource allocation, health and drug policies, flow of technology, trade agreements and flow of external assistance. In the light of these developments an attempt has been made in this paper to examine the changes in morbidity and utilization of health care services in India with special reference to Karnataka, Maharashtra and Orissa using the NSSO's published survey results for 28th, 42nd and 52 nd rounds.

I. Introduction

Morbidity condition, which is one of the main indicators of health, reflects the overall health status of the population in a particular region. Morbidity in a population could be due to many factors controllable and uncontrollable (or natural). Occurrence of morbidity due to malnutrition, under nutrition, lack of health education, lack of immunization, lack of health care facilities and lack of other preventive and promotional measures can be reduced or avoided. But, morbidity due to age and genetic factors cannot be easily prevented, though the extent of suffering due to this kind of morbidity can be reduced or delayed with the help of modern technology.

Nutrition, health and morbidity are very much correlated because it is said that the quantity and the type that we eat are the main determinants of health status. The increased use of stored food and rich foods like meat, sugar, butter/oil, cakes, chocolates, ice creams etc., is leading to 'obesity', which is one of the health problems facing western countries. In addition, the life style changes accompanied by sedentary work and stress is believed to be leading to occurrence of heart diseases, dental problems, diabetes, blood

pressure(BP) and cancer in recent years. Though this is a problem faced mainly by the developed countries, with liberalization and globalization, this trend is seen in developing countries also. In India we can see the lifestyle changing especially in metropolis.

In developing countries, unbalanced diet and food adulteration leading to malnutrition and under nutrition resulting from chronic starvation are the main factors which weaken the immune system of the body leading to infectious diseases, reduced physical growth and vitamin deficiency diseases and death.

In developing countries like India the liberalization and the inflow of technology has lead to creation of high paid jobs, increased use of fast foods, electronic equipments and vehicles. This has led to an increase in leisure time, less physical activity but more of mental tensions. There is increase in the reporting of non – communicable diseases. Health transition is being noticed in other developing countries also. In India, till recently the problem was that there was dearth of information on health conditions except a few reports which mainly give details about public facilities, public programmes and about health indicators viz. birth rates, death rates, IMR, fertility rates, etc. The surveys conducted by NSSO (42^{nd} and 52^{nd} round) have been of immense use in understanding the health status of the people viz. **Who reported more illness?** (poor/rich, male/female, rural/urban, from developed states/less developed states, children/aged, out patients/in patients etc.) **What they prefer? (use of health care facilities), Which system they prefer? Where do they go for treatment? What are the ailments they suffer from? What is the change in disease or morbidity pattern? What is the type of treatment (free, paid) available? Which are the items of expenditure? How much they spend? What is the cost per case of illness? Whether people who report illness get treated? If not why? etc.** The 28^{th} round presented only the details of age and gender wise incidence, prevalence and duration of temporary and chronic ailments. These days there is inflow of information from different organizations. In addition to NSSO's surveys, NCAER, NFHS and RCH surveys provide useful information about the population particularly on health.

The study of morbidity and utilization of health care becomes important because, morbidity or illness impose heavy burden on the individual and society. There is loss of earnings to the family and loss of productivity to the society due to illness. Moreover, it is said that during illness medical care and consumption are financed by disinvestments, dis-saving and borrowing. Prolonged illness can lead to serious debt and impoverishment. Morbidity can affect educational status in a family. Education often requires out–of–pocket expenditure and excludes students from household labor supply. So it is felt that the financial hardship imposed by adult ill health reduce children's opportunities for education both at home and in school (Mead et.al.,1992).

Similarly, for a health care system to be effective people have to use the available services provided by the health system to treat their health problems. Utilization pattern reflects the preferences of the people as well as the loopholes in the system. Non-utilization questions the usefulness or the relevance of the health care institutions in

providing services and indicates the need for action either in set up/management/infrastructure or in delivery of services.

NSS data provides useful insights about incidence and prevalence of morbidity across states according to fractile groups, age, place of treatment, rural and urban category, attending adult education class, social groups, etc. These would provide a base for understanding the inter–state variations in morbidity conditions and utilization of services over time ($28^{th,}$ – 42nd - 52^{nd} round).

The reporting of the analysis in this study is as follows:

I. Introduction
II. Concepts- Morbidity and Utilization
III. Data base
IV. Reference of Morbidity and Utilization in NSSO surveys
V. Previous Research/ Studies
VI. Morbidity Profile- Across States, age groups, income groups, social groups, areas, gender and linkages between morbidity and surroundings and smoking
VII. Why sick people do not seek medical treatment?
VIII. Place of treatment?
IX. Type of treatment available to sick people?
X. What is the cost of treatment?
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II. Morbidity and Utilization

Morbidity: The term morbidity has been expressed in different ways. How to define or state morbidity? What are the methods to measure the extent of morbidity or illness and its cost to the society are the major conceptual problems.

WHO defines health as a state of complete physical, mental and social well-being and not merely the absence of disease. But, this definition is questioned by many. Wood (1986) argues that complete physical, mental and social well-being can exist even in the presence of disease. He refers to Dubos, according to whom " the concept of perfect and

positive health cannot become a reality because man will never be so perfectly adopted to his environment that his life will not involve struggles, failures and sufferings". Wood, says that health is virtually undefinable, at least for practical purposes, and it is relative rather than absolute in nature. Health in the individual is said to be related to levels of physiological function, an equilibrium that is threatened or disturbed by disease and here at this stage Wood says that there is morbidity (Wood and Foster, 1986).

Foster (1986) refers to morbidity as the condition of being diseased or morbid. It is the incidence of a disease or illness i.e., the ratio of sick to well persons in a community. A person is said to be sick when he is suffering from a disease or reports illness. Illness may exist in the absence of a diagnosed disease, as when a person does not feel well and is unable to fulfill his normal, social and economic roles. Illness is the state that is perceived by the individual when he or she is suffering from disease and, sickness is the state that develops as a reaction to illness.

Utilization of Health Care Facilities: Utilization refers to the use of health care facilities such as government hospitals, PHCs, ESI clinics/hospitals, private doctors, private clinics, private hospitals and charitable institutions. The details are gathered on the basis of reporting by patients during household survey. Utilization data reveals the preferences of the people for particular health care facility and also the availability of health care services. Non-utilization questions the usefulness of existing health care services. Other factors like non-severity of illness, financial problems and lack of awareness could also be the reasons for non-utilization.

III. Database

Published sources i.e. NSSO's Sarvekshanas for 28th and 42nd rounds and report on Morbidity and ailments for the 52nd round are used for descriptive and comparative analysis.

The Ist survey on morbidity was conducted in the 7th round (Oct, 1953–March, 1954). Subsequently, three morbidity surveys were conducted during 11th, 12th and 13th rounds (1956–58). These surveys were exploratory in nature (Sarvekshana, 1995–96). On the basis of these surveys, in the 28th round (1973–74) a separate survey on morbidity was carried out. After 28th round, morbidity data are collected as part of decennial surveys on social consumption. Though information on health services were collected in 35th round results were not published. (i.e. the 1st survey on social consumption). The 2nd and 3rd surveys on social consumption carried out during 42nd and 52nd round have made available useful information on morbidity and utilization of health services.

Morbidity surveys conducted by NSSO do not follow a uniform pattern. Though the objectives are the same, there are differences in taking reference period, grouping of diseases, classification of number of ailing persons according to fractile groups, source and type of treatment etc.

In **the 28th round (1973-74),** state wise all India information is available only on temporary and chronic ailments by sex, age, area (rural and urban) and type of ailments. In the **42nd round (1986–87**), the survey was conducted in a sample of 8346 villages and 4568 urban blocks. Reference Period for hospitalized illness was 365 days preceding the date of survey. For other ailments – treated and untreated (out–patients) the reference period was 30 days. For hospitalized cases, incidence and prevalence rates are available. For out–patients, only prevalence rate is given i.e. the proportion of persons with ailments. In the **52nd round (1995–1996),** the reference period for enquiry on morbidity (non-hospitalized/out–patients treated or untreated) was 15 days preceding the date of enquiry. For hospitalized treatment, information was collected for every event of hospitalization of a member, whether living or diseased at the time of survey, during the 365 days preceding the date of enquiry.

The present analysis for 52nd round is based on the data collected by NSSO under the Central Sample in 7663 villages and 4991 urban blocks covering 71284 households in rural areas and 49658 households in urban blocks.

The objective of the 42nd and 52nd rounds of NSS was to make an assessment of the benefits derived by various sections of the society from public expenditure incurred by government on areas like education, public distributions and health care (Sarvekshana, April–June, 1992, NSSO). With respect to health, information was collected on maternal and childcare, morbidity, family planning and utilization of medical services. Information is available from NSS report on hospitalized cases by type of hospital, system of medicine availed, category of payment, average duration of stay in the hospital, average total expenditure per hospitalized case and non–hospitalized treatments. The data relates to whole of Indian Union except (i) Ladakh and Kargil districts of J&K and (ii) Rural areas of Nagaland. NSS 42nd round was conducted during July, 1986–July, 1987. The 52nd round was carried out during July, 1995–June, 1996. In addition to the above areas, the 52nd round survey did not cover interior areas of A&N Island and Dodha district of J&K.

IV. Morbidity and Utilization of Health Care Facilities as presented in NSSO's Health Surveys

There is a marked difference between medically defined morbidity, generally involving some sort of a physical examination and the morbidity reported by a person interviewed in a health interview survey. Health and illness levels are said to be a product of both the biomedical and socio-cultural variables. Neither of these two sets of variables is particularly stable, since new illnesses come (Assogba, et.al., 1972). The NSS data on morbidity are generally based on self–perceived morbidity (SPM).

SPM refers to episodes that are reported by an individual usually in response to inquiries regarding illness, (Chen and Murray, 1992). SPM depends on individual's perception about illness where as, Observed Morbidity [(OM) clinically observed morbidity)] is assessed through an independent observer i.e. usually the doctor who

reports that there is morbidity. OM corresponds more closely to disease and SPM is closer to the concept of illness. (Richard, et.al., 1992).

There are different opinions in considering SPM or medically and clinically diagnosed morbidity in estimating the incidence or prevalence of morbidity in a particular region. **The educated, rich and male or earning members might report more morbidity episodes because they may consider even minor ailments to be serious. Women, Poor and illiterate population may not report morbidity because of ignorance, poverty and for not considering it as serious.** In such cases, taking decisions for policymaking may be difficult or misguided. **On the other hand, if more and more people report illness (poor/rich, educated/uneducated, male/female) that itself calls for public intervention. That is a cause of concern for health officials and policy makers. That also implies that public is facing some problem, which needs serious attention.** So, it is argued out that even if SPM includes higher reporting from some sections, it cannot be ignored in understanding morbidity profile. Though NSSO's survey is based mainly on SPM, it also includes clinically observed morbidity i.e. patients who are diagnosed by the doctor for a particular disease or ailment during the reference period. Particularly the hospitalized patients know about their ailment as they are diagnosed and attended by the doctor.

Terms used:
[NSSO,1992 and 1998]

Illness/injury: Illness refers to any deviation from the state of normal physical and mental well-being. Injury covers all types of damages to any part of the body such as cuts, wounds, hemorrhages, fractures, burns etc., caused by accidents including bites.

Incidence: Proportion of population who report sickness or those who are diagnosed as sick during the reference period.

Prevalence: Proportion of people who are sick irrespective of whether the illness started before or during the reference period (more than one ailment was reported by insignificant proportion (1to 2%) of sick in urban and rural areas) during 52^{nd} round.

PAP: Ratio or proportion of ailing persons with ailments observed during the reference period of 30 days preceding the date of survey, to the total number of persons.

Acute ailment: Short duration (less than 30 days) ailments.

Chronic ailment: Long duration (30 days or more) ailments.

Fractile group: Using the monthly per capita consumption expenditure **(mpce)** based on the data collected for broad heads of consumption expenditure for each sample household, population was classified into fractile groups separately for rural and urban areas.

Hospitalization: A person is regarded as having been hospitalized if he/she has availed of medical services as an indoor patient (except child birth) in any medical institution.

V. Previous Research.

The availability of national/state level information on utilization of health facilities and morbidity conditions has induced many researchers to probe in to the findings of the NSSO's 42nd and 52nd round survey results.

Using the survey results of NSS 42nd round, **Krishnan(1999)** reported that cost of treatment was highest for states where facilities were least developed. Krishnan argues that rural patients, particularly the bottom groups, paid more for health care and the cost of outpatient treatment could be reduced if the primary health care is readily accessible to rural population. Taking the average cost of treatment for each state based on the information provided by the NSS, Krishnan has estimated relative burden of treatment as a ratio of average cost to the per capita (only direct burden of treatment) state domestic income. **Baru's study(1999)** using 42nd round results, highlighted that more than 50% of the bottom 20% and top 20% income groups, in rural areas in majority of the states used public institutions for hospitalized cases and, larger percentage of only the top 20% in urban areas (in developed states) used private hospitals during 1986-87. This indicates that public institutions provide major part of the in-patient care. Baru reported that the dependence on public hospitals for hospitalization during 1986-87 was 55% in rural areas and 60% in urban areas in the country. In poor states like Orissa the dependence on public institutions for hospitalized care was reported to be more than 80%. In such a health care scenario, Baru says that it would be difficult to cut back on public expenditure on secondary and tertiary sectors both on the welfare and political considerations as both private and voluntary sector services are skewed in favour of urban and better-developed states and provide more of out–patient care.

Studies also highlight that there is bias in terms of gender, class and social groups in morbidity and utilization of health care services. Poor and disadvantaged sections such as SCs/STs are forced to spend a higher proportion of their income on health care than the better-off sections **(Gumber,1997)**. But, the estimates worked out on the basis of NSS per capita private expenditure details reveal that the share of per capita medical expenditure in total per capita expenditure varied from Rs. 2.29 to Rs. 2.82 for people below poverty line and from Rs. 9.03 to Rs. 11.61 for top 10% of the expenditure class during 1986-87 to 1995-96 (see Annex –Table-A-1). **Sen Gita and others (2002),** used data from NSS for 42nd and 52nd round and from other empirical studies to examine the changes during the reform period addressing to the question of health equity in terms of gender biases and economic class differentials. They argued that there is significant gender bias as shown by higher percentage of untreated illnesses among women in 1986-87. It is also argued out that the percentage of treated and untreated illnesses reported by women is underestimated in NSS rounds as sexual and reproductive illness are not reported and reporting would be higher if trained female investigators collect information from each women after initial rapport building.

Using the NSS (1973–74 & 1986–87), NCAER (1990 & 1993) and CSO data, **Shariff and others (1999)** have projected the burden of disease and cost of ill health for Ninth plan. Using the data on utilization of health services and the cost of ill health, proposition or case is made for new strategies for allocation of public health expenditure. They emphasize the need for regulating private sector, charging user fees in public Health care centres encouraging public – private mix and NGOs in delivery of essential health services and insulating cost escalations. A study by **Alam (2001)**, points out that there is a high burden of diseases faced by the elderly. A comparison of the two NSS rounds reveals an increase in the over all proportion of sick elderly during the years. Alam points out that more than half of elderly population in India suffers from one or the other chronic conditions in rural as well as urban areas. Joint problems (rural), lungs related diseases, BP are some of the problems identified with the aged.

NSS results also indicate that there are class differentials in reporting and getting treated for morbidity. There exists positive class gradient (fractile groups) for morbidity rates in rural areas (Sen Gita et.al, 2002). Reporting of illness and hospitalization cases have shown increase with increase in income (Shariff et.al., 1999).

The present study looks into morbidity reporting and utilization of health services in India and in three specific comparatively less developed, medium developed and developed states (based on social and economic indicators) in the light of liberalization process initiated in the country.

VI. Morbidity Profile

6.1. Morbidity Reporting:

(i) Overall Morbidity (per 1000): The overall morbidity rate, that is the number of persons who reported sickness (proportion of persons with ailments to total population) during the reference period of ***30 days*** in 42nd round was 64 and 31persons respectively for rural and urban areas. In the 52nd round, the number of ailing persons was 55 in rural areas and 54 in urban areas during the reference period of ***15 days***. But, the number of ailing persons for 30 days recall period derived from the 15 days period survey estimates, (derived to enable comparisons between 42nd and 52nd round) reveals that 86 in rural areas and 84 in urban areas were the number of ailing persons in 52nd round indicating that there is increase in morbidity episodes.

Table-1 presented below gives the prevalence rates (PR) of ailment and the number (per 1000) of ailing persons (PAP) over different rounds of NSS.

Table-1 Morbidity Reporting (India)

		1961 – 62 17th round PAP (30 days)	1973 – 74 28th round PR (15 days)	1986 – 87 42nd round PAP (30 days)	1995 – 96 52nd round. derived PR (15 days)	1995 – 96 52nd round. derived PAP(30 days)	1995 – 96 52nd round. PAP estimated (15 days)
Rural	P	132	43	64	56	86	55
	M	139	47	64	54	84	54
	F	123	40	63	58	89	57
Urban	P	131	42	31	55	84	54
	M	133	43	30	52	81	51
	F	128	41	33	58	89	58

Source: NSSO (1998), Morbidity and Treatment of Ailments, NSSO 52nd round (1995 – 96), Report No.441, P – 18.

The prevalence rates given in Table-1, show that morbidity rates have increased overtime (28th to 52nd round) both in rural and urban areas. Number of ailing persons was highest in 1961–62 (17th round) but, declined in 1973-74 (28th round). The rate of decline in reporting was 76% for urban areas and 51% for rural areas. As per the derived estimates (for 30 days based on 15 days data) for 52nd round, there is increase in the number of ailing persons. In all the rounds, morbidity reporting is slightly higher in rural areas. **But, the rate of increase in morbidity reporting in urban areas is very high (171%) as compared to increase in the rate of reporting in rural areas (34%) over 42nd to 52nd round.** Due to methodological differences in conducting the surveys, the differences in morbidity profile should be taken as a generalized scenario.

During 1986-87, on an average 149-lakh persons were hospitalized in rural India and 26 lakhs in urban India. About 56% of the in–patients were males and 44% were females both in rural and urban areas. The prevalence rate of hospitalized cases was 28 and 17 per 1000 persons respectively in rural and urban areas. During 1995–96, about 2% of the urban population and 1.3% of the rural population were hospitalized i.e. the prevalence rate of hospitalization was 13 and 20 per 1000 persons respectively for rural and urban sectors. **This reveals that hospitalization is increasing in urban areas and has declined in rural areas.** These changes indicate four possibilities. (i)There is trend of admitting patients even for minor illnesses in urban areas (ii) acute and other diseases like diarrhoea, ulcers, bronchitis, heart problems, cancer, cataract etc., which require immediate attention and sometimes surgery are increasing in urban areas. **The 52nd survey results do indicate that there is increasing reporting of such type of diseases.** (iii) With increasing coverage of urban private doctors to nearby villages facilitated by transport facilities (or due to increasing rural out patients visiting private doctors for acute illnesses, the incidence of hospitalization might have reduced in rural areas.

(iv)Rural patients might have avoided hospitalization **due to lack of access and lack of finance. These were the two reasons quoted comparatively (to urban) by higher** percentage of rural out patients in 52nd round **(See Table-3).** The same reasons could be valid for rural inpatients also.

(ii) Diseases:

During 28th round, reporting of temporary illness among the identified cases in rural areas was higher for dysentery and influenza in all the three states (Karnataka, Maharashtra, Orissa) and all over the country. Incidence of malaria was higher in Maharastra and Orissa and in the country. Karnataka and Maharashtra had higher incidence of whooping cough. This pattern of morbidity was also found in urban areas in the selected states and in the country except in urban Orissa, which had higher incidences of small pox and less of malaria. Small pox was also prevalent in urban Karnataka and, was one of the main diseases prevalent in the country.

In the 52nd round, while there is more reporting of fever, water-borne diseases, cough, bronchitis and cerebral stroke in rural areas, urban people also reported fever, water-borne diseases, cough and bronchitis except cerebral stroke.

Table -2 below presents the prevalence and incidence rate (per 100000) for major chronic and acute diseases respectively for 28th and 52nd round.

Table 2: Disease-specific morbidity rates for selected diseases from NSS 28th and 52nd rounds

India				
	Rural		Urban	
Disease	1973-74 (28th rd)	1995-96 (52nd rd)	1973-74 (28th rd)	1995-96 (52nd rd)
Chronic diseases: Prevalence rate (per 100,000)				
Tuberculosis	117	83	137	63
Leprosy	40	11	25	9
Epilepsy	28	14	17	24
Piles	65	13	61	32
Acute diseases:lincidence rate (per 100,000)				
Measles	17	11	14	14
Cholera	3	*	3	*
Dysentery	12	*	35	*
Diarrhoea	27	*	22	*
Diarrhoea & dysentery (including cholera)	*	269	*	230
Injuries due to accidents	39	63	54	83

* indicates that data on the specific disease were not collected separately in the survey.

Source: NSSO (1998) Morbidity and Treatment of Ailments, 52nd round, (Report No. 441)

Acute: Injuries due to accidents **have increased both in rural and urban areas due to increased use of vehicles. Incidence of dysentery, diarrhoea and cholera is higher and has increased (1995-96) both in rural and urban areas.** This indicates that there is need for improvements in the supply of safe drinking water and sanitational services both in rural and urban areas. Due to non–reporting of illness separately for these diseases in 52nd round, it is not possible to present the rate of change in the prevalence of these diseases separately over the years.

Chronic: In 28th round, in addition to diabetes and BP, which were prevalent in urban areas of all the three states, in each state, there existed several other peculiar chronic diseases. In rural Maharashtra, reporting was more for leprosy, peptic ulcer and arthritis. In Karnataka, diabetes and BP were prevalent also in rural areas. Orissa had higher prevalence of mental illness, peptic ulcer, rheumatism and kidney stones both in rural and urban areas.

Table–2 shows that of the chronic diseases, the prevalence of epilepsy and piles has reduced (1973-74 to 1995-96) both in rural and urban areas though it continues to be a major problem in urban areas. There is increased reporting of epilepsy cases in urban areas. There is no change in the incidence of measles cases in urban areas (1973-74 to

1995-96). There is a good reduction in the reporting of leprosy cases in rural and urban areas. Asthama was a major chronic disease during 28th round (not shown in Table-2) with highest prevalence of 376 (per 100000) in rural and 355 (per 100000) in urban areas in the country. Orissa had comparatively lower prevalence of asthama both in rural and urban areas. Details of prevalence of asthama during 52nd round are not given in NSSO reports.

The other most common chronic disease that prevailed during 28th round in rural and urban areas in the country was TB with a prevalence rate of 117 and 137 respectively per one lakh population. Though it has come down to 83 (rural) and 63 (urban) over the years (1995-96), it is still a cause of concern in both the areas.

(iii) Age:

Morbidity prevalence is generally found to be higher among children and aged. NCAER (1992) and NFHS (1998-99) surveys also indicate this. In **t**he 28th round, the incidence of acute ailments was higher among infants, children in the age group 1–4 and aged i.e. above 60 in rural areas. But, in rural Maharastra, reporting was slightly higher for upper middle age (45-59) groups. In urban areas of all the three states, morbidity reporting was slightly higher among upper middle age groups than the aged. Age wise reporting is not given for 42nd round (published data). During 52nd round also the reporting for any type of ailments in rural areas is higher for aged and children. But, the incidence of morbidity due to chronic diseases is lower among the children (0–14). Children suffer generally from acute illnesses and receive immediate attention from parents before they turn to chronic type. In urban areas also there is similar morbidity pattern. **Child morbidity due to acute diseases is more in urban areas and more so in Orissa.** This could be due to lack of preventive measures like immunization, sanitation and proper supply of drinking water. The number of persons suffering from chronic illnesses is higher among upper age groups and aged (there is a positive slope). **The incidence of morbidity for acute and other diseases in all the age groups and for both the areas is higher in Orissa.**

As observed in 52nd round, children suffer from acute diarrhea, dysentery, cholera, fever, cough and bronchitis both in rural and urban areas. Jaundice, epilepsy, loco motor and congenital deformities are the chronic diseases suffered by children. In addition, TB and ear problems are reported by rural children. Joints pain, BP, gastritis, amebiasis, diseases of the heart and leprosy are chronic ailments prevalent among middle aged in rural areas. In addition to the ailments due to these diseases, urban middle aged groups also suffer from diabetes. Cough, bronchitis, fever, diarrhea and gastroenteritis are the acute ailments suffered by middle aged both in rural and urban areas.

Aged suffer from all the acute ailments specified above. Whooping cough and accidents due to injuries and violence are also reported to a larger extent among the aged. Joints problem, BP, diabetes, diseases of the eye, ear, heart and urinary tract, leprosy, gastritis, cancer, piles and loco motor disability are the chronic diseases suffered by the aged.

(iv) Gender:

During 17th and 28th round, the reporting of non-hospitalized illness was higher for males in rural and urban areas. In the 42nd round, male reporting was higher only in rural India while more female reported sickness in urban India. **But, during 52nd round the reporting is found to be higher for females both in rural and urban India.** This shows that women are gradually coming out of shyness and hesitation in reporting sickness, which could be due to increasing awareness via media, health programmes and education.

During 1973-74, major acute health problems reported by men and women from urban and rural areas were dysentery, malaria, influenza and small pox. Men had higher reporting of ailments due to accidents. But, in 52nd round, fever, diarrhea/dysentery/cholera, cough, bronchitis, whooping cough and diseases of the eye/mouth/gum are some of the major acute ailments reported by men and women in rural and urban areas. Reporting of accidental injuries and acute respiratory infections are more among men in both the areas. This could be in general related to the vehicle driving and smoking habits, which are higher among men. Air pollution is an additional factor causing increase in respiratory illnesses.

The **three common chronic diseases** that were prevalent during 1973-74 were **asthama, TB** and **rheumatism** both in rural and urban areas. In urban areas, in addition to these diseases, BP and diabetes were observed among men and, BP was observed among women. 52nd round survey results reveal that **joints problem, BP, gastritis and TB are the common long term** diseases suffered by men and women in rural areas. In urban areas, there is more reporting of joints problems, **BP, diabetes and heart problems** among men and women.

As per 52nd survey results, hospitalized cases per 1000 persons are more in urban and rural Maharashtra as revealed also in 42nd round. Incidence of female hospitalization in rural areas (per 1000) varied from 11 in Orissa to 18 in Maharashtra and, incidence of male hospitalization varied from 14 in Orissa to 20 in Maharashtra. In urban areas, female hospitalization varied from 14 in Orissa to 25 in Maharastra and male hospitalization varied from 17 in Karnataka to 27 in Maharastra (per 1000).

(v) Social Groups:

During 42nd round, of the total hospitalized cases in rural areas, 4.75% were STs, 17% were SCs and 78% were others. And, in urban areas, while STs constituted less than 2%, SCs were 18% and others were 80%.

In the 52nd round, reporting of acute and any type of ailments is higher for SCs and STs in Orissa both in rural and urban areas. In Karnataka, SCs have higher reporting of acute diseases in rural and urban areas. And, in Maharashtra only in urban areas SCs have higher reporting of ailments. **Reporting of chronic ailments is also higher among STs in Orissa.** Morbidity reporting (15 days) for chronic and any type of ailments in the country is higher (except higher reporting of acute ailments for SCs) for other (general) groups. But, this is not uniformly found in all the states.

In the 52nd round, incidence of hospitalization in rural areas in all the three states and in the country is higher among social groups other than SCs/STs. But, this is not so in urban areas where incidence is higher among STs in Karnataka and Maharashtra States and among SCs in Orissa. Number of persons (per 1000) hospitalized is higher for STs in urban India. **Incidence of female hospitalization is more among SCs/STs than males and females from other social groups in rural and urban Maharashtra. Female hospitalization is lesser than male hospitalization in Orissa among all the social groups in both rural and urban areas**. In Karnataka, the incidence of female hospitalization is higher in rural areas for STs and others.

(vi) Fractile (mpce)] groups: There is no particular pattern observed in the distribution of out patients over the fractile groups in 42nd round. But, the distribution in the 52nd round shows that **there is increased reporting of ailments among higher fractile groups in majority of the states.**

In 42nd round, the hospitalized cases were reported to be more among lower middleincome groups and upper middle income groups in the country. **But, in urban Orissa, hospitalization was higher among lower 20% of fractile groups.**

In the 52nd round, the incidence of male and female hospitalization is highest for the top most fractile group i.e. the rich in all the three states and in the country. This pattern is observed in rural as well as urban areas. **This pattern was not observed uniformly in 42nd round.**

(vii) Education: 42nd round results showed that percentage distribution of hospitalized cases **were higher among those with higher level of adult education. The proportion of persons with ailments treated also had a positive association with the level of adult education standard.**

6.2 Morbidity Reporting and Surrounding Environment:

During the 52nd round survey, information was collected on the use of insecticides in the premises of the house and the reporting of fever (short duration incidence of fever).

The survey results indicate that there is marginal influence of sanitation and other aspects on health conditions. In rural areas, incidence of fever (per 1000) from households with premises sprayed with insecticides was higher (by one episode of illness). It was higher by two illness episodes in urban areas. Reporting of fever cases is 16 per 1000 in both rural and urban areas from households with cattle sheds while it is one case more in rural areas and one case less in urban areas in households which did not have cattle shed. Reporting of fever cases is higher in urban households, which had detached cattle shed from the house (three cases more per 1000). **Reporting is less in households having covered pucca drains and in households with underground drains both in rural and urban areas.** In houses without drainage, reporting of ailments is higher in both the areas. **While the impact of the presence of cattle shed in the house on health conditions needs to be probed further, survey results indicate that clean air (free from insecticides spray) and good drainage system do have positive influence on health as less number of ailments are reported in such households** (see Annex- Table-A-8).

6.3 Tobacco consumption and morbidity

Worldwide it is known that tobacco consumption leads to occurrence of diseases among its consumers, cancer being on the forefront. Details are collected from households during the 52nd round from tobacco consumers on their health conditions.

Prevalence of TB among persons aged 10 and above, who do not have any bad habits, is 98 (per 1000) in rural areas and 60 in urban areas. But, it is higher among those who smoke with prevalence rate of 120 (22% more) in rural areas and 124 (27% more) in urban areas. People with other habits have highest prevalence rate of TB in rural (182) and in urban (202) areas. **Prevalence of cancer is higher among both rural and urban smokers and blood pressure (in rural areas) is higher among rural smokers.** But, heart diseases are more among those who do not have any habits in rural areas and among those who have other habits in urban areas. BP is higher among those who do not have any bad habits in urban areas. We can therefore say that **in addition to tobacco consumption, there could be influence of other factors like food, genetic, stress, life style, age etc., which cause morbidity.** But, tobacco is one of the major factors causing morbidity (see Annex- Table-A-9, A-10, A-11).

VII. Untreated Ailments:

During 42nd round, 82% and 89% of the ailing persons in rural and urban areas and in 52nd round, 83% and 91% in rural and urban areas respectively reported to be treated during the reference period. There is marginal increase in the percentage of people treated over 10 years period (42nd to 52nd round). **Though the percentage of treated among ailing persons is higher for males both in 42nd and 52nd round, the difference is marginal and the gap between male and female in treating illness has reduced** over the decade. A similar pattern was observed in NIHFW (1982) study. **But, there is bias towards urban areas. People in urban areas are in a favourable position as only 11 percent and 9 percent of ailing persons did not receive treatment as compared to**

18percent and 17 percent of untreated persons in rural areas in 42nd and 52nd round respectively. **Majority of the ailments not treated were due to less seriousness of the ailments as perceived** by patients both in rural and urban areas as reported in 42nd and 52nd rounds, which is shown in Table-3 below.

Table 3:Percentage distribution of untreated ailments by reason for not taking treatment- NSS 42nd and 52nd rounds (India).

Reasons for not taking treatment	Rural		Urban	
	1995 - 96 52nd.	1986 - 87 42nd.	1995 - 96 52nd.	1986 - 87 42nd.
No medical facility	9	3	1	0
Lack of faith	4	2	5	2
Long waiting	1	0	1	1
Financial problem	24	15	21	10
Ailment not serious	52	75	60	81
Others	10	5	12	6
All	100	100	100	100
Note that the estimates for 'others' of the 52nd round include the cases where reasons are not reported.				
Source : NSS Report No. 364(42nd round) and No. 441(52nd round)				

The second main reason was financial problem, which was more often cited in rural areas. **The non–availability of medical facility** which was quoted by only 3 % in 1986–87 in rural areas, **was the reason in 9% of the untreated cases in 1996– 97.** This possibly indicates that access to health care facilities has not improved over the years. Moreover it has reduced. The other main change that can be noticed over the years is the reduction in the number of cases not treated as serious from 75 to 52% in rural areas and 81 to 61% in urban areas indicating increased awareness among the population on health problems. **But, there is no change in percentage of ailing people treated (out of total ailing persons) over the decade which indicates that though people realize that they have health problems that need to be attended, they are unable to do so due to several other factors like non–availability of health care facility, higher cost of treatment, lack of faith etc.**

The proportion of persons treated to total ailing persons is higher among higher income groups in all the three states and in the country except that it was higher for lower fractile groups in urban Karnataka in 42nd round and higher for lower fractile groups in Maharastra in 52nd round. **Bias towards rich in medical treatment of illness is higher in Orissa as revealed in both 42nd and 52nd rounds.**

VIII. Source of treatment:

8.1 Out-patients: 42nd survey results revealed that private doctors and hospitals treated 69% of the outpatients in rural and urban India and public facilities catered to 26% and 28% of the out patient in rural and urban areas respectively. **But, in north eastern**

states, hilly states, union–territories and in poor States like Orissa and Rajasthan, public sector provided largely (>80%) for both out–patient and in–patient care during 1986-87. The topography and the poverty in hilly and poor states respectively could be the main reasons for larger share of public hospitals as revealed in 42nd round. **In Maharashtra, which is a well-developed state only 21% and 24% of out – patients in rural and urban areas had taken treatment in public facilities.** In Karnataka, a medium developed state, the dependence on public facilities was 35% and 30% respectively for rural and urban areas. In Orissa, **52% in rural areas and 46% in urban areas** depended on public facilities. National average showed that only 5% and 1% of out patients in rural and urban areas visited PHCs during 1986-87. In 1995-96, there is no major change in utilization of PHCs. Table-4 shows that there is preference towards private sector during 1995-96.

Table-4 **Percentage distribution of non-hospitalized treatments by source of treatment from 52nd and 42nd rounds (India).**

Source of treatment	Rural		Urban	
	1986 - 87 42nd round.	1995 - 96 52nd round.	1986 - 87 42nd round.	1995 - 96 52nd round.
Public hospital	18	11	23	15
PHC / CHC	5	6	1	1
Public Dispensary	3	2	2	2
ESI doctor	0	0	2	1
All govt. sources	**26**	**19**	**28**	**20**
Private hospital	15	12	16	16
Nursing home	1	3	1	2
Charitable institution	0	0	1	1
Private doctor	53	55	52	55
Others	5	10	3	7
All non-govt. sources	**74**	**81**	**72**	**80**
Total	100	100	100	100
Note : The estimates of the 52nd round are based only on the treatments with reported source of treatment.				
Source: NSSO(1998),Morbidity and Treatment of Ailments, 52nd round(1995-96), Report No.441				

The coverage of PHCs in urban areas is limited. The utilization of ESI hospitals, which provide substantial hospital care particularly for industrial employees is very low for out-patients. The utilization of ESI doctors even in an industrial state like Maharashtra is less than 1% (not shown in Table-4). The location of ESI hospitals in far off places, limited number of hospitals, etc., could be the reasons for lower coverage. Data about ESI hospitals treating in-patients has not come out of NSS data. Many of the ESI hospitals provide more of hospitalized care.

Table- 5 shows that there is reduction in the dependence on public facilities across the states. **But, in Bihar, the utilization of public facilities in urban areas increased from 18% in 42nd round to 33% in 52nd round.** This is not so in rural areas of Bihar where there is slight decline in dependency.

Table-5 State wise percentage of ailments receiving non-hospitalized treatment from government sources (public hospital, PHCs &public dispensary)

State	Rural		Urban	
	1986 - 87 42nd round.	1995 - 96 52nd round.	1986 - 87 42nd round.	1995 - 96 52nd round.
Andhra Pradesh	19	22	21	19
Assam	53	29	30	22
Bihar	17	13	18	33
Gujarat	32	25	16	22
Haryana	17	13	17	11
Karnataka	35	26	30	17
Kerala	34	28	36	28
Madhya Pradesh	31	23	30	19
Maharashtra	26	16	24	17
Orissa	52	38	46	34
Punjab	12	7	10	6
Rajasthan	55	36	57	41
Tamil Nadu	36	25	33	28
Uttar Pradesh	*	8	16	9
West Bengal	19	15	21	19
India	25	19	25	20
Note: 1.The estimates of the 52nd round are based only on the treatments with reported source of treatment. 2. * denotes that estimate is not available.				
Source: NSSO (1998),Morbidity and Treatment of Ailments, 52nd round(1995-96), Report No.441				

The **dependency on public facilities is very low in high income states** viz Punjab, Harayana and Maharashtra **and has reduced over the decade**(1986-87 to 1995-96).

8.2 In- patient: People use public facilities more for ailments requiring hospitalization. This is generally because of the cost of treatment, which is free or lower in public hospitals as compared to private hospital and nursing homes. Table–6 shows that during 42nd round, all India utilization of public facilities for hospitalized treatment was 60% for public hospitals and 3 to 4% for PHCs. Even in a developed state like Maharashtra (Table-7) nearly 45% of the cases were admitted to public health centers.

Table-6 Per 1000 distribution of hospitalized treatments by type of hospital during 1986 – 87 and 1995-96 [India]

Type of hospital	Rural		Urban	
	1995-96 (52nd)	1986-87 (42nd)	1995-96 (52nd)	1986-87 (42nd)

Public Hospital	399	554	418	595
PHC/CHC	48	43	9	8
Public dispensary	5	-	4	-
All govt. sources	438	597	431	603
Private hospital	419	320	410	296
Nursing home	80	49	111	70
Charitable institution	40	17	42	19
Others	8	17	6	12
All non-govt. sources	562	403	569	397
All hospitals	1000	1000	1000	1000

Source: NSSO(1998) , Report No. 441(52nd round), p.28

Table –7 presented below shows that **i**n Orissa where more than 50% of the population lived below poverty line (1986–87), 88% and 81% of the in-patients respectively in rural and urban areas took treatment in public hospitals / PHCs.

Table-7 Hospitalized treatments received from public provider

State	42nd round (percentage distribution)		52nd round (No per 1000)		Percentage of beds in government hospitals (1993)
	Rural	Urban	Rural	Urban	
Andhra Pradesh	29.91	37.98	225	362	10
Assam	90.02	82.33	738	652	84
Bihar	49.86	45.71	247	346	71
Gujarat	48.96	59.21	321	369	43
Haryana	50.96	55.31	305	373	68
Karnataka	58.02	48.9	458	298	74
Kerala	43.38	55.65	401	384	36
Madhya Pradesh	79.23	76.98	533	560	100
Maharashtra	43.57	46.23	312	318	52
Orissa	88.06	81.48	906	810	91
Punjab	47.49	48.77	394	276	74
Rajasthan	80.01	85.62	649	731	100
Tamil Nadu	56.15	58.04	411	357	79
Uttar Pradesh	55.37	59.25	471	398	75
West Bengal	91.62	73.9	820	721	87
India	59.74	60.26	453	431	65

The 52nd round results show that the **utilization of public facilities for hospitalized care has reduced in Maharashtra to nearly 32% both in rural and urban areas. The current dependence on government hospitals is still higher in states like Assam, Rajasthan, West Bengal, Orissa and Madhya Pradesh both in rural and urban areas (1995-96).** The share of public facilities in hospital treatment corresponds to the percentage share of beds in government hospitals in different states as

revealed in Table-7 above. The dependence on public facilities for hospitalized treatment is very low in Andhra Pradesh. The percentage of beds in government hospitals is also very low in Andhra Pradesh.

8.3 Utilization of health services by fractile group of MPCE, region, gender, education and social groups.

Fractile Groups (mpce): In the 52nd round, the utilization of public health facilities for out-patient care by all the fractile groups in rural areas has reduced over the decade (1986-87 to 1995-96). **The dependence of poor on primary health care centers has also reduced in rural areas.** This clearly indicates that people are seeking more and more of private services. The utilization of public health facilities in urban India for out-patient treatment is only 20%. **In less developed states like Rajasthan, Madhya Pradesh, Bihar and Orissa also, 60% to 80% of out–patients in urban areas depended on private** and other facilities.

As far as in-patient services are concerned, 42nd round results revealed that bottom 20% of the fractile groups depended largely on public providers for hospitalization**. But, over the decade the dependence on public providers has declined.** The percentage of dependence on public providers as revealed from 52nd round, varies from 32 to 63% among different fractile groups in rural areas. In urban areas the dependence varies between 26 to 68% among different fractile groups. Except the lowest mpce in rural areas, there is a decline in dependence on public providers for hospitalized treatment with the rise in mpce (NSS, Report No. 441, 1995-96). **This indicates that there is need for continued supply of subsidized health care, particularly the hospitalized treatment for the benefit of the poor.**

Social group: In the 42nd round, of the total hospitalized cases treated in public hospitals STs constituted 5.48% and SCs constituted 20.19% in rural areas. In urban areas, of those who sought treatment in government hospitals, STs were 1.73% and SCs were 17.85%. Classification of hospitalized cases as per social groups under different sources of treatment in 42nd round revealed that SCs and STs depend more on public hospitals and PHCs as compared to other social groups as shown in Table-8 below.

Table-8 Hospitalized cases as per social groups under different sources of treatment

42nd round (India)

Social Groups	Private hospitals		PHCs		Public hospitals	
	Rural	Urban	Rural	Urban	Rural	Urban
SC	3.38	1.75	10.17	3.11	5.48	1.73
ST	12.29	10.18	20.56	29.83	20.19	17.85
Others	84.12	87.78	69.26	66.76	74.09	80.15

52nd round (India)

Social Groups	Private hospitals		PHCs		Public hospitals	
	Rural	Urban	Rural	Urban	Rural	Urban
SC	16.0	10.0	25.2	20.9	24.3	18.5

ST	4.0	2.3	15.0	9.9	8.4	4.1
Others	80.0	87.7	59.4	69.2	67.2	77.3

In 52nd round **though the overall dependence of all the social groups on public health care institutions has come down, tribal people and the scheduled castes still depend more on public facilities as compared to private services.**

IX. Type of Treatment

There is a general complain by public in both rural and urban areas that government health services which are free and are mainly for the poor, in reality are not free (see Table-A-13; A-14; A-15). The survey results of 42nd and 52nd round do support this. In 1986-87, 61% and 55% of the hospitalized cases in the country respectively in rural and urban areas received free treatment. But, in 52nd round, the free treatment was available only for 39% and 35% of hospitalized cases in rural and urban areas respectively. In Orissa, while, 90% and 88% of the hospitalized cases in rural and

Table-9: Percentage distribution of hospitalized cases during last 365 days by type of ward in Govt. & Pvt. Hospitals

States	Free Ward (42nd Round)				Free Ward (52nd Round)			
	Govt.		Private		Govt.		Private	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Maharashtra	91.32	88.95	8.68	11.06	27.30	25.10	1.40	3.50
Karnataka	91.33	96.20	8.67	3.80	36.40	23.50	1.40	1.80
Orissa	94.35	88.95	5.67	11.05	82.70	73.30	0.40	1.90
All India	91.01	92.35	8.99	7.65	38.80	34.70	2.80	3.50

urban areas respectively had received free treatment in 1986–87, only 83% (rural) and 75% (urban) are receiving free treatment as revealed in 52nd round. **In Maharashtra, free treatment is available to only one-fourth hospitalized cases.** Earlier i.e. in 42nd round, 89% in rural areas and 76% in urban areas received free treatment. In Karnataka also the proportion of free treatment has come down. It is available to one-fourth of the urban patients and one-third of rural patients. In 1986-87, three-fourth of the in-patients in urban areas and more than 90% in-patients in rural areas in Karnataka had received free treatment. In addition to government hospitals and PHCs, hospitals run by public trusts also provided relief to poor patients to a larger extent in 1985–86. But, such information is not available in the 52nd round.

None of the hospitalized case in public sector reported in Orissa in 42nd round, paid for special treatment neither in rural nor in urban areas. In Maharashtra, paying special cases were only from bottom 10% and top 10% of fractile group in rural areas and from top 10% in urban areas. In rural areas of Karnataka, while higher income groups opted for special treatment, all the cases paying special in urban areas were from bottom 10% of income group.

During 1986-87, medicines, facilities of x-ray, ECG, EEG, other diagnostic tests and physio-radio therapies were available to 83% of the out-patients in the country. Surgical operation facility for patients not treated as indoor was available to only 53% of the out-patients. Details on these services are not available for 52nd round.

In rural Orissa, where majority of the in–patients depend on government hospitals, only 17% of the in–patients in government hospitals had received free medicines as indicated in 42nd round survey results. In Maharashtra and Karnataka only 34% and 32% of the in–patients respectively did not pay for medicines. For other items of expenditure, **percentage of hospitalized cases receiving treatment on payment in government hospitals is higher in Orissa. Though patients in Orissa** do not go for paid special treatment, **the free services on which they largely depend are free on paper only.** Next to medicines, expenses of X–ray and ECG are a burden on poor people as most of the government hospitals do not have these facilities.

In urban areas of Orissa during 1986-87, hospitalized cases had relatively lesser on payment treatment in government hospitals. **In Karnataka, higher percentage of in–patients in government hospitals in urban areas spent on all type of diagnostic tests, physio and radio therapies and on surgical operation as compared to other two states. On payment cases for all type of expenditure categories were comparatively less in Maharashtra in urban and rural government hospitals.** In private urban hospitals, 4% in–patients had received free medicines and up to 2% in–patients had received other facilities freely in the country during 1986–87.

X. How much do people spend on Treatment?

10.1 In– patients:

World Development Report (1993) revealed that out-of pocket spending for drugs, traditional medicine and user fees usually accounts for more than half of total spending for health in India. Based on this one can argue that when people are currently spending more than half from their pocket for free (public) but poor quality health service, then it would be better to go in for private paid in services with improved or better quality services.

But, the fact that majority of the poor still use public facilities particularly for hospitalized treatment points out the need for continued public services. Even if they spend half of the expenditure from their own source, the other half that is saved or unused for other purposes reduces burden on the family.

The cost of hospitalized treatment generally includes expenses on medicines, pathological and diagnostic tests like X-ray, ECG, EEG, physiotherapy/radio–therapy, charges of ambulance, bed charges, cost of oxygen and blood, surgery and consultation charges.

Table:10 –Average total expenditure (Rs.) per hospitalization by type of hospital (India)-52nd round

Type of hospital	Rural	Urban
Public hospital	2245	2191
PHC / CHC	740	2461
Public dispensary.	1887	1977
Public sector hospital	2080	2195
Private hospital	4394	5524
Nursing home	4185	5749
Charitable institution	3808	3078
Other	3015	1630
Private sector hospital	4300	5344
Any hospital	3202	3921

Source: NSSO (1998) , Report No. 441(52nd round), p.28

As shown in Table–10, average total expenditure per hospitalized case varies from Rs.2080 in public hospitals to Rs.4300 in private sector hospitals in rural areas. In urban areas, the variation is from Rs. 2195 to Rs. 5344 for public and private sector hospitals respectively. **There is no wide difference between inpatient care for rural and urban patients in public hospitals but, urban patients pay higher price for hospitalization in private hospitals.**

Table-11: Average total expenditure (Rs.) per hospitalization by type of hospital for rural and urban areas (in *Constant prices- Base-1980-81)

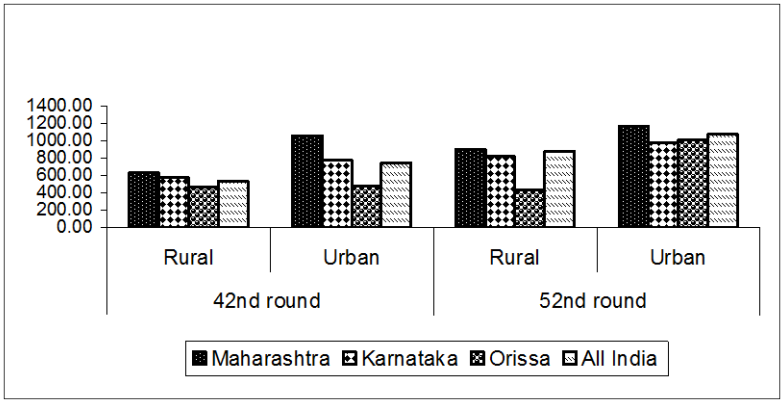
State	42nd Round (1986-87)		52nd Round (1995-96)					
	Rural	Urban	Rural			Urban		
			Govt. hospitals	Other hospitals	All	Govt. hospitals	Other hospitals	All
Karnataka	577.99 **(919)**	774.21 **(1231)**	489.34 **(1791)**	1120.00 **(4100)**	818.85 **(2997)**	427.00 **(1564)**	1230.05 **(4502)**	981.69 **(3593)**
Maharashtra	634.00 **(951)**	1064.67 **(1597)**	449.7 **(1529)**	1128.23 **(3836)**	908.52 **(3089)**	423.23 **(1439)**	1572.00 **(5345)**	1175.58 **(3997)**
Orissa	462.11 **(744)**	476.40 **(767)**	440.05 **(1681)**	676.17 **(2583)**	429.58 **(1641)**	560.73 **(2142)**	3096.59 **(11829)**	1012.56 **(3868)**
India	536.48 **(853)**	744.03 **(1183)**	571.43 **(2080)**	1181.32 **(4300)**	879.67 **(3202)**	603.02 **(2195)**	1398.95 **(5344)**	1077.30 **(3921)**

Source: (i) NSSO (1992 & 1998), Report No. 324 (42nd round) and Report No. 441(52nd round), p.28

(ii)Constant prices using deflator –Handbook of Statistics on Indian Economy, RBI, 1999

(iii)Figures in parenthesis: current prices

Chart –1- Cost of treatment (Average total expenditure per illness- IP) (in constant prices)



As shown in chart-1, there is no substantial change in the average cost of hospitalization in rural Orissa over the decade. In fact there is a slight decline in the hospitalization cost. But, hospitalization cost in urban Orissa has increased by 112% and the increase is higher in private hospitals. One possibility could be that in Orissa 99% of the patients who seek treatment in government hospitals go for free treatment. Even though they pay for medicines and other expenses in free treatment, **there are no service and rental charges.** In private they have to pay for both of these and there is increase in expenditure. The other possibility for **high cost in private could be the poor quality of services in public hospitals.** As a result there is no competitor for private sector. Of the three specified states, total expenditure was higher in Maharashtra and lower in Orissa (Table-11). This is not so if private and public hospital costs are considered separately. Of the 15 major States, the expenditure was lowest in Kerala and highest in Punjab in rural areas. **In urban areas also hospitalization expenses were lower in Kerala and higher in Uttar Pradesh.**

In 42nd round, in rural areas **average expenditure (per day) per hospitalized case in free type of treatment in government hospitals among three states was highest (Rs.40) in Orissa** and equal (Rs.24) in Maharashtra and Karnataka. Average cost in paying special category in government hospital was higher in Maharashtra but less than all India average expenditure. In urban government hospitals also in–patients in Orissa had to spend on an average Rs.40 in free type of treatment and Rs.115 in general category. In urban Maharashtra patients from middle and upper middle-income groups used special category service in public hospitals and spent on an average Rs. 143 per day per case. Per day expenditure in rural private hospitals varied from Rs. 40 in free type in Karnataka to Rs.205 in free type in Orissa. In a developed state like Maharashtra, per day expenses free type of treatment (Rs.86) in private rural is less than that in Orissa. In urban areas, per day expenses in free and paying general type of hospitalized treatment in private is less in Orissa as compared to Karnataka and Maharashtra.

State wise expenditure details for 52nd round reveal that hospitalization is costlier in government and private hospitals in rural Karnataka. Treatment in government hospitals is lower both in rural and urban Maharashtra. **In urban areas, hospitalization**

is costlier in Orissa both in government and private hospitals. Average expenditure on hospitalized case is lesser also in urban government hospitals in Maharashtra. Expenditure is lesser in private hospitals in urban Karnataka as compared to Maharashtra and Orissa. In rural areas, cost per hospitalization in government hospitals is cheapest in Tamil Nadu (Rs.751) and highest in Uttar Pradesh (Rs.4237). In other hospitals cost is highest in Andhra Pradesh (Rs.7822) and cheaper in Assam (Rs.2003). In urban areas, cost varies from Rs.934 in Tamil Nadu to Rs. 8888 in Harayana for government hospitals and from Rs.2254 in Kerala to Rs.11829 in Orissa for private hospitals (See: NSS Report No.441, pp. A-93-94 and A-198-199).

Though the average expenditure is higher for higher income groups, it is not uniform and regular for all the states. There is variation in average expenditure when bottom and top 10 % fractile groups are taken into consideration. 52nd round results (see Annex Table-A-19) revealed that average total expenditure per hospitalized case varied from Rs.961 to Rs.5126 (1:5) and from Rs.1176 to Rs.7619 (1:6) respectively for public and private hospitals and for the bottom 10% and top 10% of fractile income group in rural areas. In urban areas, the average total expenditure varied from Rs.497 to Rs.8104 (1:16) and from Rs.1186 to Rs.12957 (1:11) respectively for public and private hospitals and for the bottom 10% and top 10% of fractile income group. **In rural areas, poor spend more on treatment in public hospitals compared to their counterparts in urban areas.** For hospitalized treatment rich spend nearly five times more than the poorest in rural areas and more than ten times in urban areas. There is no major difference between rural and urban areas in the average expenditure incurred by poorest on hospitalized case in private hospital. The average expenditure on hospitalized case is found to be generally lower for STs as compared to SCs and others in public hospitals in urban areas and private hospitals in rural areas.

10.2: Out Patient : Among the three specified states (shown in Table-12-A), cost of treatment for out-patients(OP) is lower in rural Karnataka and urban Orissa during 52nd round. Average expenditure per ailment varied from Rs. 91 in Karnataka to Rs. 144 in Maharashtra in rural areas and, from Rs. 117 in Orissa to Rs. 170 in Maharashtra in urban areas. Expenditure incurred on treating female out-patient is less than that incurred on treating a male patient in rural and urban areas in Karnataka and Maharashtra, while it is higher for females in Orissa.

Table-12 -A
Average medical and other related non-medical expenditure per treated ailment during 15 days by source of treatment and per capita public expenditure on health-OP

52nd round (in current prices)

State	Per capita public exp. on health	Medical expenditure by source of treatment						Total expenditure by source of treatment					
		Rural			Urban			Rural			Urban		
		Govt.	Other	All	Govt.	Other	All	Govt.	Other	All	Govt.	Other	All
Karnataka	**54**	**61**	**127**	**108**	**120**	**160**	**151**	**70**	**142**	**122**	**136**	**184**	**172**

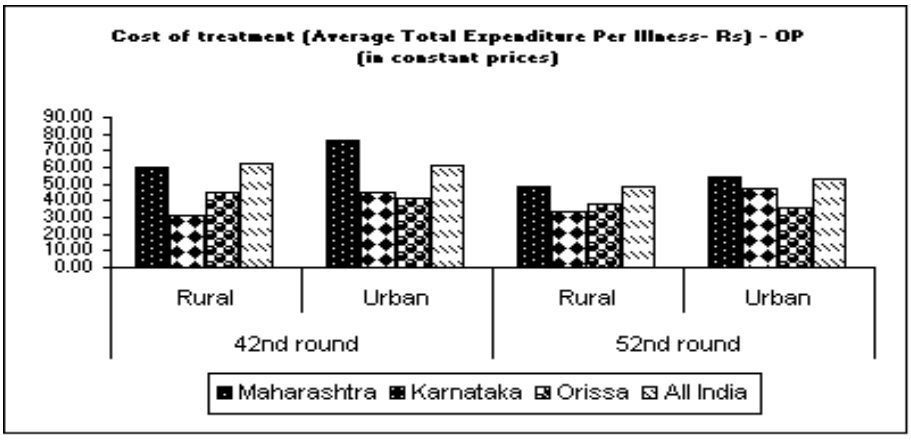
Maharashtra	**78**	**73**	**161**	**147**	**91**	**175**	**163**	**90**	**179**	**165**	**125**	**195**	**185**
Orissa	**47**	**118**	**151**	**137**	**128**	**127**	**128**	**129**	**158**	**147**	**143**	**133**	**136**
India	**70**	**110**	**168**	**157**	**146**	**185**	**178**	**129**	**186**	**176**	**166**	**200**	**194**

Table-12-B- Cost of treatment (Average Total Expenditure Per Illness- Rs) - OP (in constant* prices) Base- 1980-81

States	42nd round		52nd round	
	Rural	Urban	Rural	Urban
Maharashtra	60.07	76.60	48.53	54.41
Karnataka	31.63	44.98	33.33	46.99
Orissa	44.47	41.61	38.48	35.60
All India	62.79	61.23	48.35	53.30

* Using deflator- Handbook of Statistics on Indian Economy, RBI, 1999.

Chart-2



Total average expenditure on out-patient treatment (1995-96) is Rs. 176 (Rs. 48 in constant prices) in rural areas and Rs. 194 (Rs.53 in constant prices) in urban areas. Average OP expenditure is least for Tamil Nadu in rural areas and for Kerala in urban areas and is highest in Uttar Pradesh and in Madhya Pradesh in urban areas (see Table-13-B). The cost of treatment is higher for middle aged in rural and in urban areas. On the whole, **there is increase in average expenditure corresponding to an increase in the age groups.** The comparison of expenditure between two rounds of NSS reveals that the out patient cost has not risen in real terms (see Table- 12-B and Chart-2). **The reforms process has no major effect on the cost of non-hospitalized treatment i.e. primary health care.** Increase in the number of doctors, transport facilities, services of doctors trained in ayurveda and homoeopathy at lower costs, availability of cheaper medicines, etc., may be the reasons withholding rise in the cost of treatment.

Table 13- A: Average total expenditure (in Rs.) for hospitalized and non-hospitalized treatment for each State/U.T.(India) - in constant prices**

SL. No	State / U.T	Hospitalized Treatment				Non-hospitalized Treatment			
		Rural		Urban		Rural		Urban	
		42nd	52nd	42nd	52nd	42nd	52nd	42nd	52nd

		Rd.1986-87	Rd.1995-96	Rd.1986-87	Rd.1995-96	Rd.1986-87	Rd.1995-96	Rd.1986-87	Rd.1995-96
1	Andhra Pradesh	460.11	1668.32	549.79	1268.11	45.99	30.11	39.14	37.11
2	Arunachal Pradesh.	-	-	-	-	-	159.15	-	71.13
3	Assam	287.05	480.52	586.33	936.34	105.24	20.51	89.86	27.18
4	Bihar	720.61	1074.34	713.37	1036.49	123.90	61.23	61.13	48.99
5	Goa*	343.26	-	937.97	-	104.45	63.50	68.67	39.65
6	Gujarat	503.19	725.20	706.17	906.03	52.47	39.21	57.66	57.46
7	Haryana	919.26	873.88	548.36	1771.87	46.67	49.60	49.13	108.96
8	Himachal Pradesh	601.62	-	661.81	-	90.54	27.91	81.35	41.15
9	Jammu & Kashmir	397.46	-	384.30	-	61.72	67.14	59.07	51.46
10	Karnataka	576.67	819.22	772.46	982.14	31.57	24.87	44.89	42.37
11	Kerala	251.89	560.25	264.43	470.82	21.52	29.08	28.53	26.39
12	Madhya Pradesh	452.10	599.47	429.39	758.98	103.82	35.30	67.16	96.04
13	Maharashtra	634.65	907.92	1065.44	1174.80	60.12	42.32	76.66	49.97
14	Manipur	421.73	-	693.42	-	80.23	101.17	122.09	55.92
15	Meghalaya	316.22	-	337.59	-	29.19	7.35	61.48	19.05
16	Mizoram	-	-	-	-	-	-	-	-
17	Nagaland	-	-	383.31	-	-	-	123.61	-
18	Orissa	461.36	429.92	475.35	1013.36	44.39	25.94	41.54	30.65
19	Punjab	936.96	1297.58	1069.17	1485.92	61.03	45.00	56.65	40.32
20	Rajasthan	698.53	871.26	501.72	903.09	73.27	49.33	83.21	50.47
21	Sikkim	294.90	-	469.17	-	336.30	-	242.45	-
22	Tamil Nadu	416.30	783.45	628.22	1085.25	31.05	21.79	33.97	32.28

23	Tripura	206.82	-	143.11	-	25.92	22.82	40.70	53.52
24	Uttar Pradesh	803.56	1225.33	1184.03	1661.20	93.53	56.91	103.21	59.73
25	West Bengal	310.92	603.81	804.90	992.57	37.95	32.40	57.20	38.26
26	A. & N.Islands	79.12	-	976.44	0.00	26.53	7.55	21.91	15.11
27	Chandigarh	-	-	-	-	-	-	-	-
28	Dadra & Nagar Haveli	-	-	-	-	-	-	-	-
29	Daman & Diu	-	-	-	-	-	-	-	-
30	Delhi	1364.60	0.00	1055.74	0.00	251.55	41.91	86.32	51.93
31	Lakshadweep	-	-	-	-	-	-	-	-
32	Pondichery	211.41	0.00	272.96	0.00	17.87	2.83	165.63	11.56
	All India	536.62	879.67	743.99	1077.20	62.79	39.56	61.23	48.08

Source: NSSO (1992 &1998), Sarvekshana-42nd round(1986-87), 51st issue, Vol. .XII, No. 4; Morbidity and Treatment of Ailments, 52nd round (1995-96).Report No.441.

* Average total expenditure= medical expd plus other expd= (medicines, bandages, plaster, fees, diagnostic tests, ambulance, oxygen, blood) (transport, lodging, attendant charges)

** includes Daman and Diu

** * Using deflator –Handbook of Statistics on Indian Economy, RBI, 1999

Table 13:B-Average total expenditure* (in Rs.) for hospitalized and non-hospitalized treatment for each State/U.T.
(in current prices)

SL.No	State / U.T	Hospitalized Treatment				Non-hospitalized Treatment			
		Rural		Urban		Rural		Urban	
		42nd Rd.1986-87	52nd Rd.1995-96	42nd Rd.1986-87	52nd Rd.1995-96	42nd Rd.1986-87	52nd Rd.1995-96	42nd Rd.1986-87	52nd Rd.1995-96
1	Andhra Pradesh	753.81	6428	900.73	4886	75.34	116 - 165	64.12	143- 172
2	Arunachal Pradesh.	-	-	-	-	-	490	-	219
3	Assam	499.75	1945	1020.79	3790	183.22	83 - 151	156.45	110- 180
4	Bihar	1141.87	3860	1130.4	3724	196.33	220 – 213	96.86	176- 212
5	Goa**	589.56	-	1610.9	-	179.39	197	117.94	123

				8					
6	Gujarat	809.14	2663	1135.54	3327	84.38	144 – 157	92.72	211- 218
7	Haryana	1336.05	3224	796.98	6537	67.83	183 – 189	71.41	402 –414
8	Himachal Pradesh	919.29	-	1011.26	-	138.35	97	124.31	143
9	Jammu & Kashmir	681.27	-	658.71	-	105.79	214	101.25	164
10	Karnataka	918.68	2997	1230.59	3593	50.29	91 – 122	71.52	155- 172
11	Kerala	463.91	2293	487.02	1927	39.63	119 – 136	52.55	108- 120
12	Madhya Pradesh	723.16	2191	686.84	2774	166.07	129 – 155	107.43	351 –376
13	Maharashtra	951.23	3089	1596.9	3997	90.11	144 – 165	114.90	170 –185
14	Manipur	688.35	-	1131.8	-	130.95	351	199.27	194
15	Meghalaya	559.91	-	597.76	-	51.69	32	108.86	83
16	Mizoram	144.5	-	191.2	-	48.01	37	196.30	86
17	Nagaland	-	-	600.75	-	-	270	193.73	790
18	Orissa	744.09	1641	766.65	3868	71.60	99 – 147	66.99	117 –136
19	Punjab	1402.01	4988	1599.84	5712	91.32	173 – 175	84.76	155- 162
20	Rajasthan	1024.88	3038	736.12	3149	107.50	172 – 192	122.09	176 –198
21	Sikkim	450.64	-	716.94	-	513.90	63	370.49	252
22	Tamil Nadu	684.37	2840	1032.76	3934	51.05	79 – 102	55.84	117 -129
23	Tripura	351.67	-	243.34	-	44.07	55	69.21	129
24	Uttar Pradesh	1236.11	4349	1821.39	5896	143.88	202 – 224	158.77	212 –227
25	West Bengal	488.02	1957	1263.35	3217	59.57	105 – 131	89.78	124 –137
26	A. & N.Islands	131.86	-	1627.41		44.21	25	36.51	50
27	Chandigarh	282.44		1309.06		33.88	36	89.02	200
28	Dadra & Nagar Haveli	404.06		-		44.70	85	-	112
29	Daman & Diu	-		-		-	73	-	114
30	Delhi	2053.46		1588.68		378.53	138	129.90	171

31	Lakshadweep	1973.01		1055.33		114.60	56	102.20	5
32	Pondichery	340.55		439.7		28.78	11	266.81	45
	All India	853.23	3202	1182.95	3921	99.84	144 – 176	97.35	175 –194

Note: ** includes Daman and Diu

Source: NSSO (1992 &1998), Sarvekshana-42nd round(1986-87), 51st issue, Vol.XII, No. 4; Morbidity and Treatment of Ailments, 52nd round (1995-96).Report No.441.

*. Average total expenditure- medical expd plus other expd= (medicines, bandages, plaster, fees, diagnostic tests, ambulence,oxygen, blood)(transport, lodging, attendant charges)

*** The variation in average expenditure shown for non-hospitalized treatment in 52nd round is due to separate estimates presented in the report (Table-4.19 and Table 22.1) gender wise and state wise.

World Bank estimates of total health expenditure in India (1990-91) reveal that per capita expenditure on health by public sector was Rs.68.8 (21.5%) and that by private sector was Rs.250.5 (78.5%). Of the total private expenditure, 75 percent is reported to be out-of-pocket expenditure incurred by households (Berman Peter,1998).

XI. Loss of household income due to illness (out-patient):

As per 52nd round survey results, due to illness households had to forego per non-hospitalized illness episode, an average amount of Rs. 55 in rural areas and Rs. 44 in urban areas. This almost amounts to one day wage loss on account of occurrence of a illness. In rural areas, the burden of illness in terms of loss of household income is higher in Arunachal Pradesh, Harayana and Manipur and less in Assam, Goa, Mizoram, Delhi, Pondicherry and Daman Diu.

The loss of income in rural areas varied from Rs. 2 in Daman Diu to Rs. 185 in Arunachal Pradesh.

Table-14: Loss of Household income (52nd Round) (in Rs.)

States	Out-Patient		In-patient					
	Rural	Urban	Bottom 10% mpce		Top 10% mpce		All	
			Rural	Urban	Rural	Urban	Rural	Urban
Maharashtra	55	35	188	383	1113	706	587	534
Karnataka	72	54	260	203	1326	741	798	518
Orissa	70	35	101	418	811	680	402	450
All India	55	44	270	273	937	923	563	521

In urban areas, average loss of income is higher in Arunachal Pradesh, Harayana, Nagaland, Rajastan and Chandigarh and lower in Delhi, Tripura, Goa and Meghalaya. The loss of income in urban areas varied from Rs.2 in Mizoram to Rs.191 in Arunachal

Pradesh. **Of the three specified states, the burden of out-patient treatment is higher in Karnataka both in rural (Rs.72) and urban (Rs.54) areas.**

Average amount of loss of household income per hospitalized case was roughly Rs. 270 (Rs. 273-urban) for bottom 10 percent mpce class and Rs. 937 for top 10 percent mpce class in rural and urban areas. Average loss for all the mpce groups was Rs.563 in rural areas and Rs. 521 in urban areas. **The loss of income due to hospitalization for the bottom 10 percent group is higher in urban Orissa as compared to Maharashtra and Karnataka and higher in rural Karnataka as compared to Orissa and Karnataka** (see Table A-20). On an average the burden of hospitalization is higher in rural Karnataka and urban Maharashtra.

XII. Messages from NSS in the light of ongoing Economic Reforms

It is difficult to justify whether development leads to growth or growth facilitates development. Both are complimentary. Similarly, there are many developments in the economy over the last decade, which have had an impact both positive and negative on different sectors independently off economic reforms. The technological development in health sector on the one hand has facilitated detection of diseases, conducting complicated surgeries, increased comforts in post-surgery period, introduced new drugs and dissemination of latest health information. On the other hand it has led to over use of diagnostic tests, increase in hospital wastes, death of female foetus in womb and increase in the cost of hospitalized health care. Technological development is not just the result of economic reforms. It is the out come of growth process and, liberalization or economic policies act as facilitators to avail it worldwide.

But, changes like increasing privatization, changing role of the public sector in the provision of health care, drug production and sale due to WTO / TRIPS are some of the developments which are induced due to liberalization policies accepted by government.

12.1 Private V/S Public

Private sector has been playing a predominant role in the provision of health care since many years. But, there is an increasing trend in the share of private sector in many fields including health. The liberalization policies under the economic reforms favor market forces to operate in all the fields including social sector. But, it is doubted whether the model premised upon competitive charges and cost containment would operate effectively in distribution of social goods such as health (Sen. Kasturi, 2001).

Studies on private sector and the present analysis of the NSS results however indicate that **private health services are urban biased, cater to better off and provide costlier service (Baru,1999; IIM, 1987; Bhat, 1999) whereas, public health facilities cater to poor, rural and disadvantaged sections and are cheaper** (Prabhu 1999; IIM 1987). The growth of private sector has been linked to new economic policy, influx of medical technology, growing deficits of the public sector hospitals and rising middle

class. In a study undertaken in Ahmedabad, 91% of the providers surveyed believed that the cost and use of diagnosis have increased due to Consumers Protection Act (Bhat,1999). Moreover there is need to look in to the efforts already begun in this direction and learn from the lessons. While government initiatives in health care partnership have failed in large-scale ventures in Delhi, Punjab and Rajasthan, smaller ventures involving NGOs in running PHCs in Gujarat (SEWA), Tamil Nadu (Bhat, 1999) and Karnataka (involvement in Primary Health Care-PHCs) have proved to be successful.

Studies have shown that there is a strong positive relationship between per capita health spending and per capita GDP (New house, 1977[1]). Few others like Lew (1986)[1] have reported that health care spending is influenced by the share of public expenditure in total health spending and the presence of a centralized national health system. Both the studies quoted above support **the argument that health care expenditure depends on resources position of states and the quantum of government share in total health expenditure. Poor states need continued financial support to invest in merit good like health. In such a situation if states get central assistance for health on matching grant basis then poor states, which are unable to spend more would suffer.**

NSS results and other studies (IIM, 1987; NCAER, 1992; Baru,1999) reveal that still a substantial section of the population particularly the poor and the underprivileged depend on public hospitals for hospitalized care. **IIM study revealed that government hospitals served the poor and private hospitals served the better off. Middle class people used government hospitals mainly to avail of diagnostic and surgical facilities, which they could not avail privately.** Medical college hospitals had multiple roles of super-specialty and emergency care for serious patients, legal cases and the poor.

12.2 Drugs and the Poor

Drug prices were said to be high in India during independence. The establishment of two Public sector units in early 70s led to 60 to 70**%** decline in the prices of anti-biotic (Sen Amit, 1999) during that period. Even after that the dependence on foreign drug industries and imports to meet the domestic demand continued to exist. The Indian Patent Act 1970, which recognizes process patent stimulated domestic production of bulk drugs and formulations. Process patent has enabled domestic industries to make process modifications to develop MNC's bulk drugs and then formulations. But, there is no proper regulation of drug industry and drug prices in India. Large numbers of small scale units have been set up and large number of brands reported to be irrational and unnecessary are produced on a wider scale. Though, in general the drug prices are cheaper in India, some of the drug prices particularly the prices of antibiotics are higher and are reported to be beyond the reach of common man. It is reported that the amount spent annually by the drug industry in industrialized countries on each doctor for sale of their products varies from US $ 2665 in Canada to $ 8000 in UK and USA (Chauhan

[1] as cited in Hitiris Theo and John Posnett (1992), *Journal of Health Economics*, Vol. II, pp.173-181, 1992

et.al, 1997). With the entry of multinationals advertising costs are increasing in India also.

WDR (1993) reports that developing countries should reduce the waste and inefficiency in drug management. Bulk purchase, selection and quantification of drug requirements in part through the use of essential drug lists are some of the measures advocated as 10 to 30% of public spending for health comprises of pharmaceuticals in most of these countries.

Under the liberalization policy of the government it is argued that prices should be left to self-regulation by market forces. The reduction in the number of drugs under price control in New Drug Policy, 2002 is one measure, which supports this argument. Our earlier experience with DPCO reveals that if more number of drugs are out of DPCO, then generally there is increase in the price of these drugs and also increased production of non-essential drugs. **DPCO helps in putting a ceiling on prices of certain mass usage bulk drugs and their formulations and prevents undue profit earning.** The availability, accessibility and the cost of essential drugs depend upon drug policy that is adopted by the country. Criteria of categorization of drugs by DPCO in India is generally based on monopoly and turnover rather than essentiality. Drugs under DPCO declined from 450 to 347 in 1975, from 347 to 142 in 1986, from 142 to 73 in 1994 and, from 73 to 39 in 2002. The coverage of control has come down to 20-25% from 50-60 percent. The earlier developments in pharmaceutical industry encouraged growth of the industry. Exports went up and large number of small scale units were set up. But, due to hike in Maximum Allowable Post Manufacturing Expenses (MAPE) in 1986, consumers were affected.

The prices of drugs **at present in India are said to be comparatively cheaper. With product patent prices would definitely go up. NSS results indicate that free medicines at public hospitals are available to limited percentage of the sick population. Patients are spending on medicines and have to spend more in future as new drugs would be available at higher prices.**

12.3 Primary V/S Secondary / tertiary care

Many studies and reports emphasize the importance of the provision of primary health care as the basis for improving health status. Countries like Srilanka, China and Kerala state in India have achieved low morbidity and mortality rates in spite of their relatively low per capita incomes due to expansion of primary health care services. Shariff and others (1999) argue that majority of the health problems faced by people in India are amenable through essential public health investments, cost-effective intervention, improvement in efficiency of public health services focusing on primary health care.

IIM (1987) study has revealed **that there is underutilization of public facilities in rural areas whereas the load of patients at the district level and specialized hospitals is high.** This indicates that services available in rural areas are of poor quality,

inadequate, inefficient and people depend on public tertiary care. Therefore, government should first improve **primary health care facilities before involving private sector in tertiary care.**

But, WDR (1993) has aroused much debate over the issues of primary and tertiary care. World Bank advocates cut in government expenditure for tertiary care, encouragement to private sector for clinical services, investment in cost effective public health activities and community control and financing of essential health care. National Health Policy-2002 incorporates many of these recommendations.

But, in the light of NSS results on utilization of health care services and treatment seeking behaviour, there is need to address to the **issues of equity, affordability and sustenance in designing and formulating policies** on health care provision, particularly those, which involve community management and private participation.

12.4 Availability and Accessibility

Utilization of health care services is determined to a large extent not just by their availability but also by their accessibility. Mere provision of health institutions may not lead to improvement in public health. People need to utilize them when there is need so as to improve their health status. **NCAER (1992) study reveals that in rural areas people have to travel a long distance to avail medical facilities as compared to urban households.** States like Maharashtra and Punjab have good health status and a well-distributed public health system and West Bengal, Gujarat, Karnataka and Tamilnadu are lower but better off compared to Andhra Pradesh, Madhya Pradesh, Uttar Pradesh, Bihar, Rajasthan and Orissa. This indicates that generally economic development of a state is linked to its health status (except Kerala) and availability of public facilities.

Tamil Nadu has higher number of PHC per 100 sq.kms as compared to Maharashtra. But, according to a study, in Tamil Nadu, 36% of the patients had to travel 3–5 kms and 30% had to travel 6 – 10 kms to get treatment. In Tamil Nadu there is higher reliance on private facilities (>50%). In Maharashtra less than 50% illness episodes were referred to private doctors (Prabhu, 1999).

42nd and 52nd rounds reveal that public primary health care facilities (i.e. PHCs/SCs) are not utilized properly by the people. Longer waiting period, arrogant behaviours, non-availability of medicines, irregular visits by doctor, not responding to community health needs are the reasons stated for non-utilisation of PHCs / SCs (Chirumule and Anuradha, 1997; Prabhu, 1999 ; NIHFW 1983; NIHFW 1989; IIM,1987). People opt for home remedies only when there is non-availability of either private or public services and also due to poverty, which restricts the use of paid services (Chirumule and Anuradha, 1997 - Rajasthan Study). NIHFW (1983) study on utilization of health services in Madhya Pradesh **revealed that as many as 50 percent of the people who died of various causes did not get medical attention at death.** Such incidences would be more in rural areas, where emergency treatment or timely transport is not available.

NSS results indicate that **primary health care services are not available regularly and uniformly.** The percentage of people not seeking treatment **due to non-availability of services has increased during 42nd to 52nd round.**

12.5 Decentralisation/Community involvement in Health Care Delivery

The empowerment of the Panchayat Raj bodies under the 73rd Amendment to the Constitution has strengthened panchayats with greater devolution of power, finances and functions. Health and education are functions listed under panchayats. But, the involvement of **panchayats in health and education is nominal and it is only at the district level.** Village panchayats till today do not perform any major programme under health and education. Provision of health services is limited to water supply and sanitation. Kerala is an exception to this where in, panchayats are being involved in planning of services at local level and 40 percent of the district funds are allocated to panchayat programmes.

Due to resource constraints, technological development, emergence of new communicable and non-communicable diseases and overgrowth of population, government is unable to allocate sufficient resources to health sector. Economic reforms leading to liberalization have opened ways for privatization. But, complete privatization of basic services like health and education is not feasible as it will not assure equitable distribution of primary health services and it also may deny the poor from getting subsidized in-patient care in hospitals.

12.6 National Health Policy (NHP), 2002 – Are we moving in the right direction?

Before discussing the NHP-2002, it would be worthwhile to see what happened after NHP-1983. The main focus of NHP-1983 was on achieving health for all by 2000 AD. But, targets could not be achieved due to lack of resources, co-ordination and fulfillment of equity aspects. The poor States viz. Rajastan, Madhya Pradesh, Bihar, Orissa and Uttar Pradesh are rated to be low performing States in terms of health status (2000). IMR, MMR, percentage of under-weight children, leprosy and malaria cases continue to be high in these States. Nutrition was one of the priority areas in NHP-1983. **But, the percentage of undernourished is higher in poor States.** These States are largely depending on public facilities. **This indicates that health services are inadequate in poor States.** And, the focus on creation of Sub-centres (SCs) and PHCs as a part of NHP-1983, without ensuring the quality of the infrastructure and availability of staff has resulted in non-utilization of PHCs to a large extent as revealed in 52nd round results.

NHP-2002 states to use the services of practitioners in Indian system of medicine who have undergone formal training in implementation of public health policy. **NSS 52nd round results indicate that dependency on ayurveda and homoeopathy is negligible. This is because these graduates who have training in other systems, practice allopathy and meet emergency requirement of people in rural areas. But, this has**

not reduced the demand for trained medical graduates in allopathy in rural areas. Ayurveda and homoeopathy, which are gaining importance in urban areas are not popular in rural areas.

The present policy of promoting indigenous/alternate medicines would benefit only the rich and urban unless awareness and suitable atmosphere for cheaper production of ayurvedic drugs and legal framework for its practice on large scale is created at the root level.

Since health is a state subject, major provision of health care services falls on state governments. But, due to resource constraints the share of health sector in state budget is declining. Resource constraints and increasing population call for alterative arrangements for health care provision.

The emphasis in NHP-2002 is on implementation of public health programmes through local self government and autonomous institutions. But, without control over primary health care and the concerned staff it may be difficult for these institutes to monitor and implement only the public health programmes in isolation.

NHP-2002, states to set up urban primary health centers for every one lakh population with local, state and central assistance. The existing municipal hospitals, which are already in worst condition due to lack of funds need to be strengthened and activated rather than establishing new primary health centers in urban areas. Secondary and tertiary care may be transferred to taluk and district hospitals respectively to avoid duplication and loss of resources. Moreover, private sector is effectively catering to primary health care in urban areas.

Considering the increase in accidental cases, NHP-2002 emphasizes on establishment of trauma centers at different places. It should be noted that the existing accident units at civil hospitals are not well equipped to handle serious cases and refer them to medical college hospitals. By the time the patient is shifted, the life is lost. Therefore, it is necessary that government plans to strengthen the units at civil/district hospitals.

The strategy to focus on new therapeutic drugs and vaccines for tropical diseases is a welcome feature in the light of emergence of Malaria and continued prevalence of TB with drug resistance for the existing vaccines.

Equity aspect is treated as a major goal in NHP-2002. **But, policy emphasizes on shifting the secondary and tertiary care to private sector. NSS results indicate that poor and SCs/STs depend largely on public facilities as compared to others.** IMR and MMR are still higher in poor States. IMR under five (age) mortality and percentage of children underweight is higher among SCs and STs. Policy states that programmes targeted at vulnerable sections need to be designed by planners. Health insurance schemes like ‘Janarogya Policy’ and ‘Janaraksha Policy’ are heard only during budget

presentation. The common man or the poor to whom these subsidized health insurance programmes are targeted (but rarely covered) are unaware of these policies.

XIII. Summary and Insights for Policy Initiatives

A summary of the findings from a comparative study of three rounds of NSS (28th, 42nd and 52nd) on morbidity and utilization across States is presented below.

- Overall morbidity which had declined during two decades i.e. 28th round–42nd round (1961-62 to 1986-87), has increased during 1986-87 to 1995-96.
- Morbidity reporting is slightly higher in rural areas (all the rounds).
- Joints pain and BP are common ailments in rural and urban areas. While, incidence of gastritis and TB is higher in rural areas, diabetes and heart problems are found largely in urban areas. Stress, sedentary work, change in life style and food habits could be the reasons for increasing problems of heart, blood pressure and diabetes.
- There is a substantial increase in the dependence on private sector for out patient and in patient care in the country over the last decade.
- In urban areas private health sector is developing faster.
- Though there is reduction in the use of government facilities during the past decade, poor and hilly states still depend largely for out- patient and in-patient care on government facilities.
- For inpatient care, 45% of poor continue to depend upon public sector hospitals.
- There is urban bias in treatment of reported ailments.
- Poor have highest proportion of untreated illness. In backward state of Orissa, the percentage of ailing patients treated as inpatients from total ailing persons was lower for all the fractile groups in rural areas and for lower income groups in urban areas (42nd round).
- Child morbidity due to acute diseases is more in urban areas and more so in Orissa. The incidence of morbidity for acute and other diseases in all the age groups and for both the areas is higher in Orissa (52nd round).
- Hospitalized cases have declined during 1986-87 to 1995-96 in rural areas and increased in urban areas. Still, the absolute number of people hospitalized (per 1000) is higher in rural areas.
- Percentage of hospitalization is higher in rural areas as compared to urban areas in poor states like Orissa, Bihar, MP, UP and Rajasthan.
- Percentage of hospitalization is higher in Maharashtra in rural and urban areas both in 42nd and 52nd rounds as compared to Orissa and Karnataka.
- The cost of subsidized (free) treatment (average expenditure per day for hospitalized care) in government hospitals is higher in poor state of Orissa as compared to Karnataka and Maharashtra (42nd round).
- There is reduction in the level of subsidized health care. There is scarcity of medicines and other facilities in public hospitals.

- The burden of hospitalization due to loss of household income is higher in urban Orissa and rural Karnataka for the bottom 10 percent mpce. It should be noted here that this corresponds with the cost of hospitalization (average expenditure), which is higher in urban Orissa and rural Karnataka.
- Though the percentage of people perceiving illness as not serious has come down, there is no corresponding increase in the number of people treated over the decade (42^{nd} to 52^{nd} round).
- Tobacco consumption and bad surroundings (marginally) have negative impact on health.

Insights from the study for Policy Initiatives

- The results of NSS rounds reveal that morbidity among children and aged is high and increasing. Malnutrition/under-nutrition could be one of the reasons for child morbidity. National Human Development Report-2001 indicated that over half of the children under age of five in India are moderately or severely malnourished and 30 percent of new born are significantly under weight. Postnatal care, nutritional supplements program and proper supply of drinking water and provision of sanitation are the most essential services that are required and continued public provision of these services is necessary.

- The higher incidence of water borne diseases and prevalence of communicable diseases calls for public action in the provision of safe drinking water and sanitation services. Rural and urban sanitation and solid waste management are essential for safe health and this needs collaborated efforts from government, local bodies and community. Public/private mix including community participation is inevitable in water supply and sanitation services.

- The study highlights the need for reorienting the health care system considering the higher prevalence of water borne and chronic non-communicable diseases and, continued existence of TB both in rural and urban areas. AIDS is a specific disease, which needs integration of health education with primary health care. Programmes related to prevention and treatment of specific diseases like TB, Malaria, AIDS and leprosy should be under the purview of government. These diseases require new drugs, which are likely to be in the patent list. The prices of drugs would be high due to product patent which is ahead of 2005. As such government efforts for advanced research on drugs, monitoring for continued treatment of disease, encouraging research for detecting the main factors causing the disease and procurement of new drugs is essential.

- Community participation in health care planning, management and provision is suggested as an alternative for improvement in health care. **Rogi Kalyan Samiti in Madhya Pradesh (India)** is an example of successive community participation in health care. Individual efforts by Dr. Sudarshan in Biligiri hills, Vivekananda Youth Movement in Mysore (both from Karnataka), Dr. Antia and

Dr. Arole (from Maharashtra) are noteworthy examples of initiating community awareness in health care. People are willing to pay for medicines and other services provided the quality of services improves and people have a stake in the health care system. **World Bank emphasizes that user charges and pre paid mechanism is a practical necessity for increasing quality and reliability. A sound thinking on user charge concept, its application and implications of its introduction on poor needs to be examined.**

- Utilization pattern observed across the states, points out **that government spending on the provision of health care services, particularly in-patient care is essential.** Poor and weaker sections largely depend on public hospitals for cases requiring hospitalization. NSS **results indicate that while there is no major change in the cost of out-patient care in real terms, the cost of hospitalization has increased substantially.** The study also indicates that finance is one of the major problem for not seeking treatment. In the light of this the focus should be **on secondary care with tie-up arrangement and State supported insurance coverage for tertiary care in private hospitals for poor and middle class patients.** But, government's involvement in primary health services (particularly PHCs) needs to be redefined in the light of low utilization of PHCs for both out patient and in patient care. Regulation of staff, providing adequate and quality infrastructure for the staff as well as patients and essential drugs at price (not-for-profit) is a must for utilization of PHCs.

- It is Gram Panchayat, which is accountable to village community for well functioning of PHCs in the village. The questions related to health care are raised in gram sabha. Night services are not available in most of the PHCs. Doctors are not staying in villages due to un-repaired quarters and lack of other facilities. The maintenance of PHCs vests with Zilla Panchayat (district level) in the existing framework. There is need to shift this responsibility to Gram Panchayats with required amount of funds so that they can take necessary steps to provide facilities for the PHC staff.

- Health policies should address to the problems of aged. NSS results indicate that health problems are increasing among aged **and more than 50% of the aged population is suffering from one or the other illness.** Aged are vulnerable due to changing family relations (joint family to nuclear family), migration of children to urban areas and increasing financial problems among poor and middle income groups.

- School health programme was priority issue in NHP-1983. But, no major efforts were made to streamline it. The programme should not be limited only to medical check-up camps. Creation of awareness about diseases, first–aid, personal hygiene, healthy practices and sanitation should be part of school curriculum. **'Health Clubs'** on the lines of **'Eco Clubs'** programme initiated by Central government may be introduced in schools.

- Formation of Citizens' Health Care Vigilance Committee may be encouraged on the formal lines to avoid unhealthy practices at civil/district hospitals.

- NHP-2002 emphasizes on use of practitioners, who have formal training in the Indian System of Medicine and Homoeopathy, in Central and State government health programmes. But, there may be drawbacks in such an integrated effort. Firstly, there expertise may not be useful as programmes like TB, Leprosy and Malaria control focus on allopathic drugs. Secondly, preventive care also depends on allopathic drugs, which are tested, approved and widely accepted particularly for family planning programmes. **Thirdly, the use of traditional drugs for curing any of these diseases is neither formalized nor popularized.** Fourthly, it is well known that majority of those who have formal training in traditional system practice allopathy. Moreover, the NSS 52nd round results indicate that dependency on ayurveda and homoeopathy is negligible. **The policy has not elaborated on the nature and extent of utilizing their expertise. Without creating a platform for wider use and recognition of traditional system in primary and promotional care especially in rural areas, integration may be a wasteful exercise.**

- Registration of all medical practitioners with the respective local government in rural and urban areas is essential for health care planning.

- Measures to tackle sale of out dated drugs particularly in rural areas. Licenses of shops selling such drugs should be cancelled on spot.

- NSS results indicate that utilization of PHCs is very low. As a result there is rush at the district hospitals. **As envisaged in NHP-2002,** state governments must enforce compulsory rural posting for all the medical students who have completed their internship before awarding the degrees/certificates to them. **It should be resident rural posting so that people get services at night and in emergency.**

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Annex-I

Review of NSS based Studies

Krishnan (42nd)

- Cost of treatment highest for States where facilities are least developed
- Poor paid more for health care
- Cost of out-patient treatment could be reduced if primary health care is readily accessible to rural population

Baru (42nd)

- More than 50 percent of bottom 20 percent and top 20 percent income groups in rural area in majority States used public services
- Cuts on secondary and tertiary sectors are not welcome both on the welfare and political considerations
- Private and voluntary sector are skewed in favour of urban and better developed States

Gumber (42nd)

- Poor and disadvantaged sections spend a higher proportion of their income on health care

Shariff et al. (42nd)

- Reporting of illness and hospitalization cases have shown increase with increase in income
- Need for regulating private sector
- Introduction of user fees in public health centers
- Encourage involvement of public –private mix and NGOs in delivery of health services to insulate cost escalations

Sen Gita et al. (42nd and 52nd)

- Higher untreated illness among women and poor
- Underestimation of illness among women
- There exists positive class gradient for morbidity rates

Alam Moneer (42nd and 52nd)

- Increase in the over all proportion of sick elderly during 1986-87 to 1995-96 (more than half of elderly is suffering from one or the other illness)

CMDR (28th, 42nd and 52nd)

- There is urban bias in treatment of reported ailments
- Poor have highest proportion of untreated illness
- Percentage of hospitalization higher in rural areas as compared to urban areas in poor states like Orissa, Bihar, MP, UP and Rajastan indicating non availability of services in the initial stages or for minor ailments.
- Per day hospitalization cost in free type of treatment in public hospitals higher in poor state (Orissa) both in rural and urban areas.
- There is no change in out patient treatment cost in real terms. But, hospitalization cost has increased over the decade.
- The cost of subsidized (free) treatment (average expenditure per day for hospitalized care) in government hospitals is higher in poor state of Orissa as compared to Karnataka and Maharashtra (42nd round).
- There is reduction in the level of subsidized health care. There is scarcity of medicines and other facilities in public hospitals.
- Reform process has no major effect on the cost of non-hospitalized treatment i.e., primary health care.
- The burden of hospitalization due to loss of household income is higher in urban Orissa and rural Karnataka for the bottom 10 percent mpce.
- Though the percentage of people perceiving illness as not serious has come down, there is no corresponding increase in the number of people treated over the decade.
- Tobacco consumption and bad surroundings (marginally) have negative impact on health.

Annex –II

Rounds of NSS –A Comparative Picture

28th Round (1973 – 74)	**42nd Round (1986 – 87)**	**52nd Round (1995 – 96)**	**Comments**
I . Morbidity.			
(i)Major Chronic Illnesses:			
Ashtma,T.B,rheumatism and peptic ulcer in Rural areas Ashtma, T.B, Rheumatism and BP in urban areas	——*——	Joints pain, BP, gastritis and TB in rural areas Joints pain, BP, diabetes and heart problems in urban areas	Stress, sedentary work, change in life style and food habits could be the reasons for increasing problems of heart, blood pressure and diabetes.
T.B. and asthma were the most common chronic diseases found in rural and urban areas	--------*------	Though prevalence rate of TB has come down it is still a cause of concern and is one among the four major causes of morbidity in rural areas	Introduction of new medicines, monitoring for continued treatment of disease and encouraging research for detecting the main factors causing the disease is essential.
Diabetes and BP cases were more prevalent in urban areas as compared to the cases in rural areas.	-------*-------	Prevalence of diabetes and BP in urban areas has increased and BP has emerged as one of the four major diseases in rural areas	-----* -------
Lower prevalence of epilepsy and significant cases of piles in rural and	----------*----------	Prevalence of epilepsy and piles has reduced in rural areas. In urban	------* -------

urban areas.		areas only the prevalence of piles has reduced while more number of epilepsy cases are reported.	
Rheumatism and peptic ulcer were major health problems in R & U areas.	----------* --------	----------*----------	Rheumatism seems to be a major illness even now. Though 52nd round does not give separately details under rheumatism, high prevalence of pain in the joints do indicate that rheumatism is a major problem both in R & U areas.
Incidence of measles (per 1 lakh persons) was 17 in rural areas and 14 in urban areas **(ii) Other Types ?**	---------*-------	There is no change in the incidence of measles cases in urban areas, while it has come down in rural areas.	Measles immunization programme needs to be strengthened further. There is l loss of school days due to measles.
Dysentery, influenza, malaria and whooping cough were the temporary/acute illnesses in rural and urban areas.	--------*-------	Incidence of dysentery, diarrhoea and cholera is higher both in rural and urban areas.	The higher incidence of water borne diseases calls for public action in the provision of safe drinking water and sanitation services
Injuries due to accidents were 39 in rural areas and 54 in urban areas.	--------*-------	Incidence of Injuries due to accidents have increased both in rural and urban areas. (63 in rural and 83 in urban).	Due to overall development of the economy and increase in the purchasing power of the people, there is increasing use of vehicles leading to more

(ii) Gender ? **(a) Reporting of illness** For all types of acute ailments and chronic illnesses female reporting was less in most of the States and in the country both in R & U areas. R - M – 47, F – 40. U – M – 43, F – 41. (b) Untreated cases : _____*____	While female reporting was lesser in rural India, more females reported sickness in urban India. **But, in rural areas, female reporting was higher in higher expenditure group.** R – M – 64, F –63. U – M – 30, F – 33. Proportion of untreated cases was higher in rural areas and higher among females. Rural- M–17,F– 20 Urban–M–10,F–12	Reporting is found to be higher for females both in rural and urban India. R – M – 84, F – 89. U – M – 81, F – 89. Percentage of untreated cases has reduced over the years. Rural–M–16, F – 18 Urban–M – 9, F – 10 Untreated ailments by fractile group is higher among bottom 10% of	number of accidents. Gender bias in reporting has reduced. Women are coming out of shyness and hesitation. It shows that, there is increasing awareness among women, which could be due to education, media, empowerment, health programmes and large number of health and other surveys undertaken in the country. But, there is no reporting of problems related to reproductive health and STDs. Health surveys should involve trained female investigators and more time should be given for collecting qualitative information from households. Among the untreated cases, non-availability of medical facility and financial problems were the two reasons quoted largely by

		fractile group and is higher in states like Orissa, Bihar, Assam and Andhra Pradesh.	illiterates.
(iii) Age wise? Prevalence rate of morbidity was higher among infants and aged.	---------*----------	Reporting of illness is higher for aged, middle aged and children. Incidence of morbidity due to chronic diseases is lower among the children (0 – 14)	Health policies should address to the problems of aged. Aged are vulnerable sections due to changing family relations(joint family to nuclear family), migration of children to urban areas and increasing financial problems among poor and middle income groups.
(iv) State-wise? The prevalence rate of morbidity (all types) and prevalence of morbidity (all ages) was higher in Kerala and lower in Bihar both in R&U areas. The number of persons suffering from chronic diseases was also higher in Kerala but lower in Gujarat.	--------*-------	The Incidence of morbidity for acute and other diseases in all the age groups and for both the areas is higher in Tripura and Chandigarh and lower in Manipur and Mizoram. Number of people reporting chronic ailments is higher in Kerala and Chandigarh and lower in north eastern States. Among the major States reporting(PAP- per 1000) is higher in Assam and Punjab and lower in Rajasthan, MP, Bihar and Gujarat.	Education and awareness probably lead to higher reporting of illness.
(v) In – Patients? _____*____	Hospitalized cases (per 1000) were 28 and 17 in rural and urban areas.	Hospitalized cases (per 1000) reduced to 13 in rural areas, but, increased to 20 in urban areas. Hospitalized cases (per	Proportion of persons hospitalized is higher where bed

	The number of hospitalized cases was highest for Kerala both in rural and urban areas.	1000) higher in Kerala.	to population ratio is lower (Kerala) and hospitalized cases are lower in States where bed strength is less (Orissa, Bihar, MP, Rajasthan and UP) Proportion of hospitalization increases with the increase in mpce fractile group.
(vi) Out – patients? Prevalence rate of ailing persons was 43 and 42 per 1000 in rural and urban areas.	O-Ps increased to 64 (per 1000) in rural areas but, decreased to 31 per 1000 in urban areas.	The proportion of ailing persons has increased to 86(per 1000) in rural areas and 84(per 1000) in urban areas.	There is increase in the prevalence of morbidity or increase in proportion of people suffering. Unlike hospitalized cases, the distribution of PAP(per 1000) over fractile groups does not show any particular pattern.
(vii) Ailments treated ? ----------*----------	82% and 89% of the ailing persons treated in rural and urban areas. R – M – 83, F – 80. U – M – 90, F – 88.	83% and 91% of the ailing persons treated in rural and urban areas. R – M – 84, F – 82. U – M –91, F – 90.	Gender bias in treatment of ailments has reduced over the years and there is no significant difference between males and females in treating illnesses. But, there is urban bias in treatment of ailments, which has remained unchanged over the years.

II. Reasons for not taking treatment ? ____*____	Not serious R=75%, U= 81% Financial Problem R= 15%,U=10% Non availability of health care facility R=– 3%, U = 0% Non-availability and financial problems were the reasons largely quoted in poor States viz. Bihar, Orissa and Rajasthan. Financial problem was also a major problem in J&K.	Not serious R=52%,U=60%. Financial Problem R = 24%, U = 21%. Non availability R=9% (increased) U = 1%.	Financial problems and non-availability are major problems in poor states. In Orissa these two were the reasons quoted largely as compared to Maharashtra and Karnataka.
III Type of treatment? ____*____	61% in rural and 55% in urban hospitalized cases in Govt. hospitals received free treatment. In Orissa, where dependence on govt. hospitals, for IP care is very high in the country, only 26% of I-Ps received free medicines inspite of 98% of the cases admitted to govt.hospital being treated in free ward.	42% in rural areas and 38% in urban areas received free treatment.	There is reduction in the level of subsidized health care. There is scarcity of medicines and other facilities.
IVAverage expenditure? (Per hospitalized case) **__*__**	**Out-Patient:** **Rural** Govt – Rs. 73 . Pvt-Rs.77. **Urban** Govt – Rs.74 PVT – Rs.80.	**Rural** Govt = Rs.129. PVT = Rs.186. **Urban** Govt=Rs.166. PVT= Rs.200 **Rural(Public+Private)** M=Rs.151,F=Rs.137 P=Rs.144 **Urban(Public+Private)** M=Rs.187, F=Rs.164 P=Rs.175 **Rural(Public=Private)**	NSSO data on pvt. Expd pattern on medical care also reveal that rich(top 10%) spend 9% to 12% of their total expd. on health care while, poor(BPL) spend 2% to 3% of their total expd.

	In-Patients: Rural=Rs.853 Urban=Rs.1183 **Per day per hospitalised care** **Govt.** Free: R-33 U-36 Pay gen:83 U-54 Pay spl.: R-74 U-65 **Pvt.** Free: R- 59 U-60 Pay gen: R-134 U-82 Pay spl.:R-210 U-126	M=Rs.3778, F=Rs.2510 P=Rs.3202 **Urban(public+Private)** M=Rs.4185, F=Rs.3625 P=Rs.3921 **Rural** Public sr.hosp =Rs.2080 Private sr.hosp=Rs.4300 **Urban** Public sr.hosp.=Rs.2195 Private sr.hosp=Rs.5344 **Rural** Bottom 10% fractile group: Govt.=Rs.961 Pvt.= Rs.1176 Top 10% fractile group: Govt.=Rs.5126 Pvt.=Rs. 7619 Urban **Urban** Bottom 10% fractile group: Govt.=Rs.497 Pvt=Rs.1186 Top 10% fractile group: Govt=Rs.8104 Pvt.=12957	on health care. Average per capita monthly health expd. was 3(1992) and 7(1998) for BPL families and 53(1992) 104(1998) for top 10% expd. class. Share of medical expd. in total expd has increased for both poor and top 10% class.
V Costliness? **—*—**	**In-Patients:** In rural areas, hospitalization cost per day was lower in Mizoram,Sikkim&Lakshdweep (Rs.10 to Rs.25) and higher in Haryana & Punjab (Rs.90 to Rs.125) In urban areas, per day cost higher in A&N islands, Lakshdweep, Maharashtra, UP, Punjab(Rs.108 to Rs.193) and lower in Mizoram, Sikkim& Pondicherry(Rs.20 to Rs.25). In poor States cost varied between Rs.40 to Rs.70 per	Hospitalization in rural areas is costlier in UP- Govt- Rs.4237 An. Pr-Pvt.-Rs 7822 Hospitalization in urban areas is costlier in Haryana-Govt-8888 Orissa-Pvt-11829 **Cheaper in** Rural Tamil N.- Govt- Rs. 751 Assam-Pvt- Rs. 2003 Urban Tamil N.- Govt- Rs.934 Kerala- Pvt. Rs. 2254	For the rural poor Hospitalization in Govt. hospitals is costlier(Rs.961) than that for urban poor(Rs.497).

	day **Cost per hospitalized case:** **Rural** Kerala-Rs.464 Punjab- Rs.1402 **Urban** Kerala –Rs.464 UP- Rs.1802 Karnataka – R-Rs. 919 U-Rs. 1230 Maharashtra-R-Rs. 951 U- Rs. 1597		
(VI) Surroundings and morbidity ? **—*—**	Orissa –R-Rs. 744 U- Rs. 767 ---------*---------	Unhealthy surrounding has Marginal negative effect on health.	Further studies and research is essential to probe into the linkage of morbidity with surroundings
(VII)Tobacco consumption and morbidity **—*—**	**—*—**	Affects health status. Prevalence of Cancer is more among smokers.	Information on other habits should be presented as prevalence of TB is higher among those who have other habits.
VIII Utilisation **-----*--------**	**In – patients :** 60% of the I-Ps in rural areas and % of the I-Ps in urban areas were treated in govt. hospitals. In poor and hilly areas Government hospitals/ PHCs provided for IP as well as OP care. **Out – patients :**	Public sector provides IP care for 44% in rural areas and 43% in urban areas In poor and hilly areas dependence on govt. for hospitalized care is still higher (Viz. Orissa, Rajasthan & Assam). Public sector provides for 19% in rural areas and 20% in urban areas	There is reduction in use of public sector for hospitalized treatment also. Percentage of beds in govt. hospitals is more than 80% in these States. There is reduction

	25% of O-Ps in rural areas and 26% of O-Ps in urban areas are treated in public health centers/hospitals.	for OP care. Dependence of poor on PHCs has reduced .	in use of public sector for out-patient also. For OP care, there is greater dependence on government sources (>30%) inOrissa,Rajasthan in rural and urban areas, in urban areas in Bihar and this dependence supports the argument for continued government spending and provision of health care particularly the in-patient care.
IX) Average amount(in Rs.) of loss of household income per ailment **(15 days)** **---------*----------**	----------*----------	R =Rs. 55, U=Rs.44 Varies from Rs.2 (in Daman & Diu to Rs.185 (in Andhra Pradesh).	
(hospitalized cases)	----------*----------	R-Rs.563, U-Rs.521 Varies from Rs. 270 to Rs. 937 for bottom 10% to top 10 % mpce class respectively.	Burden of out patient and in patient illness is higher in rural areas.

- = Information not available in NSSO published sources. Note: BP=Blood Pressure, R=Rural, U=Urban, IP=In-patient, OP=Out-patient, M=Male, F=Female, govt.=government, pvt=private, mpce=monthly per capita expenditure.

Annex III

Tables

Table-A-1: Expenditure Pattern on Medical Care

Year	1992	1998
% of People Below Poverty Line	30.87	27.09
Average Per Capita Monthly Medical Expenditure	2.83	7.05
Average Per Capita Monthly Consumer Expenditure	123.8	249.99
% share of Medical to Total Expenditure	2.29	2.82

	1992	1998
Top 10% of the Expenditure Class	10	10
Average Per Capita Monthly Medical Expenditure	53.1	103.91
Average Per Capita Monthly Consumer Expenditure	588.19	895.19
% Share of Medical to Total Expenditure	9.03	11.61

Source: NSSO "Sarvekshana" series:-

Table A-2: Incidence Rate of Temporary Ailments by Type of Ailments separately by Sex for selected States and All-India -28th Round

Type of Ailments	Rural											
	Karnataka			Maharashtra			Orissa			All-India		
	M	F	T	M	F	T	M	F	T	M	F	T
Cholera					0.04	0.02				0.03	0.03	0.03
Typhoid				0.17	0.15	0.16	0.08	0.08	0.08	0.12	0.11	0.12
Dysentery (all forms)	1.06	0.51	0.79	1.08	0.49	0.8	1.23	0.83	1.03	0.84	0.64	0.74
Diarrhea				0.12	0.15	0.14		0.45	0.23	0.28	0.26	0.27
Diphtheria							0.08		0.04	0.03	0.02	0.02
Whooping cough	0.64	0.51	0.57	0.5	0.49	0.5	0.46	0.15	0.3	0.4	0.26	0.33
Tetanus				0.04		0.02				0.02	0	0.01
Acute Poliomyelitis	0.07		0.04							0.01	0	0.01
Smallpox	0.14	0.29	0.22	0.25	0.19	0.22	1.08	0.15	0.61	0.43	0.33	0.38
Measles		0.07	0.04	0.33	0.41	0.39	0.54	0.15	0.34	0.18	0.15	0.17

Mumps		0.07	0.04	0.08		0.04		0.08	0.04	0.02	0.03	0.03
Malaria	0.14		0.07	1.38	1.24	1.35	1	1.35	1.18	1.16	1.09	1.13
Influenza	0.71	0.65	0.68	5.43	4.26	4.98	2.69	1.8	2.24	2.25	2.06	2.16
Pneumonia				0.12	0.07	0.1	0.15		0.08	0.18	0.09	0.13
Food Poisoning	0.07		0.04							0.01	0.02	0.02
Accident	0.07	0.22	0.14	0.63	0.41	0.53	0.38	0.22	0.3	0.56	0.22	0.39
Others	2.06	2.03	2.04	4.63	2.67	3.72	5.38	3.62	4.49	4.76	3.9	4.34
Not Recorded	3.69	3.85	3.77	5.2	4.13	4.8	4.62	2.56	3.57	2.25	2.34	2.29
All types of Ailments	8.65	8.2	8.44	19.96	14.7	17.78	17.69	11.44	14.53	13.53	11.55	12.57
Number of sample Ailments	122	113	235	479	391	870	230	152	382	4675	3937	8612

Urban

Type of Ailments	Karnataka			Maharashtra			Orissa			All-India		
	M	F	T	M	F	T	M	F	T	M	F	T
Cholera										0.03	0.03	0.03
Typhoid	0.12		0.06	0.26	0.25	0.26	0.22		0.12	0.17	0.21	0.19
Dysentery (all forms)	0.72	0.48	0.6	1.16	0.92	1.05	2.93	1.59	2.32	0.78	0.81	0.79
Diarrhea		0.24	0.12	0.47	0.37	0.43	0.45		0.24	0.23	0.2	0.22
Diptheria	0.12		0.06							0.01		0.01
Whooping cough	0.72	0.12	0.42	0.31	0.12	0.23	0.45		0.24	0.29	0.21	0.25
Tetanus					0.06	0.03					0.02	0.01
Acute Poliomyelitis				0.05		0.03				0.02	0.02	0.02
Smallpox	0.12	0.36	0.24	0.21	0.19	0.2	1.13	1.59	1.34	0.39	0.49	0.44
Measles	0.49		0.24	0.05	0.06	0.06				0.15	0.13	0.14
Mumps				0.05	0.06	0.06				0.09	0.06	0.08
Malaria	0.36	0.12	0.24	0.95	0.74	0.85	0.45	0.53	0.49	0.73	0.69	0.71
Influenza	1.2	1.21	1.21	3.74	3.72	3.73	2.48	1.86	2.19	2.1	2.22	2.15
Pneumonia	0.12		0.06							0.06	0.05	0.05
Food Poisoning										0.05	0.02	0.04
Accident	0.24		0.12	0.47	0.49	0.48	0.9	0.53	0.73	0.7	0.34	0.54
Others	1.68	1.09	1.39	7.99	5.37	6.78	6.08	2.92	4.63	5.33	4.97	5.16
Not Recorded	2.87	2.07	2.48	5.99	5.75	5.87	4.51	5.32	4.89	2.74	2.67	2.7
All types of Ailments	8.76	5.69	7.24	21.7	18.1	20.06	19.6	14.34	17.19	13.87	13.14	13.53
Number of sample Ailments	73	47	120	413	293	706	87	54	141	2306	1855	4161

Table -A.3: Number of persons Suffering from Chronic Diseases per 100000 persons by type of chronic disease separately by sex for different states and All-India Rural households

States	Sex	28th round																				
		TB	Leprosy	Syphilis	Cancer	Thyroid troubl	Diabetes	Mend illness	Epilepsy	Rheumatic Fever	High BP	Bronchitis	Asthma	Pepticulcer	stone or kedney	Arthiritis	Rheumatism	Stroke	Pilles	others	not redorced	All types	Number of sample ailments
Karnataka	Male	50	7	14	..	14	83	21	14	7	55	21	346	48	7	..	28	7	26	..	582	1330	192
	Female	43	14	..	14	14	21	14	14	14	43	..	257	29	..	..	22	14	14	..	392	919	129
	Total	46	11	7	7	14	53	18	14	11	49	18	302	39	4	..	25	11	21	..	487	1137	321
Maharashtra	Male	127	119	8	12	16	37	20	16	21	12	12	352	114	33	94	41	..	65	..	736	1835	449
	Female	67	59	..	8	16	4	12	12	8	28	12	279	51	16	130	28	4	24	..	639	1397	354
	Total	96	88	4	10	16	20	16	14	14	20	12	315	82	24	112	34	2	44	..	686	1609	803
Orissa	Male	53	61	15	..	23	46	69	..	76	38	53	274	160	107	23	343	38	61	1463	46	2949	387
	Female	60	..	15	23	15	30	150	15	128	38	45	128	128	53	38	451	45	22	1172	60	2616	348
	Total	57	30	15	11	19	38	110	8	102	38	49	200	144	79	30	397	42	42	1317	53	2781	735
All_India	Male	144	54	13	11	22	48	17	30	36	41	56	440	115	48	19	228	14	95	204	625	2260	7783
	Female	89	25	4	14	21	30	21	27	54	47	25	309	60	26	26	275	12	33	184	647	1943	6480
	Total	117	40	8	12	22	39	19	28	45	44	41	376	89	37	22	251	13	65	194	636	2098	4263

Urban

States	Sex	TB	Leprosy	Syphilis	Cancer	Thyroid troubl	Diabetes	Mend illness	Epilepsy	Rheumatic Fever	High BP	Bronchitis	Asthma	Pepticulcer	stone or kedney	Arthiritis	Rheumatism	Stroke	Pilles	others	not redorced	All types	Number of sample ailments
Karnataka	Male	128	23	..	..	..	129	23	12	..	58	..	453	47	..	12	35	23	59	..	288	1290	111
	Female	82	12	..	12	..	83	24	12	..	141	..	329	..	..	..	48	12	..	..	316	1071	91
	Total	105	17	..	6	..	106	23	12	..	100	..	392	24	..	6	41	18	29	..	302	1181	202
Maharashtra	Male	190	31	..	26	..	103	10	15	5	180	31	330	72	21	16	21	10	46	..	463	1570	305
	Female	140	18	..	12	6	91	24	18	6	218	12	339	24	24	24	42	..	24	..	588	1610	265
	Total	167	25	..	20	3	97	17	17	6	197	23	334	50	22	20	31	6	36	..	520	1590	57
Orissa	Male	90	113	..	22	..	158	68	23	..	90	..	248	23	45	23	135	22	68	946	113	2180	97
	Female	53	53	53	..	..	..	264	..	26	212	26	132	53	106	..	344	53	26	952	106	2459	93
	Total	73	85	24	12	..	85	158	12	12	146	12	195	36	73	12	232	36	49	950	110	2312	190
All_India	Male	169	34	5	8	15	105	13	16	21	108	48	397	86	45	13	113	14	81	130	582	2003	3373
	Female	102	14	7	20	18	52	22	18	33	159	38	308	44	35	22	182	12	38	127	680	1931	2912
	Total	137	25	6	14	16	80	18	17	26	132	43	355	66	40	17	146	13	61	128	629	1962	6285

Table A-4 :Incident of acute (short duration) ailment per 100,000 persons by age for each sex

Persons **Rural**

52nd round

Ailment	Age group (yrs)				
	0 -14	15 -39	40 -59	60 & above	all
(1)	(2)	(3)	(4)	(5)	(6)
1.Diarrhoea & gastro-enteritis dysentery (including cholera)	357	158	247	500	269
2.Tetanus	5	1	2	-	2
3. Diptheria	5	5	2	2	4
4. Whooping cough	46	47	52	227	58
5. Meningitis & encephalitis	3	5	2	7	4
6. Fever of short duration	2077	1263	1552	2331	1684
7. Chicken pox	69	10	5	10	31
8. Measles / German measles	23	6	1	6	11
9. Mumps	6	6	-	-	5
10.Diseases of the eye	48	34	26	115	43
11. Acute diseases of the ear	27	16	5	10	3
12. Heart failure	1	3	0	19	1
13. Cerebral stroke	-	2	230	1	201
14. Cough and acute bronchitis	193	129	33	688	36
15. Acute respiratory infection (including pneumonia)	56	12	50	72	34

16. Diseases of mouth, teeth & gum	29	29	4	49	11
17. Diseases relation to pregnancy & child birth (including natural abortion)	-	27	86	-	63
18. Injury due to accident and violence	53	47	574	160	420
19.Other diagnosed ailment (upto 30 days)	365	349	101	803	67
20. Undiagnosed ailment (upto 30 days)	63	49	-	112	-
21. Any short-duration ailment	3427	2197	2977	5110	2967

Table-A-5 :Incidence of Acute (short-Duration)ailment per 100,000 persons by age for each sex

Urban

Person **52nd round**

Ailment	age group (yrs)				
	0 - 14	15 -39	40 - 59	60 & above	all
(1)	(2)	(3)	(4)	(5)	(6)
1.Diarrhoea & gastro-enteritis, dysentery (including cholera)	331	163	194	306	230
2.Tetanus	9	-	4	-	4
3.Diptheria	5	1	0	13	3
4.Whooping cough	56	45	51	142	54
5.Meningitis & viral encephalitis	11	4	4	-	6
6.Fevers of short duration	2204	1200	1162	1414	1531
7.Chicken pox	39	12	6	-	19
8.Measles/German measles	36	5	0	11	14
9.Mumps	7	4	-	-	4
10.Diseases of the eye	59	41	70	86	54
11.Acute diseases of the ear	33	20	2	21	21
12.Heart failure	-	4	13	14	5
13.Cerebral stroke	5	0	0	7	2
14.Cough and acute bronchitis	378	147	245	439	255
15.Acute respiratory infection (including pneumonia)	55	24	40	100	41
16.Diseases of the mouth, teeth & gum	38	43	73	73	48
17.Disease relating to pregnancy & child birth (including natural abortion)	-	21	2	-	10
18.Injury due to accident and violence	88	73	77	157	83
19.Other diagnosed ailment (upto 30 days)	460	377	547	951	464
20.Undiagnosed ailment (upto 30 days)	59	64	53	112	63
21.Any short- duration ailment	3872	2248	2544	3846	2911

Table A-6 :Incident of acute (short duration) ailment per 100,000 persons by age for each sex

Persons

Rural **52nd round**

ailment	age group (yrs)				
	0 -14	15 -39	40 -59	60 & above	all
(1)	(2)	(3)	(4)	(5)	(6)
1.Diarrhoea & gastro-enteritis dysentry (including cholera)	357	158	247	500	269
2.Tetanus	5	1	2	-	2
3. Diptheria	5	5	2	2	4
4. Whooping cough	46	47	52	227	58
5. Meningitis & encephalitis	3	5	2	7	4
6. Fever of short duration	2077	1263	1552	2331	1684
7. Chicken pox	69	10	5	10	31
8. Measles / German measles	23	6	1	6	11
9. Mumps	6	6	-	-	5
10.Diseases of the eye	48	34	26	115	43
11. Acute diseases of the ear	27	16	5	10	3
12. Heart failure	1	3	0	19	1
13. Cerebral stroke	-	2	230	1	201
14. Cough and acute bronchitis	193	129	33	688	36
15. Acute respiratory infection (including pneumonia)	56	12	50	72	34
16. Diseases of mouth,teeth & gum	29	29	4	49	11
17. Diseases relation to pregnancy & child birth (including natural abortion)	-	27	86	-	63
18. Injury due to accident and violence	53	47	574	160	420
19.Other diagnosed ailment (upto 30 days)	365	349	101	803	67
20. Undiagnosed ailment (upto 30 days)	63	49	-	112	-
21. Any short-duration ailment	3427	2197	2977	5110	2967

Table-A-7 :Incidence of Acute (short-Duration)ailment per 100,000 persons by age for each sex

Urban

Person **52nd round**

Ailment	age group (yrs)				
	0 - 14	15 -39	40 - 59	60 & above	all
(1)	(2)	(3)	(4)	(5)	(6)
1.Diarrhoea & gastro-enteritir dysentry (including cholera)	331	163	194	306	230
2.Tetanus	9	-	4	-	4
3.Diptheria	5	1	0	13	3
4.Whooping cough	56	45	51	142	54
5.Meningitis & viral encephalitis	11	4	4	-	6
6.Fevers of short duration	2204	1200	1162	1414	1531
7.Chicken pox	39	12	6	-	19
8.Measles/German measles	36	5	0	11	14
9.Mumps	7	4	-	-	4
10.Diseases of the eye	59	41	70	86	54
11.Acute diseases of the ear	33	20	2	21	21
12.Heart failure	-	4	13	14	5
13.Cerebral stroke	5	0	0	7	2
14.Cough and acute bronchitis	378	147	245	439	255
15.Acute respiratory infection (including pneumonia)	55	24	40	100	41
16.Diseases of the mouth,teeth & gum	38	43	73	73	48
17.Disease relating to pregnancy & child borth (including natural abortion)	-	21	2	-	10
18.Injury due to accident and violence	88	73	77	157	83
19.Other diagnosed ailment (upto 30 days)	460	377	547	951	464
20.Undiagnosed ailment (upto 30 days)	59	64	53	112	63
21.Any short- duration ailment	3872	2248	2544	3846	2911

Table A-8: Incidence of fevers of short duration for population living in different environment

Rural 52nd round

Environment	Number of ailment per 1000persons		
	Male	Female	Person
(1)	(2)	(3)	(4)
Use of insecticide			
Premises sprayed with insecticide	20	17	18
Premises not sprayed with insecticide	16	17	17
Animal shed in the neighbourhood			
With animal shed attached to residence	17	16	16
With animal shed detached from residence	16	17	17
With no animal shed	17	17	17
Drainage system			
no drainage	17	18	18
open kutcha	15	15	15
open pucca	18	17	17
covered pucca	16	12	14
Underground	14	20	17
All households	17	17	17

Urban

Environment	Number of ailment per 1000 persons		
	Male	Female	Person
(1)	(2)	(3)	(4)
Use of insecticide			
Premises sprayed with insecticide	17	16	17
Premises not sprayed with insecticide	15	15	15
Animal shed in the neighborhood			
With animal shed attached to residence	16	16	16
With animal shed detached from residence	19	19	19
With no animal shed	15	15	15

Drainage system			
no drainage	19	21	20
open kutcha	16	14	15
open pucca	14	15	15
covered pucca	12	13	12
underground	15	14	14
All households	15	16	15

Table A-9: Prevalence of tuberculosis among tobacco consumers and non consumers aged 10 Years and above (Rural)

52nd round

Tobacco consumption habit	Number of ailment per 1000 persons		
	Male	Female	Person
(1)	(2)	(3)	(4)
Only smoking	108	243	120
Other habits only	207	134	182
Smoking and others	52		50
None	144	70	98
All	136	79	108

Urban

Tobacco consumption habit	Number of ailment per 1000 persons		
	Male	Female	Person
(1)	(2)	(3)	(4)
Only smoking	127	30	124
Other habits only	181	257	202
Smoking and others	87	-	86
None	60	60	60
All	84	68	77

Table A- 10: Prevalence of different chronic (long - duration) diseases among consumers and non - consumers of tobacco aged 10 years and above (Rural)

52nd round

Tobacco consumption habit	**Number of ailment per 1000 reporting persons**		
	Cancer	Heart disease	High / Low blood pressure

	Male	Female	Person	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Only smoking	30	234	49	54	135	61	170	205	173
Other habits only	14	18	15	75	34	61	98	196	131
Smoking and others	6		6	60		58	71	83	71
None	16	23	20	96	82	87	74	139	114
All	17	27	22	80	78	79	97	145	121

Urban

Tobacco consumption habit	Number of ailment per 1000 reporting persons								
	Cancer			Heart disease			High / Low blood pressure		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Only smoking	26		25	81	767	108	203	643	220
Other habits only	3	34	12	206	183	200	166	424	239
Smoking and others				108		107	287		282
None	8	24	17	141	107	122	134	336	248
All	10	24	17	135	115	126	159	341	246

Table A-11: Incidence of difference acute (short - duration) diseases among consumers and non - consumers of tobacco aged 10 years and above (Rural)

52nd round

Tobacco consumption habit	Number of ailment per 1000 reporting persons								
	Acute respiratory			Cerebral stroke			Heart failure		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Only smoking	52	89	55	0		0			
Other habits only	27	6	20					6	2
Smoking and others	26	23	26	0		0	17		16
None	6	22	16	3	2	2	8	3	5
All	21	22	21	2	1	1	6	3	5

Urban

Tobacco consumption habit	Number of ailment per 1000 reporting persons								
	Acute respiratory			Cerebral stroke			Heart failure		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Only smoking	66		63				14		13
Other habits only	32	109	54	7		5	5	13	7
Smoking and others				4		4			
None	30	25	27	0	0	0	0	10	6
All	34	28	31	1	0	1	3	10	6

Table A-12: Proportion (per 1000) of persons hospitalized in rural and urban areas and population per bed in the state (52nd round)

State	No. per (1000) hospitalized		Population per bed
	Rural	Urban	
Andhra Pradesh	14	17	2536
Assam	9	16	1968
Bihar	5	12	2969
Gujarat	14	21	714
Haryana	25	25	2399
Karnataka	14	18	1209
Kerala	70	65	382
Madhya Pradesh	7	15	3535
Maharashtra	19	26	1023
Orissa	13	16	2224
Punjab	14	17	1409
Rajasthan	8	14	2204
Tamil Nadu	18	23	1120
Uttar Pradesh	8	14	2593
West Bengal	11	22	1271
India	13	20	1412

Source: NSSO (1998), Morbidity and Ailments, 52nd round (1995-96) Report No. 441 p.27

Table- A –13:State-wise Percentage distribution of hospitalized cases over type of ward [in patient]

42nd round

State/union territory	Rural				Urban			
	Type of ward				Type of ward			
	Free	Paying general	Paying special	All	Free	Paying general	Paying special	All
Andhra Pradesh	33.35	57.90	8.75	100.00	40.85	47.32	11.83	100.00
Assam	95.39	4.27	0.35	100.01	76.13	20.21	3.66	100.00
Bihar	47.88	45.52	6.60	100.00	56.92	35.87	7.21	100.00
Gujrat	39.89	50.12	9.99	100.00	39.02	44.53	16.45	100.00
Haryana	54.38	41.39	4.24	100.01	52.35	36.45	11.20	100.00
Himachal Pradesh	83.56	10.40	3.06	97.02	76.76	13.09	10.15	100.00
Jammu & Kashmir	93.32	6.55	0.13	100.00	91.60	7.41	0.99	100.00
Karnataka	58.50	29.36	12.14	100.00	36.31	34.61	29.08	100.00
Kerala	45.15	42.90	11.95	100.00	45.00	38.33	16.67	100.00
Madhya Pradesh	77.21	18.78	4.01	100.00	73.34	21.22	5.44	100.00
Maharashtra	42.65	47.32	10.03	100.00	39.60	43.03	17.37	100.00
Manipur	78.19	21.81	-	100.00	77.77	19.50	2.73	100.00
Meghalaya	55.90	41.14	2.96	100.00	37.34	46.86	15.80	100.00

Nagaland	-	-	-	-	76.34	20.34	3.32	100.00
Orissa	89.72	8.87	1.41	100.00	87.94	10.17	1.89	100.00
Punjab	46.30	47.55	6.15	100.00	46.10	41.24	12.66	100.00
Rajasthan	81.77	15.86	2.37	100.00	84.79	10.75	4.46	100.00
Sikkim	100.00	-	-	100.00	82.83	16.05	1.12	100.00
Tamil Nadu	59.43	33.10	7.47	100.00	57.50	32.43	10.07	100.00
Tripura	98.08	1.62	0.30	100.00	97.46	1.76	0.78	100.00
Uttar Pradesh	59.41	33.01	7.58	100.00	56.07	32.01	11.92	100.00
West Bengal	90.78	6.45	2.77	100.00	69.30	19.37	11.33	100.00
Chandigarh	82.43	17.57	-	100.00	52.58	32.88	14.54	100.00
Dadra & Nagar Haveli	75.00	17.27	7.73	100.00	-	-	-	-
Delhi	69.28	30.72	-	100.00	66.88	22.62	10.50	100.00
Goa, Daman & Diu	90.63	9.37	-	100.00	64.88	21.13	13.99	100.00
Mizoram	95.97	3.54	0.49	100.00	87.10	12.90	-	100.00
Pondicherry	78.08	14.32	7.60	100.00	58.93	19.90	21.17	100.00
Andaman Nicobar Islands	98.62	-	1.38	100.00	89.99	4.67	5.34	100.00
Lakshadweep	60.90	17.46	21.64	100.00	78.01	8.87	13.12	100.00
all-India	60.71	32.46	6.83	100.00	55.22	31.79	12.99	100.00

Table A-14: Percentage Distribution of Hospitalized Cases by type of Hospital by payment category and Medical Service (Rural)

Type of Medical Service	Type of Hospital	42nd round																		
		Karnataka					Maharashtra					Orissa					All-India				
		Type of Payment					Type of Payment					Type of Payment					Type of Payment				
		Free	Partly Free	On Payment	Not Taken or Not Required	All	Free	Partly Free	On Payment	Not Taken Or Not Required	All	Free	Partly Free	On Payment	Not Taken or Not Required	All	Free	Partly Free	On Payment	Not Taken or Not Required	All
Medicine	Govt	34.32	11.32	7.14	1.48	54.26	32.24	4.77	4.78	0.39	42.18	17.33	26.44	34.62	7.64	86.03	27.1	13.91	13.23	2.69	56.93
	Pvt	4.38	0.58	40.28	0.5	45.74	2.98	1.8	52.49	0.55	57.82	1.5	2.21	9.79	0.47	13.97	2.76	1.06	36.83	2.42	43.07
	All	38.7	11.9	47.42	1.98	100	35.22	6.57	57.27	0.94	100	18.83	28.65	44.41	8.11	100	29.86	14.97	50.06	5.11	100
X-Ray,ECG,EEG	Govt	12.81	0.97	4.93	39	57.71	18.11	0.28	1.96	22.95	43.3	11.19	0.87	7.37	68.92	88.35	12.29	0.91	6.23	39.93	59.36
	Pvt	0.5	0.13	17.49	24.17	42.29	0.49	0.31	28.3	27.6	56.7	0.2		3.44	8.01	11.65	0.6	0.12	12.51	27.41	40.64
	All	13.31	1.1	22.42	63.17	100	18.6	0.59	30.26	50.55	100	11.39	0.87	10.81	76.93	100	12.89	1.03	18.74	67.34	100
Any other diagnosti	Govt	30.43	0.62	2.89	24.24	58.18	21.12	0.48	2.26	19.45	43.31	27.42	0.89	5.23	54.71	88.25	18.39	0.75	4.94	35.74	59.82

c test	Pvt	2.49	0.33	25.53	13.47	41.82	0.89	0.8	29.95	25.05	56.69	0.49		3.72	7.54	11.75	1.16	0.24	17.69	21.09	40.18
	All	32.92	0.95	28.42	37.71	100	22.01	1.28	32.21	44.5	100	27.91	0.89	8.95	62.25	100	19.55	0.99	22.63	56.83	100
Any other treatment like physio-therapy radio-therapy etc.	Govt	30.06	0.63	2.92	24.32	57.93	20.99	0.48	2.27	19.45	43.19	27.77	0.9	5.3	54.13	88.1	18.45	0.76	4.98	35.41	59.5
	Pvt	2.51	0.33	25.65	13.58	42.07	0.9	0.8	29.97	25.14	56.81	0.5		3.77	7.63	11.9	1.16	0.22	17.87	21.31	40.5
	All	32.57	0.96	28.57	37.9	100	21.89	1.28	32.24	44.59	100	28.27	0.9	9.07	61.76	100	19.61	0.98	22.79	56.62	100
Surgical Operation	Govt	11.64	0.43	1.11	44.96	58.14	8.35	0.4	1.17	33.26	43.18	10.3	0.39	2.59	74.87	88.15	8.88	0.39	2.04	48.35	59.66
	Pvt	3.67		8.84	29.35	41.86	0.97		13.79	42.06	56.82	0.5	0.11	2.33	8.91	11.85	1.36	0.19	7.9	30.89	40.34
	All	15.31	0.43	9.95	74.31	100	9.32	0.4	14.96	75.32	100	10.8	0.5	4.92	83.78	100	10.24	0.58	9.94	79.24	100

Urban

Type of Medical Service	Type of Hospital	Karnataka					Maharashtra					Orissa					All-India				
		Type of Payment					Type of Payment					Type of Payment					Type of Payment				
		Free	Partly Free	On Payment	Not Taken or Not Required	All	Free	Partly Free	On Payment	Not Taken or Not Required	All	Free	Partly Free	On Payment	Not Taken or Not Required	All	Free	Partly Free	On Payment	Not Taken or Not Required	All
Medicine	Govt	28.57	7.94	10.71	0.24	47.46	34.29	4.09	5.63	1.55	45.56	34.99	15.17	24.38	4.29	78.83	31.56	11.33	12.17	3.07	58.13
	Pvt	1.76	0.47	49.32	0.99	52.54	3.71	2.02	46.48	2.23	54.44	8.41	1.79	10.29	0.68	21.17	3.80	1.09	34.05	2.93	41.87
	All	30.33	8.41	60.03	1.23	100.00	38.00	6.11	52.11	3.78	100.00	43.40	16.96	34.67	4.97	100.00	35.36	12.42	46.22	6.00	100.00
X-Ray,ECG, EEG	Govt	15.58	0.37	4.16	28.58	48.69	20.24	2.36	5.03	18.24	45.87	14.73	0.56	5.17	60.38	80.84	19.91	1.30	6.57	32.24	60.02
	Pvt	0.79		22.76	27.76	51.31	2.97	0.94	25.49	24.73	54.13	1.71	0.57	1.44	15.44	19.16	2.06	0.14	16.09	21.69	39.98
	All	16.37	0.37	26.92	56.34	100.00	23.21	3.30	30.52	42.97	100.00	16.44	1.13	6.61	75.82	100.00	21.97	1.44	22.66	53.93	100.00
Any other diagnostic test	Govt	23.07	0.37	8.16	17.33	48.93	19.15	2.12	2.62	21.63	45.52	30.86	0.31	4.78	45.52	81.47	23.24	1.05	5.73	30.39	60.41
	Pvt	1.25		31.97	17.85	51.07	2.99	1.16	28.73	21.60	54.48	5.48	0.14	3.80	9.11	18.53	2.12	0.31	19.01	18.15	39.59

	All	24.32	0.37	40.13	35.18	100.00	22.14	3.28	31.35	43.23	100.00	36.34	0.45	8.58	54.63	100.00	25.36	1.36	24.74	48.54	100.00
Any other treatment like physio-therapy radio-therapy etc.	Govt	22.79	0.38	8.34	17.42	48.93	18.92	2.07	2.71	22.60	46.06	31.10	0.32	4.33	45.38	81.13	23.25	1.04	5.75	30.33	60.37
	Pvt	1.28		32.10	17.69	51.07	3.09	0.71	28.47	21.67	53.94	5.58	0.14	3.87	9.28	18.87	2.14	0.27	18.86	18.36	39.63
	All	24.07	0.38	40.44	35.11	100.00	22.01	2.78	31.18	44.03	100.00	36.68	0.46	8.20	54.66	100.00	25.39	1.31	24.61	48.69	100.00
Surgical Operation	Govt	9.38		6.68	32.86	48.92	6.84	2.58	1.54	35.05	46.01	16.87	1.39	2.83	60.24	81.33	10.31	0.94	2.62	46.39	60.26
	Pvt	0.25		16.56	34.27	51.08	1.97	0.97	14.56	36.49	53.99	1.78		2.38	14.51	18.67	1.47	0.23	9.81	28.23	39.74
	All	9.63		23.24	67.13	100.00	8.85	3.55	16.10	71.54	100.00	18.65	1.39	5.21	74.75	100.00	11.78	1.17	12.43	74.62	100.00

e–A-15: Per 1000 distribution of hospitalized cases during last 365 days by type of ward of Government and other hospitals (Rural)

52nd round

State	Government				Other			
	Free	Paying gen	Paying Spl	All	Free	Paying gen	Paying Spl	All
Karnataka	364	76	11	450	14	424	95	533
Maharashtra	273	34	1	309	14	542	124	680
Orissa	827	15	0	842	4	53	29	87
All India	**388**	**41**	**8**	**438**	**28**	**411**	**91**	**529**

Urban

State	Government				Other			
	Free	Paying gen	Paying Spl	All	Free	Paying gen	Paying Spl	All
Karnataka	235	33	24	293	18	430	243	691
Maharashtra	251	50	5	307	35	435	188	657
Orissa	733	39	7	779	19	115	49	183
All India	**347**	**55**	**16**	**419**	**35**	**372**	**146**	**553**

Table A- 16: Average total expenditure per hospitalized case during last 365 days by type of hospital for each type of ward (Rural) (In Rs)

52nd round

States	Government Hospital				Other Hospitals			
	Free	Paying gen	Paying spl	all	Free	Paying gen	Paying spl	all
Karnataka	1510	1805	11199	1791	2038	3650	6402	4100
Maharashtra	1217	3984	5922	1529	808	2726	9011	3836
Orissa	1662	2364	12100	1681	445	2331	3329	2583
All India	**1781**	**3241**	**10540**	**2080**	**1463**	**3393**	**9281**	**4300**

Urban

States	Government Hospital				Other Hospitals			
	Free	Paying gen	Paying spl	all	Free	Paying gen	Paying spl	all
Karnataka	1176	3935	2104	1564	948	3284	6919	4502
Maharashtra	1164	1982	10082	1439	2507	4787	7157	5345
Orissa	1886	3234	21956	2142	157	9223	22320	11829
All India	**1521**	**3350**	**12474**	**2195**	**1752**	**4295**	**8893**	**5344**

Table A-17: Average amount of loss of household income per hospitalized case during last 365 days by m p c e fractile group (Rural) (In Rs)

52nd round				
M p c e fractile group	**Karnataka**	**Maharashtra**	**Orissa**	**All India**
0-10	260	188	101	270
10-20	231	254	304	291
20-40	378	261	190	269
40-60	440	454	207	410
60-80	819	313	434	406
80-90	695	621	421	562
90-100	1326	1113	811	937
All	798	587	402	563

Urban

m p c e fractile group	**Karnataka**	**Maharashtra**	**Orissa**	**All India**
0-10	203	383	418	273
10-20	218	337	170	276
20-40	294	291	307	303
40-60	768	275	643	421
60-80	427	807	502	519
80-90	748	533	434	563
90-100	741	706	680	923
All	518	534	450	521

Table A-18: Average amount of loss of household income per ailment (not treated as inpatient of hospital) during last 15 days by mpce fractile groups (Rural)

52nd round

m p c e fractile group	**Karnataka**	**Maharashtra**	**Orissa**	**All India**
0-10	21	94	51	52
10-20	40	63	69	61
20-40	87	42	70	49
40-60	43	80	49	44
60-80	88	30	56	49
80-90	122	42	201	63
90-100	145	78	72	76

All	72	55	70	55

Urban

m p c e fractile group	Karnataka	Maharashtra	Orissa	All India
0-10	59	26	15	36
10-20	53	38	40	55
20-40	52	54	10	46
40-60	47	31	36	41
60-80	70	22	42	38
80-90	10	26	35	59
90-100	96	51	94	40
All	54	35	35	44

Table A-19: Average total expenditure per hospitalized case during last 365 days by fractile - group of mpce and social group for each type of hospital (Rural)

Type of hospital	Sex	52nd round										
		0 -10	10 - 20	20 - 40	40 - 60	60 - 80	80 - 90	90 - 100	all	Social Group		
										s.t	s.c.	others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Public hospital	male	977	838	1102	1194	1493	2535	5504	2502	1368	2023	2846
	female	939	598	1090	905	1452	1863	4574	1945	1105	1471	2189
	person	961	744	1096	1055	1473	2212	5126	2245	1262	1778	2534
P.H.C	male	187	306	327	948	1160	991	1085	814	1117	624	824
	female	261	641	403	563	845	729	1450	683	675	490	781
	person	233	557	366	724	968	853	1246	710	851	540	801
Public dispensary	male	5	3165	845	1581	1732	1498	2817	1944	2341	2900	1647
	female	575	-	1487	458	1783	964	3289	1826	1618	1084	2423
	person	429	3165	1185	1131	1767	1308	3071	1887	2015	1693	1960
Private hospital	male	1386	1465	1759	2351	2605	2696	9628	5235	2872	11119	3982
	female	1041	1466	1782	2058	2344	2714	4991	3311	2496	3461	3325
	person	1176	1465	1769	2235	2489	2704	7619	4394	2711	8362	3684
Nursing home	male	2355	2583	1590	2100	3681	4478	7156	4403	4213	4777	4313
	female	2803	3194	1436	1997	2536	3749	7547	3895	2220	2857	4215
	person	2591	2898	1515	2058	3154	4181	7310	4185	3549	3915	4271
Charitable inst.	male	629	1500	1084	1238	1864	3075	13472	5242	1266	1157	7253
	female	1816	847	586	1409	2461	3492	4119	2351	3574	1539	2602
	person	1173	1032	831	1328	2104	3346	9643	3808	2004	1357	4917

Others	male	542	471	1046	1621	5053	2595	16765	4222	2926	3644	4532
	female	1135	934	406	1173	1375	476	7101	1672	1263	4981	1292
	person	715	796	850	1464	2876	1739	12031	3015	2705	4088	2838
Any hospital	male	1042	1093	1235	1686	2018	2738	7990	3778	1821	5405	3481
	female	1018	910	1156	1270	1826	2354	4801	2510	1400	2022	2726
	person	1030	1009	1197	1495	1931	2561	6628	3202	1636	3942	3133

Urban

Type of hospital	sex	0 -10	10 - 20	20 - 40	40 - 60	60 - 80	80 - 90	90 - 100	all	Social Group		
										s.t	s.c.	others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Public hospital	male	605	851	1021	1254	2025	2450	9204	2452	1165	1811	2656
	female	386	668	930	1286	1918	2462	6588	1890	1426	1152	2094
	person	497	758	980	1269	1975	2455	8104	2191	1311	1497	2400
P.H.C	male	306	748	489	477	4945	4380	13371	4059	836	1984	5125
	female	1267	425	485	448	855	5106	1839	927	820	162	1197
	person	1051	537	487	470	1869	4621	11886	2461	829	964	3146
Public dispensary	male	580	-	1993	100	422	349	28721	2252	-	125	4108
	female	213	254	547	1196	497	3147	12300	1682	-	455	1786
	person	242	254	1366	1138	435	1072	19669	1977	-	170	2679
Private hospital	male	1277	1157	2231	2619	3318	4717	13686	5842	2636	4205	6120
	female	1119	1225	1774	2360	3554	5196	12057	5173	3063	2424	5558
	person	1186	1193	2026	2494	3433	4946	12957	5524	2771	3268	5854
Nursing home	male	2084	1629	2552	4439	4032	5866	12328	6363	4740	2454	7000
	female	2288	2307	3173	3571	4098	5377	8616	5201	5870	3705	5340
	person	2215	1984	2842	3981	4069	5601	10415	5749	5450	3006	6107
Charitable inst.	male	1145	851	497	1460	2319	3186	7227	3324	3667	1395	3592
	female	592	1112	1275	2162	2095	3557	6182	2781	1181	2722	2905
	person	859	910	846	1859	2199	3343	6888	3078	1511	2093	3300
Others	male	929	394	340	865	771	1211	5555	1217	-	1546	1024
	female	500	14	4797	4184	2384	941	2128	2499	55	451	2712
	person	677	382	1452	1068	1759	1073	3840	1630	55	1442	1710
Any hospital	male	765	948	1507	1957	2698	3943	11787	4185	1959	2406	4559
	female	687	945	1489	1973	2836	4269	9648	3625	2032	1765	4014
	person	724	946	1499	1964	2765	4097	10842	3921	1996	2096	4303

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