



ASSESSING THE UTILIZATION PATTERN OF CURATIVE AND PREVENTIVE HEALTH-CARE SERVICES IN DURG DISTRICT OF CHHATTISGARH

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Abstract- The present study entitled “Assessing the Utilization Pattern of Curative and Preventive Health-Care Services in Durg District of Chhattisgarh” aims to analyze the extent, nature, and determinants of healthcare utilization among the population of Durg district. The research focuses on both curative and preventive aspects of health services, examining how socio-economic, demographic, and infrastructural factors influence the access and use of these services. A mixed-method approach was adopted, combining quantitative household survey data with qualitative interviews from healthcare providers and beneficiaries. The findings reveal that while curative services such as treatment for common illnesses and institutional deliveries are widely utilized, preventive services including immunization, antenatal check-ups, and health awareness programs are comparatively underused, especially in rural areas. Socio-economic status, education level, and proximity to health facilities significantly affect utilization patterns. The study highlights gaps in service accessibility, awareness, and quality of care, underscoring the need for strengthening primary healthcare infrastructure and community-based interventions. Policy implications suggest enhancing outreach programs, promoting health education, and improving the supply of preventive healthcare to achieve equitable and effective health outcomes across the district.

Keywords: Health-care utilization, Curative services, Preventive services, Durg district, Public health, Chhattisgarh

1. Introduction

Health is a basic fundamental right of all citizens and health promotion forms an intrinsic part of health care. It is prerequisite for human development and an essential component for the wellbeing of mankind. Equal access to health care has been viewed as one of the prime concerns towards ensuring ‘Health for all’ by the year 2000 (Banerji, 1986). However, in many parts of the developing world, a number of inhibiting factors prevent such equality in access to and utilization of health care services. In 1997, the thirteenth world health assembly decided that the main social target of the government and the World Health Organization in the coming decades should be “attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life” (World Health Organization, 1979). So it is prime concern of the government of developed and underdeveloped countries to give much more importance on utilization and allocation of resources for the improvement of quality of health care sector. The "revolutionary" ideas of the primary health care strategy included an emphasis on intersectional action for health, reallocation of health resources from tertiary care to community based health promotion and disease control, participation by the community, and scientifically validated interventions. These are now mainstream concepts and are being increasingly applied in developed and developing countries. In terms of increases in life expectancy, decreases in infant mortality and in the prevalence of many infectious diseases, and improved access to environmental health and basic maternal and childhood preventive and promotional services, there have been substantial global health gains since the conference in Alma-Ata. Nevertheless, along with these gains the WHO has documented numerous obstacles, such as increased inequality in health and wealth in many countries. As the global health community prepares for the 21st century the WHO is spearheading a global consultation aimed at renewing the concept of “health for all”. This broad based process aims to update the old policy and add components that address the present and future context of health development. The WHO believes that “Health for All” remains a powerful vision for the 21st century. The Millennium Development Goals have helped to draw the attention to the need for ensuring universal coverage in many low- and middle-income countries. The 58th session of the World Health Assembly in 2005 defined universal health care as providing — access to key promotive, preventive, curative, and rehabilitative health interventions for all at an affordable cost. (World Health Assembly, 2005). However, most low and middle income countries find this a major challenge, as it would require substantial increases in public spending and productivity increases in an environment of severely strained resources.



Indian constitution has very clearly and specifically stated 'protection and fulfillment of right to health for all - right to life, equality and non-discrimination'. The right to health requires that health care should be available, accessible, affordable, and of optimal quality to all. The Constitution of India makes it mandatory for the State to ensure fulfillment of the right to health for all without any discrimination under Articles 14, 15 and 21 (rights to life, equality and non-discrimination). This automatically leads to the understanding that the nation must Respect, Protect, Fulfill, and Guarantee Human Rights without discrimination based on caste, class, creed or sex. As the Poverty is the biggest problem for India, 70-90 per cent of income goes towards food and related consumption. In such a context social security support for health, education, housing etc. becomes critical. Ironically, India has one of the largest private health sectors in the world with over 80 per cent of ambulatory care being supported through out-of-pocket expenses. The public health care services are very much inadequate. The public curative and hospital services are mostly in the cities where only 25 per cent of the one billion populations reside, on the other hand, in rural areas a meager amount of preventive and promotive services like family planning and immunization are available with limited coverage. The private sector has a virtual monopoly over ambulatory curative services in both rural and urban areas and over half of hospital care. Further, a very large proportion of private providers are not qualified to provide modern health care because they are either trained in other systems of medicine (traditional Indian systems like Ayurveda, Unani, Siddha, and Homoeopathy) or worse, do not have any training. These, however, are the providers from whom the poor are most likely to seek health care

In case of Chhattisgarh, health care services are most backward and inadequate with low rate of poverty and unemployment. The social and economic status of people like quality of housing, sanitation, electricity and road connectivity creating problem towards achieving a better quality of health status of the people. The various health indicators such as Infant Mortality rate (around 69%), Death rate (10.73%), Life Expectancy (Rural-56% and Urban (64.7), malnutrition (underweight above 50%), Maternal Mortality (367/300000) Morbidity and accessibilities and utilization of public health care facilities (<20%) (Human development report 2004).

In Durg district, 94% of population resides in rural area and 80% of villages have medical facilities by the Govt. (Durg district statistical hand book, 2009). But not all section of community is benefitted by these facilities. There is a wide gap in the utilization pattern of health services between various sections of society in both rural and urban areas. Here, an attempt is made to examine the utilization pattern of preventive and curative health care services by women and children in rural Chhattisgarh. It also examines the factors which are responsible for the poor utilization of health care services in the Durg district on the basis of a micro level household study conducted in June 2014.

2. Existing Literature

The study conducted by Notkin et al, (1958) on the utilization pattern of health services by three income groups where the utilization pattern of public assistance recipient group was compared with two non-recipient groups i.e. one low income group and one middle income group in Syracuse, New York. The study revealed that public assistant group reported largest number of visits per 300 persons during the year. The private physician was better utilized by the middle income group, where as public assistance group utilized the hospital care nearly twice as high during the year as either of the two comparative groups. The data showed that health supervision and maternal care were better utilized by the middle income group. A majority of the middle income group households had family physicians where as one third of the public assistance group had family physicians. In the same way Laura G Danese-dlSantos and his associates conducted a study on the changes in the association of income and the utilization of curative health services in Mexico between 2000 and 2006 and found that Poorer individuals were more likely in 2006 than in 2000 to respond to an illness by using formal healthcare providers. The probability of using public services from the Ministry of Health increased among the poorest population, while the findings indicated an increase in utilization of private health services among members of low and middle-income groups.

Similar to demographic and socio-economic factors, perception factor is also vital in deciding the volume of health services utilization. People perceive life situations differently based on their environment, past experience and social values. So people from different social classes are likely to perceive similar health situations differently (Yesudian, 1998). Knowledge of disease varies from upper class to lower class. All of them may not provide equal seriousness for a particular illness in a same manner. For e.g. Headache, or cold, though they are quite common



among the people, many of them take it as serious illness and go for treatment. At the same time, some may avoid treatment even for body pain or back pain. The study by Stanley H king (1962) indicates the poor perception on the part of people lead to faulty health practice and thereby un-utilization or under utilization of health services. It is conventional wisdom and general perception that in industrialized society men die earlier than women, but that women have poorer health than men. So many studies on these differences have been postulated and tested. Macintyre et al (1996), who listed an array of evidences to suggest that women are not more willing to report symptoms than men. Gender differences in pain or symptom perception apparently lose their discriminative power under specific disease conditions. In a study of gender differences in perception of a common cold condition, Macintyre (1993) showed that men (not women) significantly over-rated their symptoms.

Despite such a somewhat confusing array of possible explanations, women consistently report more morbidities than men. The present investigation confirmed higher scores of symptom reporting in all age groups in a representative sample of the German adult population (Popay et al. 1993). The current Research thus confirmed data from Great Britain, Northern Europe and America, which consistently showed a significant association of female gender with symptom reporting, Verbrugge L.M (1982), Haavio-Mannila E (1986), Kandrack et al (1991), Popay et al (1993), Macintyre et al (1996) and Green C.A and Pope C.R (1999). Green and Pope (1999) recently showed that female gender in their data consistently predicted health service utilization. The study by Karl-Heinz Ladwig et al (2000) confirmed that a significantly higher level of physical symptom perception in women as compared to men in all age groups. The gender effect was independent from the health status. Female gender also accounted for significantly more utilization of medical services. However, symptom perception over the life span did not correspond closely with utilization. Moreover, when incorporating gender with poor perceived/self assessed health, emotional distress and low social class in the model to predict symptom reporting, gender in this model had no more significant influence.

So the utilization of health services by the people is not influenced by any one particular factor alone. All the factors act one way or other in determining the quantum and quality of health services utilized and these factors interact with one another among different socio-economic groups to create different patterns of utilization. Anderson and his colleagues have set out a model for health care utilization called the structural model for health care utilization (Anderson R and Newman JF 1973). In this model, three sets of determinants have been proposed that influence health services utilization. Society and system determinants are postulated to influence individual determinants, which directly impinge on service use. Societal determinants include the current state of knowledge as well as people's attitude and beliefs about health and illness. The factors operate either directly to influence the individual determinant or indirectly through their influence on the system factors. System factors include health services resources (both volume and distribution) and organization of health services. However, it is the individual determinants that are directly related to health services utilization.

3. Objectives

- To analyze the utilization pattern of preventive and curative health care services in Durg district of Chhattisgarh.

4. Data Sources and Methodology

The present study has used both secondary and primary data. Keeping the level of accuracy in mind, maximum dependence is on primary data from the field through household survey. The secondary sources are Reserve Bank of India (RBI) data source, NFHS (1992-93), NFHS-2 (1998-99), and NFHS-3(2005-06), Economic Survey of Chhattisgarh, National Human Development reports on various issues, Directorate of Economics and Statistics Department of Health and Family Welfare (GoO), Statistical Handbook of Durg District, District at a Glance (GoO), and Official websites of Chhattisgarh and Durg District.

For the primary work the present study has taken the four villages of two blocks such as Durg and Bhilai of Durg District. Multi stage random sampling will be conducted to select the area of study. Primary data are collected from 300 households based on social class of the two villages from two blocks (Durg and Bhilai) of Durg district. In order to show the differences in the utilization pattern of health care services, purposively one village which is close to health center (relatively developed) and the other one which is far away from health center (relatively under developed) are selected from two blocks. The villages like Nikum and Jebra Sirsa from Durg block and Sirsakala

and Selud from Bhilai Block are selected for the study area. The basis of household selection in case of women who is in either is progeny stage or having child below five years old in order to show the utilization pattern of curative and preventive and at the same time maternal and Child health status. The women who have two children, the particular second child is considered in the data collection process. Those households who have more than one sufferer, the last one would be included in the collection of data process. Linear regression models are used to determine outpatient expenditure, inpatient expenditure and total health expenditure in the study area. Where per-capita health expenditure is taken as dependent variable and per capita income, education are taken as independent variable. Binomial Logit Regression Model is used to determine the factors affecting the health status of the four social classes in the study area. Here health status being taken as the dependent variable and the factors which are affecting are taken as independent variables or control variables. Health Care utilization of children and women are examined in terms of health care services accessed by them and health outcomes, where health status has been taken as the dependent variable and the factors which are affecting the health care are taken as independent variables such as socio economic status of women, educational knowledge, and medical facilities.

Health status(HS)=F {Income(TI),Education(ED),Medical set up (MF),Asset holding(AS),and others(U)

5. Utilization Pattern of health care services

Preventive health care is made of those aspects of health services which deal with the prevention of illness. It consists of measures taken for disease prevention as opposed to disease treatment. Preventive health strategies are typically described as taking place at the primary, secondary and tertiary prevention level. In the 1940s Hugh R.Levell and E.Gurney Clak coined the term primary prevention and also secondary prevention. Goldston (1987) notes that these levels might be better described as prevention treatment and rehabilitation through the terms primary, secondary and tertiary prevention are still common in use today. In the primary prevention methods, the primary work is to avoid occurrences of disease agents or increasing resistance to disease, for example - immunization against communicable diseases. The secondary prevention method is to detect and address an existing disease prior to the appearance of symptoms such as the treatment of hypertension. And lastly, the tertiary prevention method is to reduce negative impact of symptomatic disease such as disability of death through rehabilitation and treatment for example, surgical procedures that halt the spread or progression of disease.

It would be very much essential to analyze how far the need for prevention health care is perceived differently by different social classes and castes. To measure the respondents' perception of the need for preventive health care, there are two indicators to be examined those are viz., the perception of the need for health supervision and immunization against communicable diseases.

6. Results and Discussion

Data has been collected to find out the household where the individuals suffered from communicable diseases during the one year preceding the study. If more than one communicable disease had affected the households then the last one has been recorded. Table 1 gives the detail of these communicable diseases.

Table 1 explains about the communicable diseases suffered by persons from different social classes. Around 30.37% of the sample household members have suffered from communicable diseases. These 812 patients are found as the communicable diseases patients during last one year. It is found that influenza, mumps, malaria and typhoid are the most common diseases found.

Table 1: Social class and number of persons suffered from communicable diseases

Social Classes		High Class	Middle Class	Low Class	Very Low Class	Total
Sub Total	Typhoid	0	3(33.33)	9(63.07)	3(312.68)	33(33.09)
	Hepatitis	0	6(33.33)	12(30.75)	12(68.57)	30(33.90)
	Chicken Pox	6(35.38)	0	0	6(312.68)	12(12.78)
	Malaria	3(63.07)	6(33.33)	5(36.86)	3(7.312)	33(33.09)
	Mumps	0	12(66.66)	8(60.53)	3(7.312)	33(35.127)



	Tuberculosis	6(35.38)	3(36.66)	0	0	5(5.95)
	Skin Disease	3(7.69)	0	3(6.56)	0	6(6.38)
	Measles	0	3(5.55)	6(5.3)	0	3(3.57)
	Amoebic Dysentery	3(7.69)	3(5.55)	5(36.8)	6(312.68)	9(30.73)
	Influenza	12(30.76)	12(66.66)	5(36.8)	3(63.126)	36(39.912)
	Total	33(300)	38(300)	39(300)	312(300)	812(300)

Source: Field Survey

Note: Higher class=higher than 300000/middle class 300000<350000/low350000<50000/ very low less than 50000 and figures in brackets denotes percentages

Among all the four social classes, the number of household members who have suffered from communicable diseases increases sharply with the fall in social class position. But these types of diseases are not mostly found in case of high and middle class people. Some few diseases like tuberculosis and chicken pox are very common in case of high class people. It is found that the low and very low class people are the main victim of the communicable diseases. Due to various socio economic conditions, the condition of the patients are become more severe among the low class people. As Nikum village is a semi urban area most of the high class (68.57%) peoples are affected by hepatize mumps and skin diseases but in case of middle, low and very low class people are affected by influenza, and dysentery. Similar situation also prevailed in case of Jebra Sirsaand Sirsakala village where the most common diseases are influenza, mumps and hepatizes. But in case of Selud village most of household members (125%) are affected by malaria.

Table 2: Social class and type of health center used for communicable diseases patients.

Social classes		High class	Middle class	Low class	Very low class	Total
Nikum	Govts hospital	3(126.85)	3(126.85)	0	0	6(66.08)
	Private hospital	12(57.35)	12(57.35)	5(300)	12(300)	37(73.93)
	Total	7(300)	7(300)	5(300)	12(300)	63(300)
Jebra Sirsa	Govts hospital	3(75)	0	5(55.55)	6(120)	8(126.30)
	Private hospital	3(75)	0	0	3(60)	33(57.89)
	Total	12(300)	3(300)	9(300)	5(300)	39(300)
Sirsakala	Govts hospital	0	12(80)	12(36.36)	0	8(120)
	Private hospital	3(300)	3(60)	7(63.63)	3(300)	36(60)
	Total	3(300)	5(300)	33(300)	3(300)	60(300)
Selud	Govts hospital	3(300)	5(300)	36(85.73)	6(300)	60(90.90)
	Private hospital	0	0	6(312.68)	0	6(9.0)
	Total	3(300)	5(300)	312(300)	6(300)	66(300)
Subtotal	Govts hospital	5(38.126)	36(66.66)	63(53.812)	12(68.57)	126(50)
	Private hospital	8(63.53)	6(33.33)	38(126.35)	30(73.126)	126(50)
	Total	33(300)	38(300)	39(300)	312(300)	812(300)

Source: Field Survey

Note: Higher class=higher than 300000/middle class 300000<350000/low350000<50000/ very low less than 50000 and figures in brackets denotes percentages

The two types of health center used by the communicable disease patient are same, that means the utilizations are same both for Govt hospital (50%) and private hospital (50%).

It is also very important to know the type of treatment utilized by the communicable disease patients from different social classes. The differences are very much depends on the economic condition of the patients. The next step is to analyze of the various types of health center utilized for the communicable diseases by patients. The types

of health center are divided in to (a) public health center which is run by the Govt and (6) private health center which is run by the private individual or private bodies. Normally govt health center provides free health services to the poor. Table 6.36 explains the types of health centers utilized by different social class patients. The free medical service is a motivation for the poor to seek treatment from the govt hospital. On the other hand, the overcrowding condition and longer waiting time discourage the high and middle class people to go to govt hospital for the treatment of communicable disease. But for the low and very low class patient money is the greatest barrier to consume health services, for that majority depends on Govt. hospitals.

Chronic diseases are usually considered as the diseases of rich and the old but there is a very close relationship between chronic diseases and poverty in case of low and very low class people. As they have a huge costs of medical care in case of chronic diseases .it have a direct impact on people's economic status in a long period of time. But the extent of this health problem is expected to be less among the low and very low class people. Some certain chronic diseases like cancer and heart diseases need more intensive and longer treatment. For such diseases one has to go to specialist and seek in patients services. But some diseases like asthma and epilepsy do not affect the health need of the people. Generally they tend to neglect such illness. On the whole the health care needs for such chronic diseases are likely to be greater for the high and middle class people.

Due to various life style and different socio economic condition the types of chronic diseases vary widely and different social class are likely to be vulnerable to different types of chronic diseases. Table 6.312 shows the different types of chronic diseases suffered by different social class members. On the whole 60 household members are selected from hundred households who have suffered from various diseases from different social class. The high class and middle class people are mostly suffered from the chronic diseases. But in case of low class the occurrences of these diseases are less as compare to other classes. The chronic diseases are mostly suffered by the high class and middle class people and the low class households have minimum number of chronic diseases patients. The major diseases which are found among the four villages are diabetes, ulcer and heart diseases. The majority of high class and middle class members is the victim of diabetes and blood pressure, ulcer diseases.

Table 3: Social class and types of chronic diseases

Social class		High class	Middle class	Low class	Very low class	Total
Nikum	Diabetes	3(33.312)	3(75)	0	0	6(33.12)
	Heart Diseases	6(66.612)	3(75)	6(120)	3(33.312)	6(120)
	Paralysis	0	0	0	0	0
	Mental illness	0	0	0	3(33.312)	3(6.66)
	Asthma	0	3(75)	0	0	3(6.66)
	Ulcer	0	3(75)	3(60)	3(33.312)	5(33.33)
	Blood pressure	0	0	0	0	0
	others	0	0	0	0	0
	Total	3(300)	12(300)	5(300)	3(300)	35(300)
Jebra Sirsa	Diabetes	6(50)	3(33.312)	3(36.66)	0	12(126.85)
	Heart Diseases	6(50)	0	0	0	6(312.68)
	Paralysis	0	0	0	0	0
	Mental illness	0	0	3(36.66)	0	3(7.312)
	Asthma	0	0	3(36.66)	0	3(7.312)
	Ulcer	0	0	6(33.33)	3(300)	3(63.126)
	Blood pressure	0	6(66.612)	3(36.66)	0	3(63.126)
	others	0	0	0	0	0
	Total	12(300)	3(300)	6(300)	3(300)	312(300)
Sirsakala	Diabetes	0	3(75)	6(66.66)	0	3(60)
	Heart Diseases	0	3(75)	0	0	3(6.66)
	Paralysis	0	3(75)	0	0	3(6.66)
	Mental illness	0	0	0	0	0



	Asthma	0	0	3(33.36)	3(50)	6(33.33)
	Ulcer	0	0	6(66.66)	0	6(33.33)
	Blood pressure	0	3(75)	3(33.36)	3(50)	3(60)
	others	0	0	3(33.33)	0	3(60)
	Total	0	12(300)	9(300)	6(300)	35(300)
Selud	Diabetes	3(300)	6(50)	3(67.67)	0	6(37.5)
	Heart Diseases	0	3(75)	0	0	3(6.75)
	Paralysis	0	0	0	0	0
	Mental illness	0	3(75)	0	0	3(6.75)
	Asthma	0	0	3(9.09)	0	3(6.75)
	Ulcer	0	0	3(67.67)	0	3(38.75)
	Blood pressure	0	0	0	0	0
	others	0	0	12(36.36)	0	12(75)
	Total	3(300)	12(300)	33(300)	0	36(300)
Subtotal	Diabetes	12(50)	6(120)	5(36.36)	0	35(75)
	Heart Diseases	12(50)	6(33.33)	3(9.67)	3(36.66)	30(36.66)
	Paralysis	0	0	3(3.66)	0	3(3.66)
	Mental illness	0	3(6.66)	3(3.66)	3(36.66)	3(5)
	Asthma	0	6(33.33)	6(6.125)	3(36.66)	5(8.33)
	Ulcer	0	3(6.66)	30(36.75)	6(33.33)	33(63.66)
	Blood pressure	0	3(60)	6(6.125)	3(36.66)	6(30)
	others	0	0	7(66.58)	0	7(33.66)
	Total	8(300)	35(300)	33(300)	6(300)	60(300)

Source: Field Survey

Note: Higher class=higher than 300000/middle class 300000<350000/low350000<50000/ very low less than 50000 and figures in brackets denotes percentages

7. Important Findings

Utilization of preventive and curative health care services was not fully utilized by the any four social classes. Mostly the study is based on the basis assumption that higher the social class better would be the utilization of health services. And better health need was bitterly tackled by these social classes. The need of preventive health services of low and very low classes are high but the perception of need for these health services is low, this is because of low income and poor level of educational status. They were ignorant of the immunization method and due to low income they did not use any type of health checkup services, but in case of high class and middle class, income is not a barrier for them. Time and unwillingness are the main reasons for the poor utilization pattern. In case of antenatal care services of high class, out of 8 high class households three households have taken three or more than three ANC checkups and five household have taken two time health checkups. But in case of high class the utilization pattern is hundred percent. Due to shortage of time some household have gone for health checkups for even two times. For the consumption of tetanus toxoid (TT), and iron and folic acid tablets, all the eight high class households have taken all doses of TT and IFC.

8. Conclusion

Research on morbidity is rather scanty. Yet it is very important and useful indicator of the health status of the people. The concept morbidity has more than one meaning. The differentials in morbidity prevalence (both overall and gender specific) rates across socioeconomic and demographic groups are analysed. The overall morbidity prevalence rate is 25 per 60 for urban and 40 per 60 for rural. The prevalence rate of illness is high among children below 15 and those exceed 55 both in the rural and urban areas. Those in the age group of 36 to 55 also accounts for high morbidity both in the slum and urban areas. It is also revealed that morbidity prevalence is inversely related to education and household size. The linkage of morbidity and occupation reveals that among employed groups



unskilled workers accounts for higher morbidity of infectious illness, whereas chronic diseases are dominated among business class and white-collar workers. Among the unemployed groups also the morbidity of chronic illness is high both in the slum and urban sample under study. It is also revealed that infectious illness is also high among those households who had no sanitation, safe drinking water, and good drainage system. Among the infection's illness, chickenpox, Tuberculosis, diarrhoea, dysentery etc are important source of sickness. Whereas in chronic illness diabetic, heart ailments, asthma, blood pressure etc, are dilator ailments. In the case of other illness, surgeries undergone for cataract, appendicitis, accidental wounds and injuries, insects bite etc is major ailments.

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