

**RURAL-URBAN DIFFERENCES IN MORBIDITY AND
UTILIZATION PATTERN OF HEALTH SERVICES IN
PUNJAB: AN ANALYSIS OF CHRONIC DISEASE'
PATIENTS**

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Abstract:

The present paper analyzed disease pattern, morbidity rate, health-seeking and utilization behaviour of 180 rural and 120 urban households spread across eighteen villages and nine cities/towns respectively, located in three districts of Punjab, namely, Jalandhar, Bathinda and Fatehgarh Sahib. The study clearly found that the morbidity rate of chronic diseases was very high both in rural and urban areas. Considerable differences were analyzed in the disease pattern, morbidity rate, health-seeking behaviour and utilization pattern between rural and urban areas as the proportion of patients seeking treatment from non-qualified health professionals was more pronounced among rural patients than the urban patients. The study also highlighted that the public sector institutions are unable to attract patients from rural areas. Further, the role of quacks/local doctor/hakim/faith-healers (unqualified) in treating patients was found to be very high in rural areas compared to urban areas.

Key Words: Chronic diseases, morbidity rate, service utilization, health seeking behaviour, health care provider, disease pattern, rural-urban differences.

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I

Utilization of health services, in fact, depends upon a large number of factors like access to health facilities, treatment cost, paying capacity, severity of illness, system of medicine, individual/family beliefs about illness/disease, etc. (Gangadharan, 2005). Morbidity refers to a diseased state or disability or poor health of a person due to any cause. The term may also refer existence of any form of disease/illness, or to the degree, that affects normal health conditions of a person. In epidemiology science, morbidity rate refers to incidence or prevalence of disease/s or medical condition/s out of given population. It means that morbidity rate measures presence of sickness/disease in given population in contrast to mortality rate which measures the proportion of people dying during a given time interval in given population (Duraisamy, 1998).

A chronic disease or illness is defined as a disease or illness that persists for a long time. As per the US National Centre for Health Statistics, a chronic disease is one that is lasting at least for 3 months or more (Mahal, 2000). Chronic diseases generally cannot be prevented by the vaccines or cured by the medication at once nor do they just disappear. Chronic disease, in this study, means an impairment of bodily structure and/or a mal-functioning that persists over an extended period of time or reoccurs frequently or requires regular medicine/s. These diseases necessitate a modification of the patient's normal routine activities and require continuous doses of medicines at least for three months and more time period (CDC, 2009).

There are many chronic diseases or ailments that contribute significantly to the burden of diseases among the individuals, families, societies, and countries. These chronic diseases/ailments are of many types like the cardiovascular diseases (mainly heart disease and strokes); cancers; diabetes; mental disorders; epilepsy; chronic respiratory diseases; vision and hearing impairments; oral diseases; arthritis; bone and joint disorders; and genetic disorders. Besides, mental and neurological disorders in old ages also emerge as a part of chronic conditions because they need longer duration of treatment to cure. In epidemiology of diseases, chronic diseases/ailments appear under the different names in different contexts. Sometimes, the term 'non-communicable' disease is substituted to make the distinction of chronic diseases from the 'infectious/communicable' diseases. However, many chronic diseases have infectious component to their cause, such as TB, HIV, cervical cancer, etc. 'Lifestyle-related' disease as a term is also used to emphasize the growth of chronic diseases. In fact, these diseases are heavily influenced by the environmental and lifestyle conditions and are not the results of individual choices alone;

although the term 'lifestyle disease' is equally important for communicable diseases also (WHO, 2005).

In India, chronic diseases seem to be a major cause of deaths as 3.78 million deaths (40.4 percent of all deaths) were caused by these diseases in 1990. And, number of deaths due to chronic diseases are expected to reach 7.63 million (66.7 percent of all deaths) in 2020 (WHO, 2010). It has been opined that India has already geared herself for rapid economic growth; prevalence of chronic diseases will not only hinder the rate of economic growth, but also affect its development potentials negatively (Berman and Ahuja, 2008). Moreover, chronic diseases require treatment for quite a long period. This longer period of the illness is a burden on the households and hence medical care is often neglected or stopped abruptly. The poor people get disappointed due to the long period of the treatment process and its poor results. Therefore, to stop the treatment due to its continuity for long period further lengthens their sufferings. It is therefore interesting to examine the incidence of chronic diseases as well as different aspects of utilization pattern of health services in a developed region like Punjab.

The present paper analyzed disease pattern, morbidity rate, health-seeking and utilization behaviour of 180 rural and 120 urban households spread across eighteen villages and nine cities/towns, located in three districts of Punjab respectively, namely, Jalandhar, Bathinda and Fatehgarh Sahib. The selection of both rural and urban households was done by using multistage stratified random sampling technique. A detailed questionnaire was used to collect the primary data/information. The survey was carried out scientifically during the second half of 2008-09. Further, the results are presented in a tabular form using simple statistical tools such as percentages, ratios, etc.

The paper has been divided into four sections. Section I deals with the general context of chronic diseases, morbidity and utilization of health services. Section II analyses the morbidity pattern of sampled patients in Punjab. Section III deals with utilization pattern of sampled patients suffered from chronic diseases in Punjab. The summary of main conclusions has been presented in the last section, i.e., Section IV.

II

Chronic Diseases: Pattern and Morbidity:

An analysis of data (Table 1) on pattern of chronic disease and morbidity rate elucidates that, in overall, morbidity rate of chronic diseases was 156.67 per thousand people. As expected, morbidity rate was little higher (158.13 per thousand people) in urban areas compared to rural areas (155.67 per thousand people). Among various categories of chronic diseases, arthritis was found with the highest prevalent rate (42.84 per thousand people) followed by life-style diseases (36.72 per thousand people), endocrine diseases (25.70 per thousand people), allergies (23.26 per thousand people), psychiatric/psychological diseases (11.02 per thousand people) and neurological diseases (6.73 per thousand people). Further, life-style diseases were more prevalent in the urban households (55.73 per thousand people) than that of the rural households (23.71 per thousand people). Interestingly, morbidity rate of psychiatric/psychological diseases (mental illness) was more in the rural households (13.40 per thousand people) compared to the urban households (7.53 per thousand people).

Table 1: Disease Pattern and Morbidity Rate of Chronic Diseases by Category of Households

Category/ Name of Diseases	Location				Total	
	Urban		Rural			
	Frequen cy	Morbidity Rate per 1000 Population	Frequen cy	Morbidity Rate per 1000 Population	Frequen cy	Morbidity Rate per 1000 Population
Life-style	37 (35.24)	55.73	23 (15.23)	23.71	60 (23.44)	36.72
Allergies	13 (12.38)	19.58	25 (16.56)	25.77	38 (14.84)	23.26
Psychiatric/ Psychologic al	5 (4.76)	7.53	13 (8.61)	13.40	18 (7.03)	11.02
Neurologica l	5 (4.76)	7.53	6 (3.97)	6.18	11 (4.30)	6.73
Endocrine	24 (22.86)	36.15	18 (11.92)	18.56	42 (16.41)	25.70

Cancer	3 (2.86)	4.52	14 (9.27)	14.43	17 (6.64)	10.4
Arthritis	18 (17.14)	27.11	52 (34.44)	53.61	70 (27.34)	42.84
Total	105 (100.00)	158.13	151 (100.00)	155.67	256 (100.00)	156.67

Note: 1. Life style diseases include blood pressure, heart diseases, gastroenteritis, etc.; Allergies include asthma, eczema, etc.; Psychiatric/Psychological diseases include mental disorders; Neurological diseases include epilepsy, migraine, etc.; and Endocrine diseases include thyroid, diabetes, etc.

2. Figures in parentheses are percentages.

Source: Primary Survey

Further, many other diseases such as cancer, arthritis and allergies were more prevalent in rural area (14.43 per thousand people, 53.61 per thousand people and 25.77 per thousand people respectively) than that of urban area (4.52 per thousand people, 27.11 per thousand people and 19.58 per thousand people respectively). It indicates that there were substantial differences in the chronic diseases pattern of rural and urban areas.

Chronic Diseases and Patients:

The primary survey identified 256 patients who were suffering from chronic diseases across 300 sampled households. The data in Table 2 pointed out that there were 256 patients of chronic diseases. On an average, every household had 0.85 patients of chronic diseases. Further, number of chronic patient/s per household was little higher in the case of urban areas (0.88 per household) than that of rural areas (0.84 per household). Similar results have been found in the case of morbidity prevalence rate. As expected, the morbidity prevalence rate was slightly higher in the urban areas (158.13 patients per 1000 people) compared to the rural areas (155.67 patients per 1000 people).

Table 2: Per Household Chronic Disease Patients and Morbidity Prevalence Rate by Category of Households

Chronic Diseases	Location		Total
	Urban	Rural	
Total Number of Households	120	180	300
Total Number of Patients	105	151	256

Patients per Household	0.88	0.84	0.85
Morbidity Prevalence Rate (per '000 population)	158.13	155.67	156.67

Source: Primary Survey

Period of Chronic Illness:

Since chronic diseases persist for considerably a long time period and require treatment, it is interesting to note how the patients especially from the poor sections of society manage treatment against chronic diseases. Table 3 describes the data on patients of chronic illness/es by time period. In overall, 18.36 percent of chronic disease patients were suffering even before the year 1990. In the case of another 39.45 percent patients, the chronic disease started during the decade of 1991-2000, and the remaining 42.19 percent of the patients were suffering since the year 2001. As expected, proportion of patients suffering before the year 1990 was little higher in

Time Period	Location		Total
	Urban	Rural	
Before 1990	18 (17.14)	29 (19.22)	47 (18.36)
1991-2000	41 (39.05)	60 (39.74)	101 (39.45)
2001 and After	46 (43.81)	62 (41.06)	108 (42.19)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

the case of rural households (19.22 percent) than that of the urban households (17.14 percent). It is mainly due to the poor economic conditions of rural households that could not enable them to go for medical care over a long duration. The opposite trend was seen in the case of patients suffering since 2001. For instance, proportion of those chronic patients who were suffering since 2001 was higher in the case of urban households (43.81 percent) compared to the rural households (41.06 percent). However, in relative terms, there were no much differences between rural-urban patients of chronic diseases.

Chronic Diseases Affecting Parts of Body:

The data in Table 4 explained the distribution of chronic disease patients by part of body most affected. An analysis of data revealed that the most affected part of body among chronic patients was heart/circulatory system (21.48 percent), followed closely by stomach/digestive system (21.09 percent), arms/legs (15.63 percent), lungs/respiratory system (12.89 percent), eyes/ears/nose and other internal organs (each 12.50 percent), and back spine (3.91 percent). There were considerable differences across the location of households regarding the part of body

Table 4: Distribution of Chronic Disease Patients by Part/s of Body Most Affected by Chronic Illness

Body Parts	Location		Total
	Urban	Rural	
Heart/Circulatory System	30 (28.57)	25 (16.56)	55 (21.48)
Lungs/Respiratory System	11 (10.48)	22 (14.57)	33 (12.89)
Stomach/Digestive System	21 (20.00)	33 (21.85)	54 (21.09)
Eyes/Ears/Nose	16 (15.24)	16 (10.60)	32 (12.50)
Arms/Legs	12 (11.43)	28 (18.54)	40 (15.63)
Back Spine	6 (5.71)	4 (2.65)	10 (3.91)
Other Internal Organs	9 (8.57)	23 (15.23)	32 (12.50)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

most affected by chronic diseases. For example, proportion of heart/circulatory system affected patients was more in the case of urban households (28.57 percent) compared to the rural households (16.56 percent). Contrary to it, the proportion of arm/leg affected patients was higher in rural households (18.54 percent) than that of urban households (11.43 percent). It indicated that the rural households were more affected by the diseases like arthritis, joint pains, etc. The

proportion of patients with affect on their eyes/ears/nose was higher in the urban areas (15.24 percent) than that of the rural areas (10.60 percent), whereas the proportion of diseases that affected all other parts of the body was more in the rural areas (15.23 percent) than that of urban areas (8.57 percent).

Loss of Working Days:

Regarding the loss of working days, the data revealed (Table 5) that more than one-half of chronic disease patients lost 16 and more working days (53.85 percent), about one-fifth lost 6-10 working days (21.79 percent), more than one-sixth lost 11 to 15 working days (15.38 percent) and 8.97 percent patients lost 1-5 working days. Interestingly, the proportion of patients who lost more than 16 working days was very high in the case of rural areas (69.39 percent) compared to urban areas (27.59 percent). Further, 48.28 percent of patients belonged to urban areas lost 6-10 working days due to chronic diseases compared to 6.12 percent of rural areas' patients. And, those who lost 11-15 working days constituted 16.33 percent in rural areas compared to 13.79 percent in urban areas. However, the patients who lost 1-5 working days were more in urban areas (10.34 percent) compared to the patients in rural areas (8.16).

Table 5: Number of Working Days Lost due to Chronic Diseases by Category of Households

No. of Days	Location		Total
	Urban	Rural	
1 to 5	3 (10.34)	4 (8.16)	7 (8.97)
6 to 10	14 (48.28)	3 (6.12)	17 (21.79)
11 to 15	4 (13.79)	8 (16.33)	12 (15.38)
16+	8 (27.59)	34 (69.39)	42 (53.85)
Total	29 (100.00)	49 (100.00)	78 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

Table 6 presents the average number of days the patients unable to carry out their usual activities along with the monetary cost of these lost days. The data shows that, on an average, a chronic disease patient lost about twelve days (11.7) equivalent to Rs. 1445.22 per illness episode.

Both the average monetary cost and number of days for which the patients were unable to carry out their usual activities were higher in the case of patients belonging to the rural areas (16.5 days and Rs. 2037.60 per illness episode) compared to the urban areas (4.8 days and Rs. 593.32 per illness episode) households.

Table 6: Average Number of Days Unable to Carry Usual Activities and Average Monetary Cost of Lost Days due to Chronic Diseases

Area	Average Number of Days Unable to Carry Usual Activities	Average Monetary Cost of Loss (Rs.)
Urban	4.8	593.32
Rural	16.5	2037.60
Total	11.7	1445.22

* @ Rs. 123.12 per day as the minimum wage rate in Punjab prevailing during survey period (2008-09).

Source: Primary Survey

III

Utilization Pattern of Health Services

Treatment Process

Regarding the number of chronic disease patients who preferred treatment, the data revealed (Table 7) that out of 256 patients, 15.23 percent (39 patients) did not go to a qualified health professional for treatment purposes. This proportion was higher in the case of patients belonged to the rural areas (17.22 percent) than that of urban area patients (12.38 percent).

Table 7: Distribution of Chronic Disease Patients Sought Treatment from Qualified Health Professionals

Status	Location		Total
	Urban	Rural	
Yes	92 (87.62)	125 (82.78)	217 (84.77)
No	13 (12.38)	26 (17.22)	39 (15.23)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

Type of Treatment

An assessment of the data on chronic disease patients by type of treatment elucidates (Table 8) that a vast majority of chronic disease patients (82.81 percent) were dependent upon allopathic system of medicine for treating their illnesses, whereas the proportion of patients preferring traditional system of medicines was noticed very small as it was 7.81 percent in the case of ayurvedic and 4.69 percent in the case of homeopathy system of medicines. The dependency on allopathic system of medicine was more in the case of patients from urban areas (87.62 percent) than that of rural areas (79.47 percent). The utilization of homeopathy system of medicines for treating chronic illness/es was found to be more in urban areas (5.71 percent) than that of rural areas (3.97 percent). Besides, a considerable proportion of patients from rural households (7.28 percent) also preferred to use other methods such as home remedies for treating their illnesses, whereas, this proportion was found to be only 0.95 percent in urban areas.

Table 8: Distribution of Chronic Disease Patients by Type of Treatment

Type of Treatment	Location		Total
	Urban	Rural	
Allopathic	92 (87.62)	120 (79.47)	212 (82.81)
Ayurvedic	6 (5.71)	14 (9.27)	20 (7.81)
Homeopathic	6 (5.71)	6 (3.97)	12 (4.69)
Any Other	1 (0.95)	11 (7.28)	12 (4.69)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

Place of Treatment

The distribution of chronic disease patients by place of treatment is explained in Table 9. An analysis of data showed that proportion of chronic disease patients who utilized government health services (hospitals, CHCs, PHCs, etc.) was 19.14 percent compared to the formal private

Table 9: Distribution of Chronic Disease Patients by Place of Treatment

Place of Treatment	Location		Total
	Urban	Rural	
Government Hospital/CHC, PHC	13 (12.38)	36 (23.84)	49 (19.14)
Private Hospital	31 (29.52)	37 (24.50)	68 (26.56)
Private Clinic (including RMP)	48 (45.71)	52 (34.44)	100 (39.06)
Quacks/ Local Doctor	10 (9.52)	16 (10.60)	26 (10.16)
Hakim/ Faith Healer	3 (2.86)	10 (6.62)	13 (5.08)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

sector (hospitals and clinics) where 65.62 percent of chronic patients (private hospitals: 26.56 percent and private clinics: 39.06 percent) preferred to get treatment. The remaining 15.24 percent of patients used to get treatment from the informal private sector (quacks/local doctor and hakims, faith healers, etc.). Further, utilization of government health services and informal private sector was noticed more in the case of patients belonging to the rural households (23.84 percent and 17.22 percent respectively) than that of urban households (12.38 percent and 12.38 percent respectively). Formal private sector services (hospitals and clinics) were used more by the patients belonging to the urban households (75.23 percent) than that of the rural households (58.94 percent).

Nature of Patients and Source of Treatment

An assessment of data on distribution of chronic disease patients into in-patients/out-patients by source of treatment pointed out (Table 10) that out of total 256 chronic disease patients, 206 patients (80.47 percent) were reported to get treatment as out-patients and 50 (19.53 percent) got treated as in-patients. No significant differences were observed in the proportion of in-patients and out-patients across the rural-urban areas.

Table 10: Distribution of Chronic Disease Patients by Nature of Patients

Type of Patient	Location		Total
	Urban	Rural	
Total Number of Patients			
Out-Patients	85 (80.95)	121 (80.13)	206 (80.47)
In-Patients	20 (19.05)	30 (19.87)	50 (19.53)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

Further, regarding the type of health centre used for getting treatment both by in-patients and out-patients together, the data (Table 11) found that it was the dominance of private sector as more than four-fifths of chronic patients (80.86 percent) were preferred to get treatment from the private sector centres compared to the public sector centres (19.14 percent). The reliance on private sector' treatment was much higher in the case of patients belonged to urban area households (87.62 percent) compared to the patients belonged to rural area households (76.16 percent).

In the case of out-patients, an analysis of data showed that in overall, more than four-fifths of chronic patients (82.04 percent) preferred to get treatment from the private sector institutions compared to one-sixth patients (17.96 percent) who preferred public sector institutions for treatment. However, utilization of public health services was more in the case of patients belonged to the rural areas (23.14 percent) than that of the patients belonged to urban areas (10.59 percent). Similarly, in the case of chronic patients getting indoor treatment, an overwhelming proportion of patients got treatment from the private health sector across both the locations.

Table 11: Distribution of Chronic Disease Patients by Source of Treatment (Public and Private)

Type/ Nature	Location		Total
	Urban	Rural	
Total Patients (In-Patients and Out-Patients)			
Public	13 (12.38)	36 (23.84)	49 (19.14)
Private	92	115	207

	(87.62)	(76.16)	(80.86)
Total	105 (100.00)	151 (100.00)	256 (100.00)
Out-Patients			
Public	9 (10.59)	28 (23.14)	37 (17.96)
Private	76 (89.41)	93 (76.86)	169 (82.04)
Total	85 (100.00)	121 (100.00)	206 (100.00)
In-Patients			
Public	4 (20.00)	8 (26.67)	12 (24.00)
Private	16 (80.00)	22 (73.33)	38 (76.00)
Total	20 (100.00)	30 (100.00)	50 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

In overall, 76 percent of chronic patients who took in-patient care preferred to get it from the private sector. However, the utilization of government health services as inpatient care was more in the case of patients belonged to the rural households (26.67 percent) than that of the urban households (20.00 percent). It means that a large proportion of chronic disease patents preferred to get treatment as in-patients and out-patients from the private sector institutions.

Access to Health Services:

Access to health services is very important in determining the utilization level of any health facility. The accessibility is here measured in terms of distance to health facility, time and mode of transport taken to reach the health facility. An assessment of data regarding average distance covered or time taken to reach a particular health facility by chronic disease patients (Table 12) showed that on an average a patient had to travel 34.58 km to get the treatment, while the travel distance increased in the case of patients from the rural areas (34.98 km) than that of urban areas (9.62 km).

Table 12: Average Distance Covered and Travel Time Spent to Reach Health Facility by Chronic Disease Patients

Status/Area	Average Distance of Health Centre (in km)	Average Travel Time (in Minutes)
Urban	9.62	26
Rural	34.98	76
Total	34.58	58

Source: Primary Survey

Availability of appropriate means of transport at home increases the accessibility of patients to approach a better or specialized health facility for treatment. Table 13 presents the distribution of patients by mode of transport used while seeking health care. In overall, more than one-fourth of patients (26.95 percent) had availed health facilities by traveling on a bus followed by the motor cycle/scooter (22.57 percent), car/taxi (21.88 percent), rickshaw/auto rickshaw (13.28 percent), and the cycle (6.64 percent). The most interesting point is that the cheaper means of transport were used more in the case of patients from the rural households, while the costlier means of transport were used more in the case of urban patients. For instance, proportion of patients who used car/taxi to reach health facility was 29.52 percent in the case of patients belonged to the urban areas, whereas it was only 16.56 percent in the case of patients belonged to rural areas. Bus service (38.41 percent) and cycles (8.61 percent) were used mainly

Table 13: Distribution of Chronic Disease Patients by Mode of Transport Used

Mode of Transport Used	Location		Total
	Urban	Rural	
Car/Jeep	31 (29.52)	25 (16.56)	56 (21.88)
Motor Cycle/ Scooter	24 (22.86)	33 (21.85)	57 (22.27)
Bus	11 (10.48)	58 (38.41)	69 (26.95)
Rickshaw/ Auto Rickshaw	31 (29.52)	3 (1.99)	34 (13.28)
Cycle	4 (3.81)	13 (8.61)	17 (6.64)
Foot	4	19	23

	(3.81)	(12.58)	(8.98)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

by the rural patients. The proportion of patients who walked to reach health centre was noticed very high in the case of rural households (12.58 percent) compared to the urban households (9.68 percent).

Reasons for Choice of Health Centre

Regarding the reasons for selecting a health centre for treatment, the data (Table 14) showed that, on an average, about two-fifth of chronic patients (37.89 percent) selected a health centre because 'specialized treatment' was available there. It was followed by the reason as the 'doctor known' (20.70 percent) to them. And, the next important reasons, in order of importance, were the 'nearest to home' (14.84 percent); 'other reasons which included patients referred by their friends/relatives, etc.' (10.16 percent); 'free or low cost treatment' (8.20 percent); and 'no

Table 14: Distribution of Chronic Disease Patients by Reason for Choice of Treatment

Reason	Location		Total
	Urban	Rural	
Specialized Treatment	43 (40.95)	54 (35.76)	97 (37.89)
Free or Low Cost Treatment	8 (7.62)	13 (8.61)	21 (8.20)
Doctor Known	27 (25.71)	26 (17.22)	53 (20.70)
Nearest to Home	17 (16.19)	21 (13.91)	38 (14.84)
No Waiting Time	7 (6.67)	14 (9.27)	21 (8.20)
Other*	3 (2.86)	23 (15.23)	26 (10.16)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

waiting time' required for meeting the doctor (8.20 percent). As expected, a high proportion of patients in the case of urban areas (40.95 percent) preferred a particular health care because of 'specialized treatment' available there compared to the rural area patients (35.76 percent). A good proportion of patients belonged to the urban areas (25.71 percent) preferred to get treatment from a doctor who was familiar or known to them, whereas this factor was found weak in the case of rural patients (17.22 percent). The proportion of patients who were referred by their friends/relatives and other persons under the category 'others' was more in the case of rural (15.23 percent) patients than that of the urban (2.86 percent) patients.

Regularity in Utilization of Prescribed Medicines

A perusal of the data on chronic disease patients by regularity in utilizing prescribed medicines/injections revealed an interesting result. The data showed (Table 15) that out of 256 patients, 43 patients (16.80 percent) did not take prescribed medicines/injections regularly. This proportion was found to be higher in the patients belonged to the rural areas (19.21 percent) than that of patients belonged to the urban areas (13.33 percent).

Table 15: Distribution of Chronic Disease Patients by Regular Utilization of Prescribed Medicines/Injections

Status	Location		Total
	Urban	Rural	
Yes	91 (86.67)	122 (80.79)	213 (83.20)
No	14 (13.33)	29 (19.21)	43 (16.80)
Total	105 (100.00)	151 (100.00)	256 (100.00)

Note: Figures in parentheses are percentages.

Source: Primary Survey

Further, the data also revealed (Table 16) that out of total 43 patients, 15 (34.88 percent) patients had reported that the medicines were too expensive to purchase. Another 14 patients (32.56 percent) reported that they had not taken medicines/injections regularly because of carelessness. Further, 14 patients (32.56 percent) stopped to take medicines because of allergic reaction of that medicines and non-availability of medicines in the health centre or near the health centre they visited for getting treatment. As far as the location of households was concerned, it

was found that patients from rural areas (37.93 percent) were reported more careless than that of the patients from the urban areas (21.43 percent).

Table 16: Distribution of Chronic Disease Patients by Reason for Not Taking Medicine/Injections Regularly

Reason	Location		Total
	Urban	Rural	
Too Expensive	6 (42.86)	9 (31.03)	15 (34.88)
Carelessness	3 (21.43)	11 (37.93)	14 (32.56)
Others*	5 (35.71)	9 (31.03)	14 (32.56)
Total	14 (100.00)	29 (100.00)	43 (100.00)

*It includes no relief, cursing fate, etc and non-availability of medicines/injections in or near health centre

Note: Figures in parentheses are percentages.

Source: Primary Survey

IV

Summary and Conclusion

The study found that a large number of people suffered from chronic diseases as the morbidity rate of these diseases was found 156.67 patients per thousand populations. Across different locations of households, morbidity rates showed slight difference as incidence of chronic diseases was higher among urban households (158.13 patients per thousand people) compared to rural households (155.67 patients per thousand people).

Interestingly, about one-sixth patients of chronic diseases (15.23 percent) seek treatment from non-qualified health professionals. Seeking treatment from non-qualified health professionals was more pronounced among the patients belonged to the rural households. Further, an overwhelming majority of chronic disease patients (82.21 percent) preferred allopathic system of medicine for treatment, whereas a very low proportion of patients preferring other system of medicines i.e. ayurvedic, homeopathy, etc. Considerable differences were found (in proportionate terms) in the type of treatment used across rural urban patients.

The study highlighted that a high proportion of patients (80.86 percent) preferred treatment from the private health hospitals/clinics (including RMPs). However, this proportion was found more in urban areas (87.62 percent) than that of rural areas (76.16 percent). The role of quacks/local doctor/hakim/faith-healers (unqualified) in treating patients was found to be very high in rural areas (17.22 percent) compared to urban areas (12.38 percent). It means that public sector institutions are unable to attract patients both from the rural as well as urban areas. Clearly, rural people in Punjab are deprived of from the benefits of public health infrastructure.

On expected lines, a greater majority of patients preferred to get treatment as out-patients (80.47 percent). On the other hand, more than one-fourth of in-patients (24.00 percent) of chronic diseases used government health services. Further, this proportion was very high in the rural households (26.67 percent) in comparison to the urban households (20.00 percent).

Further, there were considerable differences across various disease patients regarding the major reasons for seeking treatment from a particular health centre/doctor. The proportion of patients who sought treatment because of its specialty and efficiency was found more in urban areas (40.95 percent) compared to rural areas (35.76 percent). However, the proportion of chronic disease patients who reported 'other reasons' which included home remedies, religious beliefs, faith healers, advice of relative/friends, etc. for their choice was very high in the case of rural (15.23 percent) patients than that of the urban (2.86 percent) patients.

Regarding the distribution of patients by mode of transport used for seeking treatment, the most interesting point is that cheaper means of transport were used more in the case of patients from the rural households, while costlier means of transport were used more in the case patients from urban households.

From the study, it emerges that there is a strong preference across the patients in the state for availing of treatment from the private health sector both in rural and urban areas. The main reasons for preferring private health providers are many like easy availability at all hours, cost effectiveness, specialized skills of providers, promotional efforts, etc. Despite charging high treatment costs, private health providers in the state are posing a serious challenge to the public health institutions by providing health services at par to non-hospitalized as well as hospitalized illness episodes. It is suggested that the Punjab government and professional medical bodies evolve certain rules and regulations and develop appropriate strategies to regulate the private

health sector. More importantly, certain guidelines/directives regarding manufacturing, sale, quality and prescription of pharmaceutical drugs on the one hand, and medical and clinical practices, including license to practice, basic code of conduct and consumer complaints on the other must be designed in the state.

With rising urbanization trend, efforts must be made to improve the quality of secondary and tertiary care hospitals, growth of which has not kept pace with the changing requirements and changing pattern of diseases in the state.

The state is likely to face newer morbidity patterns because of rising urban population, ageing population, in-migration and industrialization of the state. Focused attention needs to be given to the curative aspects of health care in Punjab, where the proportionate share of number of patients treated in public health institutions has gone down considerably. For improving the accessibility and utilization of health services by the rural poor and slum dwellers, it would be better if the authority can provide mobile health care vans in their dwelling place during night and in the evening.

Significant steps must be taken to make health care affordable and accessible. In the health care budget of the government more allocation of funds should be earmarked for medicines and supplies, so that the vulnerable and rural poor utilizing government health institutions will be benefited a lot.

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