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Illness profile and Health-care utilization patterns of Slum Residents in Dhaka-City, Bangladesh

Health-care seeking studies

Health Systems Research Team

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PART B - USE OF HEALTH-CARE OPTIONS

PART C - DYNAMICS OF HEALTH-CARE SEEKING PROCESSES

Foreword

This is the third publication in a series of Working Papers on health-care seeking in the case of illness in Bangladesh from three studies, conducted from 1993 to the first half of 1998 by the Health Systems Research Team of ICDDR,B's Health Economics Programme at the Public Health Sciences Division. The first study collected information from the slum population of Dhaka-City, the second, from its non-slum population, and the third one from a peri-urban/rural area.

The overall objective of these studies was to get a better understanding of health-care use and spending by different sub-populations, and to contribute, with the findings, to the development of more appropriate health policies in Bangladesh and in other countries with similar health-care provision patterns and socio-economic and/or cultural characteristics. The specific objectives were (1) to document the components of health-care decision processes, i.e. perceived illness patterns, the health-care options that the study populations perceive to be available, and the reasons and constraints operating in health-care choice making; (2) to determine and investigate variables that contribute to health-care choice making and utilization; (3) to describe the patterns of direct household expenditure on health-care; (4) to study indirect expenditure, namely loss of income due to illness; and finally, (5) to examine aspects of user satisfaction with health-care received.

A similar research strategy was used for all the three studies, consisting of three phases and combining qualitative and quantitative research methods. The first phase was a cognitive study to generate data on the components of health-care decision-making. It was followed by a 6-month longitudinal survey, in which data were collected on all new illness episodes and existing chronic ones through fortnightly visits. Simultaneously, selected socio-economic and demographic variables were followed up on a monthly basis. Each survey was preceded by a more extensive baseline survey on socio-cultural and economic variables. Finally, a series of case studies was conducted on specific health-care seeking experiences reported during the longitudinal survey.

A number of working papers have been published on several parts of the findings of each study. This Working Paper presents the illness profile and health-care utilization patterns of the 905 households in the sample of the slum study. The interested reader may also consult the following Working Papers on the other aspects of the same slum study:
-Demographic, socio-cultural and economic profile of Slum Residents in Dhaka-City, HEP Working Paper No.3-98;
-Direct and indirect health-care expenditure by Slum Residents in Dhaka-City, HEP Working Paper No.5-98;
-Specific health-care seeking experiences of Slum Residents in Dhaka-City, HEP Working Paper No.6-98;
-Main findings and policy implications of a study on health-care seeking among the Slum Residents in Dhaka-City, HEP Working Paper No.7-98.

PART A

ILLNESS PROFILE

Introduction

Classifying self-reported complaints

In our study, data on complaints of the respondents and their family members were collected, using open-ended questions. Throughout the world, the formulation of complaints is locally bound with in each place a wide variety of expressions. Therefore, translating these expressions into complaints or symptoms requires a correct understanding of the 'language' used. During the cognitive phase of our study, information was collected about the expressions used by the slum people in Dhaka-City. A public health physician with experience in curative care in the slums conducted the 'translation' of these expressions into complaints.

After this translation, the most specific complaint for each illness episode was selected as the 'dominant symptom'. For instance, if the respondent reported fever and cough, cough was taken as the dominant symptom. If fever was reported as the only symptom, it naturally became the dominant symptom.

Finally, these dominant symptoms served to construct broad *illness categories*. For instance, reporting of cough and fever combined was categorised as 'respiratory ailment', of running nose and fever as 'cold fever', and of fever alone as 'fever'. However, in about 10% of the illness episodes, two symptoms were reported of similar level of specificity: the main combinations were headache and fever, joint pain and fever, weak body and fever, gastric pain and headache. Categorisation of these cases was judged as follows: for headache or joint pain or weak body and fever: illness category 'fever'; for gastric pain and headache: category 'gastric pain'.[1]

It should be emphasized that no further biomedical check of the complaints was included in the design of our study. All illnesses described in this paper are, thus, self-reported. Furthermore, the respondents reported complaints according to their chronicity (*chronic* or *non-chronic types* of complaints), and for non-chronic complaints according to severity (*minor* or *severe types* of complaints).

Estimating frequency of occurrence of illness

Illness occurrence may be presented in absolute figures or in a relative way (i.e., as a rate), and as new cases (i.e., incidence) or as old and new cases together (i.e., prevalence). *Incidence* will be used in this document to describe **non-chronic** illnesses, and *period prevalence* for **chronic** illnesses. The latter incorporates all existing chronic illness cases at the start of the longitudinal survey plus all new chronic cases reported during the survey. As a basis for the denominator of rates, we computed person-days as the total number of days that each individual under investigation was present at the study site during the course

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[1] The methodology described here to classify self-reported complaints is based on the operational research of the Kasongo Project, Zaire, on standardising the tasks of auxiliaries for curative consultations at Health Centre level. See for further information: Kasongo Project Team (1981) "The Kasongo Project. Lessons of an experiment in the organisation of a primary health care system." Annals of the Belgian Society of Tropical Medicine, Vol 81, Supplement, pp 11-15.

of the survey. This was made possible thanks to the demographic follow-up of all individuals enrolled in the longitudinal survey (see HEP Working Paper No.3-98 for more details on demographic characteristics of our study sample)

The parameter that will be used here for relating illness occurrence to a time period and subjects under investigation is *person-month* (and in the rate, 100 person-months). The number of person-months was obtained by subdividing the number of computed person-days by 30.

Person-year as an alternative parameter was not preferred, because it would extrapolate the illness incidence of the survey beyond the survey's time frame. It would assume that the incidence patterns during the survey period is the same as in the other half of the year during which the survey was not conducted.

CHAPTER 1
ILLNESS CATEGORIES AND OCCURRENCE

A. NON-CHRONIC ILLNESSES

About 86% of all reported non-chronic illnesses were grouped into 12 main illness categories (Table 1).

Overall, the most important categories are cold fever (a commonly used term for common cold), fever, diarrhoea, and skin ailments (together almost two-thirds of the total number of cases). The respondents reported dysentery as a separate illness. If, however, dysentery is added to the other diarrhoea cases, the group of diarrhoeal diseases becomes almost as important as fever. Each subsequent main category represents between 3 and 4% of the total number of cases, except the last main category.

About 60% of the illness conditions have been reported as minor. For some illness categories, there are, however, more severe than minor repofted cases: injuries, gastric pain, dysentery, joint ailment, and jaundice.

Table 1: Non-chronic illnesses reported by the respondents during the longitudinal survey

Illness category	Illness types				Total	(%)
	Minor	(%)	Severe	(%)		
1. Cold fever	1312	(71)	542		1854	(21)
2. Fever	1070	(66)	551		1621	(18)
3. Diarrhoea	657	(58)	480		1137	(13)
4. Skin ailment	572	(66)	290		862	(10)
5. Injury	124		209	(63)	333	(4)
6. Respiratory ailment	210	(67)	103		313	(3)
7. Eye ailment	206	(70)	90		296	(3)
8. Gastric pain	112		175	(61)	287	(3)
9. Dysentery	117		158	(57)	275	(3)
10. Headache	140	(54)	120		260	(3)
11. Joint ailment	121		134	(53)	255	(3)
12. Jaundice	59		127	(68)	186	(2)
Total main categories	4,700	(61)	2,979		7,679	(86)
Other illnesses	608		680	(53)	1,288	(14)
Overall total	5,308	(59)	3,659		8,967	(100)
Illness cases without reported illness severity	-		-		129	

Consequently, there are marked differences in the ranking of illness categories when illness severity is considered, although the same twelve categories remain the top most important ones (Table 2). Overall, there is more spread over illness categories for severe illnesses than for minor illnesses.

Cold fever, isolated fever, diarrhoea, and skin ailments are the main illness categories in both minor and severe illness. However, when diarrhoea and dysentery are taken together, the group of 'diarrhoeal diseases' becomes the largest category of severe illnesses.
For *minor illness*, the four main categories are followed by respiratory ailments (4%), eye ailments (4%), and headache (3%). All other illness categories each contribute less than 2.5% to the overall minor illness burden.
In *severe illness* conditions, injury becomes the fifth largest illness (6%), followed by gastric pain (5%), and dysentery (4%). All other illness categories each contributes less than 4% to the overall severe illness burden.

Table 2: Non-chronic illness reported by the respondents during the longitudinal survey by illness severity

Minor illness			Severe illness		
Illness category	No.	(%)	Illness categories	No.	(%)
1. Cold fever	1312	(24.7)	1. Fever	551	(15.1)
2. Fever	1070	(20.1)	2. Cold fever	542	(14.8)
3. Diarrhoea	657	(12.4)	3. Diarrhoea	480	(13.1)
4. Skin ailment	572	(10.8)	4. Skin ailment	290	(7.9)
5. Respiratory ailment	210	(4.0)	5. Injury	209	(5.7)
6. Eye ailment	206	(3.9)	6. Gastric pain	175	(4.8)
7. Headache	140	(2.6)	7. Dysentery	158	(4.3)
8. Injury	124	(2.3)	8. Joint ailment	134	(3.7)
9. Joint ailment	121	(2.3)	9. Jaundice	127	(3.5)
10.Dysentery	117	(2.2)	10.Headache	120	(3.3)
11.Gastric pain	112	(2.1)	11.Respiratory ailment	103	(2.8)
12.Jaundice	59	(1.1)	12.Eye ailment	90	(2.5)
Others	608	(11.5)	Others	680	(18.6)
Total	5308	100	Total	3659	100

B. CHRONIC ILLNESSES

In total, the respondents reported 918 chronic illnesses. As may be expected, the main categories are substantially different from those for non-chronic illnesses (Table 3).

The twelve main illness categories of chronic illnesses cover about 79% of the total number of reported cases. Clearly, the most important one is gastric pain (18%), followed by skin ailments (11%), joint ailments (8%), difficult breathing (in the local language mostly denominated as '*hapami*', 8%), headache (8%), diarrhoea (6%), and blood pressure problems (5%). All other categories each contribute less than 4% to the overall chronic illness burden. Chronic cases are thus more spread over illness categories than severe non-chronic illnesses.

Table 3: Chronic illness reported by the respondents during the longitudinal survey

Illness category	No.	%
1. Gastric pain	161	(17.5)
2. Skin ailments	102	(11.1)
3. Joint ailments	77	(8.4)
4. Difficult breathing	76	(8.3)
5. Headache	74	(8.1)
6. Diarrhoea	55	(6.0)
7. Blood pressure	46	(5.0)
8. Non-specific pain	36	(3.9)
9. Respiratory ailment	25	(2.7)
10. Non-specific gastro-abdominal ailment	24	(2.6)
11. Dental ailment	24	(2.6)
12. Eye ailment	23	(2.5)
Others	195	(21.2)
Total	918	(100)

In the following chapters, the data on illness rates will be presented as Figures and Tables. Where there are Figures, the corresponding data in Tables are put in annexes: on demographic variables in Annex 1; on sociocultural variables in Annex 2; and on economic variables in Annex 3.

CHAPTER 2
ILLNESS RATES: DEMOGRAPHIC AND CLIMATOLOGICAL VARIABLES

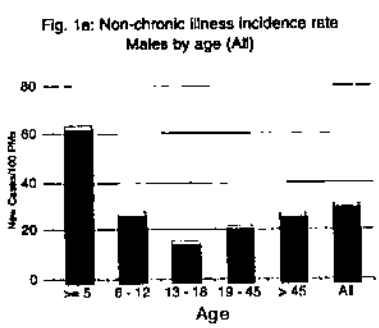
A. AGE AND GENDER

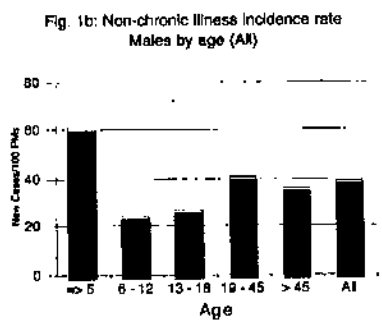
1. NON-CHRONIC ILLNESS

Fig. 1c shows that the overall illness burden is high, about 35 new illness episodes per 100 person-months: this would correspond to more than 4 illness episodes per person-year, if there would be no variation in incidence between the 6 months that were under investigation and the other half of the year.

We further observe the typical U-shaped curve when age is considered. In males (Fig. 1a), there is a gradual substantial decline in illness incidence over the childhood and adolescent age-groups and a gradual increase in the adult age-groups. In females (Fig. 1b), the incidence is also the highest in the 0-5 year age-group, is similar for the 6-12 and 13-18 year age-group, higher in the fully reproductive age-group, and slightly declines again in the older female adults.

For both minor and severe illness conditions (Figs. 1d-i), the illness burden is fairly similar for females and males till the age of 12 years; it is twice as big for adolescent and adult females younger than 45 years, while for the older adults the difference between females and males again decreases.
Some of the disparity in the patterns for females and males may be due to respondent bias: reporting on illness was primarily done by the housewife, which may have resulted in a relative under-reporting of the illnesses of the female children (perceived as less important), and of the male adolescents and adults due to the lack of knowledge on the illnesses of the latter. Illnesses related to pregnancies and deliveries were excluded from the present analysis.





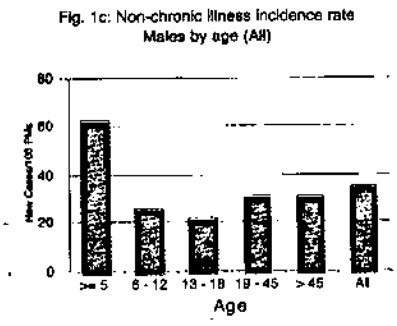


Fig. 1d: Non-chronic illness incidence rate
Males by age (All)

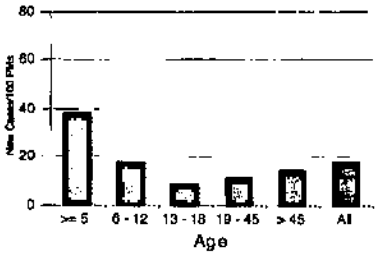


Fig. 1e: Non-chronic illness incidence rate
Males by age (All)

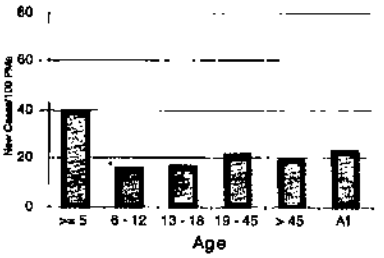


Fig. 1f: Non-chronic illness incidence rate
Males by age (All)

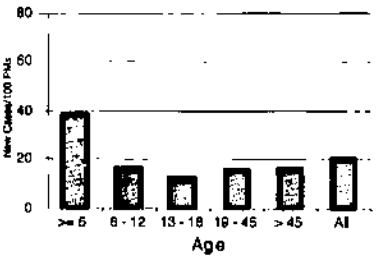
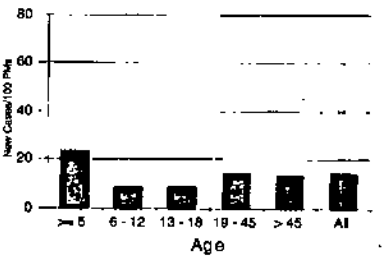


Fig. 1g: Non-chronic illness incidence rate
Males by age (All)

Fig. 1h: Non-chronic illness incidence rate
Males by age (All)

Fig. 1i: Non-chronic illness incidence rate
Males by age (All)



2. CHRONIC ILLNESSES

The overall period prevalence rate of chronic illnesses by age (Fig. 2c) also shows a U-shaped curve, but is here by far the highest for the older adults, followed by the younger adults. It is the lowest in the 6-12 year age-group and about twice as high as in the up to fives and 13-18 year age-group.

Fig.s 2a and 2b indicate that reported chronic illness in females compared to males is only lower in the youngest age-group. It is similar in the 6-12 year age-group, double in the 13-18 year age-group, and about 60% and 25% higher in the 19-45 and above 45 year age-groups respectively.

Overall, the chronic illness period prevalence rate is about one-tenth of the non-chronic illness incidence rate, or the non-chronic/chronic illness rate ratio is 9.8. Chronic illnesses become relatively more important than non-chronic ones with the increasing age, with the rate ratio increasing from 3.0 in older adults to 27.2 in children aged less than six years (Annex 1).

Fig. 2a: Chronic illness prevalence rate Males by age

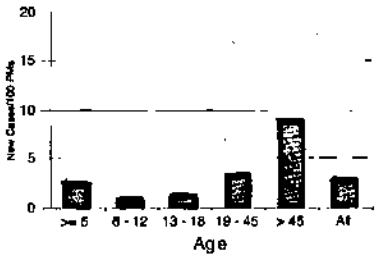


Fig. 2b: Chronic illness prevalence rate Females by age

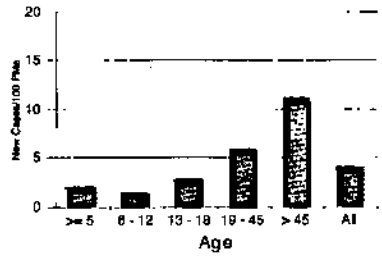
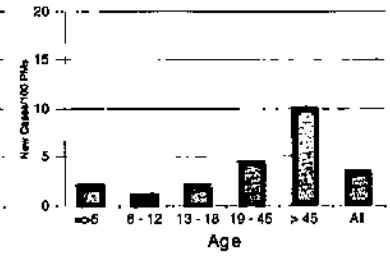


Fig. 2c: Chronic illness prevalence rate Males and females by age



B. ILLNESS CATEGORY AND AGE

1. NON-CHRONIC ILLNESSES

Table 4 indicates that the illness incidence rate per 100 person-months among infants is very high, i.e., 78.3 illness episodes per 100 person-months (or about 3 illness episodes in 4 months), and among 1 to 5 years old, it is 59.2 illness episodes per 100 person-months.

When *illness categories* are also considered, we note that cold fever is particularly high among the children aged less than six years, followed by diarrhoea/dysentery, fever, and skin ailments, and further by respiratory ailments and eye ailments.
Cold fever, fever, diarrhoea/dysentery and skin ailments are the four main illnesses in the other age-groups. However, other illnesses, such as joint ailments, headache, gastric pain, and injuries gradually become more important.

Table 4: Illness incidence rates for non-chronic illness by illness category and age

Illness category	Age-groups						
	<1yr	1-5 yrs	6-12 yrs	13-18 yrs	19-45 yrs	>45 yrs	All
1. Cold fever	27.0	16.3	4.7	3.7	4.7	4.4	7.3
2. Fever	10.1	9.5	6.1	4.0	5.4	6.4	6.4
3. Diarrhoea	12.1	12.0	3.1	1.9	2.4	2.9	4.5
4. Skin ailment	8.3	7.1	3.5	2.5	1.8	1.8	3.4
5. Injury	.5	1.5	1.6	.7	1.3	1.2	1.3
6. Respirat ailment	2.6	2.0	.9	.8	1.1	1.1	1.2
7. Eye ailment	2.6	2.1	1.2	.8	.8	.5	1.2
8. Gastric pain	1.2	.3	.6	.9	1.6	1.8	1.1
9. Dysentery	1.4	2.5	.4	.7	1.0	.6	1.1
10. Headache	.1	.1	.2	.9	1.9	1.3	1.0
11. Joint ailment	-	.1	.2	.8	1.8	2.1	1.0
12. Jaundice	.9	.8	.6	.8	.8	.5	.7
Others	11.4	4.8	2.6	3.3	6.1	6.3	5.0
Total	78.3	59.2	25.8	21.7	30.8	30.9	35.1
No. Person-months	920.7	4211.8	5466.1	2744.0	10248.2	1917.0	25508.1

2. CHRONIC ILLNESSES

As mentioned above, the most frequently occurring chronic illnesses are gastric pain, followed by skin and joint ailments, difficult breathing, headache, and diarrhoea (Table 5). The overall period prevalence rate is by far the highest in the older adults (10.2), twice as high as in the other group of adults. The rates are six times lower in the infants and four times lower in the 6-12 year age-group.

Marked differences between age-groups are observed when the illness categories are considered:

- In *infants*, the most prevalent chronic illnesses are diarrhoea and other infectious diseases, such as of the skin and of the respiratory tract;
- In the *1-5 year age-group*, the most prevalent illnesses are also diarrhoea and skin ailments, in addition to difficult breathing; in the *older children* these are skin ailments and difficult breathing;
- Non-specific pain problems, skin ailments and furthermore diarrhoea and headache are the most prevalent illnesses in *adolescents*;
- Gastric pain has the highest rate in *younger adults*; joint ailments, difficult breathing and headache have half this rate, and skin ailments and blood pressure one-fourth of the same rate.
- Finally, gastric pain and joint ailments are the most prevalent illnesses in the *older adults*, followed by blood pressure, headache, and difficult breathing.

Table 5: Period prevalence rates for chronic illness by illness category and age

Illness category	Age-groups						
	<1 yr	1-5 yrs	6-12 yrs	13-18 yrs	19-45 yrs	>45 yrs	All
1. Gastric pain	-	-	.1	.1	1.2	1.8	.6
2. Skin ailment	.4	.6	.2	.4	.4	.4	.4
3. Joint ailment	-	-	-	-	.4	1.8	.3
4. Difficult breathing	.1	.5	.3	.1	.2	.8	.3
5. Headache	-	-	-	.2	.5	.9	.3
6. Diarrhoea	.4	.5	-	.2	.1	.5	.2
7. Blood pressure	-	-	-	-	.3	1.0	.2
8. Non-specific pain	-	-	-	.5	.2	.2	.1
9. Respiratory ailment	.4	.1	-	-	.1	.2	.1
10. Non-specific gas-abdo ailment	-	-	-	-	.2	.3	.1
11. Dental ailment	-	.1	-	.1	.1	.3	.1
12. Ear ailment	.1	.2	.1	-	-	-	.1
Others	.2	.5	.3	.5	1.0	2.0	.8
Total	1.7	2.4	1.2	2.2	4.7	10.2	3.6
No. Person-months	920.7	4211.8	5466.1	2744.1	10248.2	1917.0	25508.1

C. SEASONAL PATTERNS OF ILLNESS INCIDENCE

The longitudinal survey was conducted during 1 May to 31 October 1993. This period was subdivided into the following periods: early monsoon (15 May-15 July), full monsoon (16 July-15 September), and late monsoon (16 September-31 October). Table 6 shows the incidence rates for non-chronic illnesses for those periods for the main illness categories.

For cold fever, fever, skin and eye ailments, and the category of all other ailments, there is a trend in the incidence over the three considered time periods. In Bangladesh, cold fever typically peaks during the cold season (November-January). Therefore, it is no surprise that cold fever gradually increases towards the cold season. On the other hand, there is no firsthand explanation for the downward trend in the incidence of fever. The diarrhoea incidence rate during our survey in 1993 did not change, despite the fact that in Bangladesh, the diarrhoea epidemic has two peaks a year when the seasons change (April-May and October-November). This is for instance illustrated by a U-shaped trend in admission in between the epidemic peaks, at the ICDDR,B hospital in Dhaka. From 1993 March-April onwards, however, there was an epidemic outbreak of diarrhoea with a new cholera strain, called O139 Bengal (identified in the ICDDR,B laboratories), resulting in continuing large numbers of diarrhoea patients throughout the rest of the year.

Table 6: Illness incidence rates for non-chronic illness by illness category and by seasonal periods

Illness category	Incidence/100 person-months		
	Early monsoon	Full monsoon	Late monsoon
1. Cold fever	4.7	7.9	8.7
2. Fever	7.0	5.1	4.5
3. Diarrhoea	4.4	4.6	4.2
4. Skin ailment	2.7	4.0	3.3
5. Gastric pain	1.2	1.0	1.1
6. Respiratory ailment	1.1	1.2	1.2
7. Joint ailment	1.1	.9	.9
8. Injury	1.2	1.4	1.4
9. Headache	.9	1.1	1.1
10. Eye ailment	1.0	1.1	1.5
11. Dysentery	.8	1.2	1.2
12. Jaundice	.8	.6	.6
Others	4.5	5.0	5.3
Total	31.2	35.1	35.1

D. HOUSEHOLD LOCATION

Table 7 shows that the total non-chronic and chronic illness rates are higher in public slums than in the private slums. However, the rate for minor non-chronic illness is higher in the public slums, while for severe illness, it is higher in private slums.

Table 7: Illness incidence rates for non-chronic and chronic illness by slum type

Slum type	No. of PMs	Illness incidence/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	Total	
Public	12540.7	23.4	13.1	36.4	4.0
Private	12967.3	18.3	15.6	33.9	3.2
All	25508.1	20.8	14.3	35.1	3.6

CHAPTER 3
ILLNESS RATES: SOCIO-CULTURAL VARIABLES

A. HOUSEHOLD ETHNICITY

In HEP Working Paper No.3-98, the Biharis have been described as a community of Pakistani nationals, stranded in Bangladesh since its independence in 1971, and originating from the state of Bihar in India. Table 8 indicates that the Bihari families tend to have more minor and less severe illness than the Bengali families.

Table 8: Illness rates for non-chronic and chronic illness by household ethnicity

Household ethnicity	Illness/100 person-months				Total No. of PMs
	Non-chronic illness			Chronic illness	
	Minor	Severe	Total		
Bengali	20.1	15.4	35.4	3.5	21444.2
Bihari	24.5	9.3	33.9	3.9	4061.2
All	20.8	14.3	35.1	3.6	25508.1

B. HOUSEHOLD RELIGION

The Muslim families reported more illness cases for all illness types than Hindu families. Considering the very low number of person-months (17.2) for the Christians, their illness rate data are not given in Table 9.

Table 9: Illness rates for non-chronic and chronic illness by household religion

Household religion	Illness/100 person-months				Total No. of PMs
	Non-chronic illness			Chronic illness	
	Minor	Severe	Total		
Muslim	21.1	14.5	35.6	3.7	24112.4
Hindu	16.0	11.5	27.4	2.7	1378.4
All	20.8	14.3	35.2	3.6	25508.1

The non-chronic illness incidence rates are considered here for the 0-5 and 6-12 year age-groups, and for the following education categories for mothers and fathers: no education, 1-5 years of education, and more than 5 years of education (see Annex 2 for the tables with data).

The incidence rates in minor and severe illness in the *0-5 years age-group* (Fig.s 3a-d) shows decreasing rates between the education levels '1-5 years' of education and 'more than 5 years' of education of both fathers and mothers, except in minor illness and father's education.

In contrast, the rates in the *older children* shows an upward trend with increasing education levels of fathers and mothers (Fig.s 4a-d, next page). This is particularly so in the case of mother's education.
In addition, there is an increase in incidence between the categories 'no' and '1-5 years' of education in all the cases - except in father's education and 0-5 years old (for minor illness) and 6-12 years old (for severe illness). These increases in reported illness incidence with increasing education level may be the result of a commonly recognised fact that there is a greater awareness about health problems once some education is received (especially by the mother), with consequently a higher reporting of illness.

Fig. 3a: Illness incidence (Minor/U-6)
Mother's education

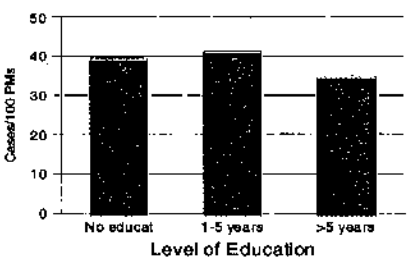


Fig. 3b: Illness incidence (Severe/U-6)
Mother's education

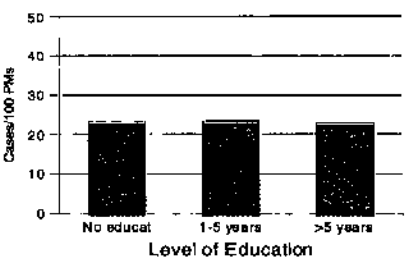


Fig. 3c: Illness incidence (Minor/U-6)
Father's education

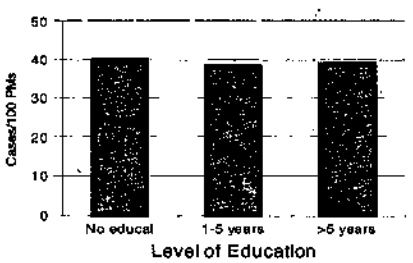


Fig. 3d: Illness incidence (Severe/U-6)
Father's education

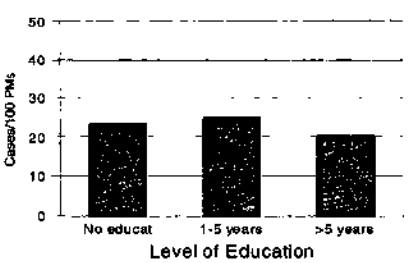


Fig. 4a: Illness incidence (Minor/6-12)
Mother's education

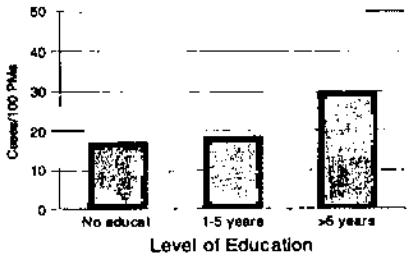


Fig. 4b: Illness incidence (Severe/6-12)
Mother's education

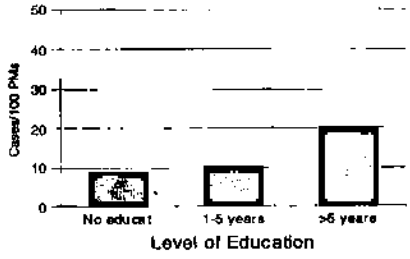


Fig. 4c: Illness incidence (Minor/6-12)
Father's education

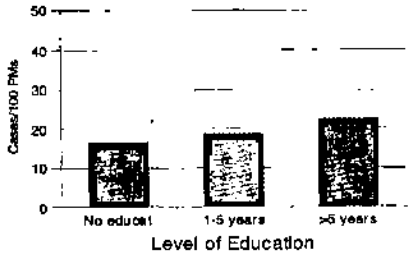
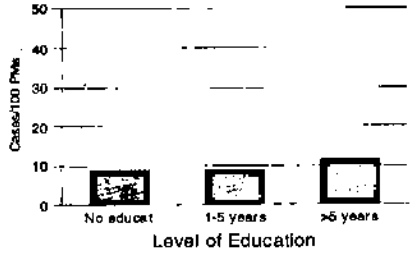


Fig. 4d: Illness incidence (Severe/6-12)
Father's education



CHAPTER 4
ILLNESS RATES: ECONOMIC VARIABLES

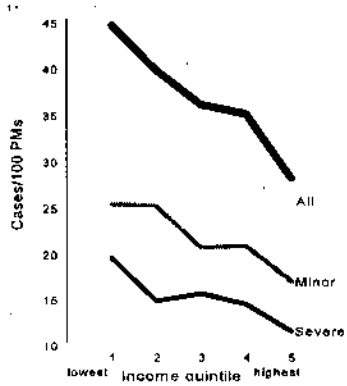
A. HOUSEHOLD INCOME

In Fig. 5 and the corresponding table in Annex 3, income has been categorised as income quintiles, as described in HEP Working Paper No.3-98.

1. NON-CHRONIC ILLNESSES

Fig. 5 shows that there is a substantial downward trend in the non-chronic illness burden with an increasing income. The association is the strongest for severe illness (ratios of 1.72 and 1.49 between lowest and highest income quintiles for severe and minor illness respectively).

Fig. 5: Illness Incidence by Income quintile



2. CHRONIC ILLNESSES

In contrast to non-chronic illness, there are no marked differences in the period prevalence rates of chronic illnesses across the income quintiles (Annex 3, A).

B. OCCUPATION

Data on *non-chronic illness cases* only are presented here (see Annex 3. B for the tables with data).

1. WAGE UNIT

Fig.s 6a-c show that the non-chronic illness incidence rates are fairly similar for monthly and daily wagers, although the severe illness incidence rate tends to be higher for daily wagers.

Fig. 6a: Illness incidence by wage unit
ALL ILLNESS

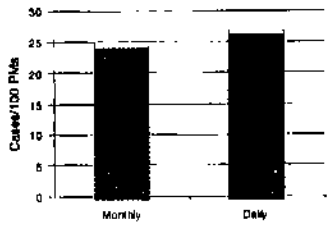


Fig. 6b: Illness incidence by wage unit
MINOR ILLNESS

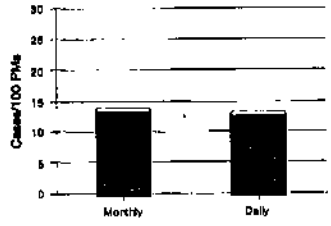
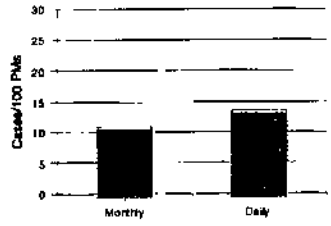


Fig. 6c: Illness incidence by wage unit
SEVERE ILLNESS



2. WAGE UNIT AND GENDER

2.1. **Daily wagers by gender**

Fig.s 7a-c show that more illnesses are reported for female than for male daily wagers, particularly for severe illness cases.

Fig. 7a: Illness incidence by gender-Daily wagers
ALL ILLNESS

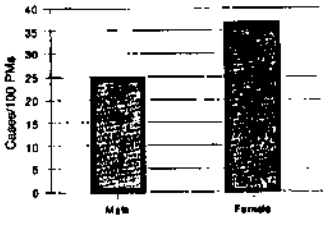


Fig. 7b: Illness incidence by gender-Daily wagers
MINOR ILLNESS

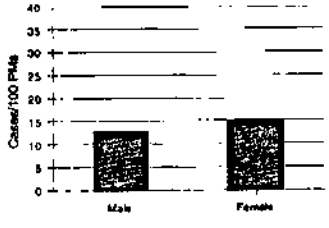
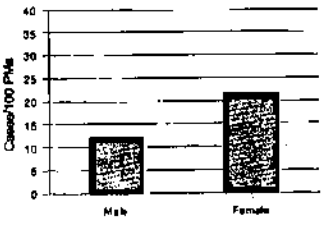


Fig. 7c: Illness incidence by gender-Daily wagers
SEVERE ILLNESS



2.2. Monthly wagers by gender

Fig.s 8a-c on illness incidence by gender for monthly wagers show a similar picture as for daily wagers. The differences, however, are more pronounced here than for daily wagers.

Fig. 8a: Illness incidence by gender-Monthly wagers ALL ILLNESS

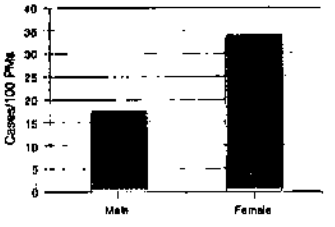


Fig. 8b: Illness incidence by gender-Monthly wagers MINOR ILLNESS

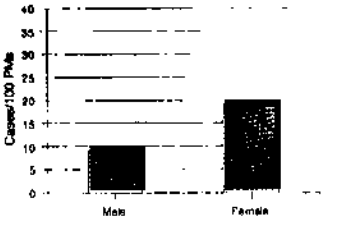
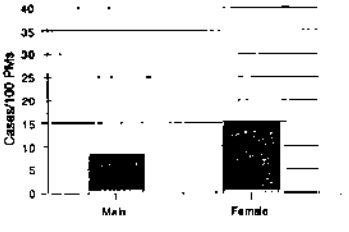


Fig. 8c: Illness incidence by gender-Monthly wagers SEVERE ILLNESS



Daily and monthly female income-earners have thus higher reported illness than their male counterparts.

3. TYPE OF OCCUPATION AND AGE

3.1. In the 6-12 year age-group

Income-earners in the 6-12 year age-group clearly show lower reported illness incidence rates than school-attendants and non-school attendants/non-income earners (Fig.s 9a-c). The tables in Annex 4 indicate that this picture is not affected by gender.

Fig. 9a: Illness incidence by occu/6-12 yr ALL ILLNESS

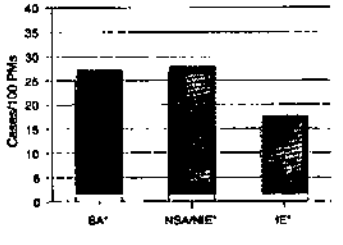


Fig. 9b: Illness incidence by occu/6-12 yr MINOR ILLNESS

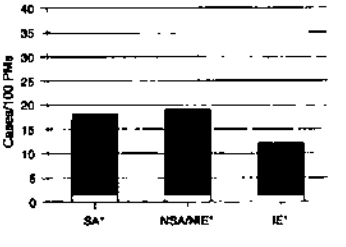
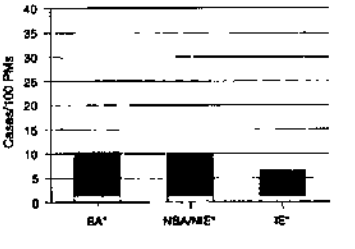


Fig. 9c: Illness incidence by occu/6-12 yr SEVERE ILLNESS

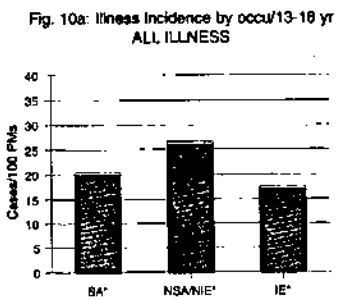


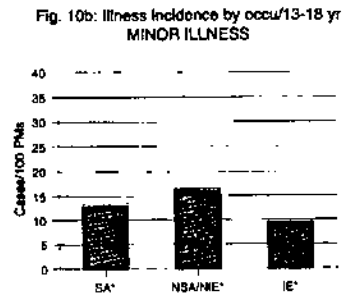
* SA=School-attendant; NSA/NIE=Non-school attendant/Non-income earner; IE=Income-earner

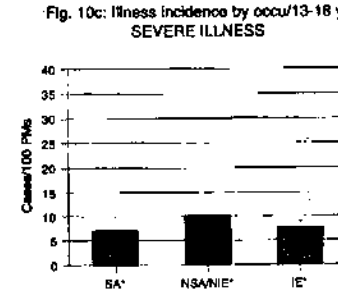
3.2. **In the 13-18 year age-group**

Fig.s 10a-c show a similar picture as for the 6-12 year age-group in the case of minor illnesses and all illness cases combined. In the case of severe illnesses however, the illness incidence rates are similar for both income-earners and school-attendants and lower than for the third category. In addition, Annex 4 with a break-down by gender, indicates that:

> in severe illness, the situation for females reflects the overall picture, i.e., similar rates for female school-attendants and income-earners which are lower than the rate for the non-school attendants/non-income earners. In males, however, income-earners have slightly higher rates than school-attendants and the third occupation category has an illness rate about a half of those of the other two categories.







* SA=School-attendant; NSA/NIE=Non-school attendant/Non-income earner; IE=Income-earner

4. OCCUPATION CATEGORIES AND GENDER

4.1. **Main occupation categories**

Overall, rickshaw/pushcart pullers have the highest illness incidence rates, followed by service workers and the category of other occupations (Table 10). In the case of severe illnesses, labourers also have a relatively high illness rate.
The lowest overall illness incidence rates are found for small business workers and vehicle drivers.

Table 10: Illness incidence rates for main occupation categories

Occupation	Minor	Severe	All	No.PMs
Rickshaw	14.6	14.5	29.2	1313.4
Service	13.8	10.4	24.2	1338.2
Sales	12.0	10.4	22.4	1225.1
Garments	12.0	9.4	21.4	1101.8
Labourer	9.8	11.8	21.6	459.3
Small business	9.0	8.9	18.0	395.2
Vehicle drivers	8.1	10.6	18.7	283.6
Others	13.2	11.9	25.1	2939.9
Total	12.7	11.4	24.0	9056.8

4.2. **Male occupation**

Among male income-earners, the illness burden is by far the highest for rickshaw/pushcart pullers. It is the lowest for garment workers and small business workers (Table 11).

Table 11: Illness incidence rates for male occupation categories

Occupation	Male			
	Minor	Severe	All	No.PMs
Rickshaw	14.6	14.5	29.2	1313.4
Service	11.0	7.0	18.0	814.9
Sales	11.6	9.5	21.1	1123.2
Garments	9.3	7.8	15.1	370.4
Labourer	9.1	11.8	20.9	372.3
Small business	8.3	8.5	16.8	351.4
Vehicle drivers	8.1	10.6.	18.7	283.6
Others	10.3	9.6	19.9	2167.4
Total	11.0	10.3	21.3	6796.9

4.3. **Female occupation**

Among female income-earners, the illness burden is the highest for sales workers and the category of other occupations, and the lowest for garment workers (Table 12).

Table 12: Illness incidence rates for female occupation categories

Occupation	Female			
	Minor	Severe	All	No.PMs
Garment	14.4	10.3	24.6	731.3
Service	18.2	15.7	33.8	523.2
Brick/stone	10.5	22.1	32.7	94.8
Sales	16.7	19.6	36.3	101.9
Other PCT	17.0	11.4	28.4	270.9
Others	23.8	19.2	43.0	537.5
Total	17.7	14.7	32.4	2259.9

CHAPTER 5
ILLNESS RATES: PROXIMATE INDICATORS FOR SOCIO-ECONOMIC STATUS

A. HOUSEHOLD SIZE

There is a strong association between household size and the overall *non-chronic illness* incidence rate. No particular trend is observed when period prevalence rates for *chronic illnesses* are considered (Table 13).

A similar pattern as for all non-chronic illnesses combined, is observed for minor and severe illnesses separately. The ratios between categories '1-2' and 'more than 6' members per household is higher for severe illnesses than for minor illnesses (1.77 and 1.52 respectively).

Table 13: Illness rates for non-chronic and chronic illness by household size

Household size	No. PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	Total	
1-2	1086.4	26.7	20.2	46.9	2.9
3-4	6851.3	24.8	17.0	41.8	4.1
5-6	8735.2	20.3	14.6	34.8	3.5
>6	8835.1	17.5	11.4	28.9	3.5
All	25508.0	20.8	14.3	35.1	3.6

These strong associations between non-chronic illness incidence rates and household size are not surprising in light of the strong relationship found in HEP Working Paper No.3-98 between income and household size on one hand, and between household income and non-chronic illness incidence rates on the other.

B. LAND OWNERSHIP

Overall, the incidence rates are similar in the three categories of land ownership for *non-chronic* illnesses, but no associations are observed when severity is considered (Table 14).

Period prevalence rates for *chronic* illnesses show a slight upward trend.

Table 14: Illness rates for non-chronic and chronic illness by land ownership

Land owned	No. PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	Total	
0	20318.3	20.8	14.4	35.3	3.5
1 bigha	3562.9	20.3	14.4	34.7	3.9
>1 bigha	1626.8	21.8	12.9	34.7	4.4
All	25508.1	20.8	14.3	35.2	3.6

C. NUMBER OF ROOMS OCCUPIED BY THE HOUSEHOLD

A steep decline in overall, minor and severe *non-chronic illness* incidence rates is observed with increasing number of rooms occupied per household (Table 15). This is in line with the association of number of rooms occupied and household income on the one hand, and of household income and illness occurrence on the other hand.
For *chronic illness* however, there is no particular trend in the period prevalence rate.

Table 15: Illness rates for non-chronic and chronic illness cases by number of rooms occupied per household

Number of rooms	No. PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	Total	
1	18985.9	21.9	14.9	36.8	3.5
2	4751.4	19.1	14.1	33.2	3.9
>2	1770.8	14.1	8.7	22.8	3.9
All	25508.1	20.8	14.34	35.2	3.6

D. HOUSE STRUCTURE

For all three the criteria (roof, wall, and floor), there is a decrease in *non-chronic illness* incidence (Table 16a) with increasing construction material quality. The steepest increase is observed for the criterion 'wall'.
For *chronic illnesses* (Table 16b), an opposite trend is observed for the roof and the wall and to trend for the variable 'floor'.

Table 16a: Incidence rate for *non-chronic* illness by house structure

Categories of materials	Illness cases/100 person-months					
	Roof No.PMs	Incid	Wall No.PMs	Incid	Floor No.PMs	Incid
Non-Permanent	1669.4	36.2	1177.6	39.5	16846.9	36.2
Semi-permanent	10748.5	36.3	20936.5	35.4	1561.8	35.1
Permanent	12767.0	34.1	3288.8	32.0	7026.3	32.7

Table 16b: Period prevalence rate for *chronic* illness by house structure

Categories of materials	Illness cases/100 person-months					
	Roof No.PMs	Preval	Wall No.PMs	Preval	Floor No.PMs	Preval
Non-Permanent	1669.4	2.6	1177.6	3.0	16846.9	3.6
Semi-permanent	10748.5	3.4	20936.5	3.6	1561.8	2.7
Permanent	12767.0	3.9	3288.8	3.7	7026.3	3.9

E. HOUSEHOLD ASSETS

1. ALUMINIUM COOKING POTS

Overall, when *non-chronic illnesses* are considered, there is a slight downward trend in incidence rate with increasing number of aluminium cooking pots owned, except for the category 'no pots owned' (Table 17). A similar picture is noted in minor illnesses, whereas no trend is observed for severe illnesses.

For *chronic illnesses*, there is also a downward trend, but in this case from the category 'no pots owned' to the category '11-15 pots owned'.

Table 17: Illness rates for non-chronic and chronic illness cases by number of aluminium cooking pots owned

No. of cooking pots owned	No.PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	All	
0	1391.8	20.8	13.7	34.5	4.3
1-5	5653.2	22.4	15.7	38.1	3.7
6-10	10409.8	21.7	14.1	35.8	3.6
11-15	3941.5	20.1	13.5	33.6	3.3
>15	4111.7	17.0	14.2	31.2	3.5
All	25505.8	20.8	14.3	35.1	3.6

2. BED

There is a reverse association between *non-chronic* illness incidence rates (overall, minor and severe illness) and the number of beds owned (Table 18). In contrast, the *chronic* illness incidence rate shows a slightly positive association with the number of beds owned.

Table 18: Illness rates for non-chronic and chronic illness cases by number of beds owned

No. of beds owned	No. PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	All	
0	6846.6	21.7	16.8	38.6	3.1
1	14241.6	21.3	13.8	35.2	3.7
≥2	4419.8	17.7	12.1	29.8	4.2
All	25508.1	20.8	20.8	35.2	3.6

3. FAN

When the number of fans owned are considered, there is as for the variable 'beds owned', a negative association with the incidence of *non-chronic* illness (Table 19). For *chronic* illnesses however, there is no trend.

Table 19: Illness rates for non-chronic and chronic illness cases by number of fans owned

No. of fans owned	No. PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	Total	
0	15490.6	21.4	15.7	37.0	3.4
1	8274.2	20.9	13.0	33.9	4.1
≥2	1743.1	15.4	8.9	24.2	3.4
All	25508.1	20.8	14.3	35.2	3.6

4. WATCH

Except for non-chronic minor illness, a similar association as for the variable 'fans' is observed here between the number of watches owned and incidence of *non-chronic* and *chronic* illness (Table 20).

Table 20: Illness rates for non-chronic and chronic illness cases by number of watches owned

No. of watches owned	No. PMs	Illness cases/100 person-months			
		Non-chronic illness			Chronic illness
		Minor	Severe	Total	
0	17465.7	20.7	15.5	36.2	3.5
1	5311.2	21.6	12.8	34.4	3.9
≥2	2731.2	19.8	9.9	29.7	3.7
All	25508.1	20.8	14.3	35.1	3.6

The associations between household assets and illness occurrence are not surprising in light of the associations between these variables and the household income on the one hand, and, between the household income and illness occurrence on the other.

CONCLUSION: ILLNESS PROFILE OF THE STUDY SAMPLE

1. The overall illness profile of the study sample is one of infectious diseases. Cold fever, fever, diarrhoeal diseases, and skin ailments constitute more than two thirds of the overall illness burden. In addition, respiratory and eye ailments, and jaundice figure among the 12 main illness categories. Factors, such as overcrowding, poor housing, and low hygienic conditions - all characteristics of a poor overall socioeconomic environment such as the one observed in slum areas - may be considered as major contributors to this situation. These factors were described in HEP Working Paper No.3-98 on the socioeconomic profile of our study sample.

2. The illness category next to the four most occurring ones, is injuries. Insecurity and violence are known every-day problems in the slums, and a direct cause for the emergence of injuries as an important illness category.

3. However, overall, the most prevalent *chronic* illness categories are gastric pain, skin and joint ailments, breathing difficulties and headache. In children nevertheless, communicable diseases such as chronic diarrhoea, skin and respiratory ailments remain predominant, whereas in old age, chronic gastric pain, joint ailments, and ailments related to the cardio-vascular systems, such as blood pressure, become the main illness categories. In contrast to the situation in children, the patterns of chronic illness in adults is thus largely of a non-communicable nature. To a lesser extent this trend is also observed for non-chronic illnesses.

4. Overall, reported non-chronic illness incidence rates are by far the highest in the under-6 year age-group, and chronic illness period prevalence rates in the older adults. Both non-chronic and chronic age-specific illness rates show the classical U-shaped trend. The relatively higher illness occurrence (particularly non-chronic illnesses) in the fully reproductive period may be at least partially the result of a respondent bias as respondents were mainly the spouses of the household heads.

5. There is a close relationship between non-chronic illness occurrence and the household income level (there is however, no association for chronic illnesses) : this association is stronger for severe non-chronic illnesses than for minor ones. This finding is striking, in that differences in income levels in the slums - which are all near or under the poverty level - do reflect differences in illness burden. However, the fact that there is a substantial gradient in the household income in the slums (see HEP Working Paper No.3-98) may contribute to this finding.
Similar relationships are found between several proximate indicators of socioeconomic status and non-chronic illness occurrence. This is not a surprising finding in view of the strong associations found in HEP Working Paper No.3-98 between most of those indicators and household income.

6. Finally, occupation-related incidence rates of reported illness indicate that firstly, income-earners are less ill than non-income earners, and secondly, rickshaw/pushcart pullers have the highest rates of all occupation categories. While the former may point at the fact that 'income-earners may not fall ill, otherwise there is loss of income', the latter finding may be associated with the hard physical efforts rickshaw/pushcart pullers have to make to pull their rickshaws/pushcarts. Thirdly, the findings suggest that female income-earners are more frequently ill than male earners. As mentioned above, respondent bias (respondents were mainly females) may account at least partially for this disparity.

PART B

USE OF HEALTH-CARE OPTIONS

Introduction: the health-care sector in urban Bangladesh

Bangladesh embraced - as many developing countries did at their independence - an official policy to ensure access of all citizens to health-care. In the 1970s, its Ministry of Health, like in some other low-income countries, was subdivided under donor pressure into two wings, which since then operate completely separately, from top to grass-roots level.[1] These wings are the 'Family Welfare' wing that, besides family planning services, also delivers Mother and Child Health services, and the 'Health' wing, which is in charge of all other health services. The Family Welfare wing is heavily subsidised by bi- and multilateral donors, and is therefore more organised and pro-active in its operations. Vested interests and the imbalance in resource efficiency (i.e., availability and use) between both the wings have long hampered a smooth coordination and/or integration of their activities. However, the government is currently in a process of 'unifying' the health infrastructure of the two wings at thana level and below.[1] This process was initiated as a prerequisite for the implementation of the fifth Health and Population Project, co-funded by a consortium of donors led by the World Bank. A high-powered committee of national experts prepared a policy document on the matter after broad consultations of all the partners involved.

Since the end of the 1970s, Bangladesh initiated, assisted by donor consortia also led by the World Bank, a huge long-term project to provide each of the nearly 496[2] rural thanas with a small hospital of 31 beds. This project has been followed up by another one for building up or renovating union[3]-level Health and Family Planning Subcentres. Despite the build-up of such an infrastructure it has been shown that rural public health-care is only marginally used by the rural population at large.[2] This is associated with epidemiological factors of disease distribution, socio-cultural factors, such as female mobility and education, knowledge of providers, and aspects of care delivery, such as (perceived and technical) quality of services (provider-patient communication, irregular and/or insufficient supplies, periodical absence of (mainly) doctors, lack of supervision, top-down, strictly hierarchical management, the functional split between 'health' and 'family welfare' personnel, and absence of community involvement in the functioning of the system[3].
In the urban areas, the public health-care infrastructure has largely remained dependent upon the big (teaching) hospitals. In addition, community-based family planning and some mother and child health services (static and doorstep) have been set up under the 'Family Planning' wing of the Ministry. However, an Asian Development Bank project is to be started up for the establishment of ward[4]-based Health Centres under the Local Governments of the four main cities in Bangladesh.

As mentioned above, Bangladesh ensures access for all (including the poor) to health-care of an acceptable quality as a constitutional right. This is expressed among others by:
- the existence of a substantial publicly owned and managed health-care infrastructure;

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[1] In the rural areas, a thana covers about 300,000 inhabitants.
[2] No. of thanas and no. of hospital beds. Bangladesh Bureau of Statistics; 1993.
[3] A union covers about 25,000 to 30,000 inhabitants.
[4] A ward in urban areas covers from 20,000 to 50,000 inhabitants.

- no user fees for preventive care, as it is considered a public good;
- only nominal, low user fees for curative care (and only at levels of care, higher than the thana level).

Finally, a landmark in the development of a health policy in Bangladesh was the adoption of an Essential Drugs Policy in 1982, for which it received international recognition and was acclaimed by the one, and undermined by others, particularly by a number of developed countries and their mighty lobbies of pharmaceutical multinationals.[4,5]

1. HEALTH-CARE PROVISION IN DHAKA-CITY

A broad range of health-care alternatives are available in Dhaka : modern private, public and non-government care, traditional healers under various forms, and home-care. Over the past decade, a virtually unregulated boom of not-for-profit and for-profit private health-care has been observed : from community-based services, such as pharmacies, lower-level health workers and general practitioners, to clinics and hospitals. This evolution is in response to a constantly increasing demand from the ever growing urban population. A 1992 report[6] and a survey conducted in 1993[7] reveal a total figure of health-care providers for curative care of over 13,000 for the city of Dhaka (Table 21). About 45% of the pharmacies and 64% of the general practitioners are registered.

Table 21: Health-care providers in Dhaka-City

Type of health-care provider	Number
Pharmacies	5,500*
General practitioners	5,500
Non-government health centres	138
Private clinics & hospitals	215
Dental chambers	192
Diagnostic centres	236
Public facilities	
-Dispensaries	20
-Hospitals	42
Traditional healers	
-Kobiraj, Unani, Ayurvedic	172
-Spiritual healers	160
Homeopath chambers	838
Total	13,013

* estimated figure

Pharmacies are located almost literally at every street corner. They sell a wide variety of basic cosmetics, family planning devices and drugs, but also surgical supplies such as needles, suture thread, bandages, as well as intravenous fluids and vaccines. This is because in many hospitals, particularly the public ones, there are important supply shortages and patients and their families are obliged to provide almost all necessary drugs and minor medical supplies from the private market. Similarly, a recent study on the role of pharmacies in the supply of contraceptives and oral rehydration salts ('ORS') showed that 40% of pill and condom users purchase supplies from the pharmacy and consider the latter more convenient or preferred the wider range of brands available, despite an extensive network of family planning field workers providing similar supplies at the doorstep.[8]

General practitioners are often attached to a pharmacy, a relationship that benefits both the pharmacy owner/drug seller and the practitioner. As many people go straight to the pharmacy for treatment, the drug seller often acts as a 'consultant' and may suggest that the patient see the doctor when he judges the patient needs it. In turn, the pharmacist may expect higher profits from sales thanks to the attraction exerted by the presence of the doctor and the prescriptions he makes. Consequently, over-prescribing drugs is a common practice by many Bangladeshi doctors, that the essential drugs policy is unable to overcome.[9] In addition, not only doctors, but also the pharmacists prescribe and sell unnecessary and inappropriate drugs.[7,10] There is not only the detrimental impact on health due to possible side-effects of drugs, but also their opportunity costs have to be highlighted. Moreover, there is also over-prescribing of diagnostic tests. One reason for this, besides the expectation pattern from the patient to be 'tested', is the common practice adopted by diagnostic centres of providing a commission of 20% to 40% to doctors on the bills paid by diagnostic test referrals.[11]

Private clinics are also present in the city, but are more concentrated in richer areas: they provide specialist outpatient and inpatient services and some of them surgical interventions. They have, however, only a limited bed capacity. Usually, a clinic is considered 'big', when it has more than 20 beds.

Non-government health facilities are concentrated in the poorer urban areas. Their service package typically comprises of (some) mother and child health-care (curative activities, such as distribution of ORS packages or treatment of common diseases, besides educational and counseling activities) and/or family planning, the latter often being the main target. Services are provided in many instances at the doorstep for family planning and preventive care, and in fixed centres for curative care. Some of these organisations have been experimenting with volunteers, who can provide a first link to health-care not only for selected curative care, but also for health education and referral.[12]

As mentioned above, the Family Planning wing of the Ministry of Health has a network of *doorstep* family planning and some mother and child health *services* delivered by 66 health-care workers. Other health-care at the doorstep is delivered by one health worker per ward, dependent from the local government, the Dhaka City Corporation. Besides this, there are 20 or so *local government-run dispensaries and medical centres*, and an *EPI-clinic* in each ward for outpatients.

Finally, there is a range of big to very big private and public *hospitals*. The big ones are concentrated in a few areas of the city : in the southeastern and central part (see Map). The biggest hospitals, having considerable outpatient departments, are three public teaching hospitals, the Institute of Post-Graduate Medical Research (nowadays converted into the Bangabandhu Sheikh Mujib Medical University) with a total bed capacity of nearly 1,000, the Dhaka Medical College Hospital with a capacity of about 850[5] beds, and the Sir Salimullah Medical College Hospital with several hundreds of beds. A number of hospitals are semi-autonomous and cover a range of specialised care, such as paediatrics,

[5] This is the official capacity of this hopital according to the hospital administration.

orthopaedics, chest diseases, cancer, and ophthalmology, the biggest of which also have several hundred beds. Besides, there is a limited number of non-government hospitals of which the hospital of the Bangladesh Institute of Research and Rehabilitation on Diabetes, Endocrine and Metabolic Disorders is the biggest with 700 beds and an important outpatient department. It is located in front of the Bangabandhu Sheikh Mujib Medical University.

The urban public hospitals and local-government run facilities suffer from the same shortcomings as mentioned above for their rural counterparts, such as inappropriate management; chronic shortage in supply; under-motivated personnel considering themselves being underpaid; absence of effective supervision; top-down decision-making (e.g. fees levied at the hospital go straight to the national treasury); virtually no functional community-based health facilities, and last but not least no involvement of users and community in the functioning of public health-care.

Besides the above described health-care providers and facilities, there are another three provider categories operating in the urban areas : *unqualified modern practitioners*, homeopathy, and traditional healers. The first category (also called 'quacks') are partially or untrained modern practitioners. They practice everywhere in the city, and perform at times home visits in search of patients. *Homeopathy* has a long tradition in Bangladesh, and has a reputation to be particularly appropriate for children (because the dilutions used as treatment are not considered aggressive or harmful for children compared to 'western' drugs) and for adult illness abandoned or only symptomatically treated by modern medicine, such as cancer or asthma. The latter and other illness categories are also treated by *traditional healers*. A detailed description of the types of traditional healers is given in Table 22.

Furthermore, there is a variety of *home-remedies*, i.e., application of body care and taking of proper food. Finally, the patient and/or her/his family may not take any action to treat the illness and 'wait and see' its progress.

2. THE HEALTH-CARE OPTIONS CONSIDERED IN OUR STUDY

The health-care alternatives or options that have been taken into account for our study comprise all types of health-care options that the study population perceived to be available at time of illness. Identification of these options was carried out during the cognitive study that preceded the longitudinal survey. These options include the providers and facilities that were described above. However, they do also include home-care and the wait-and-see attitude. Table 22 comprises the detailed descriptions of each of these health-care options.

Table 22: The health-care options considered in our study

Health-care option	Description
"Wait-and-See Attitude"	People perceive an illness and do not take action to treat the illness.

Health-care option	Description
"Home-care"	Taking body care (e.g. rest) and food (e.g. eating or withdrawing special food, drinking a herbal tea); reassurance and support received from lay advisors.
"Pharmacy"	Drugs are purchased with or without advice from the pharmacist or drug vendor.
"MB,BS-Soloist"	The patient consulted first an MB,BS doctor (a G.P. or a specialist) in his/her chamber and then purchased drugs, underwent tests, etc. according to the prescription.
"Private clinic"	An institution where specialised medical care is provided on a profit-making basis. It includes outdoor and indoor facilities. A typical number of beds is between 10 and 15. It is commonly called 'private clinic'.
"Public facility"	A government-run facility: may be a dispensary, but is almost exclusively hospitals in the case of curative care in Dhaka-City.
"Non-government facility"	Health-care facilities run by non-governmental organisations. They are operated on a not-for-profit basis. May be a dispensary or a clinic, or a hospital. Includes the so-called free-Friday clinics run only on Friday in specific places on a charitable basis.
"Modern unqualified healer"	All sorts of untrained, informal practitioners using modern treatment techniques.
"Homeopathy"	Healing technique that treats the patient with a variety of highly diluted drugs.[13] In Bangladesh, it is an officially recognised form of health-care.
"Kobiraj"	Includes the two systems of traditional medicine in Bangladesh[12] : (1) Kobiraj, i.e., the practitioner of Ayurvedic system of medicine which can be traced back to the Vedic period (2000 BC to 900 BC). It relates to the humeral theory of disease causation as an imbalance in Bayu (wind), Pitta (bile) and Kaffa (phlegm). (2) Hakim, i.e., the practitioner of Unani system of medicine, which was developed in Ancient Greece (500-600 BC), modified in Baghdad and was introduced in the Indian subcontinent by invaders in the early eighth century AD.
"Spiritual healers"	Healers who do not use drugs under any form, but heal through ritual chanting, amulets and charms.[14] This group includes religious priests i.e., *pirs*, *fakirs* and imams. Another group is prominent who uses a magico-religious approach for driving away evil spirits or neutralising the influence of spells or 'evil eye'.[12] *'Ojha'* healers purport to cure by reciting verses from the holy books.[15]
"Traditional birth attendant"	Female health-care provider, recognized as a birth attendant, locally called *'dai'*, with limited on-the-job training on delivery practices (mostly informal, although government-organised training exists)

CHAPTER 6
NUMBER OF CONTACTS AND SEQUENCES IN HEALTH-CARE OPTION USE

The unit applied here for the study of health-care utilisation data is a 'health-care option contact'. It is defined as : "Any *one-time use* of a health-care option, whether it is the 'wait-and-see' attitude, home-care or a health-care provider." For a health-care provider, a 'contact' includes besides the consultation, 'executing by the patient of prescriptions made by the provider for diagnostic tests and/or administration of drugs'. Definitions of the different health-care options considered were given in Table 22 on the previous pages.

A. NUMBER OF HEALTH-CARE OPTION CONTACTS

Table 23 shows that in total, more than 16,000 contacts were reported. For *all illness episodes* combined, the wait-and-see attitude and home-care clearly have by far the highest contribution to the total number of contacts (30% and 27.5% respectively), followed by pharmacies/drug stores (16%). The latter are followed in descending order by MB,BS-soloists (8.5%), modern non-government facilities (5%), spiritual healers (3%), homeopathy (3%), public health-care (2.5%), kobirajes (2%), and unqualified modern healers (1.5%). Private clinics and ojha are almost not used.
Because use of private clinics is neglegible, their data are combined for further analysis with those for MB,BS soloists into one category of 'modern private care' (and which thus groups all qualified modern private for-profit providers). In addition, all traditional health-care options are grouped into one category, namely 'traditional care'. Furthermore - although they are numericallly not very important - , the sub-categories public health-care, non-government health-care and unqualified modern practitioners have been kept separate, because of their specific nature.

Contacts with all modern qualified health-care options combined (i.e., private, public, and non-government health-care options combined) only represent 17% of all the contacts, about the same as the contacts for pharmacies, or as the sum of the contacts for unqualified modern practitioners, homeopathy and traditional healers combined. Out of all modern qualified health-care options, public care is the least used. The many shortcomings in the public health-care services indicated in the introduction to this part, prevent them from adequately responding to the needs of the population.

Table 23 further shows that the use of several health-care options is dependent upon the type of illness. In *minor illness episodes* - compared to all illness episodes combined -, the contributions of the wait-and-see attitude and home-care increase, those of modern non-government and unqualified care remain about equal, and for all other options the contributions decrease. The opposite trends are observed for *severe illness episodes*. In addition, traditional care becomes in severe illness an equally important source of health-care as public and non-government care combined. Similarly, in the same severe illness cases, traditional care and homeopathy combined are as important as private modern care.

Finally, non-government services are as much used as modern private care in minor illness (each about 43% of the contacts with modern qualified care). In contrast, in severe illnesses modern private care is used in 60% of the contacts with modern qualified care, and non-government and public care in 24% and 16% of the contacts respectively.

Table 23: Number of contacts by health-care option

Type of Health-care Option		All illness		Minor illness		Severe illness	
		Contacts No.	%	Contacts No.	%	Contacts No.	%
	1. Wait & See	4902	30.1	3009	35.0	1893	24.6
	2. Home-care	4501	27.6	2655	30.9	1846	23.9
Modern Health-care Options	3. Pharmacy	2597	15.9	1231	14.3	1366	17.7
	4. MB,BS soloist	1369	8.4	492	5.7	877	11.4
	5. Private clinic	80	.5	21	.3	59	.7
	6. Public	423	2.6	173	2.0	250	3.2
	7. Non-government	863	5.3	490	5.7	373	4.8
	8. Unqualified	244	1.5	74	.9	170	2.2
	9. Homeopath	461	2.8	199	2.3	262	3.4
Traditional Health-care Options	10. Kobiraj	364	2.2	90	1.1	274	3.6
	11. Spirit. healer	482	3.0	154	1.8	328	4.3
	12. Ojha	18	.1	5	.0	13	.1
Total Number of contacts		16304	100	8593	100	7711	100

B. SEQUENCE OF HEALTH-CARE CONTACTS DURING ILLNESS EPISODES

Table 24 indicates that in 47% of the 5308 *minor* illness episodes, there is a second health-care contact, in 11% a third contact, in 3% a fourth, and in 2% a 5th or any further subsequent contact.

Table 24: Sequence of health-care contacts by illness severity

Sequence of Health-care Contact	All illness epis No.	%	Minor illness epis No.	%	Severe illness epis No.	%
1st	8967*	100.0	5308	100.0	3659	100.0
2nd	4945	55.1	2467	46.5	2478	67.7
3rd	1543	17.2	579	10.9	964	26.3
4th	494	5.5	158	3.1	336	9.2
5th + subseq	355	4.0	81	1.5	274	7.5
Average No. contacts/ illness episode	1.82		1.62		2.11	

These percentages substantially rise for *severe* illness episodes to 68%, 26%, 9% and 7% respectively. There is thus substantial health-care option *'shopping'* during illness

episodes, particularly during the severe ones, with the average number of health-care option contacts per illness episode at 1.82, 1.62 and 2.11 during all, minor and severe illnesses episodes respectively. The highest number of contacts in one severe illness episode, found in our study, was 14.

C. INITIAL AND SUBSEQUENT CONTACTS BY HEALTH-CARE OPTION

In Tables 25a and 25b, health-care contacts have been broken down by health-care option and sequence of use for minor and severe illness episodes respectively.
The totals in the bottom rows in each table give the same figures as in Tables 25a and 25b for the initial contact and each subsequent health-care contacts. Because of their small numbers particularly in minor illnesses, the data for the 5th, 6th and any further subsequent health-care option used, are combined in one column in brackets in both minor and severe illness types.

Table 25a: Health-care option use rates by sequence for minor illness episodes

Health-care option	1st		2nd		3rd		4th		(5th+Subseq)	
	No.	%	No.	%	No.	%	No.	%	(No.)	(%)
1. Wait-and-see	2977	**56**	11	.5	13	2	5	3	(3)	(4)
2. Home-care	1791	**34**	736	**30**	94	**16**	26	**16**	(8)	(10)
3. Pharmacy	326	6	707	**29**	155	**27**	31	**20**	(12)	(15)
4. Modern private	66	1	290	12	109	**19**	30	**19**	(18)	(22)
5. Public	25	.5	104	4	26	4	9	6	(9)	(11)
6. Non-government	49	.9	307	12	84	**15**	36	**23**	(14)	(17)
7. Unqualified	9	.2	52	2	12	2	1	1	(-)	(-)
8. Homeopath	25	.5	127	5	36	6	5	3	(6)	(7)
9. Traditional healer	40	.8	133	5	50	9	15	9	(11)	(14)
Total No.	5308	100	2467	100	579	100	158	100	(81)	(100)

Table 25b: Health-care option use rates by sequence for severe illness episodes

Health-care option	1st		2nd		3rd		4th		(5th+Subseq)	
	No.	%	No.	%	No.	%	No.	%	(No.)	(%)
1. Wait-and-see	1884	**51**	2	.1	4	.4	2	.6	(1)	(.4)
2. Home-care	1035	**28**	651	**26**	97	10	36	11	(27)	(10)
3. Pharmacy	320	9	648	**26**	266	**28**	72	**21**	(60)	(22)
4. Modern private	154	4	436	**18**	208	**22**	76	**23**	(61)	(22)
5. Public	54	1	94	4	51	5	20	6	(31)	(11)
6. Non-government	35	1	178	7	103	11	28	8	(29)	(11)
7. Unqualified	56	2	86	3	21	2	2	.6	(5)	(2)
8. Homeopath	46	1	102	4	65	7	31	9	(18)	(7)
9. Traditional healer	75	2	281	11	149	15	68	**20**	(42)	(15)
Total No.	3659	100	2478	100	964	100	336	100	(274)	(100)

There is a large predominance of the wait-and-see attitude and home-care at the *start of an illness episode* (together 90 and 79% of the contacts respectively), with slightly higher proportions in minor compared to severe illness episodes. These options are followed by pharmacies. All other health-care options remain unimportant as first health-care option, particularly in minor illness episode

From the use of a *second health-care option* onwards, however, there is a shift towards use of home-care and pharmacies, followed by modern private and non-government care in minor illness cases and by modern private care and traditional healers in severe illness cases.
In *further subsequent health-care option* contacts in minor illness, modern private and non-government care, and to a lesser extent traditional care, become more important, whereas home-care and pharmacies gradually become less important. In comparison, in severe illness cases, pharmacies, modern private care and traditional care become the main health-care options.

As already stated earlier, these data confirm that there is a great variety of health-care options used by the slum residents during illness episodes in both minor and severe illness episodes. This is termed 'healer shopping' in the literature. In our case, because of the presence of the wait-and-see attitude and home-care as health-care alternatives, it may be more appropriately referred to as "health-care option shopping".

D. TYPES OF HEALTH-CARE OPTION SEQUENCES

In view of the complex nature of utilisation of health-care options during illness episodes, a number of 'health-care option sequences' are presented in this section. The sequences have been elaborated first for minor illness episodes, and then for severe illness episodes.

1. HEALTH-CARE OPTION SEQUENCES DURING MINOR ILLNESS EPISODES

Table 26 details the main health-care option sequences for minor illness episodes. Twenty sequences could be identified that each represent at least 1% of the total number of illness episodes.

In nearly one-fourth of the illness episodes no treatment is sought, and in another 22% only home-care is used. In addition, 9% end with a sequence of wait-and-see and home-care. More than half the minor illness episodes end thus without any assistance from health-care providers.

The three next most important sequences, totaling 16% of the illness episodes involve only pharmacies as health-care provider, whether after the use of wait-and-see or

home-care or not.

The remaining 30% of the minor illness episodes, show a variety of health-care option sequences. The four main ones, each representing about 2.5% of all minor illness episodes, are wait-and-see followed by either non-government or modern private care, and, wait-and-see or home-care followed by either public health-care, unqualified modern care, homeopathy or traditional care.
Use of only public, non-government, unqualified modern care, homeopathy or traditional care, and, of a three option sequence of wait-and-see, followed by home-care and any other health-care option than pharmacy, each represent another 2%.

Table 26: Health-care option sequences in *minor* illness episodes

No	Health-care option sequences	No.	%
1	Only wait-and-see	1273	24.0
2	Only home-care	1146	21.6
3	Wait-and-see + Home-care	449	8.5
4	" + Pharmacy	386	7.3
5	Only Pharmacy	263	5.0
6	Home-care + Pharmacy	202	3.8
7	" + Public/Unqualif/Homeo or Tradit	138	2.6
8	Wait-and-see + Non-govt.	137	2.6
9	" + Modern private	132	2.5
10	" + Public/Unqualif/Homeo or Tradit	120	2.3
11	Only Public/Non-govt./Unqualif/Homeo or Tradit	113	2.1
12	Wait-and-see + Home-care + 1 of all other HCOs than pharmacy	106	2.0
13	Home-care + Modern private	98	1.9
14	Wait-and-see + 2 of all other HCOs	95	1.8
15	Home-care + 2 of all other HCOs	87	1.6
16	" + Non-govt.	72	1.4
17	Wait-and-see + Traditional	70	1.3
18	" + Home-care + Pharmacy	63	1.2
19	Only modern private	51	1.0
20	Wait-and-see + Pharmacy + 1 of all other HCOs	50	.9
21	Pharmacy + 1 of all other HCOs	46	.9
22	2 of all other HCOs or 3 of all other HCOs	53	1.0
23	More than 3 HCOs used	158	3.0
	All	5308	100.0

2. HEALTH-CARE OPTION SEQUENCES DURING SEVERE ILLNESS EPISODES

The importance and types of health-care option sequences for severe illness episodes are substantially different from those for minor illness episodes (Table 27). First of all, the number of possible sequences is much greater, reflecting a yet complexer and more pluriform utilisation pattern than in minor illness episodes. Secondly, although wait-and-see or home-care as sole health-care option are also here the most used, their relative importance is much smaller than in minor illness cases and only marginally greater than of

the sequences wait-and-see followed by pharmacy, and of use of only pharmacy. Each one of these four sequences represents between about 9% and 7%, or together about one third of all severe illness episodes combined. Thirdly, in only 8% of the cases no action was taken (3 times less than in minor illness episodes). Fourthly, in less than one fourth of the cases none of the health-care providers was involved i.e., the sequences 'only wait-and-see' or 'only home-care', and wait-and-see followed by home-care (half the number compared to minor illness cases). Fifthly, - as in minor illness episodes - , the pharmacies are by far the most used health-care provider (28%), whether it is as sole health-care option, or after the use of wait-and-see, home-care or both. However, modern private care as endpoint becomes relatively important in severe illness episodes (13% compared to 5.5% in minor illness episodes).

Finally, although the percentage contribution of wait-and-see is fairly similar as first health-care option in minor and severe illness episodes (see above, Tables 25a and b), it is much more often followed by a choice of another option in severe illness episodes than in minor ones (84% or [(51-8)/51] vs. 57% or [(56-24)/56]). In the case of home-care, these percentages are 67% [or (28-9.3)/28)] and 36% [or (34-21.6)/34] respectively.

Table 27: Health-care option sequences in severe illness episodes

No	Health-care option sequences	No.	%
1	Only home-care	340	9.3
2	Only wait-and-see	297	8.1
3	Wait-and-see + Pharmacy	284	7.8
4	Only Pharmacy	258	7.1
5	Wait-and-see + Home-care	193	5.3
6	Home-care + Pharmacy	190	5.2
7	Wait-and-see + Modern private	151	4.1
8	Home-care + Modern private	138	3.8
9	" + 1 of all other HCOs	130	3.6
10	Only modern private	112	3.1
11	Wait-and-see + Home-care + Pharmacy	110	3.0
12	" + Traditional	99	2.7
13	Only 1 of 'all other HCOs'	92	2.5
14	Wait-and-see + Home-care + 1 of all other HCOs	89	2.4
15	" + 1 of all other HCOs	86	2.4
16	Home-care + 2 of all other HCOs	86	2.4
17	Wait-and-see + Non-govt.	66	1.8
18	" + Home-care + Modern private	62	1.7
19	" + Pharmacy + 1 of all other HCOs	60	1.6
20	2 of all other HCOs	54	1.5
21	Home-care + Traditional	51	1.4
22	Only traditional	45	1.2
23	Pharmacy + All other HCOs	45	1.2
24	Wait-and-see + Mod priv + 1 of all other HCOs	43	1.2
25	3 of all other HCOs	42	1.1
26	Wait-and-see + Traditio + 1 of all other HCOs	41	1.1
27	Unqualified only	40	1.1
28	Home-care + Pharmacy + 1 of all other HCOs	36	1.0
29	Wait-and-see + Non-govt. + 1 of all other HCOs	31	.8
30	" + 2 of all other HCOs	28	.8
31	Modern priv. + 1 of all other HCOs	24	.7
32	More than 3 HCOs used	336	9.2
	All	3659	100.0

CHAPTER 7
HEALTH-CARE OPTION UTILISATION: DEMOGRAPHIC VARIABLES

Introduction: on measuring health-care option use

The method proposed here to assess the level of inequalities in health-care use in our study population is derived from the equity principle 'equal utilisation for equal need'. Indeed, the distributive achievements of health-care delivery should be assessed in terms of equal 'ability to obtain health-care'.[16] This, in turn, is translated - and more and more agreed upon in the past few years[17,18] - into (1) equal use according to equal need, regardless of such factors, like race, gender, marital status or income, and, (2) payment according to ability to pay. The former indicates 'horizontal equality' in health-care use. The latter points out the 'vertical equality' in payment for health-care, to be distinguished from 'horizontal equality' which would involve equal payment according to equal need.[19] Health-care user expenditure will be discussed in HEP Working Paper No.5-98.

The parameter that will be used here for the analysis of the principle 'equal use according to equal need' is based on the **use-need ratio**[*]. It is illustrated in the following hypothetical example, with:

- as explanatory variable: 'gender' with the categories male and female children in the under-five age-group; and,
- as response variable: 'health-care option contact'. Three hypothetical health-care options ('HCO') are considered : HCO 1, HCO 2, and HCO 3.

Table 28a shows hypothetical numbers of contacts with the three HCOs for male and female children aged less than five years.

Table 28a: Hypothetical contacts with 3 health-care options for male and female under-fives

Gender	(1) HCO 1 No. contacts	(2) HCO 2 No. contacts	(3) HCO 3 No. contacts	(4) Total No. contacts	(5) Total No. Person-Months
Male	660	275	165	1100	2300
Female	630	560	210	1400	2430

Column 5 of the table gives the total number of person-months under investigation : for the male children it is 2,300 and for the female children 2,430.

[*] 'Use/need' ratios as a measure for assessing inequalities in health-care use have also been discussed in the following title "The Black Report. Inequalities in health", edited by P. Townsend and N. Davidson, published in 1982 by Penguin Books, p. 70.

1. The first step consists of calculating the health-care option *use rate per 100 person-months*. This is done by subdividing in Table 28a the number of contacts in columns (1) to (4) by the number of person-months in column (5) for male and female children separately. By doing so, the following table is obtained:

Table 28b: Illness rates and health-care option use rates for the hypothetical data presented in Table 28a

Gender	HCO 1 Use rate (/100 PM)	HCO 2 Use rate (/100 PM)	HCO 3 Use rate (/100 PM)	All HCO Use rate (/100 PM)	Illness rate (/100 PM)
Male	28.70	11.96	7.17	47.83	67
Female	25.93	23.05	8.64	57.61	62

2. In the second step we *adjust* these use rates for *illness incidence rate*. We assume that the illness incidence per 100 person-months for male children aged less than five years is 67, and for female children, 62. A *'use/need ratio'* is thus obtained and given in Table 28c. This ratio reflects thus the *absolute* quantity of each health-care option used by individuals in a category of a variable under investigation, adjusted for the illness occurrence in the same individuals.

Table 28c: Use/need ratios for the hypothetical example given above

Gender	HCO 1 Use/need ratio	HCO 2 Use/need ratio	HCO 3 Use/need ratio	All HCO Use/need ratio
Male	.428	.179	.108	.715
Female	.42	.37	.14	.93

3. The overall absolute use/need ratio of .715 for the boys is the sum of the use/need ratios for the 3 health-care options. Similarly the ratio of .93 for the girls. These overall ratios, however, are not the same. As a result, the higher use/need ratios for females for health-care options 2 and 3 may be fully or partially due to the higher overall use/need ratio in females. Therefore, the use/need ratios for each health-care option in both the gender categories are converted into *percentage use/need ratios* of the respective overall ratio for this category. These percentage use/need ratios for the hypothetical example are given in Table 28d.

Percentage use/need ratios do thus not reflect absolute quantities of health-care option use. However, they allow to compare in each category of an explanatory variable the relative contribution of each health-care option into the total number of contacts.

Table 28d: Percentage use/need ratios derived from the use/need ratios in Table 28c

Gender	HCO 1 % Use/need ratio	HCO 2 % Use/need ratio	HCO 3 % Use/need ratio	All HCO % Use/need ratio
Male	59.9	25.0	15.1	100
Female	45.2	39.8	15.1	100

In the present and the following chapters, the health-care option use patterns, expressed as percentage use/need ratios are described for a series of demographic, cultural and socioeconomic variables, including proximate indicators for socioeconomic status. The variables used here are the same as in the previous Part on illness occurrence of this Working Paper.

Statistical analysis of percentage use/need ratios is based on comparison of proportions in 2-by-2 tables (χ^2) and 2-by-c tables (χ^2-for-trend). Associations are expressed as follows :

- p<.01: strong association, or statistically highly significant association; or, in use terms: far more/less use;
- .01 =< p < .05: moderate association, or statistically moderately significant association; or in use terms : moderately more/less use;
- .05 =< p < .20: weak association, or statistically weakly significant association; or in use terms: slightly more/less use;
- p >= .20: no association; or in use terms: similar use.

Only health-care option use during non-chronic illness episodes will be presented here. The findings on chronic illness will be presented in HEP Working Paper No.6-98 on specific health-care seeking experiences.

A. AGE

In this section, two age-groups- early childhood (0-5 years) and adulthood (19- 45 years) are compared for health-care option use. This is separately done for the minor and severe illness types, and for both the types combined. A selection of the main illness categories will be used for the analysis: cold fever, fever, and diarrhoeal, respiratory, and skin ailments. They were also used in the description of the illness profile (see Part A, Chapter one of this Working Paper).

Fig. 11 graphically shows the differentials in health-care option use between the two age-groups. Table 28 shows the statistical associations (a positive association means more use in child illness). The findings can be summarised as follows:

- In both minor and severe illness types, there are *positive associations* for non-government care and homeopathy (strong in both types), home-care (strong in minor, and weak in severe illness), public care (moderate in minor and weak in severe illness). There are *negative associations* for pharmacies (strong in both types) and modern private care (moderate in minor and strong in severe illness);
- In addition, in severe illness, there is further a weak negative association for modern unqualified healers, and a moderately positive association for traditional care.

Fig. 11: Percentage use/need ratio for selected illnesses by age (0-5 year and 19-45 year age-groups)

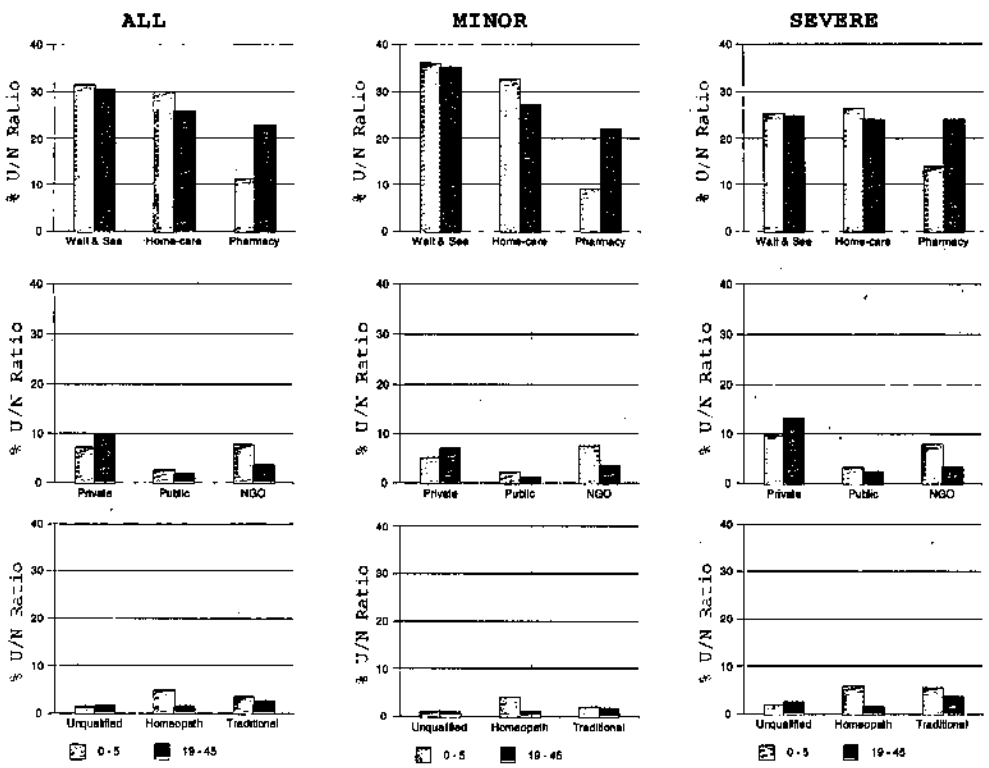


Table 29: Statistical trends in use of health-care options for selected illnesses by age (0-5 year vs 19-45 year age-groups)

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x	P value	Dir **	x	P value	Dir **	x	P value	Dir **
Wait-and-see	.9	.34		.26	.61		.10	.75	
Home-care	16.0	.00006	+	13.9	.0002	+	2.3	.13	(+)
Pharmacy	198.3	.00000	-	145.6	.00000	-	57.8	.00000	-
Mod priv	18.7	.00002	-	6.0	.015	-	10.4	.0013	-
Public	6.5	.011	+	6.02	.014	+	1.7	.19	(+)
Non-govt.	57.7	.00000	+	28.6	.00000	+	29.5	.00000	+
Unqualif	1.1	.30		.25	.61		2.1	.15	(-)
Homeopath	71.9	.00000	+	34.4	.00000	+	39.3	.00000	+
Traditional	5.8	.016	+	.91	.34		6.7	.010	+

** Dir = direction of association: + = more used in child illness.

B. AGE AND GENDER

In this section, use of health-care options is compared between males and females in 5 age-groups: early childhood (0-5 years), older childhood (6-12 years), adolescents (13-18 years), early adulthood (19-45 years), and older adults (more than 45 years). In order to avoid gender bias in health-care option use as a result of the inclusion of gender-specific illness cases, the same five main illness categories as in section A are taken as the basis for analysis here. However, for some age-groups, some annotations are also made regarding health-care option use, based on the analysis for all illness categories combined.
A positive association in the tables with statistics means that there is more use of the health-care option when males are ill.

1. UNDER SIX YEAR AGE-GROUP

Fig. 12 indicates that the health-care option use patterns are quite similar for the male and female children aged less than 6 years. There are, however, a few statistically significant associations (Table 30):

- Unqualified healers are more used for the male children, particularly in severe illness (strong statistical association in all and severe illness, weak association in minor illness);
- Home-care (in all illness cases) and pharmacies (in severe cases) are slightly more used for the female children, while homeopathy and traditional care are slightly more used for the male children in severe illness cases, and homeopathy moderately more used when all illnesses are combined.

Fig. 12: Percentage use/need ratio for selected illnesses by age (0-5 year age-group) and gender

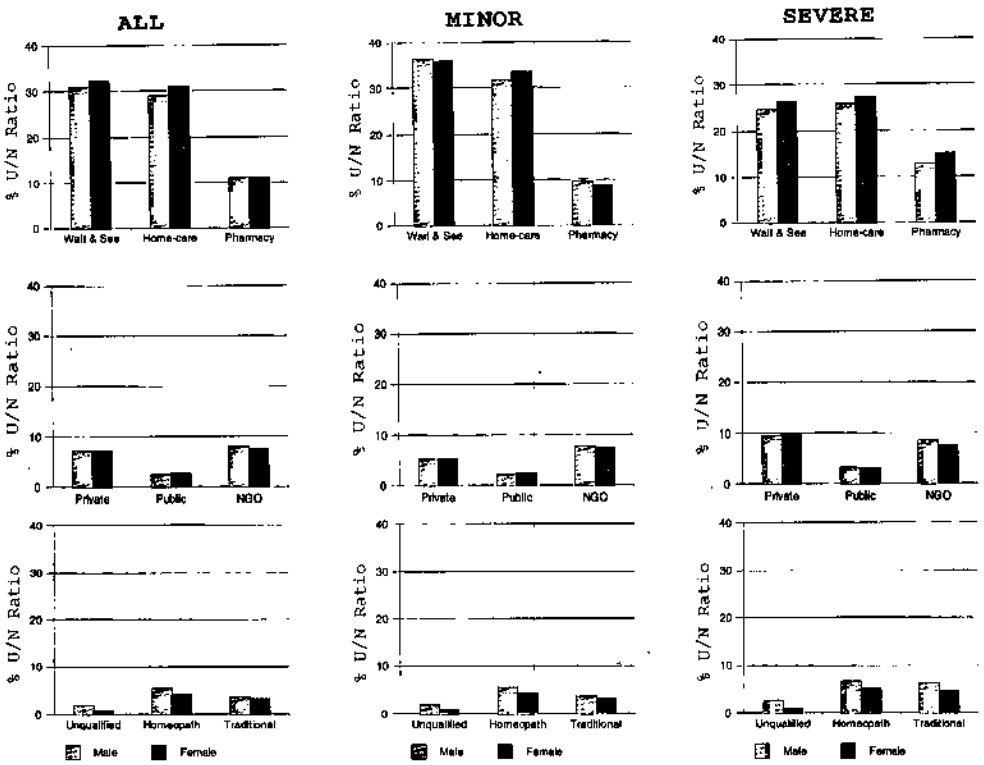


Table 30: Statistical trends in use of health-care options for selected illnesses by age (0-5 year age-group) and gender

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	.87	.35		.06	.80		.86	.35	
Home-care	2.54	.11	(-)	1.03	.31		.58	.45	
Pharmacy	.05	.81		.41	.52		2.20	.14	(-)
Mod priv	.00	.99		.06	.81		.14	.71	
Public	.01	.93		.14	.71		.00	.95	
Non-govt.	.70	.40		.13	.72		.65	.42	
Unqualified	13.09	.0003	+	2.79	.095	(+)	9.57	.0019	+
Homeopath	4.16	.041	+	1.08	.30		2.35	.13	(+)
Traditional	1.01	.31		1.75	.19		2.45	.12	(+)

** Dir = direction of association: + = more used by males.

2. SIX TO TWELVE YEAR AGE-GROUP

Fig. 13 shows a mixed picture, when health-care option use is compared between male and female children in the 6 - 12 year age-group. In Table 31, there are only a few associations (again in the five selected illness categories) for all and severe illness, and no associations for minor illness. However, more associations are found, if analysis is done on *all* illness categories combined : they will also be presented here.

- First, when the five main illness categories only are considered, there is a weak *negative* association, i.e., more use for female children, for home-care, when *all illness* cases are considered.
  In addition, further analysis based on all illness categories combined shows that the *negative* association for home-care becomes stronger, and that there are *positive* associations for all kinds of modern qualified and unqualified care (weak), homeopathy (weak), and traditional care (moderate);
- In *severe illness* cases of the five main illness categories, there is slightly more use of home-care and moderately less use of homeopathy for female children.
  Again, when all illness categories are considered, there is slightly more use made of public care, non-government care and traditional care for male children. In addition, far more use is made of homeopathy. In contrast, moderately less use is made of home-care, and slightly less use of wait-and-see.

Fig. 13: Percentage use/need ratio for selected illnesses by age (6-12 year age-group) and gender

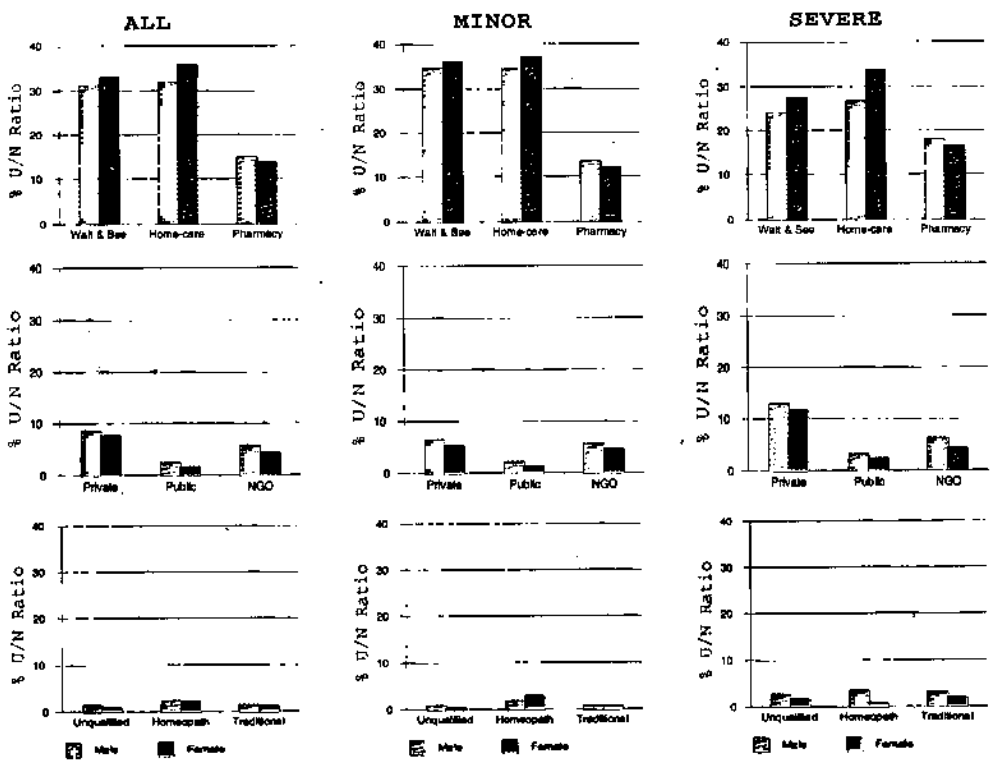


Table 31: Statistical trends in use of health-care options for selected illnesses by age (6-12 year age-group) and gender

Health-care Option	ALL ILLNESS			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P. value	Dir **	x^2	P value	Dir **
Wait&See	.55	.46		.19	.67		.89	.35	
Home-care	2.80	.09	(-)	.77	.38		3.22	.07	(-)
Pharmacy	.55	.46		.48	.49		.21	.65	
Mod priv	.63	.43		.77	.38		.23	.63	
Public	1.19	.28		1.00	.32		.34	.56	
Non-govt	1.55	.21		.62	.43		1.06	.31	
Unqualif	1.22	.27		.72	*.45		.77	.38	
Homeopath	.15	.70		1.40	.24		5.83	.015	+
Tradit	.38	.54		.00	*1.00		.73	.39	

* Fisher 2-tailed exact results (1 cell value <5).
** Dir = direction of association: + = more used by males.

3. ADOLESCENTS (13-18 YEAR AGE-GROUP)

A few differences in use can be observed between male and female adolescents (Fig. 14 with graphical representation, and Table 32 with statistical associations):

- A weak negative association for wait-and-see, i.e., slightly more use for female adolescents in all and minor illness;
- For male adolescents, non-government care is moderately more used in all and minor illness, and non-government care is slightly more used in all and severe illness.

Furthermore, when all illness categories are considered, public care is slightly more used by female adolescents in severe illness.

Fig. 14: Percentage use/need ratio for selected illnesses by age (13-18 year age-group) and gender

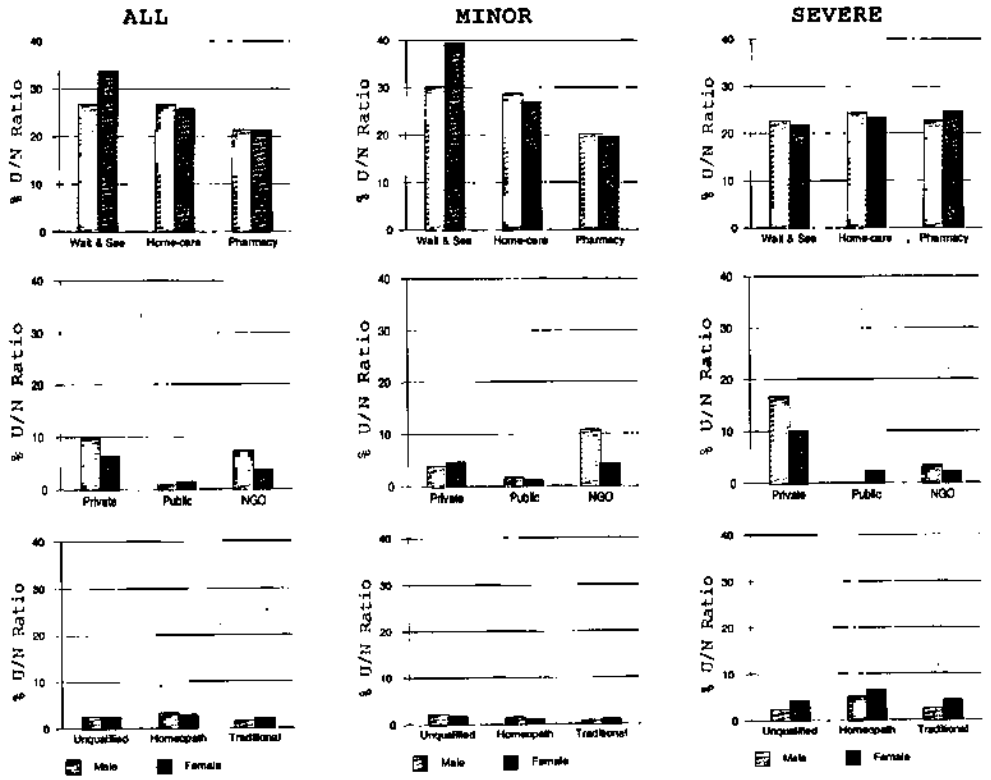


Table 32: Statistical trends in use of health-care options for selected illnesses by age (13-18 year age-group) and gender

Health-care Option	ALL ILLNESS			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait&See	3.59	.06	(-)	3.25	.071	(-)	.02	.88	
Home-care	.07	.79		.15	.69		.04	.85	
Pharmacy	.00	.99		.02	.89		.16	.69	
Mod priv	2.68	.10	(+)	.14	.70		2.40	.12	(+)
Public	.34	.72		.15	*.66		2.64	*.25	
Non-govt	4.3	.038	+	6.19	.013	+	.33	*.71	
Unqualif	.04	.89		.12	*.71		.65	*.51	
Homeopath	.05	.82		.15	*.66		.32	.57	
Tradit	.26	.78		.09	*1.0		.65	*.51	

* Fisher 2-tailed exact results (1 cell value <5).
** Dir = direction of association: + = more used by males.

4. YOUNGER ADULTS (19-45 YEAR AGE-GROUP)

This is the age-group where there are by far the most differentials in health-care use between females and males (Fig. 15, graphical representation, and Table 33, statistical associations).

- When *all illnesses* combined are considered, females use far more wait-and-see and non-government care and slightly more public care than males. In contrast, males use far more pharmacies and moderately more modern private care. The larger use of wait-and-see by women may be related to the limited mobility of women in Islamic societies due to 'purdah' (the religious-traditional belief that women, particularly married women, should avoid contact with other men, and thus be kept inside the home). However, home-care, another health-care option that avoids contact with men, is not more used by females. This may be due to the fact that firstly, females still depend upon males for the purchase of food or other items required for home-care, and secondly, that the main reason for use of home-care is illness-related (see Part C of this Working Paper);
- For *minor illness* conditions, similar associations are found for wait-and-see, non-government care and pharmacies. In addition, there is moderately more use of modern unqualified care by men, and of traditional care by women;
- For *severe* illness cases, again, males use far more pharmacies and moderately more modern private care, and females far more wait-and-see and moderately more non-government care

Fig. 15: Percentage use/need ratio for selected illnesses by age (19-45 year age-group) and gender

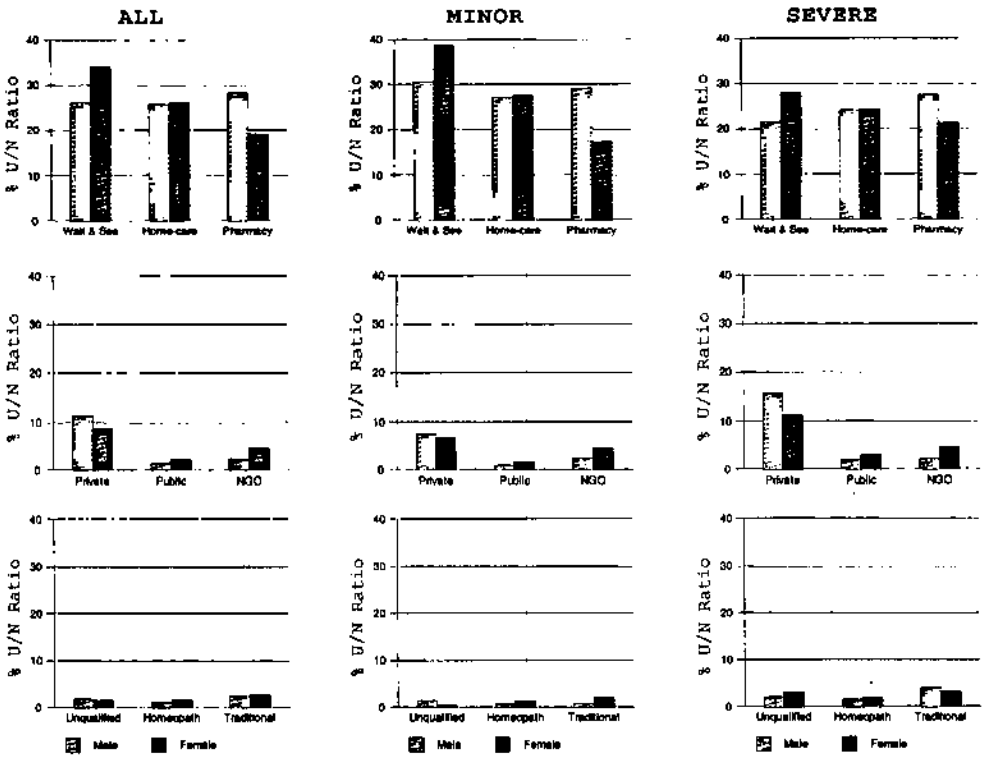


Table 33: Statistical trends in use of health-care options for selected illnesses by age (19-45 year age-group) and gender

Health-care Option	ALL ILLNESS			MINOR			SEVERE		
	x^2	P value	Dir **	x	P value	Dir **	x^2	P value	Dir **
Wait&See	22.01	.00000	-	10.39	.0012	-	7.34	.0067	-
Home-care	.09	.77		.04	.85		.00	.96	
Pharmacy	35.65	.0000	+	31.69	.000	+	253.91	.00000	+
Mod priv	6.46	.011	+	.35	.55		5.59	.018	+
Public	2.20	.14	(-)	1.26	.26		1.40	.24	
Non-govt	12.27	.0005	-	6.21	.013	-	6.02	.014	-
Unqualif	.13	.72		4.49	.034	+	1.27	.26	
Homeopath	1.28	.26		1.61	.20		.28	.59	
Tradit	.12	.73		4.43	.035	-	.62	.43	

** Dir = direction of association: + = more used by males.

5. OLDER ADULTS (MORE THAN 45 YEAR AGE-GROUP)

As for younger children and adolescents, in the older adults, few associations in health-care option use are found. (Fig. 16 and Table 34). The following differentials in use are found :

- Older adult females use slightly more wait-and-see in all and severe illness cases and public care in minor and severe illness cases;
- Moderately more use is made of modern private care by older adult males in severe illness cases, but by females in mild illness cases.

Moreover, if all illness categories are considered, pharmacies are far more used by older adult males.

Fig. 16: Percentage use/need ratio for selected illnesses by age (more than 45 year age-group) and gender

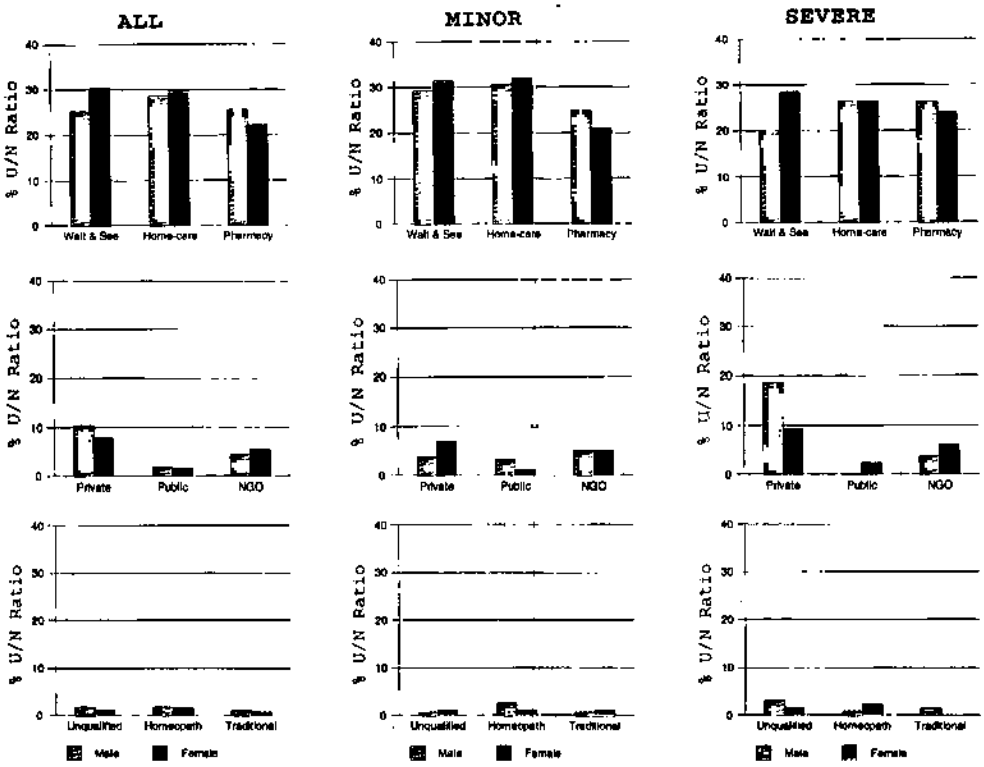


Table 34: Statistical trends in use of health-care options for selected illnesses by age (over 45 year age-group) and gender

Health-care Option	ALL ILLNESS			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait&See	2.04	.15	(-)	.20	.66		2.48	.12	(-)
Home-care	.10	.76		.08	.77		.00	.99	
Pharmacy	.98	.32		.80	.37		.18	.67	
Mod priv	1.33	.25		1.80	.18	(-)	4.86	.027	+
Public	.03	1.0		3.05	.15	(-)	3.13	*.12	(-)
Non-govt	.35	.55		.00	1.0		.83	.36	
Unqualif	.26	.74		.15	*1.0		.62	*.68	
Homeopath	.03	1.0		1.22	.41		1.08	*.36	
Tradit	.34	.67		.15	*1.0		1.96	*.50	

* Fisher 2-tailed exact results (1 cell value <5).
** Dir = direction of association: + = more used by males.

CONCLUSIONS ON THE HEALTH-CARE OPTION UTILISATION PATTERN WHEN AGE, AND AGE AND GENDER ARE CONSIDERED

The findings presented above indicate that utilisation of health-care options is age and gender related.

When **age** is considered (comparison of the 0-5 and 19-45 year age-groups), the following is found:

1. *Home-care, non-government health services* and *homeopathy* are much more used for children than for adults.
   The larger use of non-government health services is associated with the specific supply of health-care by many non-government organisations to children, while the larger use of homeopathy is related to the widespread belief in the Bangladeshi society that homeopathy is better for children, because it treats with small doses of drugs and has thus less side-effects than modern medicines.
   In the case of home-care, there is only a much larger use in minor illness cases, indicating that in severe cases, there is a relative shift to other health-care options, such as pharmacies, traditional care, homeopathy, and to a lesser extent non-government care.

2. *Public health-care* (in minor illness) and *traditional care* (in severe illness) are also more used in the case of child illness.
   For public health-care, particularly the few community-based facilities, the same explanation may be valid as for non-government services. For traditional care, there is, besides the shift to it from home-care, the cultural belief that child illness is more frequently related to supernatural causes than adult illness.

3. In contrast, *pharmacies* and *modern private care* are much more used in the case of adult illness than in child illness.

In addition, a number of striking findings concern the relationship between health-care option utilisation and **gender** and **age**. Indeed, where statistical associations can be identified, the following picture emerges:

1. *Wait-and-see* is more used by females in several age-groups.
   This may be attributed to the overall lower social status of girls and women and, as mentioned above, to the practice of 'purdah' for married women (i.e., the religious-traditional belief that women must avoid contact with other men, and thus be kept inside).

2. *Pharmacies* are more used by males in adult age-groups.
   This may be related to the greater access to cash by males and to their greater

mobility in these age-groups, and to the correlated practice of 'purdah' for women.

3. *Modern private care* is more used by males in adult age-groups and to a lesser extent adolescent males, except a slightly more use for older adult women in minor illness.
Considered of a higher quality, but also at a higher cost, male adults appear to reserve this health-care option for themselves, as they also have greater access to cash. However, as is indicated below, this may also be related to the fact that 'alternatives' are available for women in the public and the non-government sectors. Especially the latter one does not provide health services to adult males, who are thus relegated to other forms of modern care, such as pharmacies and private for-profit care.

4. *Non-government care* is more used by women in the reproductive age-group, and to a lesser extent for illness in male older children and by female adolescents.
This may be a consequence of the fact that many non-government facilities offer, besides child care, maternal health-care (that is culturally accepted by the society, i.e., for which 'purdah' is not applied), but no services for male adults.
The finding that non-government health-care is more used in illness of male older children may express the gender preference in favour of boys in the Bangladeshi society.

C. HOUSEHOLD LOCATION

Fig. 17 shows several trends in the use of health-care options, when the variable 'household location' is considered. Table 35 details their statistical associations (a positive association means more use when living in public slums).

The following trends and associations are found:

- In both minor and severe illness cases, there are *positive* associations for public and non-government care (strong associations), and a *negative* association for pharmacies (weak in the case of minor illness, strong in the case of severe illness);
- In addition, in minor illness conditions, there are strong negative associations for wait-and-see and for homeopathy. There is further a weak positive association for traditional healers;
- In severe illness conditions, there is further a weak negative association for modern private care.

The fact that households in public slum use more 'not-for-profit' services (public and particularly non-government services) is related to the fact that there are big public slums where Biharis live (see HEP Working Paper No.3-98 for more details on the origin of the Biharis). These Biharis, as we will describe later, have established special non-government health facilities that they extensively use.

Fig. 17: Percentage use/need ratio
by household location

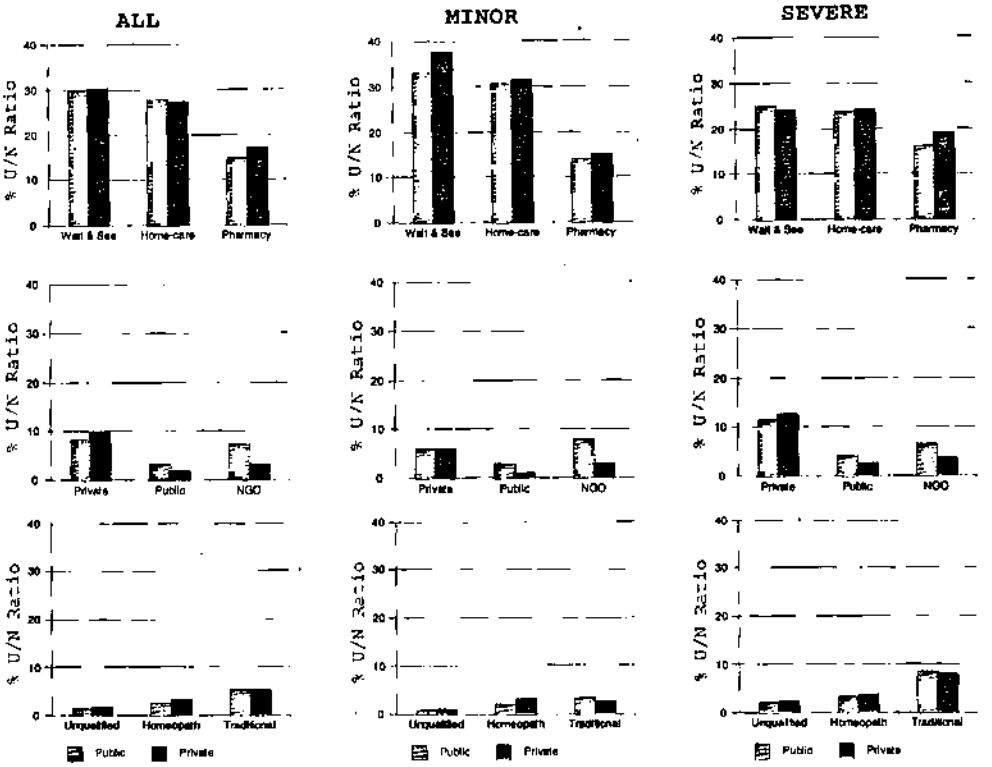


Table 32: Statistical trends in use of health-care options for household location

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2 trend*	P value	Dir **	x^2 trend*	P value	Dir **	x^2 trend*	P value	Dir **
Wait-and-see	1.08	.30		18.93	.00001	-	.51	.48	
Home-care	.16	.69		.58	.44		.12	.73	
Pharmacy	17.86	.00002	-	2.14	.14	(-)	12.31	.0004	-
Mod priv	9.22	.002	-	.01	.91		3.34	.08	(-)
Public	29.14	.00000	+	31.67	.00000	+	10.05	.0015	+
Non-govt.	134.64	.00000	+	105.63	.00000	+	31.01	.00000	+
Unqualif	1.77	.18	(-)	.08	.77		.15	.70	
Homeopath	12.07	.0005	-	12.67	.0004	-	.75	.39	
Traditional	.00	.96		3.26	.071	(+)	.76	.38	

* Categories: public/private slum.
** Dir = direction of association: + = more use when living in public slum.

D. SEASONAL PATTERNS

Fig. 18 shows the health-care option use patterns during the three seasons of the survey, i.e., early, full, and late monsoon season.

Table 36 details the statistical associations in health-care option use during these seasons (a positive trend indicates that the earlier the season, the more use of a particular health-care option is observed).

The findings may be summarised as follows:

- In both minor and severe illness cases, there are *positive associations* for pharmacies (moderate) and modern private care (strong), and a strong *negative association* for wait-and-see;
- In minor illness, there are further strong positive associations for home-care and traditional healers;
- In severe illness, there are further moderately negative associations for modern unqualified healers and homeopathy.

Fig. 18 Percentage use/need ratio by season

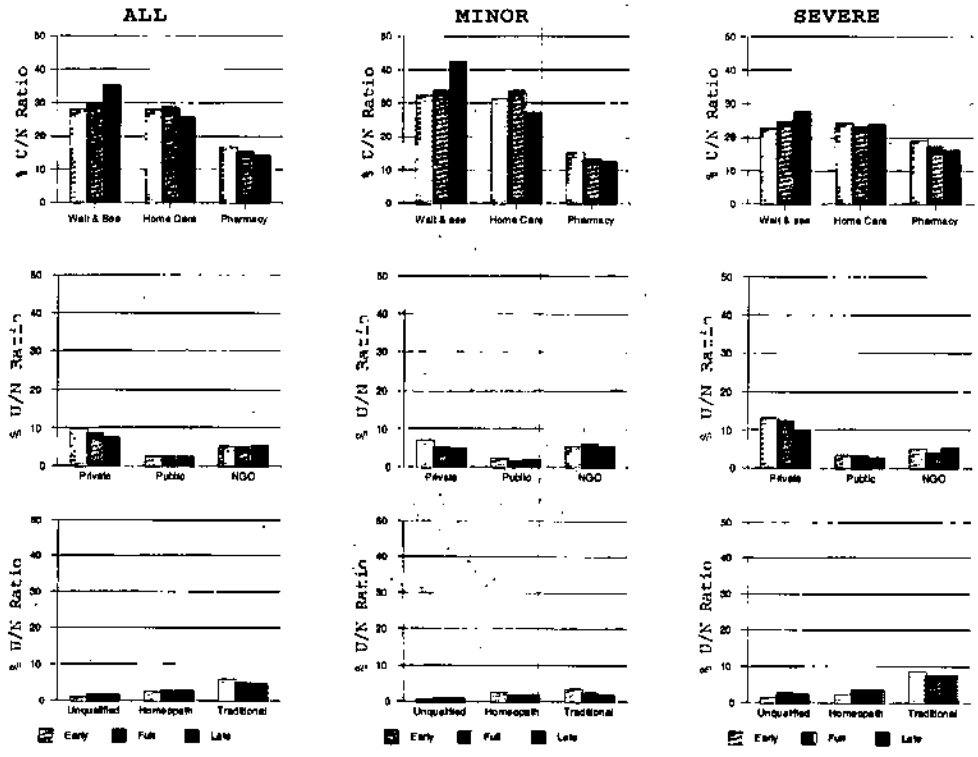


Table 36: Statistical trends in use of health-care options by season

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2	P value	Dir *	x^2	P value	Dir *	x^2	P value	Dir *
Wait-and-see	60.8	.00000	-	55.7	.00000	-	14.8	.0001	-
Home-care	5.5	.019	+	7.1	.0079	+	0.04	.84	
Pharmacy	11.0	.0009	+	6.0	.014	+	6.0	.014	+
Mod priv	19.5	.00001	+	11.7	.0006	+	11.3	.0008	+
Public	0.6	.44		0.3	.61		0.5	.47	
Non-govt.	0.1	.74		0.0	.94		0.2	.62	
Unqualif	6.0	.014	-	1.0	.32		4.4	.036	-
Homeopath	1.6	.21		1.5	.22		6.7	.010	-
Traditional	6.3	.012	+	12.2	.0005	+	1.4	.24	

* Dir = direction of association: + = the earlier the season, the more use.

CHAPTER 8

HEALTH-CARE OPTION UTILISATION: SOCIOCULTURAL VARIABLES

A. HOUSEHOLD RELIGION

Health-care option use differentials between Muslims and Hindus are represented in Fig.19. Table 37 indicates their statistical associations (a positive association means more use by Muslims):

- In both minor and severe illness, there is a *positive* association for non-government health-care (strong in minor cases, moderate in severe cases);
- In minor illness cases, there is further a strong positive association for wait-and-see, and negative associations for pharmacies (strong), for home-care (weak), and for public health-care (weak);
- In severe cases, there is a weak negative association for modern private health-care.

Fig. 19: Percentage use/need ratio by household religion

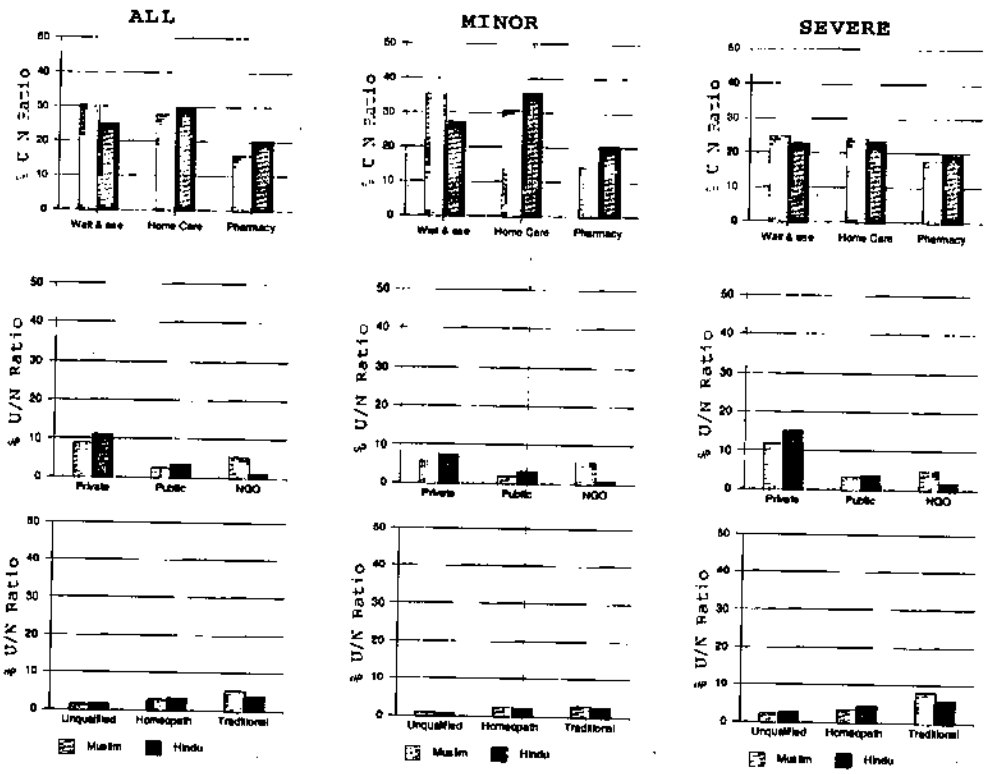


Table 37: Statistical trends in use of health-care options by household religion

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	7.74	.0054	+	9.01	.002	+	.65	.42	
Home-care	1.50	.22		3.51	.06	(-)	.08	.78	
Pharmacy	8.18	.0042	-	9.14	.002	-	1.12	.29	
Mod priv	3.93	.0472	-	1.51	.22		2.49	.12	(-)
Public	1.99	.16	(-)	2.16	.14	(-)	.37	.54	
Non-govt.	19.57	.0000	+	13.88	.0001	+	6.06	.01	+
Unqualif	.12	.73		.21	.48		.51	.47	
Homeopath	.59	.44		.01	.92		1.25	.26	
Traditional	1.63	.20	(+)	.17	.68		1.59	.21	

** Dir = direction of association: + = more used by Muslims.

B. HOUSEHOLD ETHNICITY

Considering the relationship between the ethnic origin of the households under investigation and health-care option use, Fig. 20 and Table 38 show the following (a positive association means more use by Bengalis):

- In both minor and severe illness cases, a slightly larger use is made of public care by Bengalis. In contrast, a much larger use is made of non-government care by the Biharis. This reflects the existence of non-government health-care facilities in the public slums where Biharis live and which specifically serve Bihari people;
- Additionally, in minor illness cases, a much larger use is made by Bengalis of wait-and-see, and moderately more of traditional care;
- In severe illness cases, Bengalis use moderately more home-care and public care, and far more pharmacies. Conversely, Biharis use far more unqualified modern healers.

Fig. 20: Percentage use/need ratio by household ethnicity

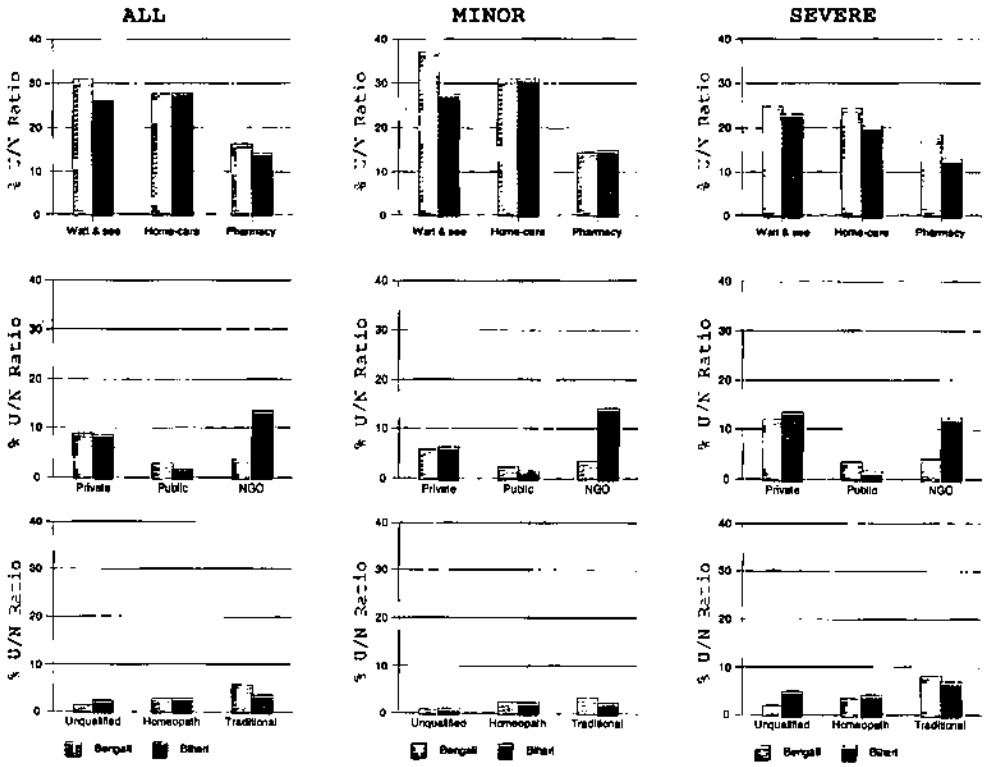


Table 38: Statistical trends in use of health-care options by ethnicity

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x	P value	Dir **	x	P value	Dir **	x	P value	Dir **
Wait-and-see	23.53	.00000	+	57.7	.000	+	.94	.33	
Home-care	.00	1.00		.00	.98		6.44	.01	+
Pharmacy	7.68	.0056	+	.20	.66		14.43	.0001	+
Mod priv	.50	.48		.43	.51		1.40	.24	
Public	13.97	.0002	+	3.67	.06	(+)	6.89	.01	+
Non-govt.	418.3	.00000	-	293.2	.0000	-	111.5	.0000	-
Unqualif	9.86	.0017	-	.20	.66		30.4	.000	-
Homeopath	.02	.89		.01	.92		1.57	.21	
Traditional	18.03	.0000	+	6.42	.01	+	1.02	.31	

** Dir = direction of association: + = more used by Bengali.

C. EDUCATION

The association between father's and mother's education and health-care option use is discussed here for illness episodes of children aged up to 12 years.

1. FATHER'S EDUCATION

Graphical and statistical representations of the relationship between level of father's education and health-care option use are shown in Fig. 21 and Table 39.
The following trends can be found:

- The *lower* the education level, the *more use* is made of wait-and-see (far more use when severe illness, moderately more use when minor), of non-government health-care (far more use made when minor illness, slighly more use made when severe illness), of pharmacies (slightly more use in minor illness), and of traditional care (slightly more use made, when all illnesses combined);
- Conversely, when the education level is *higher*, far *more use* is made of public care and slightly more use of homeopathy in both minor and severe illness. In addition, more use is made of home-care (moderately more in minor illnesses, and slightly more in severe illnesses). Furthermore, slightly more use is made of modern private care (in the case of minor illnesses and of all illnesses combined).

Fig. 21: Percentage use/need ratios by father's education (0-12 years child illness)

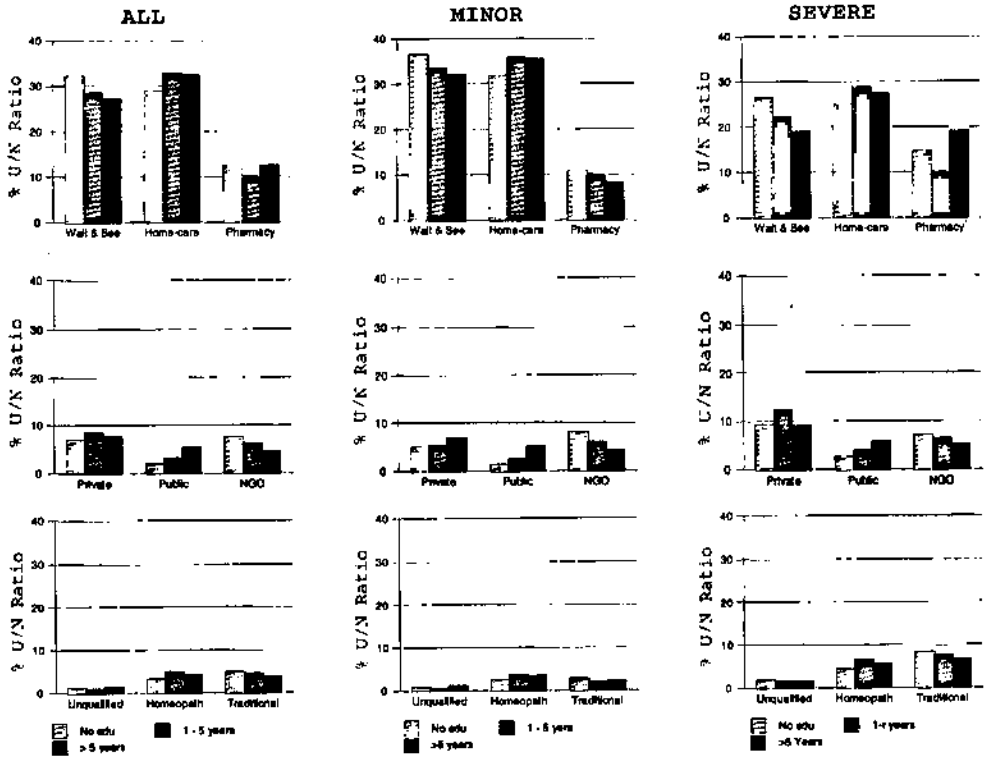


Table 39: Statistical trends in use of health-care options by father's education level

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x *	P value	Dir **	x *	P value	Dir **	x *	P value	Dir **
Wait-and-see	15.10	.0001	-	6.09	.01	-	12.13	.00	-
Home-care	9.64	.0019	+	6.21	.01	+	2.89	.09	(+)
Pharmacy	1.00	.32		3.88	.05	(-)	.51	.48	
Mod priv	3.19	.074	(+)	3.72	.05	(+)	.72	.40	
Public	39.74	.00000	+	31.91	.000	+	11.50	.00	+
Non-govt.	13.32	.0003	-	12.55	.000	-	2.04	.15	(-)
Unqualif	.003	.96		.31	.58		.003	.96	
Homeopath	5.69	.017	+	2.91	.09	(+)	3.19	.07	(+)
Traditional	2.42	.12	(-)	.48	.49		1.54	.22	

* Categories: No edu/1-5 yrs edu/>5 yrs education.
** Dir = direction of association: + = more used when higher education level.

2. MOTHER'S EDUCATION

Fig. 22 and Table 40 show graphical and statistical associations between the mother's education level and health-care option use.

Overall, a similar pattern is observed as for the case of father's education. However, there are some differences:

- Unqualified modern care is substantially more used, the higher the education level;
- The use trend for homeopathy is stronger in the case of mother's education in both minor and severe illness cases. Similarly, the use trend for non-government care is stronger in severe illnesses, and for pharmacies in minor illnesses and all illnesses combined;
- Another most striking difference is that the trend in the use of modern private care is now statistically significant between the categories 'no education' and '1-5 years'(χ^2 =6.22, p=.013 in all illness cases combined; χ^2 =6.46, p=.011 in minor illness; χ^2=1.83, p=.18 in severe illness).

Fig. 22: Percentage use/need ratio by mother's education (0-12 years child illness)

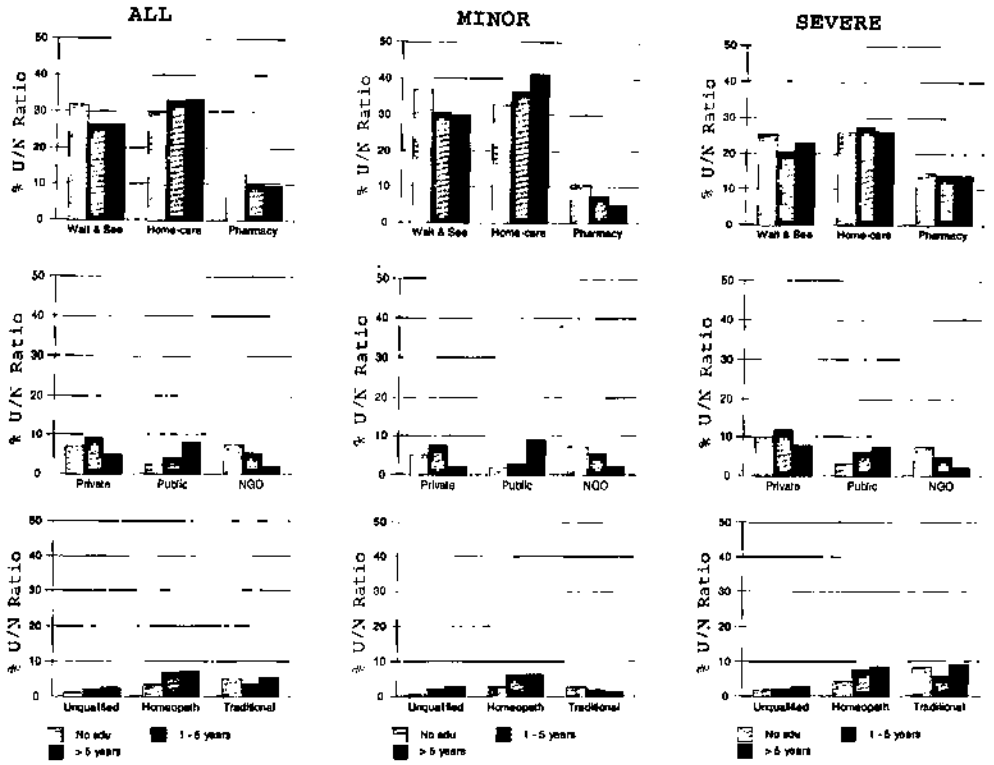


Table 40: Statistical trends in use of health-care options by mother's education level

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x²	P value	Dir **	x	P value	Dir **	x	P value	Dir **
Wait-and-see	13.91	.0002	-	10.31	.00	-	3.61	.06	(-)
Home-care	5.49	.019	+	7.75	.00	+	.22	.64	
Pharmacy	6.04	.014	-	11.15	.00	-	.10	.75	
Mod priv	.45	.50		.52	.47		.04	.85	
Public	40.29	.00000	+	23.15	.000	+	17.16	.000	+
Non-govt.	17.76	.00003	-	7.95	.00	-	9.99	.00	-
Unqualif	12.48	.0004	+	25.43	.000	+	.40	.53	
Homeopath	36.61	.00000	+	24.75	.000	+	12.93	.000	+
Traditional	1.82	.18	(+)	2.86	.09	(-)	.37	.54	

* Categories: No edu/1-5 yrs edu/>5 yrs of education.
**Direction of association: + = more used when higher education level.

CONCLUSIONS ON THE RELATIONSHIPS BETWEEN USE OF HEALTH-CARE OPTIONS AND FATHER'S AND MOTHER'S EDUCATION IN THE CASE OF CHILDHOOD ILLNESS (0-12 YEAR AGE-GROUP)

In Tables 41 (for minor illness cases) and 42 (for severe illness cases), the findings are summarised on the associations between the health-care option use in child illness and father's and mother's education. It appears from the tables that there are a number of similarities in these associations:

- in *minor illness* (Table 41): the less educated the parents, the more use is made of wait-and-see and non-government care and to a lesser extent pharmacies, and, the less use is made of home-care, public care and to a lesser extent homeopathy;
- in *severe illness* (Table 42): the less educated the parents, the more use is again made of wait-and-see and of non-government care, and, the less use is again made of public care and to a lesser extent homeopathy.

Table 41: Summary table on trends in use of health-care options for father's and mother's education (*minor* illness cases)

Minor illness cases		Father	Mother
Less educated	The more use of	Wait-and-see Non-govt (Pharmacy)*	Wait-and-see Pharmacy Non-govt (Traditional)
	The less use of	Home-care Public (Modern private) (Homeopathy)	Home-care Public Unqualified Homeopathy

* Health-care option in brackets: .05 < p < .20

Table 42: Summary table on trends in use of health-care options for father's and mother's education (*severe* illness cases)

Severe illness cases		Father	Mother
Less educated	The more use of	Wait-and-see (Non-govt)*	(Wait-and-see) Non-govt
	the less use of	Public (Home-care) (Homeopathy)	Public Homeopathy

* Health-care option in brackets: .05 < p < .20

The increasing use of home-care and homeopathy in minor illness with the increasing level of education may be attributed to the fact that more educated parents know more home remedies and better identify cases for homeopathy than less or non-educated mothers and fathers.

The relationships between wait-and-see and the three types of modern qualified care and education reflect the associations between education levels of fathers and mothers and household income on the one hand (see HEP Working Paper No.3-98), and, between household income and health-care option use on the other. The latter is detailed in the next chapter.

CHAPTER 9
HEALTH-CARE OPTION UTILISATION: ECONOMIC VARIABLES

A. HOUSEHOLD INCOME

The 'income quintiles' are used as categories for 'household income', described in HEP Working Paper No.3-98.

There are several trends in the use of health-care options when household income is considered (Fig. 23). Table 43 details the statistical significance of those trends. The following findings are observed (a positive association means more use, the higher the income level):

- In both the illness conditions, there are *positive associations* for modern private care and public facilities (both strong), pharmacies (weak in minor illness and moderate in severe illness), and homeopathy (moderate in minor illness, strong in severe illness);
- In both the illness conditions, strong *negative associations* for wait-and-see are observed. In addition; in the case of severe illness, there are negative associations for home-care and non-government care (weak), and for modern unqualified providers and traditional healers (strong);
- In the case of minor illness conditions, there are *no associations* for home-care, non-government care, modern unqualified providers, and traditional healers. In contrast, in the case of major illness, all associations are weak to strong;
- Finally, in severe illness cases, all associations become stronger than in minor illness conditions. The exceptions are the options which are already statistically highly significant in minor illness cases (wait-and-see, modern private and public care).

Fig. 23: Percentage use/need ratio by income quintile

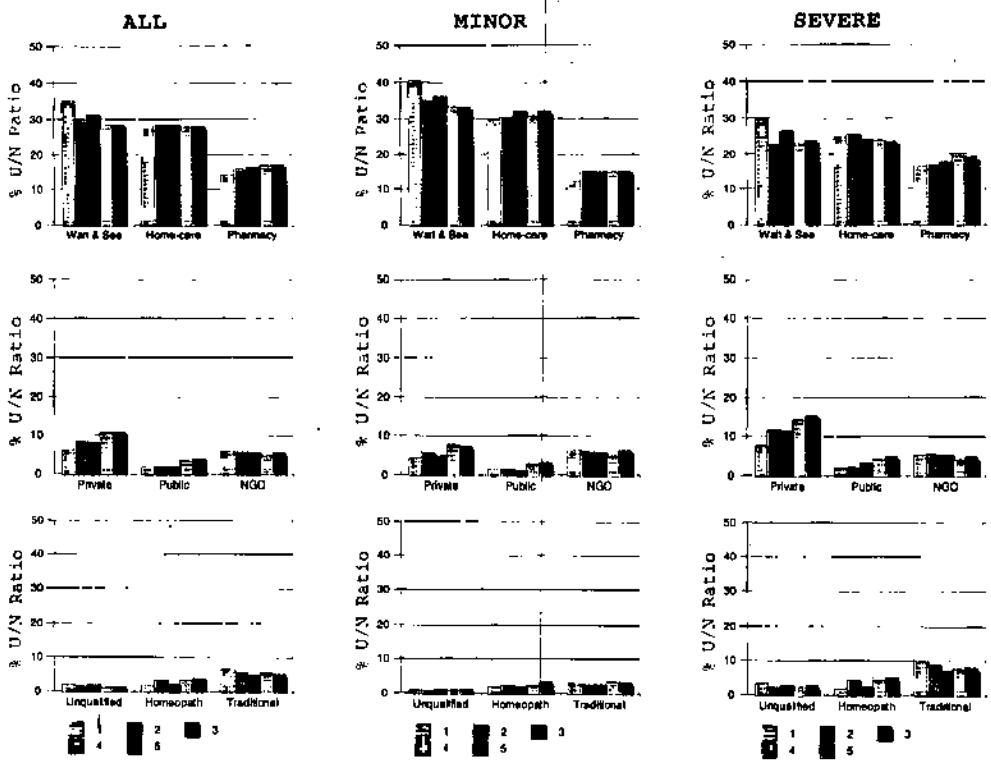


Table 43: Statistical trends in use of health-care options by household income

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2	P value	Dir*	x^2	P value	Dir*	x^2 trend	P value	Dir*
Wait-and-see	36.80	.00000	-	22.67	.0000	-	14.95	.0001	-
Home-care	.083	.77		1.10	.29		2.80	.094	(-)
Pharmacy	6.16	.013	+	2.19	.14	(+)	4.17	.041	+
Modern priv	47.28	.00000	+	13.34	.0003	+	35.50	.00000	+
Public	32.07	.00000	+	11.55	.0007	+	20.82	.00001	+
Non-gov't	4.58	.032	-	1.67	.20		3.17	.075	(-)
Unqualified	8.98	.0027	-	1.29	.26		8.05	.0045	-
Homeopath	12.25	.0005	+	4.12	.04	+	8.36	.004	+
Traditional	6.97	.008	-	.02	.89		10.55	.0012	-

* Categories of household income: quintiles. Direction of trend: + = more use when higher income.

The findings suggest, firstly, that there are clear links between household income and choice of health-care alternatives for almost all health-care options, secondly, that the associations are stronger in severe illness cases than in minor ones, and thirdly, that the direction and strength of these associations are particular for each health-care option. These observations have schematically been put in a summary table (Table 44):
Out of the three modern qualified health-care options, only non-government care is slightly more used when households are poorer. All other modern qualified care, including pharmacies, are substantially less used, the poorer the household. This is particularly true in the case of severe illness. Conversely, the other health-care options and particularly wait-and-see, are then substantially more used (except home-care), the poorer the household. Finally, homeopathy is also more used when households are economically better-off.

Table 44: Trends in use of health-care options by household income

		Minor	Severe
The poorer	The more use of	Wait-and-see	Wait-and-see Modern unqualified Traditional (Home-care) (Non-govt)
	The less use of	Modern private Public Homeopath (Pharmacy)	Pharmacy Modern private Public Homeopath

Comparing the findings in severe illness cases for the highest and the lowest income quintiles, the following is observed. By households in the lowest quintile:

- Wait-and-see is about 25% more used;
- Pharmacies are about 20% less used;
- Private-for-profit and public care, and homeopathy are about 50% less used;
- Non-government care, unqualified modern healers, and traditional care are 25% to 30% more used.

Fig. 24 and Table 45 show the utilisation patterns of wait-and-see as the only health-care option used during an illness episode by income quintile. This groups, thus, the illness episodes in which no care was sought at all, even no home-care.
The following is observed:

- Overall, the proportion of illness episodes in which no care was sought substantially decreases with the increasing household income. These trends are all statistically highly significant;
- The steepest decline is found for severe illness episodes, about 50% (whereas about 40% in minor illness episodes).

These figures strongly suggest thus that the poorer the slum households, the more illness episodes are left without attention. This is (by definition) more so in the case of severe illness episodes, although precisely these episodes require by definition more professional attention than minor ones.

Fig. 24: Proportion of illness episodes where no care was sought by household income

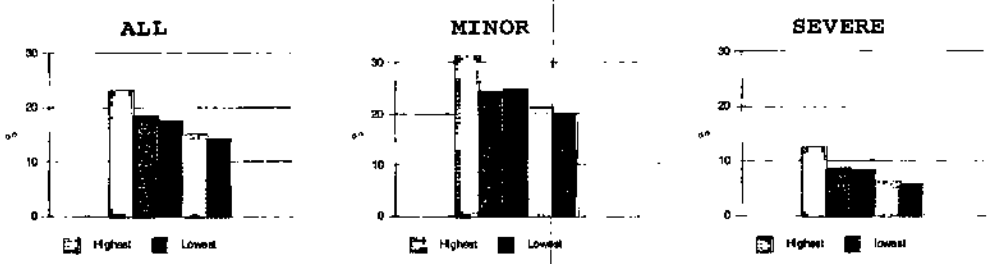


Table 45: Statistical association of the proportion of illness episodes where no care was sought by household income

Health-care Option	ALL ILLNESSES			MINOR			SEVERE ..		
	x	P value	Dir*	x'	P value	Dir*	x' trend	P value	Dir*
Wait-and-see only	82.15	.00000	-	8.35	.0040	-	25.95	.00000	-

* Categories of household income: quintiles. Direction of trend: + = more use when higher income.

B. OCCUPATION

1. HEALTH-CARE OPTION UTILISATION BY WAGE UNIT

Fig. 25 shows health-care option use patterns by wage unit. Table 46 gives the statistical associations (a positive association means more use by monthly wagers). The findings are:

- In both minor and severe illness cases, there is a *negative* association for traditional healers (moderate in minor illness, weak in severe illness);
- In minor illness cases, there are further strong positive associations for modern private and public care, and a strong negative association for pharmacies;
- In severe cases, there is further a moderate negative association for modern unqualified providers.

Daily wagers use thus more traditional care, pharmacies and modern unqualified providers, whereas monthly wagers use more private and public care.

Fig. 25: Percentage use/need ratios by wage unit

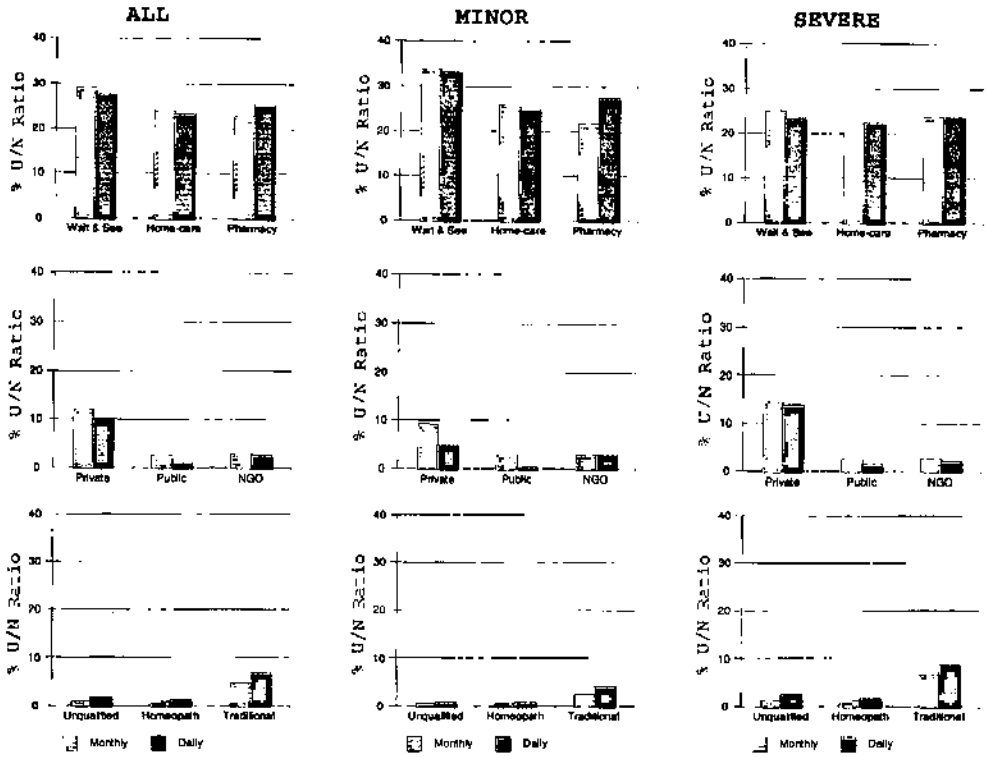


Table 46: Statistical trends in use of health-care options by wage unit

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	1.23	.27		.05	.82		.84	.36	
Home Care	.19	.66		.31	.58		.01	.93	
Pharmacy	3.43	.064	(-)	7.80	.005	-	.00	.97	
Mod priv	3.83	.050	+	11.98	.0005	+	.18	.67	
Public	14.5	.0001	+	17.30	.00003	+	2.38	.12	
Non-govt	.25	.62		.10	.76		.93	.34	
Unqualif	5.78	.016	-	1.22	.27		3.82	.050	-
Homeopath	1.85	.17	(-)	.27	.60		1.29	.26	
Tradit	7.86	.005	-	4.05	.044	-	2.99	.084	(-)

** Dir = direction of association: + = more used by Monthly wagers.

2. HEALTH-CARE OPTION USE BY WAGE UNIT AND GENDER

In order to avoid gender bias, analyses were again conducted on the five main illness categories as for the variables age and gender.

2.1. Daily wagers by gender

Fig. 26 graphically represents health-care option use for the male and female daily wagers. Table 47 shows the statistical associations (a positive association means more use by males). The findings are:

- There is a *positive* association for pharmacies (strong in all illnesses combined, moderate in minor illness, weak in severe illness), and a *negative* association for wait-and-see (strong in minor illness, moderate in severe illness);
- In severe cases, there is further a moderately positive association for modern private care, and a weak negative association for public care. In minor illness, there is a weak positive association for home-care, and a weak negative association for homeopathy.

Fig. 26: Percentage use/need ratios for daily wagers by gender

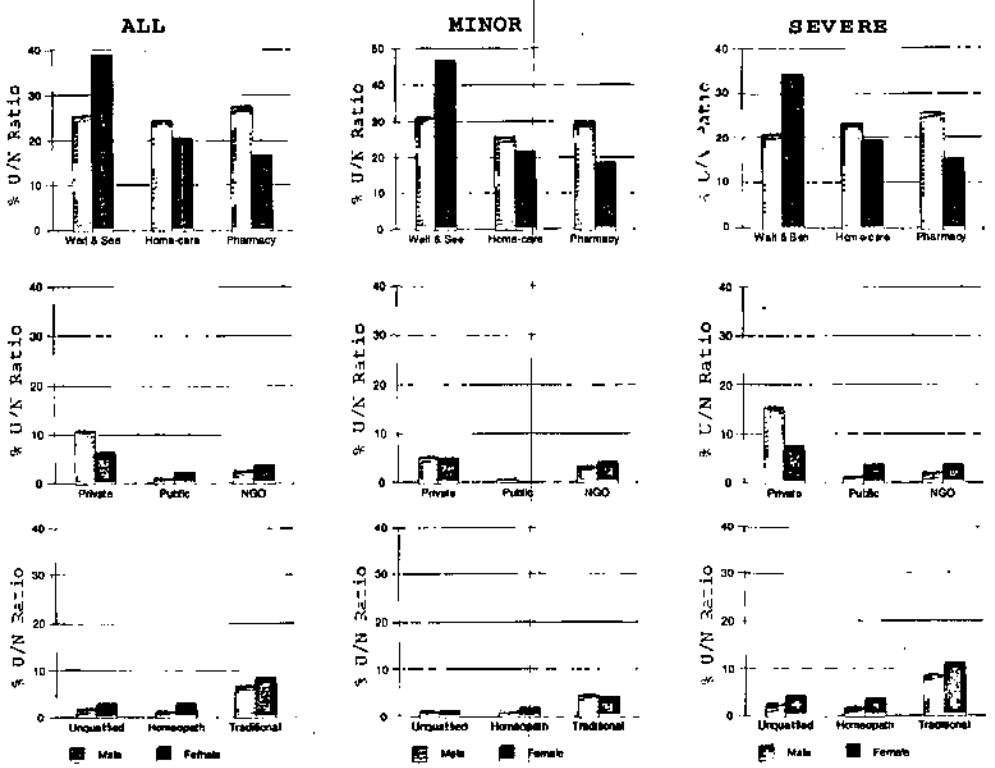


Table 47: Statistical trends in use of health-care options for selected illnesses for daily wagers by gender

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x	P value	Dir **	x	P value	Dir **	x	P value	Dir **
Wait-and-see	13.43	.0003	-	11.22*	.0008	-	4.20	.04	-
Home-care	1.07	.30		2.37	.12	(+)	0.0	.96	
Pharmacy	7.51	.006	+	5.26	.02	+	2.30	.13	(+)
Modern priv	2.42	.12	(+)	.00	.96*		3.98	.046	+
Public	2.25	.15*	(-)	.33	.57*		3.51	.094*	(-)
Non-govt	.14	.71		.10	.76*		1.11	.29*	
Unqualified	.07	.79		.02	.89*		.13	.72*	
Homeopath	2.61	.11	(-)	2.78	.095*	(-)	.62	.43*	
Traditional	.20	.65		1.22	.27*		.03	1.0*	

* Fisher 2-tailed exact results (at least 1 cell value < 5)
** Dir = direction of association: + = more used by males.

2.2. **Monthly wagers by gender**

Fig. 27 shows health-care option use patterns for the male and female monthly wagers. Table 48 shows the statistical associations (a positive association means more by males). The findings are:

- There is a *negative* association for wait-and-see (strong in minor illness, weak in severe illness);
- In minor illness cases, there are further *positive* associations for pharmacies and modern private care (both weak);
- When all illnesses combined are considered, there is further a moderately positive association for public care and modern private care. For pharmacies, there is further a weak positive association).

Pharmacies, and modern private care are thus more used by male wagers than by female ones, whether they are daily or monthly wagers. In contrast, wait-and-see is more used by female wagers; whereas public care is more used by female daily wagers only.

Fig. 27: Percentage use/need ratios
for monthly wagers by gender

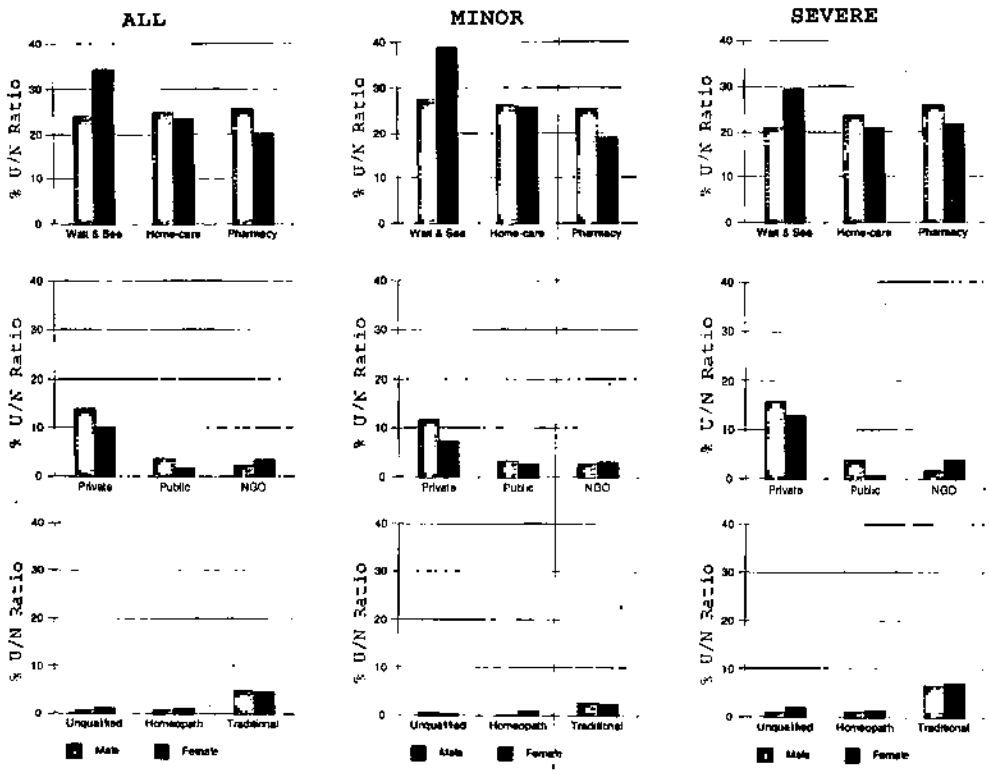


Table 48: Statistical trends in use of health-care options for selected illness categories for monthly wagers by gender

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x	P value	Dir **	x	P value	Dir **	x	P value	Dir **
Wait-and-see	9.49	.002	-	7.16	.007	-	1.88	.17	(-)
Home-care	.13	.72		.21	.65		.01	.92	
Pharmacy	1.72	.19	(+)	1.79	.18	(+)	.11	.74	
Modern priv	3.82	.051	+	1.89	.17	(+)	1.62	.20	
Public	5.21	.022	+	3.05	.080		2.40	.22*	
Non-govt	.01	.94		.00	1.0		.03	.87*	
Unqualified	.60	.44		.01	1.0*		1.18	.35*	
Homeopath	1.86	.17		.76	.63*		1.18	.35*	
Traditional	.03	.85		.44	.69*		.05	1.0*	

* Fisher 2-tailed exact results (at least 1 cell value < 5)
** Dir = direction of association: + = more used by males.

3. HEALTH-CARE OPTION USE BY TYPE OF OCCUPATION AND AGE

In this section, two age-groups are considered, the 6-12 and 13-18 year age-groups. For each age-group, health-care option percentage use/need ratios and related statistical significance levels are compared for the two main types of occupation. In HEP Working Paper No.3-98, child and adolescent occupation was presented according to three types of occupation: income-earners, school-attendants, and non-income earners/non-school attendants.
The two largest groups in the 6-12 year age-group are the school-attendants and the non-school/non-income earners. In the 13-18 year age-group, they are the income-earners and the non-school/non-income earners.

Here, again the same five main categories as those used in section 2 are considered.

3.1. **In the 6-12 year age-group**

Fig. 28 presents health-care option use patterns for the school-attendants and non-school/non-income earners in 6-12 year age-group. Table 49 shows the statistical associations (a positive association means more use in illness of school-attendants). The findings are:

- In both minor and severe illness cases, there is a *positive* association for non-government care (weak in minor illness, and moderate in severe illness);
- In minor illness cases, there is further a strong negative association for home-care and a weak positive association for public care.

School-attendants in the 6-12 year age-group tend thus to use more non-government and public care. Non-school attendants/non-income earners use more home-care (only in minor illnesses). This may be related to the fact that they are often at home.

Fig. 28: Percentage use/need ratios
by main occupation categories for male income earners

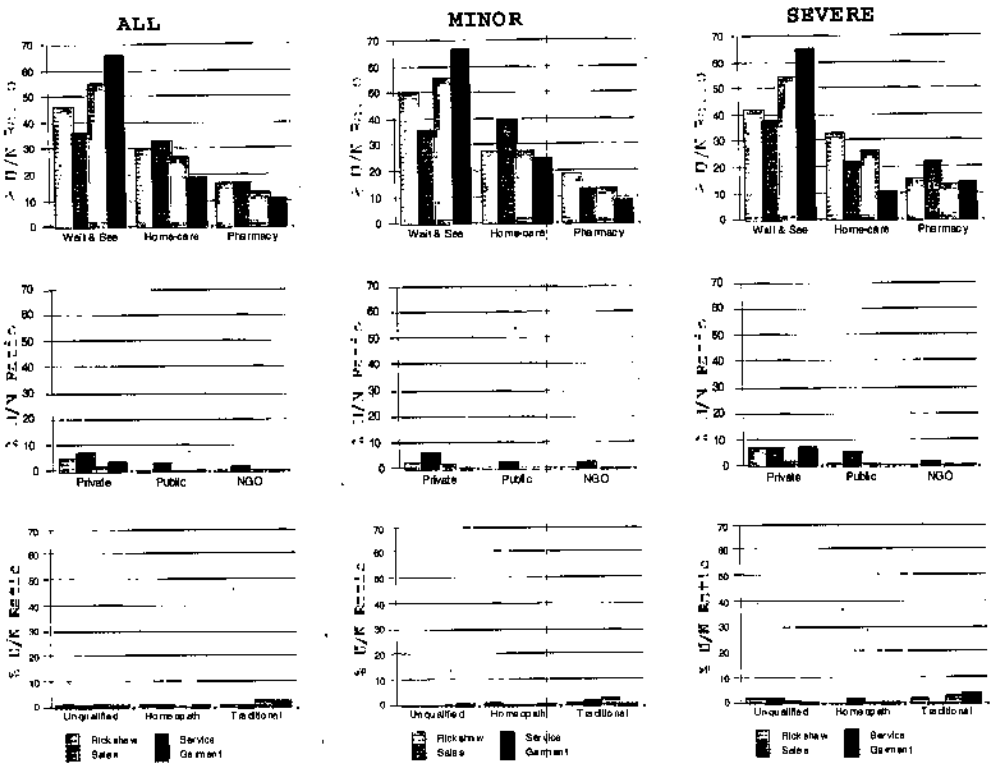


Table 49: Statistical trends in use of health-care options for selected illnesses by type of occupation in 6-12 year age-group

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	.07	.79		.12	.73		.43	.52	
Home-care	4.75	.03	-	7.41	.0065	-	.02	.89	
Pharmacy	1.04	.31		1.18	.28		.02	.88	
Mod priv	.11	.74		.06	.80		0	.99	
Public	.91	.34		2.09	.15	(+)	.04	.85	
Non-govt	6.60	.010	+	2.56	.11	(+)	4.42	.036	+
Unqualified	.12	.73		.32	.68*		.02	.90	
Homeopath	.30	.59		.81	.37		.12	1.00*	
Traditional	1.19	.28		0	1.00*		2.28	.20*	

* : Fisher 2-tailed exact results (1 cell value <5).
** Dir = direction of association: + = more used by school-attendants.

3.2. In the 13-18 year age-group

Fig. 29 graphically represents health-care option use for the income-earners and non-school attendants/non-income earners in 13-18 year age-group. Table 50 shows the statistical associations (a positive association means more use by income-earners). The findings are:

- In both minor and severe illness cases, there is a weak *negative association* for wait-and-see (and a strong negative association when all illness cases are combined);
- In minor illness cases (and when all illness cases are combined), there is further a moderately positive association for non-government care;
- In addition, Fig. 29 appears to indicate more use by the income-earners of home-care, pharmacies, modern private care and traditional care (in all, minor and severe illness cases), and less use of homeopathy (also in all, minor and severe illness cases). However, none of these relationships result in statistically significant associations.

Fig. 29: Percentage use/need ratios by main occupation categories for female income earners

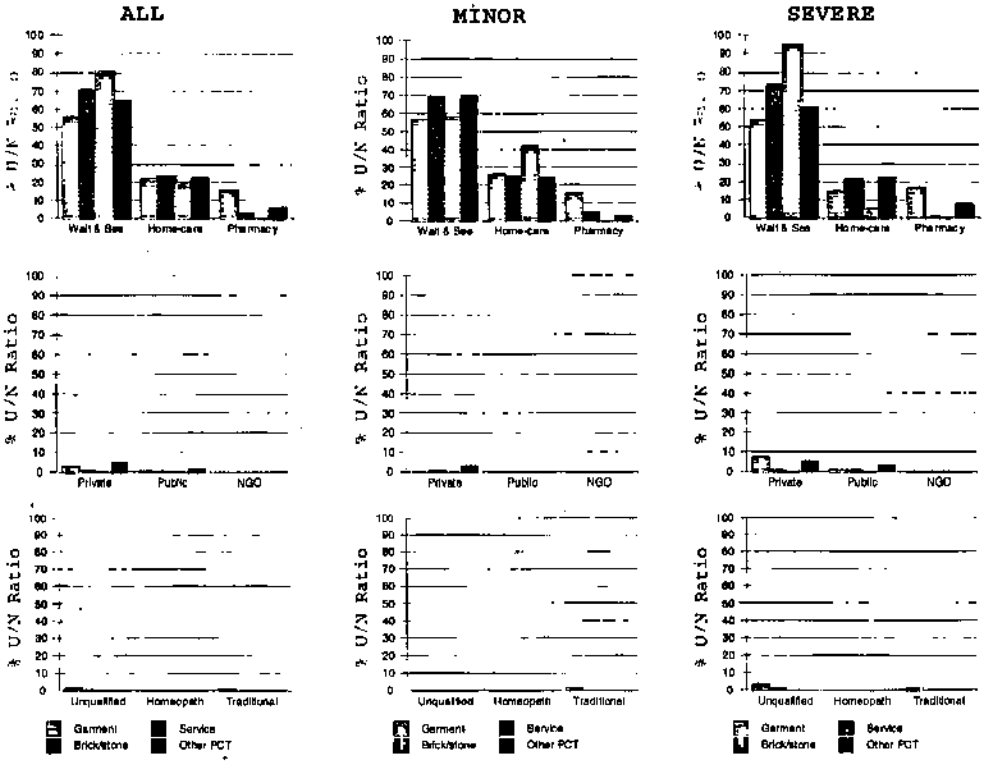


Table 40: Statistical associations in use of health-care options for selected illnesses by type of occupation in 13-18 year age-group

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x	P value	Dir **	x	P value	Dir **	x	P value	Dir **
Wait-and-see	6.79	.0092	-	2.62	.11	(-)	2.32	.13	(-)
Home-care	.50	.48		.31	.58		.20	.65	
Pharmacy	.29	.59		.03	.86		.19	.66	
Modern priv	1.43	.23		.20	.65		.48	.49	
Public	1.01	.62*		1.59	.51*		.06	1.0*	
Non-govt	4.74	.030	+	5.81	.016	+	.50	.70*	
Unqualified	.00	1.00		.29	.70*		.05	1.0*	
Homeopath	1.63	.20		.60	.63*		1.62	.24*	
Traditional	.71	.40		.06	1.00*		.26	.74*	

* = Fisher 2-tailed exact results (1 cell value <5)
** Dir = direction of association: + = more used by income-earners.

4. HEALTH-CARE OPTION USE BY OCCUPATION CATEGORY AND GENDER

The percentage use/need ratios presented here are compared with the percentage number of contacts for each health-care option in Table 1 of this Part.

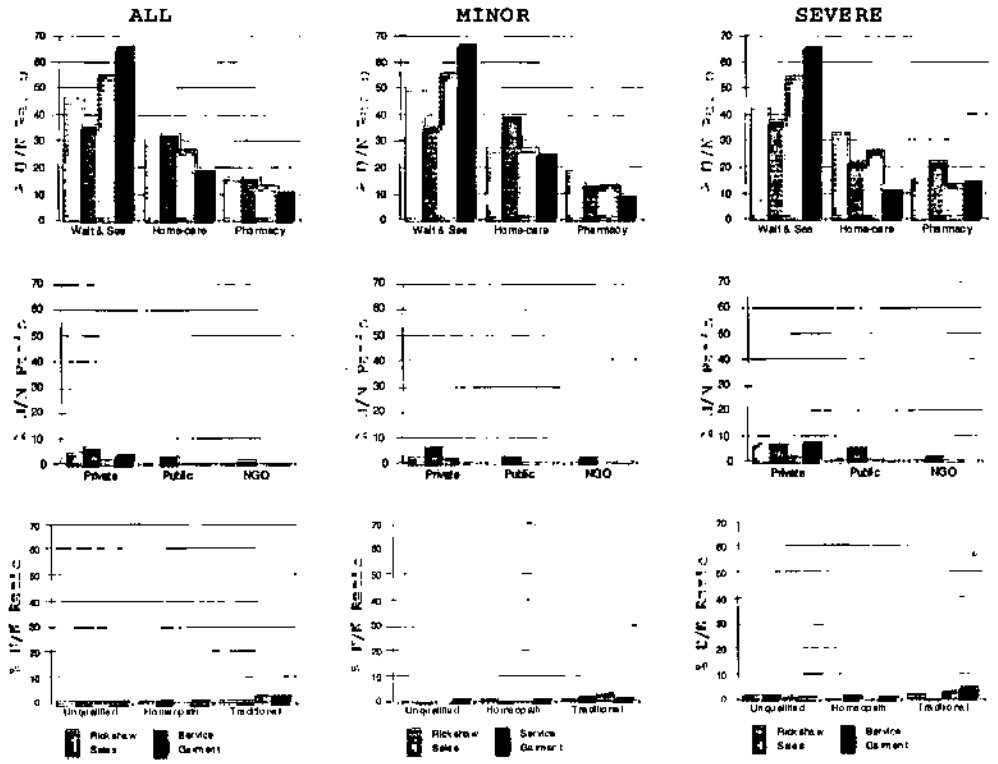
4.1. Health-care option use by the main occupation categories for male income-earners

Fig. 30 graphically presents the health-care option use patterns by the male income-earners. The occupation categories are the main ones in terms of illness incidence rate given in Table 11 of this Working Paper.
The main findings are:

- The most striking finding is that the use of all health-care options, with the exception of wait-and-see and home-care, is clearly *lower* than in the overall study population (i.e., the use/need ratios are lower than the percentage number of contacts for those health-care options in Table 23 of this Working Paper). In addition, the use of pharmacies is slightly lower than its averages in Table 23, and the lowest for the sales and garment workers;
- Particularly for the sales and garment workers, the percentage use/need ratios for wait-and-see are *above* the percentage number of contacts for wait-and-see, presented in Table 23;
- The use of home-care is *similar* to the averages for the overall study population

shown in Table 23. However, its use is the lowest for the sales and garment workers.

Fig. 30: Percentage use/need ratios
by main occupation categories for male income earners



The male sales and garment workers use less home-care and pharmacies than rickshaw-pullers and male service workers. Conversely, wait-and-see is less used by the latter two occupation categories.

4.2. Health-care option use by the main occupation categories for female income-earners

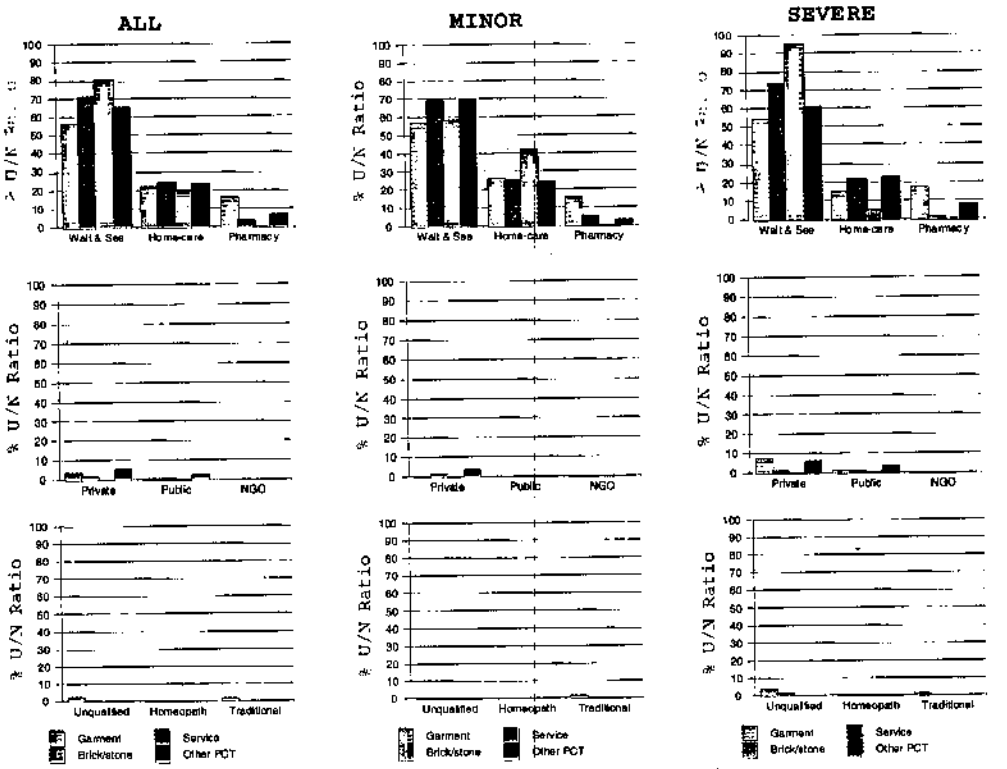
Fig.31 graphically represents health-care option use by the female income-earners. The occupation categories are again the main ones in terms of illness incidence rate presented in Table 12 of this Working Paper. The figures show that:

- The use of wait-and-see by the female income-earners is even higher than by their male counterparts. The use is extremely high for brick/stone breakers in severe illness. However, the total number of contacts for this category in severe illness is only 12, and in minor illnesses it is only 19. So the findings for this category should be taken with caution. The use of home-care is similar as or lower than in the

overall population:

- As for the main male occupation categories, the use of all other health-care options is extremely low. Only in severe illness, private care and, to a lesser extent, public care and unqualified modern healers, are of some importance. In the case of pharmacies, only garment workers have use rates similar to the averages in Table 23 of this Working Paper.

Fig. 31: Percentage use/need ratios by main occupation categories for female income earners



Male sales and garment workers use relatively more wait-and-see while female garment workers use relatively less wait-and-see.

However, the overall larger use of wait-and-see and lesser use of pharmacies (particularly) and other health-care options by female income-earners may be due to the societal rules, known as 'purdah', preventing women from using pharmacies as extensively as men do. In addition, the larger use of wait-and-see in illness cases of not self-employed income-earners may also be related to the fear of being dismissed when absent from the working place.

Furthermore, it was noted above that income-earners, whether male or female, make a much larger use of wait-and-see than the overall use percentages for wait-and-see indicate. It is possible that this phenomenon results at least partially, from a respondent bias (i.e., the income-earners, particularly the males, may have used a health-care option other than wait-and-see without informing the usual respondents, who were the spouses of the household heads). However, in this case one would expect similar percentage use/need ratios for wait-and-see for all male or female occupation categories, which is, according to the figures presented above, not the case.

CHAPTER 10
HEALTH-CARE OPTION USE: PROXIMATE INDICATORS FOR SOCIOECONOMIC STATUS

A. HOUSEHOLD SIZE

Fig. 32 and Table 51 show graphical and statistical associations between the household size and the health-care option use (a positive association means more use, the bigger the household size):

- In both minor and severe illness cases, there is a strong *positive* association for non-government care, and a *negative* association for wait-and-see (moderate in minor illness and slight in severe illness);
- Furthermore, in minor illness, there is a weak positive association for public care, and in severe illness for home-care.

Close associations are observed between the household income and household size on the one hand, and health-care option use on the other in HEP Working Paper No. 3/98 and this Working Paper respectively.
Therefore, it is rather surprising that there are not more significant associations between household size and health-care option use. These observations may be explained by the fact that firstly, the households are unevenly distributed over the four categories of the household size; and secondly the weak association between household income and some health-care options (pharmacies in minor illness, and home-care and non-government care in severe illness). For the use of non-government care, this may help explain the discrepancy between its strong positive association between with the household size on the one hand, and the weak negative association with household income on the other.

Fig. 32: Percentage use/need ratio by household size

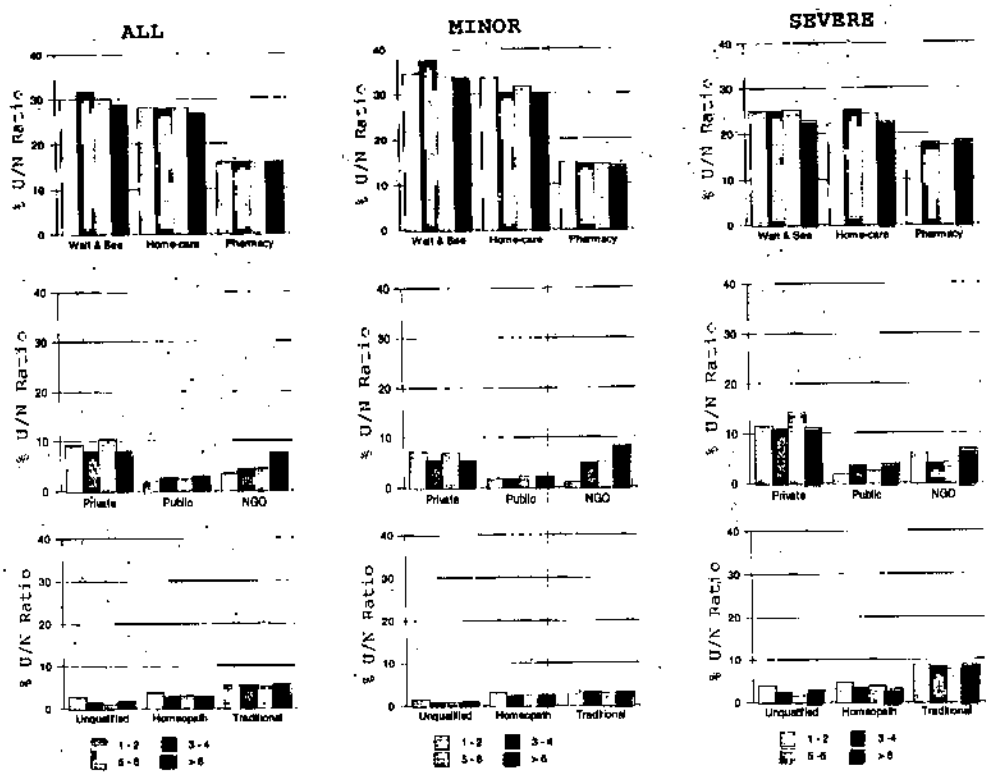


Table 51: Statistical trends in use of health-care options by household size

Health-care Option	ALL ILLNESSES *			MINOR ILLNESS *			SEVERE ILLNESS		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	7.29	.007	-	6.72	.01	-	2.41	.12	(-)
Home-care	1.62	.20	(-)	.35	.59		2.38	.12	(-)
Pharmacy	.00	1.0		.31	.58		.49	.49	
Mod private	.02	.90		.21	.64		.27	.61	
Public	3.16	.076	(+)	2.96	.08	(+)	.98	.32	
Non-govt.	57.24	.00000	+	46.50	.00000	+	13.09	.000	+
Unqualified	.28	.60		.26	.61		.02	.89	
Homeopath	.43	.51		.02	.90		.44	.51	
Traditional	.03	.87		.10	.75		.09	.76	

* Categories of Household size = 1-2; 3-4; 5-6; >6 members
** Dir = direction of association: + = more used the bigger the households size

B. LAND OWNERSHIP

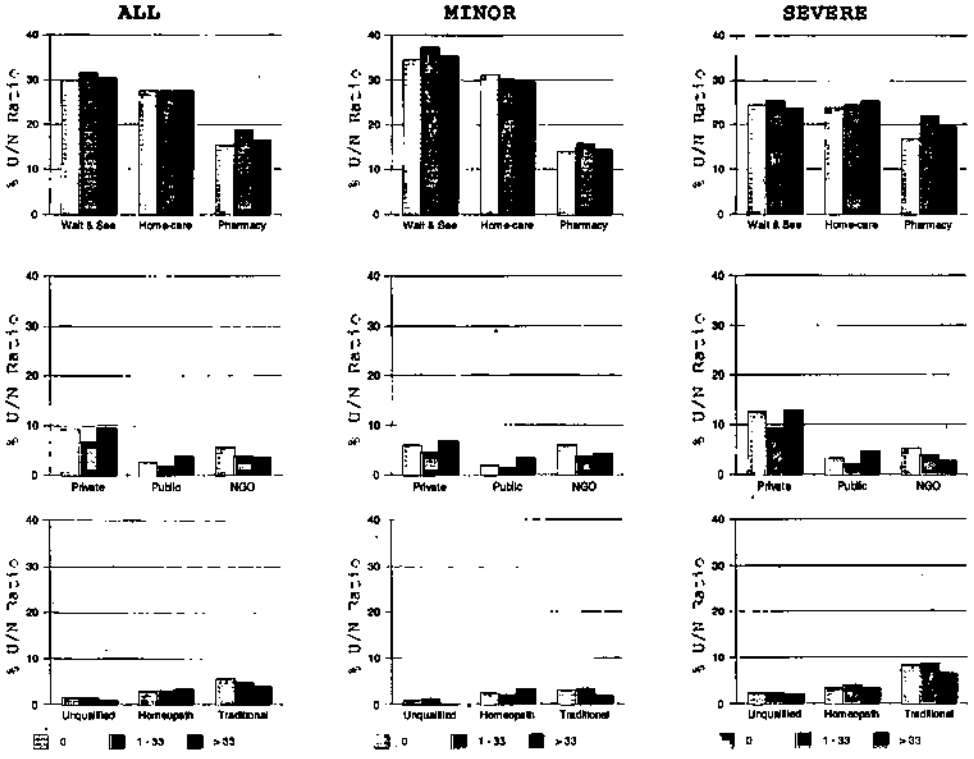
As for the household size, there are only a few associations between land ownership and health-care option use (Fig. 33 and Table 52).

When less land is owned by the household:

- There is far more use made of non-government care (in minor and severe illness), and more use of traditional care (in severe illness);
- Conversely, there is far less use made of pharmacies in severe illness.

The same arguments as those mentioned above for the variable household size may be used here to explain the limited number of associations found here, despite the associations between land ownership and household income on the one hand, and between household income and health-care option use on the other.

Fig. 33: Percentage use/need ratio by land ownership



* Categories of land owned= no land; 1-33 decimals; >33 decimals

Table 52: Statistical trends in use of health-care options by land ownership

Health-care Option	ALL ILLNESSES *			MINOR ILLNESS *			SEVERE ILLNESS *		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	1.57	.21	(+)	1.54	.21		.01	.92	
Home-care	.003	.96		.82	.36		.84	.36	
Pharmacy	8.56	.003	+	.92	.34		10.69	.0011	+
Mod private	2.09	.15	?	.03	.88		2.13	.14	?
Public	1.31	.25		3.33	.07	(+)	.00	.96	
Non-govt.	16.98	.00004	-	8.67	.0032	-	8.73	.0031	-
Unqualified	.72	.40		.71	.40		.10	.75	
Homeopath	.72	.40		1.16	.28		.07	.79	
Traditional	6.13	.013	-	.59	.44		4.99	.026	-

* Categories of land owned = no land; 1-33 decimals; >33 decimals
** Dir = direction of association: + = more used, the more land owned.

C. NUMBER OF ROOMS OCCUPIED BY THE HOUSEHOLD

Fig. 34 shows several trends in the use of health-care options when the number of rooms occupied per household is considered. Table 53 details their statistical associations (a positive association means larger use when more rooms are occupied).
The following trends and associations may be identified:

- In both minor and severe illness cases, strong *positive* associations are found for modern private care, public care, and modern unqualified healers;
- In minor illness, there are further negative associations for wait-and-see (strong), non-government care (moderate), and for homeopathy (moderate);
- In severe illness, there is further a weak negative association for home-care.

Fig. 34: Percentage use/need ratio
by the number of rooms occupied per household

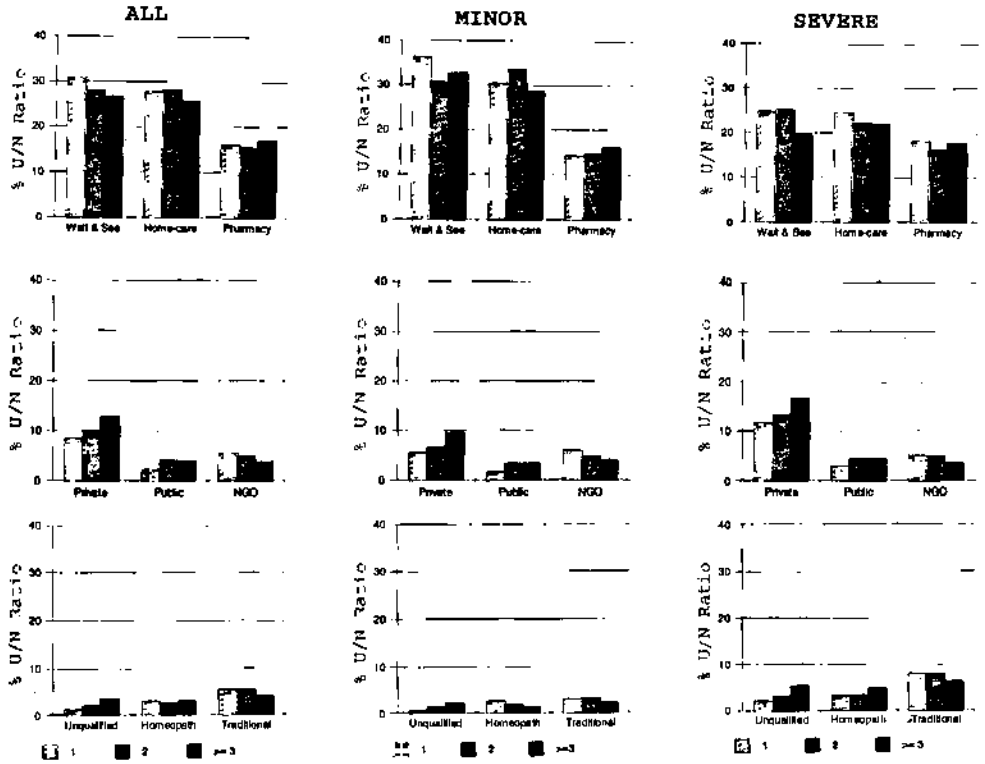


Table 53: Statistical trends in use of health-care options by the number of rooms occupied by the household

Health-care Option	ALL ILLNESSES *			MINOR ILLNESS *			SEVERE ILLNESS *		
	x^2	P value	Dir **	x^2	P value	Dir **	x^2	P value	Dir **
Wait-and-see	11.82	.0006	-	12.63	.0004	-	1.63	.20	
Home-care	.24	.63		.84	.36		3.63	.057	(-)
Pharmacy	.004	.95		1.42	.23		1.47	.22	
Mod priv	17.52	.00003	+	11.47	.0007	+	7.93	.005	+
Public	27.62	.00000	+	22.79	.00000	+	8.37	.0038	+
Non-govt.	6.10	.014	-	5.85	.016	-	1.00	.32	
Unqualified	30.71	.00000	+	12.00	.0005	+	19.66	.00001	+
Homeopath	.48	.49		4.009	.045	-	.80	.37	
Traditional	.92	.34		.22	.64		.57	.45	

* Categories of 'number of rooms': 1; 2; more than 2.
** Dir = direction of association: + = more used, the higher the number of rooms.

D. HOUSE STRUCTURE

The same categories of quality of construction materials for roofs, walls, and floors will be used here as those used in Part A of this Working Paper on the illness incidence. If the use of a particular health-care option is larger when the roof, wall, or floor materials are of a better quality, the association is termed positive.

1. ROOF

Fig. 35 shows several trends in the use of health-care options, particularly in severe illness, when the roof structure of the houses of the households under investigation are considered. Table 54 shows their statistical associations.

The following trends and associations are found:

- In both minor and severe illness, there are *positive* associations for home-care (moderate in minor illness, weak in severe illness), and for public care (strong in both illness conditions). In contrast, there is a strong *negative* association for non-government care;
- In severe illness, there are several more trends and associations: strong *negative* associations for wait-and-see and traditional care, and, positive associations for pharmacy and homeopathy (both strong), unqualified modern healers (moderate), and modern private care (weak).

Fig. 35: Percentage use/need ratio by house structure (roof)

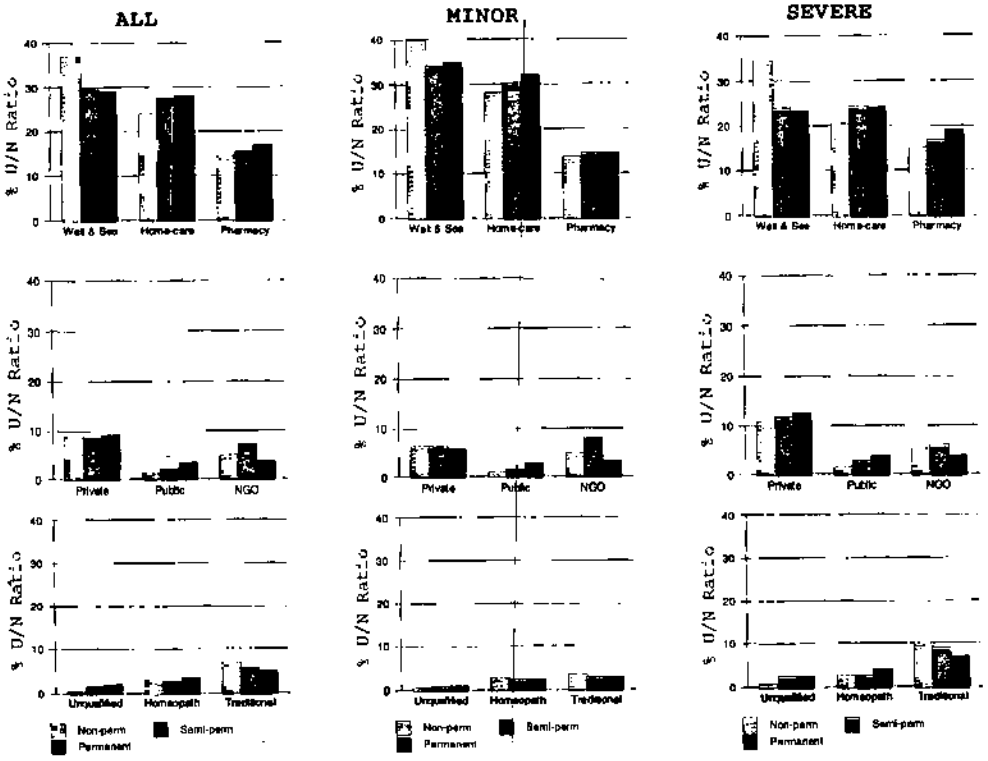


Table 54: Statistical trends in use of health-care options by structure of house (roof)

Health-care Option	House structure* : ROOF								
	ALL ILLNESSES			MINOR			SEVERE		
	x^2 trend	P value	Dir **	x^2 trend	P value	Dir **	x^2 trend	P value	Dir **
Wait-and-see	16.13	.00006	-	.31	.58		21.86	.00000	-
Home-care	5.32	.021	+	5.72	.017	+	1.80	.18	(+)
Pharmacy	7.24	.007	+	.38	.54		8.53	.004	+
Mod priv	1.19	.28		.92	.34		2.13	.14	(+)
Public	35.72	.00000	+	19.80	.00001	+	14.85	.0001	+
Non-govt.	54.29	.00000	-	44.72	.00000	-	12.79	.0004	-
Unqualified	9.02	.003	+	2.93	.087		4.64	.031	+
Homeopath	6.47	.011	+	.010	.92		9.02	.003	+
Traditional	6.80	.009	-	.073	.79		11.75	.0006	-

* House structure = categories of material = non-permanent/semi-permanent/permanent.
** Dir = direction of association: + = more used when better construction material.

2. WALL

A fairly similar picture is observed as the one for the roof structure, when the wall structure of slum dwellers' houses is considered (Fig. 36, graphical representation, and Table 55, statistical associations).
The following trends and associations are found:

- In both minor and severe illness cases, there is a *positive* association for pharmacies (weak in minor illness, strong in severe illness), and *negative* associations for wait-and-see (strong in both the illness conditions) and for traditional care (weak in minor illness and moderate in severe illness);
- In minor illness, there are further positive associations for homeopathy (strong), home-care (moderate) and non-government care (weak), and a weak negative association for modern unqualified healers;
- In severe illness, ther are further weak positive associations for modern private care and public care.

Fig. 36: Percentage use/need ratio by house structure (wall)

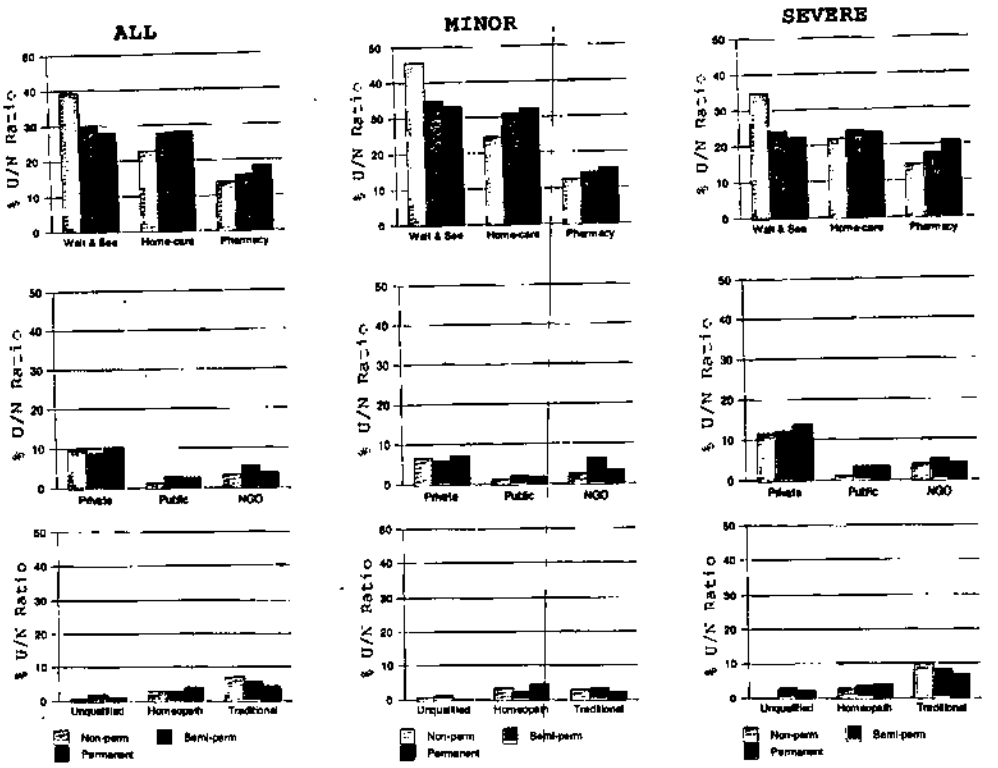


Table 55: Statistical trends in use of health-care options by structure of house walls

Health-care Option	House structure* : WALL								
	ALL ILLNESSES			MINOR			SEVERE		
	χ^2 trend	P value	Dir **	χ^2 trend	P value	Dir **	χ^2 trend	P value	Dir **
Wait-and-see	24.94	.00000	-	10.70	.001	-	20.13	.00001	-
Home-care	5.31	.021	+	5.69	.017	+	.22	.64	
Pharmacy	11.02	.0009	+	2.35	.13	(+)	10.53	.002	+
Mod priv	1.82	.18	(+)	1.12	.29		1.84	.18	(+)
Public	2.16	.14	(+)	.05	.82		3.33	.07	(+)
Non-govt.	1.16	.28		2.17	.14	(+)	.016	.90	
Unqualified	.007	.94		2.70	.10	(-)	1.27	.26	
Homeopath	5.98	.014	+	7.88	.005	+	.99	.32	
Traditional	10.50	.001	-	2.98	.084	(-)	5.60	.018	-

* House structure = material categories = non-permanent/semi-permanent/permanent

** Dir = direction of association: + = more used when better construction material.

3. FLOOR

Fig. 37 shows several trends in the use of health-care options, particularly in severe illness, when the structure of the house floor are considered. Table 56 details their statistical associations.

The following trends and associations may be identified:

- In both minor and severe illness conditions, strong *positive* associations are found for public and non-government care, and *negative* associations for wait-and-see (strong) and traditional care (weak);
- In minor illness cases, there is further a weak positive association for pharmacies. In severe cases, there are further weak positive associations for modern private care and modern unqualified healers.

In summary, all three the components of the house structure, i.e., roof, wall, and floor, show similar patterns of association between the quality of construction materials and the health-care option use. Where statistical associations can be found, there are exceptions for only two health-care options:

- for non-government care: the direction of the trend is strongly negative for the roof, and positive for the other two house structure components (for the wall it is weakly positive, whereas for the floor, it is strongly positive); and
- for unqualified modern healers: the direction of the trend is moderately positive for the roof and weakly positive for the floor (in severe illness), but for the wall weakly negative (in minor illness).

Fig. 37: Percentage use/need ratio
by house structure (floor)

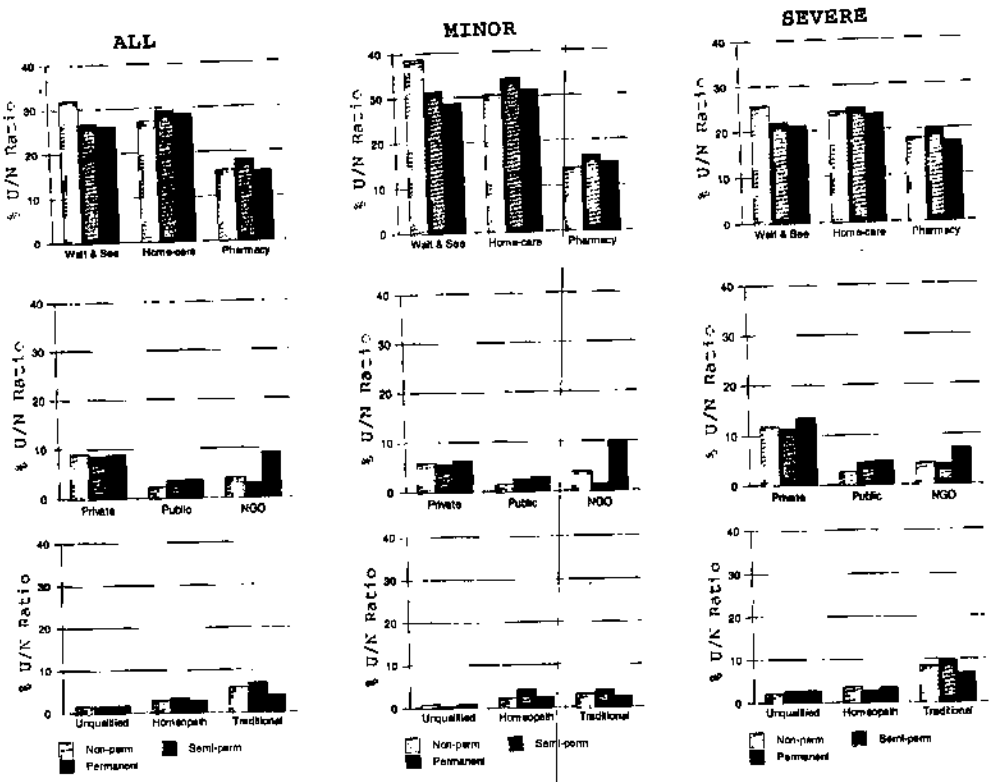


Table 36: Statistical trends in use of health-care options by structure of house floor

Health-care Option	House structure* : FLOOR								
	ALL ILLNESSES			MINOR			SEVERE		
	x trend	P value	Dir **	x trend	P value	Dir **	x trend	P value	Dir **
Wait-and-see	53.66	.0000	-	79.01	.00000	-	14.06	.0002	-
Home-care	4.17	.041	+	1.32	.25		.12	.73	
Pharmacy	.000	.99		2.47	.12	(+)	.32	.57	
Mod priv	.16	.69		.66	.42		1.79	.18	(+)
Public	26.48	.0000	+	15.97	.00006	+	19.87	.00001	+
Non-govt.	147.9	.00000	+	119.84	.00000	+	26.73	.00000	+
Unqualified	.067	.80		.01	.92		2.78	.095	(+)
Homeopath	.090	.76		.66	.42		.21	.65	
Traditional	18.03	.00002	-	2.12	.15	(-)	3.64	.056	(-)

* House structure = material categories = non-permanent/semi-permanent/permanent

** Dir = direction of association: + = more used when better construction material.

E. HOUSEHOLD ASSETS

An association between each type of household asset and the use of a given health-care option is termed hereunder 'positive,' when the use of the health option is larger, if the household owns more of the given household asset.

1. ALUMINIUM COOKING POTS

Fig. 38 shows several trends in the use of health-care options, when the number of aluminium cooking pots owned by the household are considered. Table 57 shows their statistical associations.

The following trends and associations may be identified:

- In both minor and severe illness conditions, there are strong *positive* associations for modern private and public health-care (except for the latter in minor illness, where the association is moderate);
- In minor illness conditions, there are further positive associations for home-care (moderate) and for unqualified modern healers (weak), and a strong negative association for wait-and-see;
- In severe illness conditions, there are further weak negative associations for home-care (contrary thus to the direction of the association for minor illness cases), pharmacies, and homeopathy.

Fig. 38: Percentage use/need ratio by fuel for cooking purposes

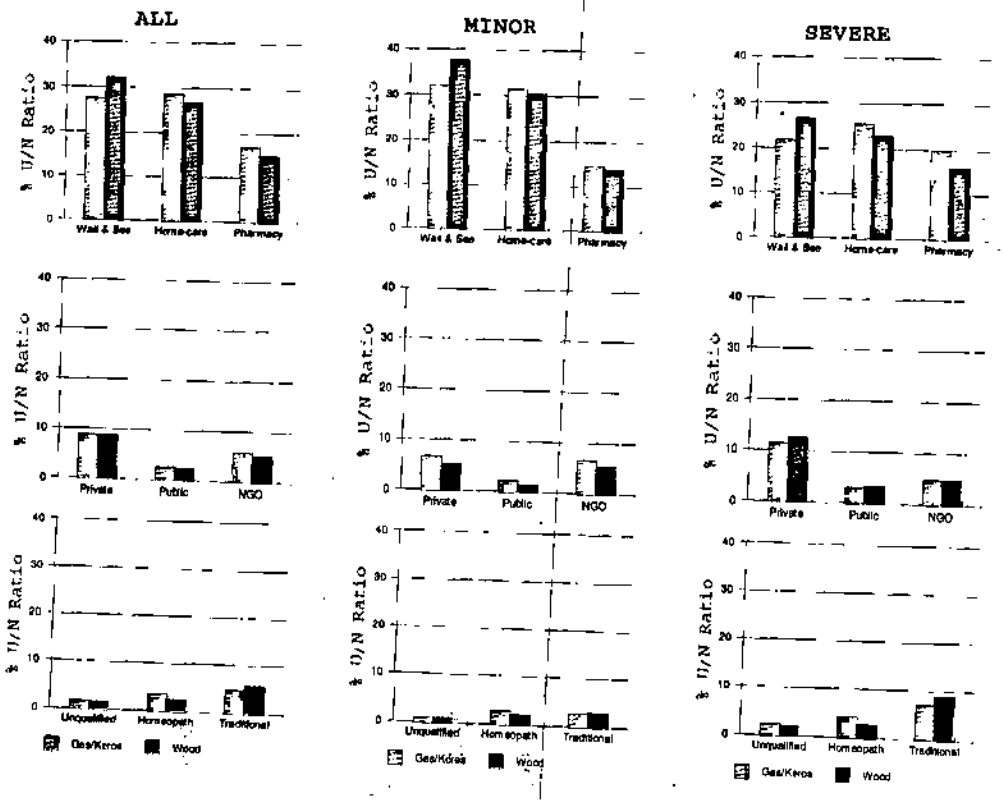


Table 57: Statistical trends in use of health-care options by number of aluminium cooking pots owned

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	χ^2 trend*	P value	Dir **	χ^2 trend*	P value	Dir **	χ^2 trend*	P value	Dir **
Wait-and-see	12.74	.0004	-	15.79	.00007	-	.95	.33	
Home-care	.001	.97		4.11	.042	+	3.42	.064	(-)
Pharmacy	2.85	.092	(-)	1.01	.31		2.34	.13	(-)
Mod priv	27.42	.00000	+	8.40	.004	+	16.05	.00006	+
Public	14.97	.0001	+	5.93	.015	+	8.15	.004	+
Non-govt.	.001	.98		.054	.82		.14	.71	
Unqualified	2.78	.096	(+)	2.47	.12	(+)	.63	.43	
Homeopath	.74	.39		.11	.75		2.25	.13	(-)
Traditional	.85	.36		.72	.40		.04	.84	

* Categories: 0/1-5/6-10/11-15/>15 aluminium cooking pots.
** Dir = direction of association: + = more used when owning more cooking pots.

2. BED

Fig. 39 shows a number of trends in the use of health-care options, when the variable 'beds owned by the household' is considered. Table 58 details their statistical associations.

The following trends and associations may be identified:

- In both minor and severe illness cases, there is a *positive* association for modern private care (weak for minor illness, and strong for severe illness), and a *negative* association for wait-and-see (moderate for minor illness, and strong for severe illness);
- In addition, in minor illness cases, there are positive associations for home-care (weak) and public care (moderate);
- In severe illness cases, there is further a moderate negative association for traditional healers.

Fig. 39: Percentage use/need ratio by the number of beds

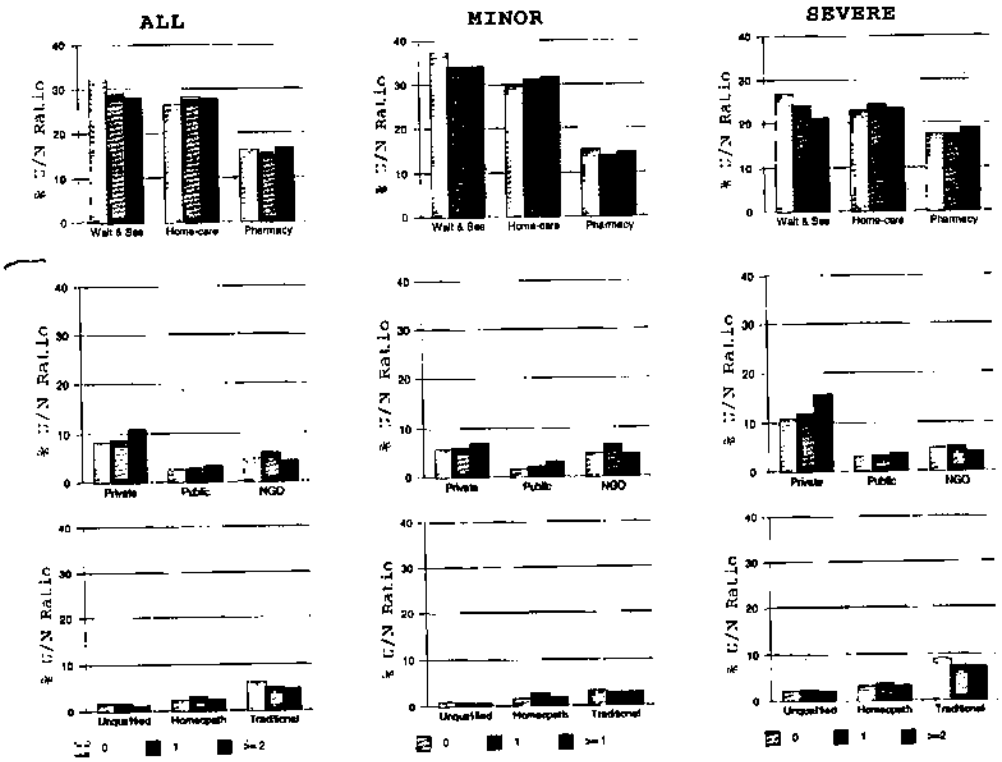


Table 58: Statistical trends in use of health-care options by number of beds owned by the household

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x^2 *	P value	Dir **	x^2 *	P value	Dir **	x^2 *	P value	Dir **
Wait-and-see	13.85	.0002	-	5.98	.01	-	13.73	.0002	-
Home-care	3.79	.051	(+)	2.12	.15	(+)	.59	.44	
Pharmacy	.00	1.00		.55	.46		.97	.32	
Mod priv	12.59	.0004	+	2.03	.15	(+)	16.00	.00006	+
Public	4.79	.029	+	7.12	.01	+	.76	.38	
Non-govt.	.004	.95		.27	.61		.37	.54	
Unqualified	.83	.36		.99	.32		.02	.89	
Homeopath	1.12	.29		1.41	.23		.33	.57	
Traditional	7.16	.007	-	.99	.32		3.72	.050	-

* Categories: 0/1/>1 bed owned.
** Dir = direction of association: + = more used when more beds owned.

3. FAN

Fig. 40 shows several trends in the use of health-care options, when the variable 'number of fans owned by the household' is considered. Table 59 details their statistical associations.

The following trends and associations may be identified:

- In both minor and severe illness, there are *positive* associations for modern private care (moderate in minor illness, strong in severe illness), public care (strong in both the illness conditions), and homeopathy (weak in minor illness, and strong in severe illness).

  There are *negative* associations for wait-and-see (strong in both the illness conditions) and traditional care (a negative, but statistically not significant trend in minor illness, and a weak association in severe illness);
- In minor illness, there are further positive associations for home-care (moderate), pharmacies (weak) and non-government care (strong);
- In severe illness, there is further a weak negative association for home-care (contrary thus to the direction in minor illness).

Fig. 40: Percentage use/need ratio
by the number of fans

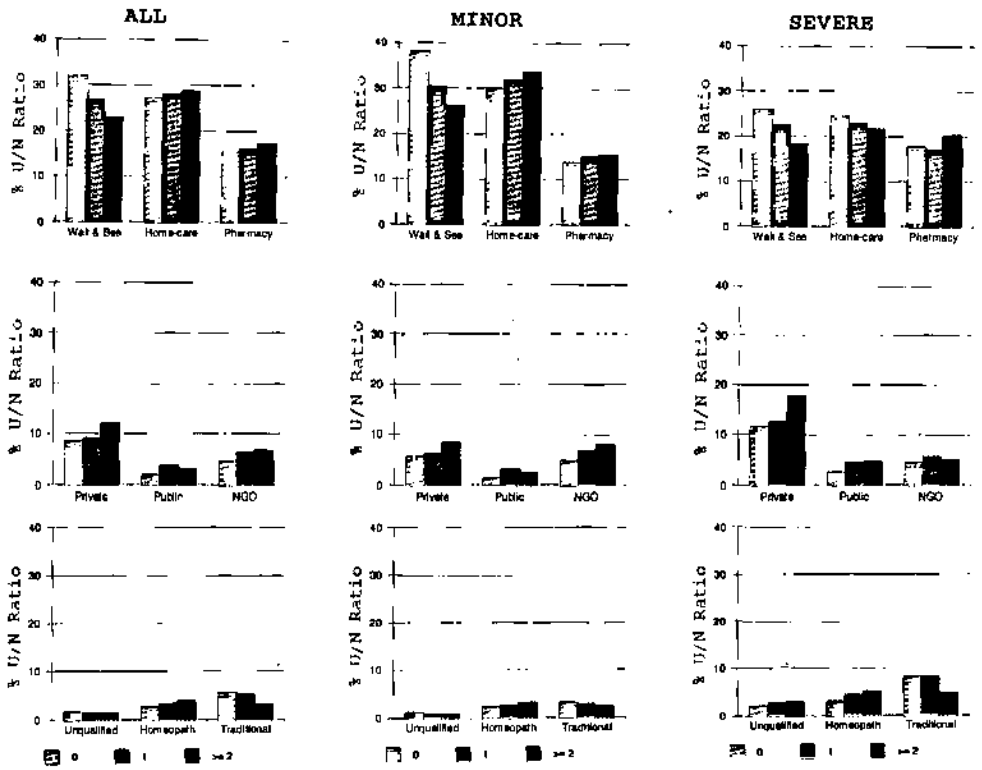


Table 59: Statistical trends in use of health-care options by the number of fans owned by the household

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x trend*	P value	Dir **	x trend*	P value	Dir **	x trend*	P value	Dir **
Wait-and-see	60.89	.00000	-	62.95	.00000	-	15.86	.000	-
Home-care	1.43	.23		4.94	.03	+	2.91	.09	(-)
Pharmacy	1.14	.29		3.13	.08	+	.04	.84	
Mod priv	8.12	.0044	+	5.48	.02	+	8.22	.004	+
Public	34.38	.00000	+	21.69	.0000	+	17.29	.0000	+
Non-govt.	20.99	.00000	+	18.26	.0000	+	1.17	.28	
Unqualified	0.02	.89		1.44	.23		1.40	.24	
Homeopath	8.89	.003	+	2.35	.12	+	9.03	.002	+
Traditional	7.01	.008	-	1.18	.28		2.30	.13	-

* Categories: 0/1/>1 fan owned.
** Dir = direction of association: + = more use the more fans owned.

4. WATCH

Fig. 41 shows several trends in the use of health-care options, when the variable 'number of watches owned by the household' is considered. Table 60 details their statistical associations.

The following trends and associations are found:

- For both minor and severe illness cases, there are strong *positive* associations for modern private and public care, and a strong *negative* association for wait-and-see;
- There is furthermore, in minor illness conditions, a strong positive association for home-care;
- In severe illness cases, there is further a strong positive association for homeopathy, and negative associations for pharmacies and traditional healers (for both a weak association), and for unqualified modern healers (moderate association).

Fig. 41: Percentage use/need ratio by the number of watches

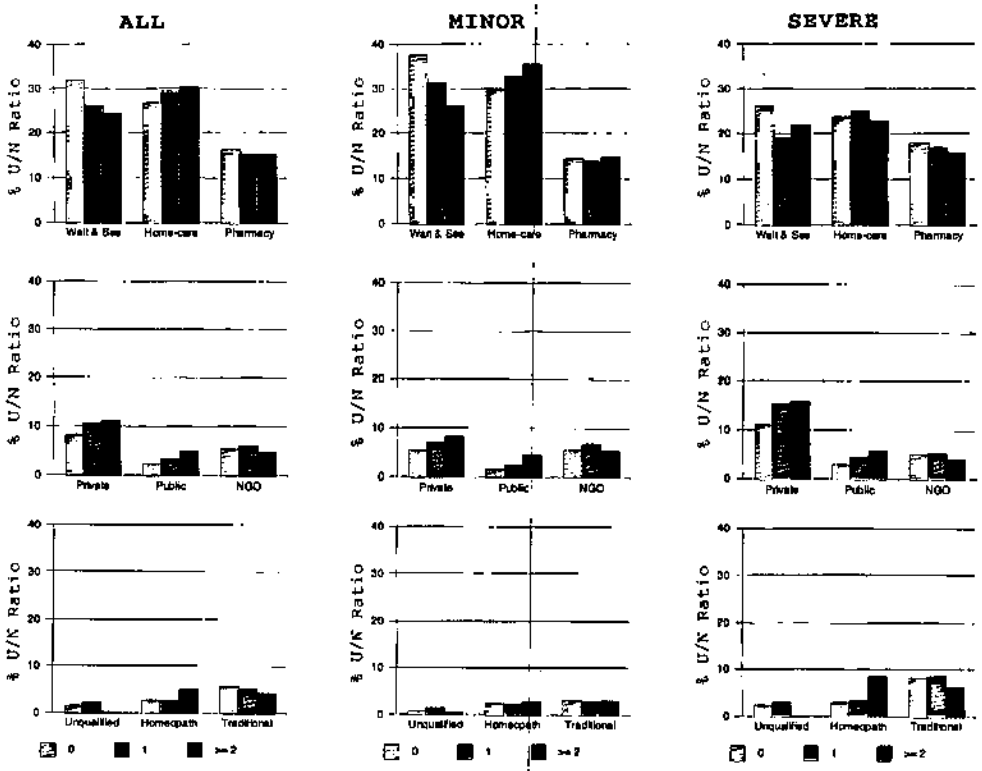


Table 60: Statistical trends in use of health-care options by the number of watches owned by the household

Health-care Option	ALL ILLNESSES			MINOR			SEVERE		
	x trend*	P value	Dir **	x trend*	P value	Dir **	x trend*	P value	Dir **
Wait-and-see	61.318	.00000	-	58.18	.00000	-	22.20	.00000	-
Home-care	15.184	.0001	+	15.87	.00007	+	.01	.92	
Pharmacy	2.260	.13	(-)	.002	.96		2.37	.12	(-)
Mod priv	26.923	.00000	+	14.68	.0001	+	25.46	.00000	+
Public	42.495	.00000	+	33.05	.00000	+	17.50	.00003	+
Non-govt.	0.007	.93		.26	.61		.63	.43	
Unqualif	4.454	.035	-	.01	.93		3.90	.048	-
Homeopath	15.592	.00008	+	.12	.73		31.71	.00000	+
Traditional	5.621	.018	-	.15	.70		2.01	.16	(-)

* Categories: 0/1/>1 watches owned.
** Dir = direction of association: + = more used when watches owned.

CONCLUSIONS: HEALTH-CARE OPTION USE BY PROXIMATE INDICATORS FOR SOCIOECONOMIC STATUS

The findings on the trends and statistical associations in health-care option use for the proximate indicators described above, generally confirm the use patterns described with household income as explanatory variable. This is not surprising in view of the associations found in HEP Working Paper No.3-98 between household income and those proximate indicators.

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PART C

DYNAMICS OF HEALTH-CARE SEEKING PROCESSES

Introduction

There are several ways of studying health-care seeking. In the previous Part of this Working Paper, findings on health-care use were presented according to a number of cultural, social, demographic and economic explanatory variables. In HEP Working Paper No.5-98, direct and indirect health-care user expenditures are discussed.

In this Part, the aim is to look into a number of aspects of the dynamics in health-care decision processes. These aspects include firstly, the role in these processes of the patients and members of their households and of the neighbouring community, and secondly, criteria and constraints that are operating in health-care choice-making. In addition, we will discuss patient's (dis)satisfaction with the treatment received, which may influence future health-care decisions. Finally, reasons are explored why - in a number of illness episodes - no further health-care was sought after the use of one (or more) health-care option(s), even if the patient was not cured.

Consequently, this part contains the following chapters:
-chapter 11: the role of different types of decision-makers;
-chapter 12: criteria and constraints operating in health-care choice-making;
-chapter 13: patient satisfaction with health-care options; and
-finally, chapter 14, the reasons why no further action was taken after the use of one or more health-care options, even if the illness was not cured.

CHAPTER 11

THE ROLE OF PATIENTS, THEIR FAMILY AND COMMUNITY MEMBERS IN THE HEALTH-CARE DECISION-PROCESS

Often patients alone do not choose what health-care option to use from among the range of available health-care options. Household members, relatives and members from the community may be involved in this process. In this Chapter, the relative contribution of patients and of these groups will be examined for a number of variables related to the patient (such as gender and marital status), to the illness (such as illness severity), and to the health-care option used (such as use sequence and type of health-care option). All these variables are discussed by age-group.

A. DECISION-MAKERS IN HEALTH-CARE CHOICE DURING CHILDHOOD ILLNESS

1. PATIENT'S AGE AND GENDER

In 90% or more of the contacts during illness episodes in childhood, *parents* take the decision on which health-care option to use (Table 61). In about two-thirds of the cases, the *mother* is the decision-maker (somewhat lower when male children are ill), whereas the father is involved in 11% to 13% and the parents together in another 13% to 15%. *Grandparents* are involved in 5% to 6% in the 0-5 year age group, and in less than half this percentage in the 6-12 year age-group. For the remaining, this picture is neither particularly affected by the child's gender, nor by the age group to which she/he belongs.

Table 61: Decision-makers in childhood illness by age and gender of the patient (All illness cases combined)

DECISION-MAKER	PATIENT'S AGE			
	0-5 YEARS		6-12 YEARS	
	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-
Mother	66	62	68	63
Father	11	13	11	13
Parents	13	15	14	15
Grandparents	5	6	2	2
Family member	1	1	3	2
Neighbour	3	3	2	3
Others	.9	.9	.4	2
Total No. contacts	3020	3026	1140	1162

2. PATIENT'S AGE, GENDER, AND ILLNESS SEVERITY

The picture in Table 62 reflects the overall pattern given for Table 61. However, there are some particularities:

- The contribution of *neighbours* and the category of *others* (which includes combinations of decision-makers), although overall not very important in percentages, doubles in severe illnesses compared to the minor illness cases;
- The somewhat lower contribution of the *mother* in case of illness of male children is here systematic for each age-group and each illness type. The role of the *father*, particularly in severe illness cases, or of the *parents together*, increases correspondingly.

Table 62: Decision-makers in childhood minor and severe illness by age and gender

DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-	-	-	-	-
Mother	68	65	68	61	64	59	69	66
Father	10	12	12	13	11	14	8	13
Parents	12	13	13	17	13	17	15	12
Grandparents	5	6	2	3	5	5	1	.6
Family member	.9	1	2	.4	2	.6	3	.6
Neighbour	2	2	2	2	4	4	4	5
Others	.8	.6	.3	.7	1	1	.7	3
Total No. contacts	1761	1605	704	685	1259	1421	436	4770

3. PATIENT'S AGE AND UTILISATION SEQUENCE

3.1. Table 63 indicates for **all illness cases** combined, that

- The *mother* is more important in the first health-care option contact compared to the subsequent contacts (70% to 72% vs. 55% to 59%);
- Correspondingly, the *father* (particularly), *neighbours* and the category of *others*, become twice as important as decision-makers in subsequent health-care option contacts than in the first one (for fathers, 17% to 18% from 7% to 8%; for neighbours, 5% from 1% to 2%; for others, 2% from less than 1%).

Table 63: Decision-makers in childhood illness by patient's age and sequence of health-care option use (All illness cases combined)

DECISION-MAKER	0-5 years		6-12 years	
	First %	sub-seq %	First %	sub-seq %
Patient	-	-	-	-
Mother	72	55	70	59
Father	7	17	8	18
Parents	13	14	15	14
Grandparents	5	6	2	1
Family member	.9	1	3	2
Neighbour	1	5	2	5
Others	.2	2	.7	2
Total No. contacts	3274	2772	1353	949

3.2. As Annex 4 indicates, the picture described above for all illness cases combined is not substantially influenced by the **severity of the illness cases.**

The differences in the pattern of decision-makers between the first and any subsequent health-care option contact may be explained by the substantial differences in the use of health-care options between the first and subsequent contacts. Tables 25a (for mild illness episodes) and 25b (for severe episodes) in Part B of this Working Paper illustrate these disparities in use. They mainly concern the dramatic decrease in the use of the wait-and-see attitude from the second contact onwards and, to a lesser extent, of home-care from the third contact, and the related increase in the use of other health-care options.
Therefore, decision-makers by the type of health-care option will be discussed in the next section.

4. PATIENT'S AGE, GENDER AND HEALTH-CARE OPTION

If the type of health-care option is considered, the picture shows the following (all figures in parentheses in Tables 64a to 64i are derived from less than 50 observations. The findings relating to these small absolute numbers, presented hereunder, should, thus, be taken with caution):

- *Mothers* are by far the most important decision-maker, when wait-and-see, home-care and non-government care is chosen. In two-third to three-fourth of the contacts, she is the only decision-maker, and in concertation with the father in another 10% to 15% of the contacts;
- *Mothers* remain important decision-makers in the use of all other health-care options (between 40% and 60% depending upon the health-care option);
- The greatest involvement of *fathers* is observed for the use of pharmacies (in 20% to 40% of the contacts), of modern private care (in 15% to 25% of the contacts).

and of traditional and public care (in 5% to 20%), although the figures for the latter two, are not always high enough to draw valid conclusions. For the other health-care options, *fathers* are decision-makers in less than 10% of the cases;

- Where *fathers* are involved, and particularly, in decisions to use pharmacies and modern private care, they are often more concerned when sons are ill, especially when they are severily ill;
- *Parents together* take the decision in a significant way only for modern private care (between 20% and 30% of the contacts) and for public care (between 15% and 40% of the contacts). Unfortunately, the latter figures are too small to validly draw conclusions;
- Overall, *grandparents*, *other family members*, and *neighbours* are less involved in decision-making on health-care. Grandparents and neighbours, however, intervene in decision-making, particularly when traditional healers are chosen for children aged less than five years (each in 10% to 15% of the contacts). Other family members and all combinations of possible decision-makers are almost negligible as sources in health-care decision-making.

Table 64a: Decision-makers in childhood minor and severe illness, when wait-and-see is used

Wait-and-see	MINOR ILLNESS				SEVERE ILLNESS			
DECISION-MAKER	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-	-	-	-	-
Mother	79	80	75	71	80	76	82	85
Father	4	6	9	6	5	6	3	4
Parents	12	9	11	17	9	15	12	9
Grandparents	3	4	2	2	4	3	3	-
Family member	.6	.5	3	3	1	.6	-	1
Neighbour	.8	.5	.4	.8	.6	-	-	1
Others	.2	-	-	-	-	.3	-	-
Total No. contacts	625	567	250	238	334	337	114	102

Table 64b - Decision-makers in childhood minor and severe illness, when home-care is used

Home-care	MINOR ILLNESS				SEVERE ILLNESS			
DECISION-MAKER	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-	-	-	-	-
Mother	74	72	75	67	75	69	73	76
Father	6	6	7	9	6	6	2	3
Parents	10	11	10	13	10	13	13	15
Grandparents	6	8	2	4	3	7	1	1
Family member	1	1	2	4	2	1	6	-
Neighbour	4	2	3	3	4	3	4	3
Others	.2	.2	1	.4	-	1	-	3
Total No. contacts	590	524	256	227	321	369	134	117

Table 64c: Decision-makers in childhood minor and severe illness, when pharmacies are used

Pharmacies DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-	-	-	-	-
Mother	36	32	42	34	44	40	57	45
Father	40	39	30	36	29	38	18	27
Parents	18	19	23	25	15	16	16	18
Grandparents	2	4	1	-	3	3	-	-
Family member	2	1	2	2	5	.6	3	1
Neighbour	2	3	1	1	3	2	5	7
Others	-	2	-	1	1	.6	1	1
Total No. contacts	157	155	81	85	188	176	77	73

Table 64d: Decision-makers in childhood minor and severe illness, when public care is used

Public care DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	(-)	(-)	(-)	(-)	(-)	-	(-)	(-)
Mother	(48)	(37)	(64)	(40)	(22)	49	(40)	(45)
Father	(14)	(17)	(29)	(13)	(14)	12	(10)	(18)
Parents	(26)	(14)	(7)	(33)	(43)	21	(40)	(14)
Grandparents	(7)	(9)	(-)	(7)	(8)	7	(-)	(5)
Family member	(-)	(11)	(-)	(-)	(-)	-	(-)	(-)
Neighbour	(2)	(9)	(-)	(7)	(8)	5	(-)	(5)
Others	(2)	(3)	(-)	(-)	(5)	5	(10)	(14)
Total No. contacts	(42)	(35)	(14)	(15)	(37)	57	(10)	(22)

Table 64e: Decision-makers in childhood minor and severe illness, when modern private care is used

Modern private care DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-	-	-	-	-
Mother	41	23	(31)	(41)	45	34	(55)	58
Father	30	37	(29)	(25)	18	25	(16)	20
Parents	18	29	(31)	(20)	22	30	(22)	8
Grandparents	5	9	(3)	(2)	5	5	-	2
Family member	-	1	(3)	(7)	2	.8	(4)	-
Neighbour	3	1	(3)	(2)	7	3	(2)	6
Others	2	-	-	(2)	2	2	-	6
Total No. contacts	91	82	(35)	(44)	121	128	(49)	64

Table 64f: Decision-makers in childhood minor and severe illness, when non-government care is used

Non-gov't care DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	-	-	-	-	-	-
Mother	70	72	(83)	(82)	78	66	(57)	(62)
Father	3	7	(3)	(3)	2	6	(7)	(-)
Parents	10	9	(9)	(8)	7	15	(14)	(15)
Grandparents	8	5	(6)	(3)	5	3	(7)	-
Family member	-	1	-	-	1	-	-	(4)
Neighbour	2	4	-	-	3	6	(7)	(12)
Others	7	2	-	(5)	3	4	(7)	(8)
Total No. contacts	132	122	(35)	(38)	92	109	(14)	(26)

Table 64g: Decision-makers in childhood minor and severe illness, when modern unqualified care is used

Modern unqualified DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Mother	(40)	(21)	(67)	(29)	(56)	(44)	(29)	(36)
Father	(30)	(47)	(33)	(57)	(22)	(28)	(71)	(45)
Parents	(10)	(26)	(-)	(14)	(11)	(18)	(-)	(18)
Grandparents	(-)	(-)	(-)	(-)	(11)	(8)	(-)	(-)
Family member	(10)	(5)	(-)	(-)	(-)	(-)	(-)	(-)
Neighbour	(10)	(-)	(-)	(-)	(-)	(3)	(-)	(-)
Others	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Total No. contacts	(10)	(19)	(3)	(7)	(9)	(39)	(7)	(11)

Table 64h: Decision-makers in childhood minor and severe illness, when homeopathy is used

Homeopathy DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	-	(-)	(-)	-	-	(-)	(-)
Mother	44	47	(50)	(40)	43	47	(75)	(70)
Father	23	13	(25)	(40)	20	24	(-)	(20)
Parents	10	19	(19)	(20)	25	20	(-)	(10)
Grandparents	19	11	(-)	(-)	7	6	(-)	(-)
Family member	-	5	(6)	(-)	-	-	(-)	(-)
Neighbour	5	5	(-)	(-)	3	3	(25)	(-)
Others	-	2	(-0)	(-)	3	-	(-)	(-)
Total No. contacts	62	64	(16)	(10)	61	88	(4)	(20)

Table 64i: Decision-makers in childhood minor and severe illness, when traditional care is used

Traditional care DECISION-MAKER	MINOR ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	(-)	(-)	(-)	-	-	(-)	(-)
Mother	65	(43)	(43)	(33)	54	46	(70)	(55)
Father	6	(3)	(21)	(19)	5	8	(4)	(17)
Parents	15	(8)	(7)	(29)	15	18	(11)	(5)
Grandparents	6	(24)	(7)	(5)	11	13	(4)	(-)
Family member	2	(3)	(7)	(5)	2	.9	(-)	(-)
Neighbour	6	(16)	(14)	(10)	11	14	(11)	(19)
Others	-	(3)	(-)	(-)	1	-	(-)	(5)
Total No. contacts	52	(37)	(14)	(21)	96	118	(27)	(42)

B. DECISION-MAKERS IN HEALTH-CARE CHOICE DURING ILLNESS IN ADOLESCENTS

1. GENDER AND MARITAL STATUS OF PATIENTS

Table 65 shows that, when gender and marital status are considered, there are considerable differences in decision-makers between the categories of male and female adolescent patients in 'never married' adolescents, and, between the latter and 'currently married' female adolescents.

1.1. Never married adolescents

- *Male patients* decide themselves upon which health-care option to use in about 40% more contacts than female patients (28% vs. 20%);
- While *mothers* take the decision in slightly less than 50% of the cases, *parents together* take three times more the decision in the case of sick female adolescents than of the sick male adolescents (14% vs. 5%);
- Other family members and neighbours are clearly more involved in decisions when never-married adolescents are ill than in the picture given above for children (in up to 10% of the contacts).

1.2. Currently married adolescents

- *Female patients* take decisions themselves about which health-care option to use in almost 60% of the cases, almost three times the percentages of female non-married adolescent patients. In about one-fifth of the cases her *husband* does it and in 5% of the cases her *mother-in-law*;
- The figures for the male patients are too low to draw meaningful conclusions.

Table 65: Decision-makers in adolescence illness cases by gender and marital status of the patient (All illness cases combined)

DECISION-MAKER	PATIENT'S MARITAL STATUS			
	NEVER MARRIED		CURRENTLY MARRIED	
	Fem %	Male %	Fem %	Male %
Patient	20	28	57	(20)
Mother	45	48	10	(30)
Father	10	9	3	(10)
Parents	14	5	1	(40)
Wife	-	-	-	-
Husband	-	-	19	-
Mother-in-law	-	-	5	-
Father-in-law	-	-	-	-
Grandparents	1	2	-	-
Family member	4	4	1	-
Neighbour	4	4	4	-
Others	1	.3	1	-
Total No. contacts	278	332	460	(10)

Annex 5 shows that the picture described above for all illness cases combined is similar for mild and severe illness cases.

2. DECISION-MAKERS AND USE SEQUENCE

2.1. Table 66 gives the decision-makers in the first and subsequent health-care option contact for **never married female** and **male adolescent** patients.
The data in Table 66 indicate that:

- *Mothers* are the decision-maker in about 50% of the first contacts. This only decreases for the females in any subsequent contact (to 37%);
- The *patient him/herself* is the decision-maker in one-fourth (for females) to one-third (for males) of the first contacts. These percentages are about halved in any subsequent contact. The females, thus, take clearly less decisions themselves than the male adolescents. The data suggest that this gap is filled by decisions taken by the *parents together*;
- *Fathers* are decision-makers in about 14% of the subsequent contacts, and in only 4% to 7% of the first contacts;
- *Family members* and *neighbours* are particularly involved in decision-making in subsequent contacts (from 2% in the first contacts to 5% to 6% in any subsequent contact).

Annex 6 shows that the picture described above is not substantially altered by

illness severity, except that the role of the mother is greater in severe than in mild illness cases in both the first and in any subsequent health-care option contact.

Table 66: Decision-makers during illness cases in adolescents by gender and sequence of health-care option use (All illness cases combined of never married adolescents)

DECISION-MAKER	USE SEQUENCE			
	First		Any subseq	
	Fem %	Male %	Fem %	Male %
Patient	26	35	12	21
Mother	52	49	37	48
Father	7	4	14	14
Parents	10	5	19	4
Grandparents	.7	2	2	.6
Family member	2	2	6	5
Neighbour	1	1	7	7
Others	.7	.6	2	-
Total No. contacts	152	164	126	168

2.2. For **currently married female** adolescents, Table 67 indicates that:

- *Currently married female adolescents* mostly decide themselves on which health-care option to use for the first contact (70%), but for the subsequent contact she does so in only about one-third of the contacts;
- Other decision-makers in the first health-care option contact are the *mother* and the *husband* (each about 10%). However, in subsequent contacts, the husband becomes almost as important as decision-maker as his wife, each in about one-third of the contacts. In addition, the *wife's parents* take the decision in another 20%;
- The *mother-in-law* takes the decision in about the same percentage in the first and subsequent contacts (i.e., 5%).

Table 67: Decision-makers during illness cases in adolescents by gender and sequence of health-care option use (All illness cases combined of currently married female adolescents)

DECISION-MAKER	USE SEQUENCE	
	First %	Any subseq %
Patient	71	37
Mother	8	13
Father	.7	6
Parents	1	1
Husband	12	30
Mother-in-law	4	5
Father-in-law	-	-
Grandparents	-	-
Family member	.7	.6
Neighbour	3	5
Others	-	2
Total No. contacts	278	182

Annex 6 shows that here also, the picture described above, is not particularly influenced by illness severity, except that the role of the mother and of the husband become much more important in severe illness cases in both the first and subsequent contacts (for the mother, 13% and 16% vs. 5% and 10%, and, for the husband, 18% and 35% vs. 8% and 24% respectively).

Both Tables 66 and 67 show, thus, pictures that clearly associate the type of decision-maker with utilisation sequence. As mentioned above for contacts during childhood illness, the percentage use of health-care options is very different for the first contact compared to the subsequent ones. Therefore, in the next section, decision-makers during illness of adolescents are examined for each health-care option and illness category separately.

3. DECISION-MAKERS BY HEALTH-CARE OPTION

All figures presented in Tables 68a to 68e refer to never married adolescents. The pattern for married adolescent females are presented in Tables 69a and 69b.

3.1. Most figures in Tables 68a to 68e for **never married** adolescents are too small to draw valid conclusions. Some trends may nevertheless be observed:

- Overall, never married *male* adolescents decide themselves more often than females which health-care option to use. This appears to be particularly the case for

pharmacies (55% vs. 20% to 30%) and to a lesser extent for modern private care. (14% vs. 5%) However, *female* adolescents take more often the decision when home-care is involved (26% vs. 16%);

- *Mothers* are the main decision-makers in the use of wait-and-see (especially in severe illness, about 60%) and in home-care (also about 60%);
- *Fathers* appear to become more involved as decision-makers for pharmacies (13% to 22%) and modern private care (particularly when male adolescents are ill);
- *Neighbours* appear to be more involved as decision-makers when traditional care is chosen.

Table 68a: Decision-makers in mild and severe illness by health-care option (Never married adolescents)

DECISION-MAKER	WAIT-AND-SEE				HOME-CARE			
	MILD ILLNESS		SEVERE ILLNESS		MILD ILLNESS		SEVERE ILLNESS	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	30	41	(23)	(28)	(27)	(17)	(26)	(16)
Mother	46	37	(59)	(64)	(56)	(62)	(57)	(66)
Father	13	6	-	-	(4)	(2)	(4)	(8)
Parents	7	8	(14)	(3)	(4)	(5)	(9)	(3)
Grandparents	-	4	-	-	-	(5)	-	-
Family member	2	2	(5)	(5)	(2)	(2)	-	(5)
Neighbour	2	2	-	-	(7)	(5)	-	(3)
Others	-	-	-	-	-	(2)	(4)	-
Total No. contacts	54	51	(22)	(39)	(45)	(42)	(23)	(38)

Table 68b: Decision-makers in mild and severe illness by health-care option (Never married adolescents)

DECISION-MAKER	PHARMACY				PUBLIC			
	MILD ILLNESS		SEVERE ILLNESS		MILD ILLNESS		SEVERE ILLNESS	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	(29)	(55)	(19)	(55)	-	(50)	-	(100)
Mother	(36)	(16)	(44)	(19)	(20)	-	(20)	-
Father	(18)	(13)	(22)	(13)	(20)	-	(20)	-
Parents	(14)	(3)	(7)	(3)	-	(50)	(40)	-
Grandparents	-	-	-	-	(60)	-	-	-
Family member	-	(3)	(4)	(10)	-	-	-	-
Neighbour	(4)	(10)	-	-	-	-	-	-
Others	-	-	(4)	-	-	-	(20)	-
Total No. contacts	(28)	(31)	(27)	(31)	(5)	(2)	(5)	(1)

Table 68c: Decision-makers in mild and severe illness by health-care option (Never married adolescents)

DECISION-MAKER	MODERN PRIVATE				NON-GOVERNMENT			
	MILD ILLNESS		SEVERE ILLNESS		MILD ILLNESS		SEVERE ILLNESS	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	-	(13)	(5)	(14)	-	(13)	-	-
Mother	(22)	(25)	(11)	(57)	(100)	(81)	(100)	(80)
Father	(11)	(38)	(5)	(25)	-	-	-	-
Parents	(33)	(13)	(68)	(4)	-	-	-	-
Grandparents	-	-	-	-	-	(6)	-	-
Family member	-	-	(11)	-	-	-	-	(20)
Neighbour	(33)	(13)	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
Total No. contacts	(9)	(8)	(19)	(28)	(5)	(16)	(2)	(5)

Table 68d: Decision-makers in mild and severe illness by health-care option (Never married adolescents)

DECISION-MAKER	MODERN UNQUALIFIED				HOMEOPATHY			
	MILD ILLNESS		SEVERE ILLNESS		MILD ILLNESS		SEVERE ILLNESS	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	(50)	-	(13)	(50)	-	-	-	(13)
Mother	-	(25)	(75)	(50)	-	(33)	(67)	(50)
Father	(50)	(25)	-	-	-	(33)	(33)	(37)
Parents	-	-	-	-	-	-	-	-
Grandparents	-	-	(13)	-	-	-	-	-
Family member	-	(50)	-	-	-	-	-	-
Neighbour	-	-	-	-	-	(33)	-	-
Others	-	-	-	-	-	-	-	-
Total No. contacts	(2)	(4)	(8)	(4)	0	(3)	(3)	(8)

Table 68e: Decision-makers in mild and severe illness by health-care option (Never married adolescents)

DECISION-MAKER	TRADITIONAL CARE			
	MILD ILLNESS		SEVERE ILLNESS	
	Fem %	Male %	Fem %	Male %
Patient	-	(33)	-	(6)
Mother	(50)	(33)	(32)	(61)
Father	-	-	(11)	-
Parents	-	-	(21)	(11)
Grandparents	-	-	-	-
Family member	-	-	(5)	-
Neighbour	(50)	(33)	(26)	(22)
Others	-	-	(5)	-
Total No. contacts	(2)	(3)	(19)	(18)

3.2. Tables 69a and 69b give the decision-makers during illness of **currently married female adolescents**. Although as in Table 68, the absolute figures are often too small to draw fully valid conclusions, Tables 69a and 69b seem to indicate that:

- Contrary to never married female adolescents, *currently married female* adolescents usually take decisions themselves, when wait-and-see and home-care are used;
- For the other health-care options, *husbands* appear to be the main decision-makers, often in more than half of the contacts;
- *Mothers-in-law* appear to be involved in minor illness cases, when wait-and-see or home-care is used (between 2% and 11%). In addition, there is some indication that they are also involved when traditional care is used.

Table 69a: Decision-makers in mild and severe illness by health-care option (Currently married female adolescents)

DECISION-MAKER	WAIT&SEE		HOME-CARE		PHARMACY		PUBLIC		PRIVATE	
	MILD %	SEVERE %	MILD %	SEVERE %	MILD %	SEVERE %	MILD %	SEVERE %	MILD %	SEVERE %
Patient	82	79	65	(51)	(54)	(39)	(100)	(33)	(21)	(31)
Mother	3	6	9	(17)	(5)	(6)	-	(17)	(7)	(15)
Father	-	-	4	(2)	(8)	(3)	-	-	(7)	-
Parents	2	2	-	-	(3)	-	-	-	-	-
Husband	10	12	4	(17)	(21)	(52)	-	(33)	(64)	(54)
Mother-in-law	4	2	11	(2)	(5)	-	-	(17)	-	-
Father-in-law	-	-	-	-	-	-	-	-	-	-
Grandparents	-	-	-	-	-	-	-	-	-	-
Family member	-	-	3	-	-	-	-	-	-	-
Neighbour	-	-	4	(11)	-	-	-	-	-	-
Others	-	-	-	-	(5)	-	-	-	-	-
Total No. contacts	105	52	75	(47)	(39)	(31)	(1)	(6)	(14)	(26)

Table 69b: Decision-makers in mild and severe illness by health-care option (Currently married female adolescents)

DECISION-MAKER	NON-GOV'T		UNQUALIF		HOMEOPATHY		TRADITION	
	MILD %	SEVERE %	MILD %	SEVERE %	MILD %	SEVERE %	MILD %	SEVERE %
Patient	(80)	-	-	-	-	(33)	(13)	(22)
Mother	-	(50)	-	(33)	(60)	(33)	(13)	(22)
Father	(20)	-	(25)	-	(20)	-	-	-
Parents	-	-	-	-	-	(11)	-	-
Husband	-	(50)	(50)	(67)	(20)	(11)	(50)	(4)
Mother-in-law	-	-	-	-	-	-	-	(17)
Father-in-law	-	-	-	-	-	-	-	-
Grandparents	-	-	-	-	-	-	-	-
Family member	-	-	-	-	-	-	-	(4)
Neighbour	-	-	-	-	-	(11)	(25)	(26)
Others	-	-	(25)	-	-	-	-	(4)
Total No. contacts	(10)	(2)	(4)	(3)	(5)	(9)	(8)	(23)

C. DECISION-MAKERS IN HEALTH-CARE CHOICE DURING ILLNESS IN ADULTS

1. GENDER AND MARITAL STATUS OF THE PATIENT

Table 70 shows the following particularities, when patient's gender and marital status are considered.

1.1 Never married adults

- The *patients* take in about half of the cases themselves the decisions about health-care option use, irrespective of gender;
- However, in about one-third of the cases, *family members* take the decision when the patient is female, while this is only 8% for male patients. Correspondingly, particularly the *mother*, but also the *father* take more frequently the decision for male patients;
- *Neighbours* and *combinations of decision-makers* are also more involved when the patient is female (up to 6%), although they are, overall, much less important.

1.2. Currently married adults

- When ill, over 80% of the male and 70% of the female *patients* take themselves decisions about health-care option choice;
- *Husbands* take decisions for their wives in twice as much cases as *wives* for their husbands (17% vs. 9%);
- The other decision-makers intervene in similar ways for male and female adults.

1.3. Widowed females

As mentioned in HEP Working Paper No.3-98, there are no male widows and 14 female widows.

- When *widowed adult women* are ill, they take in more than 80% of the contacts the decision for health-care option use themselves;
- The remaining decisions are taken by *family members*, *neighbours* (6% each) and *combinations of decision-makers* (3%).

1.4. Divorced/separated adults

In our study, there were 28 divorced/separated individuals, of whom 25 were females (see HEP Working Paper No.3-98)

- *Divorced/separated women*, when ill, take themselves decisions on the use of health-care options in 70% of the cases. In the remaining cases, *family members* mainly take the decisions;
- Figures for divorced/separated men are small. Nevertheless, it appears that the overall picture is similar to the one for divorced/separated women.

Table 70: Decision-makers in illness cases of adults by gender and marital status of the patient (All illness cases combined)

DECISION-MAKER	PATIENT'S MARITAL STATUS							
	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED		DIVORCED/ SEPARATED	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	47	56	71	81	82	-	70	(56)
Mother	9	21	4	3	2	-	5	-
Father	4	8	.6	.3	1	-	.6	-
Parents	4	4	.4	.6	-	-	.4	-
Wife	-	-	-	9	-	-	-	-
Husband	-	-	17	-	-	-	-	-
Mother-in-law	-	-	.9	.7	1	-	-	-
Father-in-law	-	-	.1	.1	-	-	-	-
Grandparents	-	-	.1	.2	-	-	-	-
Family member	31	8	2	2	6	-	19	(44)
Neighbour	4	1	3	2	6	-	2	-
Others	2	1	2	2	3	-	2	-
Total No. contacts	55	208	3562	2376	109	0	491	(32)

Annex 7 indicates that some particularities appear, when the severity of illness is further considered:

- The *husbands* of currently married female adults take more often the decision in severe than in mild illness cases (in 20% vs. 14% of the contacts);
- *Mothers-in-law* are almost not involved in decision-making, irrespective of illness severity;
- Other family members, neighbours and combinations of decision-makers overall are more involved in decision-making in severe illness cases, except in illness of divorced/separated women, where they are involved in 20% to 25% of the contacts in both mild and severe illness cases.

2. DECISION-MAKERS AND UTILISATION SEQUENCE

2.1. Never married female and male adults

When the decision-makers for the first and any subsequent health-care option contacts are examined separately (Table 71), then the following may be observed:

- Female and male (although for the latter, the absolute figures are small) never married adults tend to decide *themselves* in about 20% less contacts in any subsequent health-care option use than in first contacts (44% and 51% for subsequent contacts vs. 50% and 62% in first contacts);
- In subsequent contacts, this gap is about equally filled by the *mother* and *family*

members, and to a lesser extent by neighbours.

Table 71: Decision-makers during illness cases in adults by gender and sequence of health-care option use (All illness cases combined of never married adults)

DECISION-MAKER	UTILISATION SEQUENCE			
	First		Any subseq	
	Fem %	Male %	Fem %	Male %
Patient	(50)	62	(44)	51
Mother	(11)	20	(7)	22
Father	(4)	5	(4)	10
Parents	(4)	6	(4)	3
Grandparents	–	–	–	–
Family member	(32)	5	(30)	10
Neighbour	–	–	(7)	3
Others	–	2	(4)	1
Total No. contacts	(28)	99	(27)	109

2.2. **Currently married adults**

Table 72 suggests the following in illness cases of currently married adults, when the patient's gender and sequence of health-care option use are considered:

- The *patients* take in about 85% of the first contacts the decision themselves about which health-care option to use. This percentage dramatically drops in females to slightly more than 50% of any subsequent contact, while for males it only drops to 76%;
- Consequently, there is in subsequent health-care contacts during illness of females, a 3.5 times increase of the involvement of the *husband* to 28% of the contacts (vs. 8% in the first contacts). In contrast, decision-making by the *wives* of sick male adults only increases by 50% from 7% in the first contacts to 11% in subsequent contacts;
- Involvement of the *mother*, *neighbours*, *family members* and *combinations of decision-makers* is also somewhat higher in subsequent contacts, although none of these categories reaches more than 4% and 6% of the total number of first and subsequent contacts respectively.

Table 72: Decision-makers during illness cases in adults by gender and sequence of health-care option use (All illness cases combined of currently married adults)

DECISION-MAKER	UTILISATION SEQUENCE			
	First		Any subseq	
	Fem %	Male %	Fem %	Male %
Patient	84	86	54	76
Mother	3	2	6	3
Father	.3	.2	.9	.5
Parents	.4	.3	.4	.8
Wife	-	7	-	11
Husband	8	-	28	-
Mother-in-law	1	.7	.7	.7
Father-in-law	-	-	.3	.2
Grandparents	.1	.2	.1	.1
Family member	1	1	2	3
Neighbour	1	.6	5	4
Others	.5	.9	3	2
Total No. contacts	1951	1276	1611	1100

2.3. Widowed and divorced/separated female adults

Table 73 gives details on decision-makers when widowed and divorced/separated female adults are ill. One observes that:

- *Widowed female* adults:
  Ill widowed female adults decide themselves in 86% of the first contacts which health-care option to use. This tends to be lower (the percentage drops to 74%) in subsequent health-care contacts, the gap being filled particularly by neighbours;
- *Divorced/separated female* adults:
  A similar pattern is seen as for widowed female adults. However, the gap is now filled by family members and to a lesser extent neighbours.

Table 73: Decision-makers during illness cases in widowed and divorced/separated female adults by sequence of health-care option use (All illness cases combined)

DECISION-MAKER	WIDOWED		DIVORCED/ SEPARATED	
	First %	Any subseq %	First %	Any subseq %
Patient	86	(74)	80	59
Mother	3	-	4	6
Father	2	-	.8	.4
Parents	-	-	.8	-
Husband	-	-	.4	.4
Mother-in-law	2	-	-	-
Grandparents	-	-	-	-
Family member	5	(7)	12	28
Neighbour	2	(14)	.4	4
Others	2	(5)	2	2
Total No. contacts	66	(43)	265	226

3. DECISION-MAKERS BY HEALTH-CARE OPTION IN ADULT ILLNESS

Tables 74a to 74i illustrate the following on type of decision-makers, when patient's gender, marital status and type of health-care option are taken into account:

3.1. Never married adults

- In this group, the absolute figures are often small. Therefore, comments are given on the health-care options which have for females and males combined more than 25 observations. This is the case for wait-and-see, home-care, pharmacies and modern private care;
- *Patients* take decisions themselves in the majority of health-care contacts, except for home-care in illness of male adults. In the latter case, the patient and his mother each are involved in about one third of the contacts. Mothers may be involved so much, because our data indicated that never married adults, particularly males, are on average younger than married adults;
- For the same reason, overall, parents appear to be more involved, when a male never married adult is ill.

3.2. Currently married adults

- *Patients* are the main decision-makers for all health-care options, except modern private care. However, for all options, *males* are clearly taking more frequently decisions on their own than *females*, except for wait-and-see, home-care and non-government care. The biggest differences are seen for pharmacies (91% vs. 54%),

modern private (77% vs. 50%) and public care (78% vs. 39%). The opposite situation is observed for wait-and-see (where the percentages are similar for female and male patients and more than 90%), home-care (slightly more by females and about 75%), and non-government care (clearly more by females, and also about 75%);

- The role of the *husband* in decision-making during their wives' illnesses is the smallest when wait-and-see, home-care or non-government care is chosen. It is clearly the biggest for modern private care, where husbands are the main decision-maker (45%). For the remaining health-care options, i.e, pharmacies, public care, unqualified modern care, homeopathy and traditional care, the husband intervenes in 22% to 34% of the contacts;
- *Wives* are the most involved in decision-making for their sick husbands when non-government care, home-care, traditional care or unqualified care is used (23%, 19%, 18% and 16% of the contacts respectively), and the least, when wait-and-see or pharmacies are used (3% each);
- *Mothers, fathers*, or *parents together* are, overall, only marginally involved (up to 7% of the contacts). However, they are more involved for public care (12%), and for modern unqualified and traditional care (10% each);
- *Family members, neighbours* and *others* are most involved when traditional care is used (23% in illness of females, 18% in illness of males), and the least when wait-and-see is used (less than 1%) or home-care (8% in illness of females, 5% in illness of males). They are also of some importance in illness of females for modern private and public care (13% and 14%) and unqualified care (11%), and in illness of both females and males for public care (13% and 11%).

3.3. Widowed female adults

Almost all the absolute figures are too small to draw any meaningful conclusion. Only for wait-and-see and to a lesser extent pharmacies, the figures are of some magnitude. They appear to point out that widowed females are mainly dependent upon themselves for decision-making about which health-care option to choose.

3.4. Divorced/separated adults

Only for wait-and-see, home-care, pharmacies, modern private care and to a lesser extent non-government care, the absolute figures are important enough to be discussed:

- Although the *divorced and separated female adults* are for all these health-care options the main decision-makers when they are sick, *family members*, are - as already mentioned above - in several instances the decision-makers. This is particularly the case for pharmacies and modern private care (about one-third of the contacts for each), followed by non-government care and home-care (16% to 17%), and wait-and-see (11%);
- *Neighbours* and *others* are of some importance for modern private care (11%) and pharmacies (7%), and the parents to some extent for modern private care (9%).

Table 74a: Decision-makers in adult illness by marital status and gender, when wait-and-see is used

Wait-and-see DECISION-MAKER	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(33)	(63)	92	94	(93)	85
Mother	(25)	(17)	2	2	(2)	4
Father	-	(10)	.2	-	-	-
Parents	-	(4)	.4	.3	-	-
Wife	-	-	-	3	-	-
Husband	-	-	4	-	-	-
Mother-in-law	-	-	.6	.2	-	-
Grandparents	-	-	.2	-	-	-
Family member	(42)	(6)	.6	.7	(2)	11
Neighbour	-	-	.1	-	-	-
Others	-	-	.2	-	(2)	-
Total No. contacts	(12)	(48)	1141	587	(45)	146

Table 74b: Decision-makers in adult illness by marital status and gender, when home-care is used

Home-care DECISION-MAKER	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(50)	34	76	69	(89)	72
Mother	(7)	36	4	5	-	7
Father	-	12	.6	.2	-	-
Parents	(7)	2	.2	.7	-	2
Wife	-	-	-	19	-	-
Husband	-	-	10	-	-	.8
Mother-in-law	-	-	.9	1	-	-
Father-in-law	-	-	-	-	-	-
Grandparents	-	-	-	.7	-	-
Family member	(36)	12	2	2	(6)	17
Neighbour	-	2	5	2	(6)	2
Others	-	2	.9	.7	-	.8
Total No. contacts	(14)	50	875	588	(18)	124

Table 74c: Decision-makers in adult illness by marital status and gender, when pharmacies are used

Pharmacies DECISION-MAKER	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(53)	(78)	54	91	(68)	58
Mother	-	(12)	3	1	(5)	3
Father	(6)	(2)	.9	-	-	-
Parents	(6)	(2)	.7	.3	-	-
Wife	-	-	-	3	-	-
Husband	-	-	34	-	-	1
Mother-in-law	-	-	.7	.3	(5)	-
Father-in-law	-	-	-	.2	-	-
Grandparents	-	-	-	-	-	-
Family member	(35)	(4)	3	2	(9)	31
Neighbour	-	-	3	1	(5)	4
Others	-	(2)	1	.6	(9)	3
Total No. contacts	(17)	(49)	590	631	(22)	98

Table 74d: Decision-makers in adult illness by marital status and gender, when public care is used

Public care DECISION-MAKER	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(100)	-	50	(77)	-	(75)
Mother	-	(33)	10	-	-	(6)
Father	-	-	-	-	-	-
Parents	-	(67)	2	-	-	-
Wife	-	-	-	(7)	-	-
Husband	-	-	25	-	-	-
Mother-in-law	-	-	1	(2)	-	-
Father-in-law	-	-	-	(2)	-	-
Grandparents	-	-	1	-	-	-
Family member	-	-	1	-	-	-
Neighbour	-	-	4	(2)	(100)	(13)
Others	-	-	7	(9)	-	(6)
Total No. contacts	(2)	(3)	104	(44)	(2)	(16)

Table 74e: Decision-makers in adult illness by marital status and gender, when modern private care is used

Modern private care	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
DECISION-MAKER	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(40)	(65)	39	78	(88)	49
Mother	–	(15)	5	1	–	5
Father	(20)	–	2	.7	(13)	4
Parents	–	(4)	.3	1.	–	–
Wife	–	–	–	5	–	–
Husband	–	–	45	–	–	–
Mother-in-law	–	–	1	1	–	–
Father-in-law	–	–	.3	–	–	–
Grandparents	–	–	.3	–	–	–
Family member	(20)	(12)	2	4	–	32
Neighbour	–	–	4	2	–	4
Others	(20)	(4)	2	7	–	7
Total No. contacts	(5)	(26)	341	286	(8)	57

Table 74f: Decision-makers in adult illness by marital status and gender, when non-government care is used

Non-gov't care	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
DECISION-MAKER	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	–	(25)	75	(61)	(80)	(76)
Mother	(100)	(25)	6	–	–	(8)
Father	–	(25)	–	(2)	–	–
Parents	–	–	–	–	–	–
Wife	–	–	–	(23)	–	–
Husband	–	–	11	–	–	–
Mother-in-law	–	–	2	–	–	–
Father-in-law	–	–	–	–	–	–
Grandparents	–	–	–	–	–	–
Family member	–	–	–	(5)	–	(16)
Neighbour	–	(25)	.6	(7)	(20)	–
Others	–	–	6	(2)	–	–
Total No. contacts	(1)	(4)	174	(44)	(5)	(25)

Table 74g: Decision-makers in adult illness by marital status and gender, when unqualified modern care is used

Unqualified modern care	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
DECISION-MAKER	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	-	(25)	55	(68)	(50)	(75)
Mother	-	(25)	8	(3)	-	-
Father	-	(25)	2	(3)	-	-
Parents	-	-	-	-	-	-
Wife	-	-	-	(16)	-	-
Husband	-	-	31	-	-	-
Mother-in-law	-	-	-	-	-	-
Father-in-law	-	-	2	-	-	-
Grandparents	-	-	-	-	-	-
Family member	-	(25)	-	(3)	(50)	(25)
Neighbour	-	-	2	(5)	-	-
Others	-	-	2	(3)	-	-
Total No. contacts	-	(4)	64	(38)	(2)	(4)

Table 74h: Decision-makers in adult illness by marital status and gender, when homeopathy is used

Homeopathy	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
DECISION-MAKER	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(100)	(100)	61	(72)	(100)	(57)
Mother	-	-	2	-	-	(14)
Father	-	-	-	(8)	-	(14)
Parents	-	-	2	(4)	-	-
Wife	-	-	-	(12)	-	-
Husband	-	-	23	-	-	-
Mother-in-law	-	-	-	-	-	-
Father-in-law	-	-	2	-	-	-
Grandparents	-	-	-	-	-	-
Family member	-	-	3	(4)	-	(14)
Neighbour	-	-	8	-	-	-
Others	-	-	2	-	-	-
Total No. contacts	(1)	(4)	66	(25)	(2)	(7)

Table 74i: Decision-makers in adult illness by marital status and gender, when traditional care is used

Traditional care / DECISION-MAKER	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED	DIVORCED/ SEPARATED
	Fem %	Male %	Fem %	Male %	Fem %	Fem %
Patient	(33)	(45)	43	54	(40)	(64)
Mother	–	(25)	9	6	–	–
Father	–	(10)	.5	.8	–	–
Parents	–	(10)	–	.8	–	–
Wife	–	–	–	18	–	–
Husband	–	–	22	–	–	–
Mother-in-law	–	–	2	3	–	–
Father-in-law	–	–	.5	–	–	–
Grandparents	–	–	–	–	–	–
Family member	–	(5)	4	3	(20)	(29)
Neighbour	(67)	(5)	14	13	(40)	(7)
Others	–	–	5	2	–	–
Total No. contacts	(3)	(20)	207	133	(5)	(14)

CONCLUSIONS ON DECISION-MAKERS IN HEALTH-CARE CHOICE-MAKING

From the findings presented above, it becomes clear that who determines which health-care option is used during an illness episode, is dependent upon a variety of factors. They relate to the patient, such as the patient's age, gender and marital status; to characteristics of the illness, such as illness severity; and to features of the health-care option used, such as health-care option utilisation sequence, and type of health-care option.

In Part B, it was emphasized that there is differential use of health-care options with the sequence of contacts. Wait-and-see and home-care make up 90% of the first contacts in mild illness episodes (56% and 34% respectively) and 79% in severe illness episodes (51% and 28% respectively). In subsequent contacts, wait-and-see is almost nonexistent, while home-care remains a relatively important option, particularly in minor illness cases. The other categories of health-care options - a variety of modern and traditional care and homeopathy - become important as source of health-care from the second contact onwards. From the findings presented above, it is clear that for each category of health-care option, there are a few major decision-makers. Therefore, the conclusions on health-care decision-makers here will be presented by health-care option with details, where appropriate, across patients' age-groups, gender and marital status, and levels of illness severity.

1. Summarizing for the health-care options most frequently used as first contact, such as ***wait-and-see*** and ***home-care***, the decision is in the vast majority of the contacts more often taken by the mother the younger the non-married children, or, in the other cases - including the illness cases of currently married females - by the sick person her/himself.

These health-care options have in common to be free of charge or cheap (see HEP Working Paper No.5-98) and accessible even to married women, because there is no need for the females to go outside the house to apply them. However, in the case of home-care with particular food items, it is highly probable - because of the traditional customs of 'purdah' - that women, although they report to have decided themselves to use/apply home-care, still depend upon their husbands or male relatives to bring from the market the particular items to be applied in home-care.

In addition, the findings suggest that fathers for their children and husbands for their wives show little or no interest when wait-and-see or home-care is chosen, and, that grandparents are only marginally involved.

2. In contrast, for the use of ***modern health-care options***, (almost always as subsequent health-care option), the well-known dominance of males in the society becomes apparent. Particularly for the use of pharmacies, modern private, public and unqualified care, husbands decide in about 33% to 50% of the contacts during illness of their wives, and fathers (alone or together with the mothers) in about the same proportions during illness of their children. In contrast, if non-government care is used, women decide in 70% to 80% of the cases themselves when they are ill or their children.

Non-government care appears thus to be well accepted by husbands as a health-care option their wives can decide for themselves to use in case they are ill or their children. However, the findings in Part B indicate that, out of all modern qualified health-care options and pharmacies combined, non-government care only represents about 14% of the contacts during adult female illness, and about 24% in childhood illness. In Part B, it is further discussed that this may be attributed - at the exception of one or two large non-government hospitals - to the type of services offered by non-government health providers, which are quite often limited to services for mother and child health.

Finally, concerning modern health-care options, there are three particular findings. The first one is that fathers, when their sons are ill, intervene more often in the choice of pharmacies and modern private health-care (these are the two most extensively used modern health-care options). This indicates their greater interest in their sons' health problems and points at the widespread societal preference for boys, particularly in poorer sections of the population.

A second particular finding is that - as for wait-and-see and home-care - grandparents in the case of childhood illness and mothers-in-law in the case of illness of their daughters-in-law do not appear to play a major role in health-care decision-making. This may be due to the fact that, as illustrated in HEP Working Paper No.3-98, less than 10% of the slum households are composed of parents, children and grand-parents.

The third particular finding emerges from further analysis of our data. It shows that married women who are employed decide themselves to use modern health-care other than non-government care, nearly 20% more often than their non-employed counterparts (55% vs. 47%). This finding may be one example of the many changes in social interaction between spouses, brought about thanks to employment of poor urban women, resulting in their higher self-esteem and access to cash.

3. In the decision to use ***traditional health-care***, there are some particular decision-makers. Firstly, in childhood illness, grandparents and neighbours together constitute the decision-makers in up to 20% to 25% of the contacts. Secondly, in never married adolescents and currently married female adolescents, the contribution of neighbours alone may already attain this level, while in currently married adults, neighbours are in 13% to 14% of the contacts the decision-makers (compared to hardly a few percentages for each of the other health-care options).

In the case of childhood illness, decisions to use traditional care appear thus to be often influenced by older people, such as grandparents or some members of the community, who may hold more traditional opinions on treatment of illnesses. This reasoning may also hold true for the examples in the other age-groups. They all indicate that the choice for either modern or traditional care is part of generational differences in views between older and younger sections of the slum society on illnesses and the appropriateness of different health-care options to treat them.

4. Finally, the pattern of decision-makers for use of ***homeopathy*** in childhood illness is similar to the one for pharmacies and modern private care, with fathers alone or in concertation with the mothers being important decision-makers. In currently married adults again, the pattern follows that of pharmacies and modern private care.

Two special groups of adults concern the **widowed** and the **divorced or separated women**.

Although the figures for widowed women are too low to draw full conclusions by health-care option, the overall picture, nevertheless, indicates that they largely rely on themselves for decisions on which health-care option to use. Occasionally a neighbour or a family member may be involved.

Although figures are also low for several health-care options for the divorced or separated women, it appears that they take decisions mainly themselves besides relying upon family members and sometimes neighbours in 11% to 31% of the contacts.

A final overall finding is that illness severity does not influence much on the patterns of decision-makers described above, except in currently married females, where mothers and husbands are much more important decision-makers (than the women themselves) in severe illness cases.

CHAPTER 12
CRITERIA AND CONSTRAINTS OPERATING IN HEALTH-CARE DECISION-MAKING

During our survey, the respondents were asked for every health-care option contact why they did choose that health-care option. Additionally, they were asked why they did not choose each one of the other health-care options available to them. Data on these criteria and constraints operating in health-care decision-making were collected through open-ended questions. These data are examined here.

A. CRITERIA OPERATING IN HEALTH-CARE CHOICE-MAKING

The detailed tables on criteria (in Annex 8, all criteria having more than 1.5% of the responses) and summary tables (in the next pages) have been constructed for mild and severe illnesses separately, according to five main categories. These categories and their respective criteria are as follows:

1/ The health-care option is **known** to the family, or **advised** by or **heard of** from another (lay) person; the household is **used to consult** the practitioner/facility; the practitioner is a **member of the household** or a **close relative**; the patient was **sent** or **advised by the previous health-care option**.

2/ Reasons related to **perceived (lack of) service quality** of the health-care option:
-*treatment-related*: one receives good or better treatment (than from another health-care option); medicine works quickly;
-*practitioner-related*: the practitioner is good;
-*general*: the option is appropriate for children; the option was tried because the illness was not cured with the previous one; the health-care option was used to become well.

3/ **Economic** reasons:
-*direct* cost-related: no money in the household; treatment is cheap; treatment is free of charge; the household can afford it;
-*indirect* cost-related: the practitioner/facility is nearby; the work is hampered if another health-care option is used.

4/ **Illness-related** reasons:
-the option is appropriate for the illness or complaints;
-the option is appropriate for the cause of the illness;
-no treatment or medicines are needed for the illness;
-no other treatment or medicine is useful for the illness;

-the illness is not severe and/or acute;
-the illness is not so severe;
-the outcome of the illness is awaited.

5/ **Social** reasons:
the father or the husband has no time.

In many cases there were multiple responses for each health-care option contact. The total numbers of responses for each option are given in Table 75. On average, for each health-care option, a slightly lower number of responses per contact were reported for mild compared to severe illness cases. The lowest proportions are found for wait-and-see contacts in mild illness cases, and, for wait-and-see and home-care contacts in severe illness cases.

Table 75: Number of responses on criteria for use of health-care options

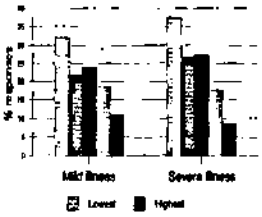
Health-care option	Minor illness cases			Severe illness cases		
	No. responses (1)	No. contacts (2)	(1)/(2)	No. responses (1)	No. contacts (2)	(1)/(2)
Wait-and-see	4018	3009	1.34	2401	1893	1.27
Home-care	4049	2655	1.53	2628	1846	1.42
Pharmacy	2044	1231	1.66	2204	1366	1.61
Modern private	928	513	1.81	1678	936	1.79
Public	340	173	1.97	404	250	1.62
Non-government	882	490	1.80	641	373	1.72
Unqualified	113	74	1.53	260	170	1.53
Homeopath	358	199	1.80	433	262	1.65
Traditional	455	249	1.83	1035	615	1.68

Tables 76 and 77 on pages 133 and 134 summarise by health-care option, the reported reasons for their use. Overall, they show that (1) the relative importance of the categories of criteria is related to the type of health-care option; (2) there are similarities in relative importance for minor and severe illness cases.
The detailed data on reported criteria by health-care option and by illness severity indicate the following:

- For **wait-and-see** and **home-care**, the main category is *illness-related* criteria (57%), but *economic* reasons are also important, particularly for wait-and-see (20%), where they are mainly related to the absence of money in the household to use/purchase other health-care options. As Fig. 42 indicates, economic reasons in wait-and-see are clearly associated with household income: the poorer the household, the more economic criteria are reported. The percentage contribution of these criteria reaches a staggering more than one-third of all reported criteria in

the lowest income-quintile for severe illnesses (compared to only 9% in the highest quintile; in mild illnesses the percentages are 32% and 11% respectively). While not availing health-care in mild illness cases is most probably a better choice than using health-care (because most of these cases are self-resolving), it is not an appropriate option in severe cases, where in most cases (early) treatment is indicated. Fear of the higher economic consequences of treating 'severe' illness cases compared to minor ones may also delay the use of modern health-care more (often) than in minor illness cases. In addition, the two primary illness-related reasons, i.e., 'no need for treatment' and 'see the outcome of the illness' may at least partially hide the lack of money for purchasing treatment, as poor people may not want to disclose that they are poor, and thus financially unable to avail other health-care options than wait-and-see and home-care.

Fig. 42: Economic criteria for use of wait-and-see by income quintile



As a result, reported non-availability of cash as a criterion for using wait-and-see may well be more important than the percentages stated above;

- For **pharmacies**, *economic* (mainly the nearness of the pharmacy, a reference to indirect costs) and *illness-related* reasons are about equally important (about 20% for the former; for the latter, 22% and 27%), followed by *perceived service quality*-related reasons (12%);

- For **modern private care**, *perceived service quality* is the main stated reason (21% and 26%). This criterion is also an important reason for **unqualified healers** (15% and 17%);

- However, for **modern public**, **non-government** and **unqualified care**, the main stated reasons for their use are *economic* (24% and 34%) : the reason that the services are free or cheap accounts for two-thirds in it for public and non-government facilities, while for unqualified healers, it is the nearness of the option;

- For **all modern health-care options**, but particularly for public and private ones, another important reason is the fact *to know or to have been advised or heard about the provider by other people* (13% and 24%). It is indeed common knowledge that for instance, knowing staff members in public facilities is a critical factor 'to get things done'. Additionally, lower level staff may act as middlemen. Finally, people may be attracted to use a practitioner, particularly a private one, because of his/her good reputation in the community;

- For **all modern care, including pharmacies,** and to a lesser extent for homeopathy one particular illness-related criterion is of special interest in severe illness cases: the fact that the *illness is severe*. It accounts for about 10% to 15% of the stated reasons. This special reference to illness severity indicates that the respondents tend to realise that the use of modern health-care options is indicated, when the illness is really severe. This correlates with the criterion 'the illness is not so severe' reported for wait-and-see (11%), reflecting that this option may be used as long as the illness case has not become too severe. This is substantiated in Part B of this

Working Paper, where it was shown that in minor illness, wait-and-see and home-care are extensively used as first contact, but in further contacts are replaced to a high extent by other health-care options, primarily pharmacies and other (modern) health-care options.
Similarly, in minor illness cases and again particularly for **pharmacies** and now only **qualified modern care**, there is another specific reason for their use, namely 'because the illness became severe' (7% to 13%). With this reason, respondents again show that they know that modern health-care is better used, when minor illness cases become severe;

- For **homeopathy**, three categories of criteria are almost equally important: *perceived service quality* (25% and 16%, out of which 8% to 9% is accounted for by the perception that this option is good for children), *illness-related* criteria (22% and 24%), and *economic factors* (21% and 14%).
  Homeopathy is the only option, where mention is made of its appropriateness for children. In Part B, it was already highlighted that respondents prefer homeopathy for children because they believe that the diluted drugs used in homeopathy are less harmful to children than those used by modern care practitioners;

- For **traditional healers**, *illness-related* criteria account for about one-third of all reported reasons. In addition, the first category of criteria, i.e, *knowing the healer, or being advised or having heard about him, or the habit to consult him,* is also important (20% and 25%).

Another two criteria were reported for almost all health-care options in about the same proportions (See the tables in Annex 8). The first one is '*to become well*' (3% to 8% in mild, and 4% to 9% in severe illness cases, except for wait-and-see). This criterion points at the respondents' hope to be cured. Opposed to this hope stands the second criterion, namely *'not cured with the previous health-care option'* (3% to 6% in all health-care options, except for wait-and-see and home-care). This criterion reflects perceived failure of treatment with the previous health-care option. As emphasised above, particularly mild illness cases are self-resolving: the real responsibility of the provider is then to give appropriate advice that is well-understood by the patient, and, if necessary, to provide some comfort-increasing medicines. This obviously assumes that providers not only 'prescribe drugs to treat the symptom presented by the patient', but that they have the ability to create effective communication and interaction with the patient and his/her family. Some aspects of patient-healer interaction and patient satisfaction with treatment will be explored in the next Chapter of this Part.

Finally, there is one particular criterion that reflects referral from one provider to another, i.e., *'advised/sent by another practitioner'* (See Annex 8). Not surprisingly, this criterion is only found in severe illness cases and between the modern institutional health-care providers. Our survey data on referral patterns reveal that:

- Only about 10% of the contacts with government hospitals are cases referred by another health-care provider;

- Out of the 80 contacts with private clinics, 27 cases or 33% are cases referred by other health-care providers;
- Out of the 14 contacts with specialists, only 1 case occurred through referral by another health-care provider (an MB,BS doctor).

Government hospitals, private clinics and specialists are supposed to be used as referral level health-care options. The findings above suggest that particularly public hospitals and specialists are only marginally used in that capacity. Government hospitals, private clinics, and specialists function thus much more as primary care providers, a function contrary to their role as higher-level care provider.

Table 76: Summary table on criteria operating in health-care choice-making

Health-care option	Reasons for use of health-care option					
	MINOR ILLNESS	%	%	SEVERE ILLNESS	%	%
Wait-&-see	1/- and 2/-			1/- and 2/-		
	3/ No money	16.3		3/ No money	19.5	
	Free of charge	4.1	20.4	Free of charge	3.5	23.0
	*4/ No need of R/	21.2		4/ See outcome	25.3	
	See outcome	18.5		No need of R/	19.7	
	Ill not severe	12.2		Ill not so severe	11.3	56.3
	Good for illness	4.8	56.7			
	5/ Father/husband no time	2.2		5/ Father/husband no time		2.7
Home-care	1/ Known,heard of,etc		8.3	1/ Known, heard of,etc		8.9
	2/ Quality: R/		5.0	2/ Quality: R/		3.4
	3/ No money	8.6		3/ No money	8.3	
	Free/cheap	6.3		Free of charge/cheap	5.7	14.0
	HH can afford it	2.3	17.2	4/ Good for ill/compl	31.5	
	4/ Good for ill/compl.	30.6		Ill severe/acute	9.2	
	No need of R/	7.5		No need of R/	4.6	
	Ill not severe	4.5		See outcome	4.3	
	See outcome	2.9	45.5	Ill not so severe	3.1	52.7
	Illness became severe		4.8			
Phar-macy	1/ Known, heard of, etc		7.8	1/ Known, heard of, etc		10.3
	2/ Quality: R/		12.3	2/ Quality: R/		11.6
	3/ Nearby	10.4		3/ Nearby	12.0	
	Cheap	7.3		Cheap	5.1	
	Work is hampered	1.8		HH can afford it	2.0	
	HH can afford it	2.2	21.7	No money	1.8	20.9
	4/ Good for ill/compl	20.9		4/ Good for ill/compl	14.4	
	Ill not severe	1.5	22.4	Ill severe/acute	12.7	27.1
	Illness became severe		9.8			
Mod. priv	1/ Known, heard of, etc		18.1	1/ Known, heard of, etc		23.3
	2/ Quality: R/	22.4		2/ Quality: R/	17.0	
	'doctor'	3.6	26.0	'doctor'	4.5	21.5
	3/ Nearby	5.8		3/ Nearby	7.8	
	Cheap	2.9	8.7	Cheap	3.5	11.3
	4/ Good for ill/complaint		10.2	4/ Illness severe/acute	14.4	
	Illness became severe		11.2	Good for ill/complaint	6.5	20.9
Public	1/ Known, heard of, etc		24.1	1/ Known, heard of, etc		18.8
	2/ Quality: R/		10.8	2/ Quality: R/		4.7
	3/ Free/cheap	21.4		3/ Free/cheap	12.7	
	Nearby	12.1	33.5	Nearby	6.9	
	4/ Good for this illness		5.0	HH can afford it		2.5
	Illness became severe		7.4	No money	2.0	24.1
				4/ Illness severe/acute	13.1	
				Good for ill/complaint	8.9	22.0
Non-gov't	1/ Known, heard of,etc		15.9	1/ Known, heard of, etc		17.7
	2/ Quality: R/	8.5		2/ Quality: R/		11.0
	good for children	2.2	10.7	3/ Cheap/free	18.6	
	3/ Free/cheap	21.9		Nearby	7.3	25.9
	Nearby	6.7	28.6	4/ Illness severe/acute	14.4	
	4/ Good for ill/complaint		9.5	Good for ill/complaint	8.1	22.5
	Illness became severe		13.2			
Mod. unqual	1/ Known, heard of,etc		16.8	1/ Known, heard of,etc		13.1
	2/ Quality: R/	10.6		2/ Quality: R/	8.5	
	'doctor'	3.5		'doctor'	6.2	14.7
	good for children	2.7	16.8	3/ Nearby	16.9	
	3/ Nearby	18.6		Cheap	8.1	
	Cheap	9.7	28.3	Gives loan	1.9	26.9
	4/ Good for ill/complaint		8.8	4/ Illness severe/acute	13.1	
	Illness became severe		5.3	Good for ill/complaint	2.7	15.8

Homeo-path	1/ Known, heard of, etc		11.7	1/ Known, heard of,etc		19.1
	2/ Quality: R/	15.3		2/ Quality: R/	7.9	
	good for children	9.2	24.5	good for children	8.1	16.0
	3/ Free/cheap	12.2		3/ Nearby	6.2	
	Nearby	8.7	20.9	Cheap	7.7	13.9
	4/ Good for ill/complaint		15.7	4/ Good for ill/compl	13.9	
				Illness severe/acute	7.2	
	Illness became severe		5.9	No other R/ useful	2.8	23.9
Tradi-tion	1/ Known, heard of,etc		19.7	1/ Known, heard of, etc		25.2
	2/ Quality: R/		3.5	2/ Quality: R/		6.3
	3/ Free/cheap	7.0		3/ Nearby	6.1	
	Nearby	6.6	13.6	Free/cheap	5.8	11.9
	4/ Good for ill/compl	24.4		4/ Good for ill/compl	23.9	
	Good for cause of il	4.0		Good for cause of ill	5.1	
	No other R/ useful	3.5	31.9	Illness severe/acute	4.2	33.2

* R/ = treatment

Table 77: Summary table on the main categories of criteria operating in health-care choice-making

Health-care option	Illness type	Categories of criteria					
		1 'Option known'	2 Perceived Quality	3 Economic	4 Illness-related		5 Social
					4a Other illness-related	4b Illness became/is severe	
Wait-and-see	Minor	-	-	20.4	56.7	-	2.2
	Severe			23.0	56.3	-	2.7
Home-care	Minor	8.3	5.0	17.2	45.5	4.8	-
	Severe	8.9	3.4	14.0	43.5	9.2	-
Pharmacy	Minor	7.8	12.3	21.7	22.4	9.8	-
	Severe	10.3	11.6	20.9	14.4	12.7	-
Mod. private	Minor	18.1	26.0	8.7	10.2	11.2	-
	Severe	23.3	21.5	11.3	6.5	14.4	-
Public	Minor	24.1	10.8	33.5	5.0	7.4	-
	Severe	18.8	4.7	24.1	8.9	13.1	-
Non-gov't	Minor	15.9	10.7	28.6	9.5	13.2	-
	Severe	17.7	11.0	25.9	8.1	14.4	-
Unqualif	Minor	16.8	16.8	28.3	8.8	5.3	-
	Severe	13.1	14.7	26.9	2.7	13.1	-
Homeo-path	Minor	11.7	24.5	20.9	15.7	5.9	-
	Severe	19.1	16.0	13.9	16.7	7.2	-
Tradit	Minor	19.7	3.5	13.6	31.9	-	-
	Severe	25.2	6.3	11.9	29.0	4.2	-

B. CONSTRAINTS OPERATING IN HEALTH-CARE SEEKING

In the present section, constraints operating in the use of health-care options are examined. The detailed tables (in Annex 9, all constraints having more than 1.5% of the responses) and summary tables 79 and 80 (on pages 138 and 139) have been constructed for each health-care option and for minor and severe illness cases separately, according to the same five main categories as for the criteria in health-care choice-making, discussed in the previous section. These categories and their respective constraints are:

1/ The health-care option is **unknown** to the family; there is **no good health-care option available**;

2/ Constraints relating to **perceived service quality** of the health-care option:
-treatment-related: the medicine does not work, or does not work quickly enough, the treatment is bad; only a few or no medicines are given;
-practitioner-related: practitioner/personnel do not behave well, are not friendly;
-general: no belief in the (effectiveness of the) health-care option for all illnesses;

3/ **Economic** constraints:
-direct cost-related: the health-care option is too expensive;
-indirect cost-related: the health-care option is too far away; one has to wait too long to get things done; no time available to consult the health-care option;

4/ **Illness-related** constraints:
-the illness is minor;
-the illness is not so severe;
-the health-care option is not good/appropriate/required for this illness or for the cause of this illness;
-not useful, no faith in this health-care option for this illness.

Contrary to the criteria discussed in the previous section, here there was on average only slightly more than one response per question, the highest rate being for public care (Table 78).
In addition, two points must be mentioned here:

- For some health-care options, namely pharmacies and modern unqualified practitioners, constraints for their use are not presented. This is because these health-care options were not included in the questionnaire;
- For traditional healers, there were separate questions on the three different types of traditional healers investigated in the study. Because of the similarities of the responses for these three types, they have been grouped: this explains the high number of responses and interviews for this health-care option in Table 78.

Table 78: Number of responses on constraints operating in health-care decision-making

	Minor illness cases			Severe illness cases		
	No. responses (1)	No. interviews (2)	(1) / (2)	No. responses (1)	No. interviews (2)	(1) / (2)
Wait-and-see	3245	3223	1.01	2992	2966	1.01
Home-care	4248	3974	1.07	3287	3220	1.02
Modern private	8327	7638	1.09	6247	6035	1.04
Public	10595	8259	1.28	8441	7214	1.17
Non-government	9090	7862	1.16	7707	7089	1.09
Homeopath	9293	8228	1.13	7530	7176	1.05
Traditional	26325	24862	1.06	22230	21560	1.03

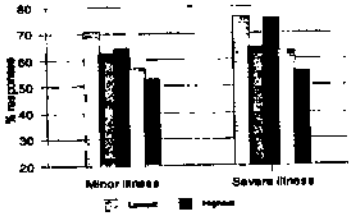
Overall, the data in summary Tables 79 and 80 on pages 138 and 139 suggest, as for the criteria for use of health-care options in the previous section, that (1) the nature and relative importance of constraints is related to the type of health-care option, and (2) for a given health-care option, constraints are similar for mild and severe illness cases.
The detailed data on reported constraints by health-care option and, where appropriate, by illness severity in Tables 79 and 80 show that:

- For **wait-and-see**, by far the main category of reasons for its non-use is *illness-related* reasons. The principal reason for minor illness cases is 'because the illness was not so minor' (33%), and for severe cases 'because the illness was severe/acute' (60%). They express - as already stressed above - that slum people want to avoid wait-and-see when the illness is severe. A more general other reported reason for non-use of wait-and-see is 'to become well' (18% and 10%);

- *Illness-related* reasons for non-use are also dominant in **home-care** (44% and 35%), followed by *ignorance about appropriate home-remedies* for the given illness. Economic reasons are less important, but rather particular : respondents have no time to spend to use home-remedies. Thus, although the average costs of this health-care option is very low (see HEP Working Paper No.5-98), home-remedies appear to require time to prepare (special food) or to apply (such as ointments or oil on the skin);

- By far the primary stated reason for non-use of **modern private care** is one economic constraint : *the health-care option is too expensive* (60% and 67%). This overwhelming proportion is clearly symptomatic for the perception of slum families about their inability to use this health-care option because of its direct cost. Moreover, this reported inability is income-related as Figure 43 illustrates. In the lower income quintiles this constraint represents up to three quarters of all responses given on constraints for use of modern private care, while in the highest quintile this is (only) 55%.
In addition, another category of stated reasons for non-use

Fig. 43: Modern private care is too expensive (% responses by income quintile)



of modern private care is illness-related (25% and 15%), the main reason in severe illness being 'the illness is minor'. It appears thus that respondents may hide the real severity of the illness in order not to have to disclose that they are too poor to pay for expensive modern private care. As a result, economic reasons may thus be even more important than the percentage suggest above;

- To a lesser extent - but still very prevalent - economic factors are also the main reasons for non-use of **public** and **non-government** services. However, the nature of the economic constraints is different here: now *indirect costs* are dominant: (1) the health-care option is too far away, or, (2) one has to wait too long to get things done. Together they represent 41% for public services, with predominantly reason (1), and, 26% to 27% for non-government services, with predominantly reason (2). (These differentials are reflected in the details on travel time and waiting time for each health-care option, discussed in Part B of HEP Working Paper No.5-98.) As a correlate, some respondents reported that they have no time to spend for availing public or non-government services. Furthermore, *direct costs* account for about 7% to 9% of the responses.
  In addition, although representing only 2% of the responses, 'paying tips and bribes to get things done' is a reason for non-use only reported for public care. We already indicated earlier that in public facilities, staff act as middlemen to facilitate access to consultations and to have all sorts of tests done. They do so against payment of unofficial fees.
  Perceived service quality-related reasons for the non-use of public and non-government care represent 13% of the responses for public care and 15% to 16% for non-government services. Reasons related to perceived substandard treatment are in both the health-care options predominant. A particular reported reason of perceived service quality is that non-government services do not treat adults. This is in line with the fact already highlighted in Part B of this Working Paper, that virtually all these services only treat children and, among the adults, only women in reproductive age.
  Finally, for non-government services, a further frequently reported reason for their non-use (20%) is *ignorance* by slum families about the (location of) services;

- The main reported reason for not using **homeopathy** is related to *perceived lack of quality* (35% and 42%), almost entirely covered by one single reason : 'the medicine does not work quickly enough'. Besides quality-related reasons, further significant categories are (1) *illness-related* reasons (27% and 28%), mainly that the option is not appropriate for the illness (20% and 24%), and, (2) economic reasons (18% and 12%, related to direct costs involved in availing this health-care option);

- Finally, by far the primary reason not to avail **traditional care** is *illness-related* (51% and 59%), with as clearly the main stated reason : 'the option is not appropriate for the illness' (38% and 47%). It correlates with the main reported reasons for its use which are also illness-related.
  Perceived lack of service quality is another reported reason (11% and 15%), followed by indirect costs (7% and 8%).

Table 79: Summary table on criteria operating in health-care choice-making

Health-care option	Reasons for non-use of health-care option					
	MINOR ILLNESS	%	%	SEVERE ILLNESS	%	%
Wait-&-see	1/-			1/- 2/-		
	2/ Not good for babies/children		2.0	3/ If used, may hamper work		4.7
	3/ If used, may hamper work		5.3	4/ Illness severe/acute	59.5	
	4/ Ill not so minor	33.4		Not good/useful	12.6	72.1
	Not good/useful	17.5				
	Ill may become severe	5.5	56.4	To become well		10.8
	To become well		17.7			
Home-care	1/ Unknown		27.2	1/ Unknown		32.1
	2/ -			2/ -		
	3/ No time to spend	7.3		3/ No time to spend	4.2	
	Too expensive	2.1	9.4	Too expensive	2.0	6.2
	4/ Illness was minor	15.3		4/Not useful/appr/required	18.0	
	Not appr/useful/required	17.5		Illness severe/acute	11.0	
	Illness not so minor	5.8		Illness not so severe	3.5	
	See the outcome	5.1	43.7	See the outcome	2.9	35.4
	Out of laziness		7.0	5/ Do not do anything (laziness)		15.5
Mod. priv.	1/- 2/-			1/- 2/-		
	3/ Too expensive		60.4	3/ Too expensive		66.7
	4/ Illness was minor	15.6		4/ Not approp./required	10.4	
	Not approp./required	9.0	24.6	Illness not so severe	2.1	
				See the outcome	2.0	14.5
Public	1/ Unknown		6.9	1/ Unknown		9.3
	*2/ Quality: R/	10.3		2/ Quality: R/	10.6	
	behaviour	2.2	12.5	behaviour	2.1	12.7
	3/ Too far away	32.5		3/ Too far away	30.7	
	Too long to wait	8.6		Too long to wait	10.8	
	Too expensive	8.2		Too expensive	8.4	49.9
	No time to spend	3.6		4/ Not approp./required		6.6
	One has to bribe to get things done	1.8	54.7			
	4/ Illness was minor	9.3				
	Not approp./required	5.8	15.1			
Non-gov't	1/ Unknown		19.1	1/ Unknown		21.0
	2/ Quality: R/	12.2		2/ Quality: R/	9.7	
	behaviour	2.3	14.5	No treatment to adults	3.2	
	3/ Too long to wait	16.4		behaviour	2.7	15.6
	Too far away	9.8		3/ Too long to wait	14.9	
	Too expensive	6.9		Too far away	12.2	
	No time to spend	4.2	37.3	Too expensive	8.8	
	4/ Illness was minor	6.9		No time to spend	1.5	37.4
	Not required/appropriate	6.1	13.0	4/ Not approp./required		8.1
Homeo path	1/ Unknown		2.0	1/ Unknown		2.4
	2/ Quality: R/	32.1		2/ Quality: R/	38.3	
	No belief in it	3.3	35.4	No belief in it	3.7	42.0
	3/ Too expensive		17.9	3/ Too expensive		12.0
	4/ Not appr/required/useful	20.0		4/Not appr/required/useful	23.5	
	Illness was minor	7.2	27.2	Illness severe/acute	2.5	
				Not approp for ill caus	2.2	28.2
Tradition	1/ Unknown		7.0	1/ Unknown		5.3
	2/ Quality: R/	9.7		2/ Quality: R/	5.8	
	No belief in it	7.6	17.3	No belief in it	6.5	12.3
	3/ Too expensive	4.5		3/ Too expensive	4.4	
	Too far away	2.5	7.0	Too far away	3.2	7.6
	4/ Not good/required/useful	37.5		4/Not appr/useful/required	47.1	
	Illness was minor	6.3		Not appr for ill cause	10.2	
	Not good for ill cause	6.9	50.7	Ill severe/acute	2.0	59.3
				Out of laziness		5.9

* R/ = treatment

Table 80: Summary table on the main categories of constraints operating in health-care choice-making

Health-care option	Illness type	Categories of constraints				
		1 'Option unknown'	2 Perceived Quality	3 Economic	4 Illness-related	5 Other
Wait-and-see	Minor	-	2.0	5.3	56.4	17.7
	Severe	-	-	4.7	72.1	10.8
Home-care	Minor	27.2	-	9.4	43.7	7.0
	Severe	32.9	-	6.2	35.4	15.5
Modern private	Minor	-	-	60.4	24.6	-
	Severe	-	-	66.7	14.5	-
Public	Minor	6.9	12.5	54.7	15.1	-
	Severe	9.3	12.7	49.9	6.6	-
Non-gov't	Minor	19.1	14.5	37.3	13.0	-
	Severe	21.0	15.6	37.4	8.1	-
Homeopath	Minor	2.0	35.4	17.9	27.2	-
	Severe	2.4	42.0	12.0	28.2	-
Traditional	Minor	7.0	17.3	7.0	50.7	-
	Severe	5.3	12.3	7.6	59.3	5.9

COMPARING ENABLING FACTORS FOR AND BARRIERS TO THE USE OF HEALTH-CARE OPTIONS

The purpose of investigating reasons for use and non-use of health-care options is to find out what may be important facilitating factors and barriers to their use. Section A. on reasons for use and section B. on reasons for non-use reveal that there are a number of strong opinions and feelings among slums residents about why to use and not to use different health-care options. Overall, these opinions and feelings are more outspoken for barriers to use.

1) There are prominent *economic barriers* to the use of modern qualified health-care options.

- High direct health-care costs are the overwhelming deterrent to use **modern private care.** This barrier is income-related and the strongest single barrier to use, reported in the study.
- However, mainly indirect costs, such as (particularly) distance from the facility and long waiting times, but also lack of perceived service quality (in terms of treatment received and attitudinal characteristics of health personnel), and direct costs prevent slum dwellers to use **public care**.
- A similar set of barriers as the ones to the use of public care, is reported in the case of **non-government care**. Amongst the indirect costs, distance to the facility, however, is far less reported compared to waiting time, corresponding to differences in reported travel and waiting times between public and non-government facilities (see Part B in HEP Working Paper No.5-98). In addition, there is another specifically reported barrier, namely slum dwellers' ignorance about non-government services.

In contrast, the *reasons for use* of modern health-care options are more evenly spread over the different categories of reasons. For **modern private care**, these are in descending order perceived good service quality (mainly of treatment received), illness-related reasons and knowledge about the practitioner, and to a lesser extent economic reasons (mainly the nearness of the option). For **public** and **non-government care** however, the main reported reasons are economic (mainly low or no charges levied), followed by knowledge about the health-care option, and illness-related reasons. For both the options, perceived service quality is not reported as a reason for their use, which is thus in contrast with modern private care, but correlates with the reported barriers to their use.

2) For **pharmacies** and **modern unqualified care**, only questions about reasons for their use were included in the questionnaire. These options are mainly used because they are nearby (and cheap), of good perceived service quality, and, particularly for pharmacies, because they are appropriate for the given illness.

3) Several reasons for use and non-use of **home-care**, **homeopathy** and **traditional care** illustrate the slum dwellers' perception that these health-care options are appropriate for particular illnesses and should not be used for others.
Furthermore, as for modern qualified care, the fact to know the homeopath or the traditional healer is reported here too as an important reason for their use.
In addition, the respondents indicate that homeopathy is good for treatment of child illness, perceived to be harmless for children because of its reliance upon diluted drugs. On the other hand, the slow effect of homeopathic drugs is the main stated reason for its non-use. In the case of home-care, the low cost of the treatment and the fact not to have money for other types of care, are supplementary reasons for its use.

4) There are two particular findings for **wait-and-see** and to a lesser extent **home-care**:
Firstly, that slum dwellers realise that use of these health-care options is not indicated when the illness is (becomes) severe. (This is also expressed by the constant reference to the severity of illness in 10% to 15% of the responses as a reason for use of all other health-care options) However, the very large use of wait-and-see and home-care confirms the very existence of major obstacles to the use of other health-care options, which are mainly of an economic nature for modern qualified care, as illustrated above.
This is substantiated by the second particular finding, namely that non-availability of money is a major reason for use of wait-and-see (and to a lesser extent of home-care, as stated above), and that this is the more so the poorer the households are. It was further noted that illness-related reasons for its use, such as 'the illness is not so severe' in the case of severe illness, may in fact hide economic reasons, as slum residents do not always want to disclose that they are poor and unable to avoid other health-care options.

5) One important observation concerns the **organisation** of **modern health-care delivery**.
The findings indicate that health-care options, such as government hospitals, private clinics and specialists, take only marginally up their role as higher-level care. This clearly relates to the absence of policies defining a functional health-care system with appropriate community-based health-care facilities (treating most health problems), i.e., near to where people live and in continuous interaction with them, and proper referral mechanisms for more serious illness cases to higher levels of care.
The absence of such policies must result in, amongst others, overcrowded out-patient departments of government hospitals. In such circumstances it is not surprising, as highlighted above, to find that only 10% of the contacts with public hospitals result from referrals by other practitioners and that time costs are a major reason for non-use of government hospitals. However, important reported factors for their use include their low direct costs, indicating that health-care delivery should be organised at an affordable user expenditure level. To obtain this and given the fact that higher levels of care are by definition more expensive, the best alternative is to implement equitable payment mechanisms at functional community-based facilities while removing financial barriers to use of higher levels of care, provided there are proper referral channels.

CHAPTER 13
PATIENT SATISFACTION WITH HEALTH-CARE OPTIONS

For each contact with a health-care option, the respondent was asked whether she/he was satisfied with the option or not, and the reasons why. In this chapter, aspects of patient satisfaction and dissatisfaction will be presented separately for each category of modern qualified providers and for unqualified health-care providers, homeopathy and traditional healers. Afterwards, some elements will be added on satisfaction and dissatisfaction with wait-and-see and home-care.

A. PATIENT SATISFACTION

Table 81 shows that factors relating to patient satisfaction with different types of modern and other health-care providers are fairly similar. Overall, the picture illustrates the logical fact that people are pleased with a provider, if she/he manages to cure the illness or to relieve the patient's complaints with 'good' treatment, and/or if the interaction between the patient and the provider is patient-centered (i.e., the provider's behaviour towards the patient is respectful and the provider shows interest in the patient's problems).
These aspects refer to essential characteristics of service quality, namely it should be:

- effective, that means relieving/curing the patient,
- delivered with full attention to the patient's health problem and/or complaints, and responding to patient's questions. Correct patient-healer interaction needs to be empathic, taking into account not only the health problem, but also all aspects of the patient's socioeconomic and cultural environment that influence on the patient's current health status. This aspect refers to one of the basic features of quality of care, namely health-care must be holistic.

Table 81 further shows some particularities:

- the perception that good treatment/drugs were given is the lowest for modern unqualified and traditional care;
- reporting to demands by the patient gets the highest score (not surprisingly) for modern private care, followed by public care.

Table 81: Elements of patient satisfaction with health-care options

CRITERION	Modern private (% of resp.)	Public (% of resp.)	Non-govt (% of resp.)	Unqua-fied (% of resp.)	Homeo-path (% of resp.)	Tradit (% of resp.)
Illness got cured	29.9	32.1	28.8	41.6	29.2	32.9
Got relieved	17.3	20.0	22.7	26.9	23.9	33.5
	47.2	52.1	51.5	68.5	53.1	66.4
Gives good treatment/drugs	24.3	19.6	23.0	11.2	25.2	14.2
Listens and gives explanation, takes good care	11.8	11.4	7.8	6.6	4.8	4.2
Is well behaved	1.7	1.9	1.5	.5	1.3	.3
Did what I asked for	4.6	3.5	1.6	2.5	2.1	1.5
Less to pay	2.5	2.2	1.9	1.5	3.8	1.2
Does not require money	-	2.2	5.2	-	.8	2.2

B. PATIENT DISSATISFACTION

The list of aspects of patient dissatisfaction with health-care providers are reflected as the negative versions of the criteria for satisfaction with health-care options (Table 82). The main elements of discontent are that the illness was not cured, bad treatment was given, and poor patient-provider interaction. As for patient satisfaction criteria, these elements and some other criteria are linked with the different health-care options, although the criterion 'the illness was not cured' is the main element for all health-care options. In addition there are the following elements:

- 'The illness was not cured' has by or the highest scores for the three types of non-modern non-qualified providers;
- 'Bad treatment' is a complaint representing about 25% of all responses for public and non-government care, and half or less than half this percentage for the other health-care options;
- 'No interaction with patients' and 'incorrect provider behaviour' are again by far the highest for public and non-government care, 12% and 16% respectively. The other health-care options only have 1% or 2 %;
- 'Medicine to be purchases from outside' is an element that is only mentioned again for public and non-government care. However, here the percentage for public care is 3 times higher than for non-government care;
- In contrast, the 'cost of treatment' is mainly reported for modern private and public care, each 7%, while for the other options, the percentage is 2% to 3%;
- 'Time needed to use the health-care option' is mainly reported for public care;
- 'Having been referred to another practitioner' is an element only reported for the three modern qualified health-care options.

Table 82: Elements of patient non-satisfaction with health-care options

CRITERION	Modern private (% of resp.)	Public (% of resp.)	Non-govt (% of resp.)	Unqualified (% of resp.)	Homeopath (% of resp.)	Traditional (% of resp.)
Illness was not cured	63.2	33.9	49.2	(80.0)*	77.3	82.0
Treatment not good/drugs not working enough	13.1	25.3	25.4	(17.8)	10.0	7.5
Does not listen, does not take care, not good	2.0	14.6	9.5	(-)	.7	2.1
Is not well behaved	.3	1.6	2.0	(-)	-	-
Medicine to be bought from outside	-	5.4	1.7	(-)	-	-
(Too much) money required	7.0	7.0	3.1	(-)	2.0	2.9
Paid money for nothing	1.7	-	1.0	(2.2)	3.3	.8
It is time-consuming	-	3.8	1.4	(-)	1.3	.4
Referred to another provider	2.3	2.2	0.7	(-)	-	-

* No. responses = only 45, for all other health-care options, it is more than 150. Therefore, the figures for unqualified care are in parentheses.

Summarising, the fact that the criterion 'the illness was not cured' gets the highest percentages for non-modern non-qualified health-care options, not only reflects the likely less effective nature of these health-care options, but also the greater importance of other criteria for modern health-care options. Those criteria (i.e., all the criteria relating to the absence of service quality and to direct and indirect costs) have the highest percentages for public care. These data indicate thus that the greatest degree of dissatisfaction for these criteria is with public care. This is substantiated with the following finding on overall degrees of patient satisfaction and dissatisfaction, which was a question addressed to the respondents *before* the one on details of (dis)satisfaction (Table 83).

Table 83: Degrees of satisfaction and dissatisfaction with health-care options

Health-care option	MINOR ILLNESS			SEVERE ILLNESS		
	Satisfied (%)	Dis-satis (%)	Don't know (%)	Satisfied (%)	Dis-satis (%)	Don't know (%)
Pharmacies	81.7	17.2	1.1	71.1	26.4	2.5
Modern private	87.5	10.7	1.8	78.5	18.5	3.0
Public care	69.4	29.7	.9	53.7	40.0	6.3
Non-gov't	72.4	25.8	1.8	65.1	29.8	5.1
Modern unqualif.	77.7	15.3	7.1	75.7	18.5	5.8
Homeopathy	76.8	20.1	3.2	60.5	33.7	5.8
Traditional	78.7	19.9	1.4	68.4	27.2	4.5
Wait-and-see	30.3	68.9	.8	10.6	88.6	.8
Home-care	61.9	36.9	1.2	39.3	59.3	1.4

The highest degrees of dissatisfaction (and thus the lowest degree of satisfaction) among all health-care options (except wait-and-see and home-care) are indeed found for public care (up to 40% of the responses in severe illness), followed by non-government care in minor illness cases and homeopathy in severe cases.
On the other hand, the lowest overall degree of dissatisfaction is for modern private and modern unqualified care. By far the highest degrees of dissatisfaction are found for wait-and-see and, to a lesser extent, for home-care (bottom, Table 83). We found that the primary reason for the feeling of dissatisfaction with wait-and-see and home-care is that the illness did not get cured (87%). Another specific, though far less important, reason is the fact not to dispose of money to use other health-care options (6% for wait-and-see, 4% for home-care).

Finally, dissatisfaction with the listed health-care options is greater in the case of severe illness: this may indicate the greater 'pressure' of people to get cured in severe illness cases.

CONCLUSIONS ON ASPECTS OF PATIENT (DIS)SATISFACTION

A number of specific issues may be highlighted when the findings on patient (dis)satisfaction are considered:

- The first issue is that the reasons for patient (dis)satisfaction reflect two particular aspects of **quality of care/delivery**, namely that:
  [1] health-care should be *effective*,
  i.e., it should relieve/cure the patient. It was already earlier stressed in this paper that this effective treatment does not only include treatment regimens with drugs, but also (and in many cases primarily) proper counseling. The latter in turn requires the second aspect of quality of care delivery, revealed by the elements of (dis)satisfaction, namely,
  [2] health-care must be delivered in an *empathic* way,
  i.e., treatment must be delivered in a patient-centered interaction between patient and provider, that takes into account not only the patient's current health complaints, but also her/his socio-cultural and economic environment.
  If such quality is to be obtained, first-level care providers will have to become really community-based, i.e., (1) rooted into the realities of the community with a good understanding of the socio-cultural and economic characteristics of the population, (2) with an ability to listen and to communicate with the community and individual patients, and (3) at an affordable cost;

- The second issue concerns the perception of slum dwellers about the **performance of public health facilities**.
  Out of all health-care provider options, public health facilities get the highest overall rate of dissatisfaction. This rating is related to perceptions of low service

quality (i.e., poor quality treatment, poor patient-healer communication and non-availability of drugs), and high indirect (and direct) costs.
Non-availability of drugs as a reason for dissatisfaction points at the expectation people have about public health facilities that they should provide drugs. Furthermore, they expect the drugs to be provided free or at low cost, because another reason of dissatisfaction is the high treatment costs (which is real, see HEP Working Paper No.5-98 on the importance of drugs in the average cost structure of a contact with a public health-care provider):

- The third issue concerns the opinion of respondents on the **performance of non-government care.**
  The overall rating of dissatisfaction is the second highest for non-government care in minor illness cases and the third highest in severe illness cases. Dissatisfaction with non-government care mainly concerns perceived poor quality treatment and poor patient-provider interaction. However, respondents reported good treatment as a factor of satisfaction as well;

- In contrast, **modern private care providers** get the highest satisfaction rating. This is not reflected in particular reasons, except that out of the three modern qualified health-care options, it has the highest rate for satisfaction with treatment. It is also reported to respond more to demands by the patients;

- Finally, **wait-and-see** and **home-care** have by far the highest rates of dissatisfaction. By far the main reason is their inability to cure the disease. The other less important reported reason is the non-availability of money to use other health-care options;

CHAPTER 14

REASONS WHY NO FURTHER ACTION WAS UNDERTAKEN, WHILE THE ILLNESS WAS NOT CURED

The last chapter of this Part concerns the reasons why no further action was undertaken, while the illness was not cured.

Table 84 shows that, out of the 5308 mild illness episodes, 95% were reported to be cured after having used one or more health-care options. Four percent were reported to be still suffering. Three death cases were reported. Out of the 2659 severe illness episodes, 93% were reported as cured, 6% as still suffering, and there were 12 reported death cases.

The high percentage of cured illness episodes indicates that patients, irrespective of the type of health-care option used, find that their suffering was diminished to an acceptable level. This is thus different from the way in which physicians define total cure.

Table 84: Outcome of illness episodes

Outcome of illness episode	Minor illness No.	%	Severe illness No.	%
1. Cured	5046	95.1	3404	93.0
2. Still-suffering	216	4.1	200	5.5
3. Dead	3	.1	12	.3
4. Out-migrated	43	.8	43	1.2
Total	5308	100	3659	100

In 83% (180/216) of the non-cured mild illness episodes, and in a same proportion (165/200) of non-cured severe illness episodes, reasons were reported why no action was taken any longer (Table 85, next page).

Table 85 gives the main reasons and their absolute and relative frequencies for mild and severe illnesses separately. It indicates that:

- The main reason for discontinuation of use of health-care options, while still being ill, is *non-availability of money*. This is more accentuated in severe illness cases (50% vs. 41%). This reason indicates (1) that slum people spend on less appropriate health-care options, and (2) that anticipated costs of health-care are a deterrent for continuing treatment;
- The next most important reason is that the *suffering* caused by the illness *has decreased to levels for which they consider care is not required anymore*. This reason is more pronounced in mild illness cases (35% vs. 28%). This reason reflects what is indicated above on the perceptions of slum people about 'being cured' and 'not being cured';
- The third reason relates to the *use of multiple health-care options during the illness episode without being cured*, and thus the respondents' opinion that continuing to use health-care options would not yield any better result.

The second and the third reasons reflect the finding in Part B and this Part of the present Working Paper that slum people often use (a series of) inappropriate health-care options without being properly cured. It further illustrates that slum people lack proper advice and effective therapeutic intervention, because of the absence - mentioned above - of functional community-based services.

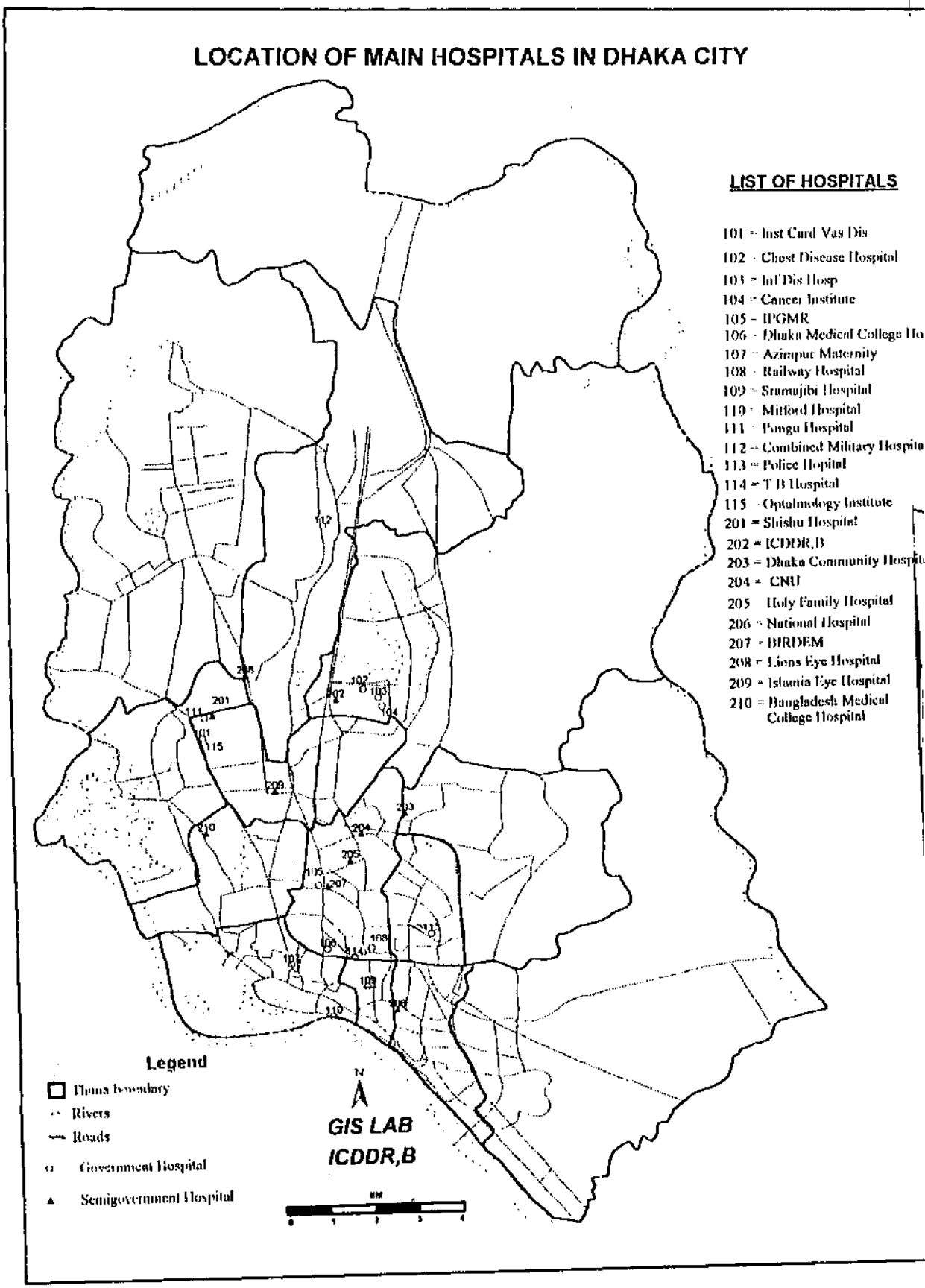
Table 85: Reasons why no further action was undertaken, while the patient was still ill

Reason	Mild illness		Severe illness	
	No.	%	No.	%
Economic				
1. Do not have money to continue treatment	73	40.6	82	49.7
2. Do not have time	3	1.7	2	1.2
Illness-related				
1. There is not much suffering anymore	62	34.5	46	27.8
2. It is an old illness, not getting better	8	4.4	3	1.8
Treatment-related				
1. A lot of treatment was tried out, but the illness was not cured	15	8.3	14	8.5
2. The illness did not cure with any medicine	5	2.8	6	3.6
Social				
1. Husband does not give attention to the illness	4	2.2	3	1.8
2. I am ill, but there is no one to take me to the doctor	2	1.1	-	-
Other	8	4.4	9	5.5
Total	180	100	165	100

MAP

ANNEXES

MAP 1


LOCATION OF MAIN HOSPITALS IN DHAKA CITY
LIST OF HOSPITALS
101 = Inst Card Vas Dis
102 = Chest Disease Hospital
103 = Inf Dis Hosp
104 = Cancer Institute
105 = BPGMR
106 = Dhaka Medical College Ho
107 = Azimpur Maternity
108 = Railway Hospital
109 = Sramujibi Hospital
110 = Mitford Hospital
111 = Pungu Hospital
112 = Combined Military Hospita
113 = Police Hopital
114 = T B Hospital
115 = Optalmology Institute
201 = Shishu Hospital
202 = ICDDR,B
203 = Dhaka Community Hospit
204 = CMH
205 = Holy Family Hospital
206 = National Hospital
207 = BIRDEM
208 = Lions Eye Hospital
209 = Islamia Eye Hospital
210 = Bangladesh Medical College Hospital
Legend
Dhaka boundary
Rivers
Roads
Government Hospital
Semigovernment Hospital
N
GIS LAB
ICDDR,B

Annex 1: Illness rates by demographic variables

A. AGE AND GENDER

1. NON-CHRONIC ILLNESSES BY AGE AND GENDER

Minor illnesses

Age categories	Gender				All	No.PMs
	Male	No.PMs	Female	No.PMs		
<=5 yrs	38.5	2494.3	40.2	2638.2	39.4	5132.5
6-12 yrs	17.8	2500.0	16.1	2966.1	16.9	5466.1
13-18 yrs	8.5	1221.1	16.9	1522.9	13.2	2744.1
19-45 yrs	11.0	5267.8	22.1	4980.4	16.4	10248.2
>45 yrs	14.6	982.7	19.2	934.2	16.8	1917.0
Total	17.9	12466.1	23.6	13041.9	20.8	25508.1

Severe illnesses

Age categories	Gender				All	No.PMs
	Male	No.PMs	Female	No.PMs		
<=5 yrs	25.1	2494.3	21.3	2638.2	23.2	5132.5
6-12 yrs	9.6	2500.0	8.3	2966.1	8.9	5466.1
13-18 yrs	6.5	1221.1	10.2	1522.9	8.5	2744.1
19-45 yrs	10.7	5267.8	18.4	4980.4	14.4	10248.2
>45 yrs	12.1	982.7	16.3	934.2	14.1	1917.0
Total	13.1	12466.1	15.6	13041.9	14.3	25508.1

All illnesses

Age categories	Gender				All	No.PMs
	Male	No.PMs	Female	No.PMs		
<=5 yrs	63.7	2494.3	61.5	2638.2	62.5	5132.5
6-12 yrs	27.4	2500.0	24.3	2966.1	25.8	5466.1
13-18 yrs	15.0	1221.1	27.1	1522.9	21.7	2744.1
19-45 yrs	21.6	5267.8	40.6	4980.4	30.8	10248.2
>45 yrs	26.7	982.7	35.4	934.2	30.9	1917.0
Total	30.9	12466.1	39.2	13041.9	35.1	25508.1

2. CHRONIC ILLNESS PERIOD PREVALENCE RATES

Age categories	Gender				All		Ratio non-chronic/ chronic
	Male	No.PMs	Female	No.PMs	All	No.PMs	
<=5 yrs	2.6	2494.3	2.0	2638.2	2.3	5132.5	27.2
6-12 yrs	1.1	2500.0	1.3	2966.1	1.2	5466.1	21.5
13-18 yrs	1.4	1221.1	2.8	1522.9	2.2	2744.1	9.9
19-45 yrs	3.5	5267.8	5.9	4980.4	4.7	10248.2	6.6
>45 yrs	9.1	982.7	11.3	934.2	10.2	1917.0	3.0
Total	3.0	12466.1	4.1	13041.9	3.6	25508.1	9.8

Annex 2: Illness rates by sociocultural variables

EDUCATION

Childhood non-chronic illness incidence by mother's education

Education level	Illness incidence/100 person-months							
	0-5 years				6-12 years			
	Minor	Severe	All	No.PMs	Minor	Severe	All	No.PMs
no educat	39.5	23.2	62.7	4072.9	17.1	8.8	26.0	4268.7
1 - 5 years	41.1	23.5	64.7	714.4	18.5	10.4	28.9	595.8
> 5 years	34.7	22.9	57.6	196.2	29.4	20.0	49.4	95.2
All	39.5	23.3	62.8	4983.6	17.5	9.2	26.8	4959.8

Childhood non-chronic illness incidence by father's education

Education level	Illness incidence/100 person-months							
	0-5 years				6-12 years			
	Minor	Severe	All	No.PMs	Minor	Severe	All	No.PMs
no educat	40.5	23.5	63.9	3054.0	16.1	8.7	24.8	3154.8
1 - 5 years	38.8	24.9	63.6	1011.9	18.4	8.6	27.1	960.6
> 5 years	39.4	20.3	59.6	691.0	22.2	11.4	33.6	621.2
All	40.0	23.3	63.3	4756.9	17.4	9.0	26.4	4736.7

Annex 3: Illness rates by economic variables

A. HOUSEHOLD INCOME

Income Quintiles	Illness incidence/100 person-months				No. PMs
	Non-chronic illness			Chronic illness	
	Minor	Severe	Total		
1	25.1	19.3	44.4	3.3	3569.3
2	24.9	14.6	39.5	3.7	4262.2
3	20.4	15.4	35.8	4.0	4879.1
4	20.6	14.2	34.8	3.0	5504.1
5	16.8	11.2	27.9	3.9	7293.3
All	20.8	14.3	35.2	3.6	25508.1

B. OCCUPATION

1. & 2. WAGE UNIT BY AGE AND GENDER

Minor illness

Sex	Monthly	No.PMs	Daily	No.PMs
Male	9.0	1366.6	12.7	1932.1
Female	19.0	1189.5	15.2	361.1
Total	13.7	2556.2	13.1	2293.3

Severe illness

Sex	Monthly	No.PMs	Daily	No.PMs
Male	7.8	1366.6	12.1	1932.1
Female	14.3	1189.5	21.6	361.1
Total	10.8	2556.2	13.6	2293.3

3. TYPE OF OCCUPATION, AGE AND GENDER

Minor Illness

Age categories	Gender						All		
	Male			Female					
	IE*	NIE/NSA*	SA*	IE	NIE/NSA	SA	IE	NIE/NSA	SA
6-12 yrs	10.7	20.6	16.6	11.2	15.9	17.0	10.9	17.8	16.8
13-18 yrs	7.0	8.9	10.4	14.8	18.4	16.8	9.9	16.4	13.4

*IE=Income-Earner; NIE/NSA=Non-income Earner/Non-school Attendant; SA=School-Attendant

Severe Illness

Age categories	Gender						All		
	Male			Female					
	IE*	NIE/NSA*	SA*	IE	NIE/NSA	SA	IE	NIE/NSA	SA
6-12 yrs	5.7	9.9	9.9	5.0	8.3	8.3	5.4	8.9	9.1
13-18 yrs	7.7	3.5	6.6	7.4	12.1	7.7	7.6	10.2	7.1

All Illness

Age categories	Gender						All		
	Male			Female					
	IE*	NIE/NSA*	SA*	IE	NIE/NSA	SA	IE	NIE/NSA	SA
6-12 yrs	16.4	30.5	26.5	16.1	24.1	25.3	16.3	26.7	25.9
13-18 yrs	14.6	12.4	17.0	22.2	30.5	24.5	17.5	26.6	20.5

Number of Person-months for each category considered

Age categories	Gender						All		
	Male			Female					
	IE*	NIE/NSA*	SA*	IE	NIE/NSA	SA	IE	NIE/NSA	SA
6-12 yrs	384.5	1099.4	952.4	340.7	1632.2	939.5	725.2	2731.7	1891.9
13-18 yrs	703.7	202.1	240.7	432.0	745.0	208.3	1135.8	947.2	449.1

*IE=Income-Earner; NIE/NSA=Non-income Earner/Non-school Attendant; SA=School-Attendant

Annex 4: **Decision-maker in illness cases of children by patient's age, illness severity, and sequence of health-care option use**

DECISION-MAKER	MILD ILLNESS				SEVERE ILLNESS			
	0-5 years		6-12 years		0-5 years		6-12 years	
	1st %	sub-seq %	1st %	sub-seq %	1st %	sub-seq %	1st %	sub-seq %
Patient	-	-	-	-	-	-	-	-
Mother	74	55	70	55	69	55	71	63
Father	7	18	8	21	8	16	7	14
Parents	13	12	14	16	15	16	15	12
Grandparents	5	7	3	2	5	5	1	.9
Fam member	.7	2	3	2	1	1	2	2
Neighbour	1	4	1	3	2	5	3	6
Others	.0	2	.2	1	.4	2	2	2
Total No. contacts	2056	1310	892	497	1218	1462	461	452

Annex 5: **Decision-makers in illness cases of adolescents by patient's gender, marital status and illness severity**

DECISION-MAKER	MILD ILLNESS				SEVERE ILLNESS			
	NEVER MARRIED		CURRENTLY MARRIED		NEVER MARRIED		CURRENTLY MARRIED	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	25	31	65	(-)	14	25	48	(29)
Mother	46	43	7	(33)	45	54	14	(29)
Father	11	8	4	(-)	9	10	1	(14)
Parents	9	6	1	(67)	20	3	1	(29)
Wife	-	-	-	(-)	-	-	-	-
Husband	-	-	14	(-)	-	-	26	-
Mother-in-law	-	-	5	(-)	-	-	4	-
Father-in-law	-	-	-	(-)	-	-	-	-
Grandparents	2	3	-	(-)	.8	-	-	-
Fam member	3	3	.8	(-)	4	5	.5	-
Neighbour	4	6	2	(-)	4	3	6	-
Others	-	.6	1	(-)	3	-	.5	-
Total No. contacts	150	160	261	(3)	128	172	199	(7)

Annex 6: **Decision-makers in illness cases of adolescents by patient's gender and marital status, illness severity, and sequence of health-care option use**

NEVER MARRIED ADOLESCENTS

DECISION-MAKER	MILD ILLNESS				SEVERE ILLNESS			
	1st		Any subseq		1st		Any subseq	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	31	33	12	29	17	39	12	15
Mother	49	47	39	37	57	53	36	55
Father	9	7	16	10	4	-	13	17
Parents	7	5	12	6	15	4	24	3
Grandparents	-	4	6	1	2	-	-	-
Fam member	1	1	8	6	4	4	4	5
Neighbour	2	2	8	10	-	-	7	5
Others	-	1	-	-	2	-	4	-
Total No. contacts	99	92	51	68	53	72	75	100

CURRENTLY MARRIED FEMALE ADOLESCENTS

DECISION-MAKER	MILD ILLNESS		SEVERE ILLNESS	
	1st	Any subseq	1st	Any subseq
Patient	77	43	61	31
Mother	5	10	13	16
Father	1	10	-	2
Parents	1	1	.9	1
Husband	8	24	18	35
Mother-in-law	4	7	4	3
Father-in-law	-	-	-	-
Grandparents	-	-	-	-
Fam member	1	-	-	1
Neighbour	2	2	4	9
Others	-	3	-	1
Total No. contacts	167	94	111	88

Annex 7: **Decision-makers in illness cases of adults by patient's gender and marital status, and illness severity**

MINOR ILLNESS CASES

DECISION-MAKER	PATIENT'S MARITAL STATUS							
	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED		DIVORCED/ SEPARATED	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	(47)	56	76	86	(91)	-	72	(60)
Mother	(13)	24	3	3	-	-	5	-
Father	(7)	6	.5	.5	-	-	.5	-
Parents	(13)	7	.3	.2	-	-	.9	-
Wife	-	-	-	7	-	-	-	-
Husband	-	-	14	-	-	-	-	-
Mother-in-law	-	-	1	.3	-	-	-	-
Father-in-law	-	-	-	-	-	-	-	-
Grandparents	-	-	.1	.1	-	-	-	-
Fam member	(20)	6	2	2	(4)	-	20	(40)
Neighbour	-	1	2	1	(2)	-	2	-
Others	-	-	1	.2	(2)	-	.5	-
Total No. contacts	(15)	101	1770	1063	(45)	-	222	(15)

SEVERE ILLNESS CASES

DECISION-MAKER	PATIENT'S MARITAL STATUS							
	NEVER MARRIED		CURRENTLY MARRIED		WIDOWED		DIVORCED/ SEPARATED	
	Fem %	Male %	Fem %	Male %	Fem %	Male %	Fem %	Male %
Patient	(48)	56	65	78	75	-	69	(53)
Mother	(8)	19	5	2	3	-	5	-
Father	(3)	9	.7	.2	2	-	.7	-
Parents	-	2	.5	.8	-	-	-	-
Wife	-	-	-	10	-	-	-	-
Husband	-	-	20	-	-	-	.7	-
Mother-in-law	-	-	.7	1	2	-	-	-
Father-in-law	-	-	.2	.2	-	-	-	-
Grandparents	-	-	.2	.2	-	-	-	-
Fam member	(35)	9	2	2	6	-	19	(47)
Neighbour	(5)	2	5	3	9	-	3	-
Others	(3)	3	2	3	3	-	3	-
Total N contacts	(40)	107	1792	1313	64	-	269	(17)

Annex 8: Criteria operating in health-care choice-making

MINOR ILLNESSES

Health-care option	Reasons for use (period of responses per health-care option)			
	Option is known to respondent/advised by lay person	Perceived quality	Economic	Illness-related
Wait-and-see	Known to all 2.3	-	No money 16.3 Free of charge 4.1 Father/husband have no time/not at home 2.2	No need of treatment 21.2 See outcome illness 18.5 Illness is not severe/ acute 12.2 Good for this illness 4.8 Illness is severe 3.0
Home-care	Advised by other person 3.9 Known to all 2.5 Heard from other person 1.9	Receive good/better treatment 5.0 To become well 4.5	No money 8.6 Free of charge 3.7 Treatment is cheap 2.6 We can afford it 2.3	Good for this complaint 15.8 Good for this illness 14.8 No need of other treatm't 7.5 Illness became severe/ acute 4.8 Illness is not severe/ acute 4.5 See outcome illness 2.9
Pharmacy	Known to the family 2.7 Used to go to the same practitioner 2.0 Heard from/advised by other person 3.1	Receive good/better treatment 7.0 Medicine works quickly 5.3 To become well 6.0	Nearby 10.4 Treatment is cheap 7.3 Work will be hampered 1.8 We can afford it 2.2	Good for this illness 13.0 Good for this complaint 7.9 Illness is not severe/ acute 1.5 Illness became severe/ acute 9.8 Not used with previous HCO* 5.3
Modern private	Known to the family 8.5 Used to go to the same practitioner 6.2 Heard from/advised by other person 3.4	Receive good/better treatment 12.4 Medicine works quickly 10.0 Doctor is good 3.6 To become well 7.3	Nearby 5.8 Treatment is cheap 2.9	Good for this illness 8.0 Good for this complaint 2.2 Illness became severe/ acute 11.2 Not used with previous HCO 4.7

Public	Known to the family 15.3 Used to go to the same facility 3.8 Advised by other person 2.6 Heard from other person 2.4	Receive good/better treatment 7.9 Medicine works quickly 2.9 To become well 2.9	Free of charge 12.6 Nearby 12.1 Treatment is cheap 8.8	Good for this illness 5.0 Illness became severe/ acute 7.4 Not used with previous HCO 3.8
Non-gov't	Known to the family 6.8 Used to go to the same facility 5.8 Advised by/heard from other person 3.3	Receive good/better treatment 8.5 To become well 4.1 Good for children 2.2	Free of charge 15.1 Treatment is cheap 6.8 Nearby 6.7	Good for this illness 6.1 Good for this complaint 3.4 Illness became severe/ acute 13.2 Not used with previous HCO 6.5
Mod. unqualif	Known to the family 7.1 Used to go the same practitioner 5.3 Advised by other person 4.4	Receive good/better treatment 10.6 Doctor is good 3.5 Good for children 2.7 To become well 3.5	Nearby 18.6 Treatment is cheap 9.7	Good for this illness 5.3 Good for this complaint 3.5 Illness became severe/ acute 5.3 Not used with previous HCO 7.1
Homeopath	Advised by other person 4.2 Known to the family 2.8 Used to go to the same practitioner 2.5 Practitioner is a member of the HH or close relative 2.2	Receive good/better treatment 11.7 Medicines work quickly 3.6 Good for children 9.2 To become well 3.6	Treatment is cheap 9.8 Nearby 8.7 Free of charge 3.4	Good for this illness 12.6 Good for this complaint 3.3 Illness became severe/ acute 5.9 Not used with previous HCO 3.4
Traditional	Advised by other pers 12.5 Practitioner is a member of the HH or a close relative 3.7 Known to the family 3.5	Receive good/better treatment 3.5 To become well 7.9	Nearby 6.6 Free of charge 3.7 Treatment is cheap 3.3	Good for this illness 16.1 Good for this complaint 8.3 Good for the cause of the illness 4.0 No other medicine/treatment is useful 3.5 Not used with previous HCO 4.2

*HCO = health-care option

SEVERE ILLNESSES

Health-care option	Reasons for use ((period of responses per health-care option))			
	Option is known to respondent/advised by lay person	Perceived quality	Economic	Illness-related
Wait-and-see	Do not know what to do 3.1	-	Do not have money 19.5 Free of charge 3.5 Father/husband no time 2.7	See outcome illness 25.3 No need of treatment 19.7 Illness not so severe 11.3
Home-care	Advised by other person 6.9 Heard from other person 2.0	Is good treatment 3.4 To become well 4.9	Do not have money 8.3 Free of charge/cheap 5.5	Good for this complaint 20.1 Good for this illness 11.4 Illness severe/acute 9.2 No need of medicine 4.6 See outcome illness 4.3 Illness not so severe/ acute 3.1 Not used with previous HCO* 1.6
Pharmacy	Used to go to the same pharmacy 4.0 Known to the family 4.1 Heard from/advised by other person 3.2	Receive good/better treatment 7.2 Medicines work quickly 4.4 To beome well 8.8	Nearby 12.0 Treatment is cheap 5.1 We can afford it 2.0 Do not have money 1.8	Illness severe/ acute 12.7 Good for this complaint 8.4 Good for this illness 6.0 Not used with previous HCO 6.0
Modern private	Used to go to the same practitioner 10.1 Known to the family 5.7 Heard from other person 2.8 Advised by other person 2.6 Advised/sent by practitioner 2.1	Receive good/better treatment 11.1 Medicines work quickly 5.9 Doctor is good 4.5 To become well 7.3	Nearby 7.8 Treatment is cheap 3.5	Illness severe/acute 14.4 Good for this illness 4.4 Good for this complaint 2.1 Not used with previous HCO 4.5

Public	Known to the family 5.9 Used to go to the same health-care option 4.0 Heard from other person 4.7 Advised by other person 4.2 Advised/sent by practitioner 6.5	Receive good/better treatment 4.7 To become well 4.5	Nearby 6.9 Free of charge 7.0 Treatment is cheap 5.7 We can afford it 2.5 No money 2.0	Illness severe/acute 13.1 Good for this illness 5.4 Good for this complaint 3.5 Not used with previous HCO 5.9
Non-gov't	Used to go to the same health-care option 7.0 Know to family 4.5 Advised by other person 3.4 Heard from other person 2.8 Advised/sent by practitioner 2.8	Receive good/better treatment 9.0 Medicines work quickly 2.0 To become well 6.4	Treatment is cheap 10.0 Free of charge 8.6 Nearby 7.3	Illness severe/acute 14.4 Good for this illness 5.0 Good for this complaint 3.1 Not used with previous HCO 4.2
Mod. unqualif	Used to go to the same practitioner 8.1 Known to family 5.0	Receive good/better treatment 6.2 Doctor is good 6.2 Medicine works quickly 2.3	Nearby 16.9 Treatment is cheap 8.1 Gives loan 1.9	Illness severe/acute 13.1 Good for this complaint 2.7 Not used with previous HCO 6.2
Homeopath	Advised by other person 8.1 Used to go to the same practitioner 6.2 Heard from other person 2.5 Known to the family 2.3	Good for children 8.1 Receive good/better treatment 7.9 To become well 7.2	Treatment is cheal 7.7 Nearby 6.2	Good for this illness 8.1 Illness severe/acute 7.2 Good for this complaint 5.8 No other treatment useful 2.8 Not used with previous HCO 5.3
Traditional	Advised by other pers 15.0 Known to family 4.7 Practitioner is a member of the household or close relative 3.1 Heard from other person 2.8	Receive good/better treatment 4.3 Many got cured by the medicine 2.3 To become well 5.5	Nearby 6.1 Free of charge 3.0 Treatment is cheap 2.8	Good for this illness 16.9 Good for this complaint 7.0 Good for cause of this illness 6.1 Illness severe/acute 4.2 Not used with previous HCO

*HCO = health-care option

nnex 9: Constraints operating in health-care choice-making

MINOR ILLNESSES

Health-care option	Reasons for non-use ((period of responses per health-care option))			
	Option is unknown to respondent	Perceived quality	Economic	Illness-related
Wait-and-see	-	Not good for babies/ children 2.0	If used, may hamper work 5.3	Illness not so minor 33.4 Not approp.for this ill 9.8 Not useful for this ill 7.7 Ill may become severe 5.5 To become well 17.7
Home-care	Not known 27.2	-	No time to spend for it 7.3 Too expensive 2.1	Illness was minor 15.3 Illness was not so minor 5.8 Not required for this ill 5.6 See the outcome 5.1 Not useful for this ill 4.8 Not approp. for this ill 3.8 No need to do anything 3.3
Modern private	-	-	Too expensive 60.4	Illness was minor 15.6 Not required for this ill 5.2 Not approp. for this ill 3.8
Public	Not known 6.9	No good/only some medicine is given 6.5 Treatment is bad 3.8 Personnel not friendly/ not well behaved 2.2	Too far away 32.5 One has to wait too long to get things done 8.6 Too expensive 8.2 No time to spend for it 3.6	Illness was minor 9.3 Not required for this ill 3.3 Not approp. for this ill 2.5

Non-gov't	Not known 19.1	No good/only some medicine is given 6.6 Treatment is bad 4.0 Medicine does not work quickly enough 1.6 Personnel not friendly/ not well behaved 2.3	One has to wait too long to get things done 16.0 Too far away 9.8 Too expensive 6.9 No time to spend for it 4.2	Illness was minor 6.9 Not required for this ill 3.7 Not approp. for this ill 2.6 Out of laziness 2.3
Homeopath	Not known 2.0	Drugs do not work (quickly enough) 32.1 No belief in it 3.3	Too expensive 17.9	Not approp. for this ill 9.4 Not required for this ill 8.0 Illness was minor 7.3 Not useful for this ill 2.6
Traditional	Not known 2.7 Lack of availability of (good) practitioner 3.7	No belief in it 7.7 Drugs do not work (quickly enough) 7.5	Too expensive 5.6 Too far away 3.3	Not good for this ill 29.8 Illness was minor 8.2 Not good for the cause of the illness 7.9 Not required for this ill 5.7 Not useful for this ill 4.6

SEVERE ILLNESSES

Health-care option	Reasons for non-use ((period of responses per health-care option))			
	Option is unknown to respondent	Perceived quality	Economic	Illness-related
Wait-and-see	-	-	If used, may hamper work 4.7	Illness severe/acute 59.5 Not useful for this ill 7.1 Not approp. for this ill 5.5 To become well 10.8
Home-care	Not known 32.1	-	No time to spend for it 4.2 Too expensive 2.0	Illness severe/acute 11.0 Not useful for this ill 6.4 Not approp. for this ill 4.0 Illness not to severe 3.5 See the outcome 2.9 Better to use another health-care option 2.4 Not required for this ill 2.5 No need to do anything 2.4
Modern private	-	-	Too expensive 66.7	Not approp. for this ill 6.6 Not required for this ill 3.8 Illness not so severe 2.1 See the outcome 2.0
Public	Not known 9.3	Treatment is bad 5.5 No good/only some drugs is/are given 5.1 Personnel not friendly/ not well behaved 2.1	Too far away 30.7 One has to wait too long to get things done 10.8 Too expensive 8.4	Not approp. for this ill 3.7 Not required for this ill 2.9
Non-gov't	Not known 21.0	Treatment is bad 5.1 No good/only some drugs are/is given 4.6 No treatment given to adults 3.2 Personnel not friendly/ not well behaved 2.7	One has to wait too long to get things done 14.9 Too far away 12.2 Too expensive 8.8 No time to spend for it 1.5	Not approp. for this ill 5.1 Not required for this ill 3.0

Homeopath	Not known 2.4	Drugs do not work (quickly enough) 38.3 No belief in it 3.7	Too expensive 12.0	Not approp. for this ill 14.1 Not required for this ill 6.9 Not useful for this ill 2.5 Illness severe/acute 2.5 Not for the cause of this illness 2.2 Out of laziness 2.8
Traditional	Not known 2.8 Lack of availability of (good) practitioner 4.9	No belief in it 6.2 Drugs do not work (quickly enough) 4.8	Too expensive 5.3 Too far away 3.9	Not good for this ill 38.2 Not good for the cause of this illness 10.7 Not useful for this ill 5.0 Not required for this ill 3.8 Illness not so sever/acute 2.7