PREVALENCE OF PERCEIVED MORBmITY IN ADDIS ZEMEN TOWN, ETHOPIA

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ABSTRACT

A morbidity interoiew-survey was conducted in Addis Zemen, North-Western Ethiopia. Four hundred (20%) of the households (1710 people) were randomly selected to praticipate in the survey, to test the recall of recent health problems during a four week period. 310 people (18%) of the sample reported health problems, particularly of the digestive, visual, musculoskeletal and respiratory systems. Morbidity varied with age and sex. There were relatively higher reports of morbidity in the preschoolage as well as during later life. There was also a preponderence of females (12%) versus males (6%) reporting illnesses as a consequence of which adults lost 0.65 days of work per month per person, estimated at 8.0 days per year. Only 7.9% of persons reporting illnesses were disabled for three or more days, while over half of those reporting illness utilized medical care, with a preference for modem medicine, 40% failed to utilize any fonn of medical care. The major reason given was cost.

INTRODUCTION

A survey of any community health, illness, disability and utilization of health care services may be based on interviews and health examinations. In Ethiopia, much of the available information on morbidity is usually obtained from health centers and hospitals, however, becauseof the sparse distribution of health centers and hospitals, particularly in the rural areas, the morbidity statistics they generate is very often incomplete and, therefore, can not be relied upon for health planning purposes. One way of remedyfug this deficiency is by gathering relevant statistical information by means of the household-interview-survey method. As with other similar methods used for gathering information, one must evaluate it for the advantages and/or disadvantages that may result from its use. Some of the disadvantages of the household interview survey method include underreporting of illnesses (I) inaccuracy due to proxy reporting (2, 3) and discrepancies between interview and health examination results (3, 4). However, among the advantages of this method are its versatility in the collection of data, the use of non-medical interviewers as well as its relatively low cost as compared to health examination (4), advantages that have made it a widely applicable survey tool in both developed and developing countries.

During recent yeam, household interview has been used in Ethiopia. as well to conduct several morbidity surveys (5, 6, 7, 8). The purpose of the present study is to provide information collected by means of the household-interview survey method with respect to perceived morbidity, work-loss due to illness and the provision and utilization of health care in an Ethiopian community north of Lake Tana.

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METHODS AND MATERIALS

The study was conducted in the town of Addis Zemen, situated in northwestern Ethiopia along the Addis Ababa-Gondar Road. Addis Zemen (population 7280) serves as a field plactice area for the Gondar College of Medical Sciences in the training of undergraduate students in community health. Health care in the town is provided by a government health center and a privately owned pharmacy. The health center is staffed by one health officer, two nurses, four health assistants and a laboratory technician and provides out-patient services in maternal and child health care, immunizations, health education and environmental sanitation.

Prior to this survey, a population census was undertaken by the department of community health of Gondar College of Medical Sciences, the result of which was the identification and registration of 1784 households. From these households 400 (20%) were randomly selected using a random number generator (Texas fustruments, T-59, USA) program.

The survey instrument consisting of a pretested questionnaire prepared and administered in Amharic, was designed with the specific pulpose of obtaining demographic data, information on and duration of illness episodes, injury or disability experienced in the family, morbidity outcomes, work-loss and category of health care utilization during the four-week period preceeding the interview.

Five senior medical students from Gondar College of Medical Sciences, were trained in interview techniques prior to the interviews which they conducted from April 4-8, 1983, during the early morning and evening hours. At the beginning of the interview each head of household was asked if he/she or any member of the family has been ill, injured or disabled during the four weeks preceeding the interview. In cases of positive responses each respondent, aged fifteen or above, was directly interviewed. For members of a family less than fifteen years of age, or away from the home during the interview, an adult member of the family supplied the required information on their behal£ All episodes (illness or disability) and information with respect to workdays lost due to illness/disability were recorded exactly as were recorded. 96.3% of the selected households were initially covered by the interview while the remaining households (3.7%) were interviewed subsequent to follow-up visits.

For the purpose of this study an illness is defined as any condition of ill health perceived by an adult member of a household during the four-week recall period and which mayor may not have interferred with the normal activities of an individual (9). A disabling illness is a symptomatic illness lasting for three or more days during which the respondent was completely disabled and unable to perform any of his normal activities (10).Estimates of losses of work-days was calculated according to the steps followed in the Danfa Project, Ghana (11).

RESULTS

Characteristics of the sample popultion: The four hundred households comprise a total of 1,710 persons, representing nearly a quarter of the total population of Addis Zemen. A comparison of the demographic characteristics of the sample population with that of the total population of Addis Zemen is shown in Table 1. The percentage of females in the sample population is relatively more

(57%) than that of males (43%), however, the age and sex composition of the sample is comparable to the total population of Addis Zemen.

Table 1. Age and Sex Distribution of Persons Reporting Illnesses

Age (years)	Number of Persons in each age/sex group		Number and % of persons ill		Number and % of persons ill	Ratio of Male/ Female illness (A÷B)
	Male	Female	(A) Male	(B) Female	Male + Female	
< 1	28	35	13(46.4)*	6(17.1)	19(30.2)	2.71
1-4	106	127	25(23.6)	23(18.1)	48(20.6)	1.30
5-14	261	277	18(6.9)	18(6.5)	36(6.7)	1.06
15-24	89	152	7(7.9)	20(13.2)	27(11.2)	0.59
25-44	128	230	14(10.9)	59(25.7)	73(20.4)	0.42
45	99	121	16(16.1)	68(6.2)	84(38.2)	0.28
65	24	33	9(37.5)	14(42.4)	23(40.4)	0.88
Total	735	975	102(6.0)	208(12.1)	310(18.1)	0.48

*Numbers in parenthesis indicate percentage.

Government employment accounts for the most common adult occupation of men (22.2%); followed by handicrafts (14.4%); and daily labour (13.6%). Most adult women are housewives (36.8%); while 11.6% work in bars, and over three quarters of the sample population has just become literate Prevalence of illness: Table 1 presents the prevalence of preceived morbidity during the preceeding four weeks by age and sex. The reported illness for both sexes is higher for preschool aged children; lower in the 5-14 years age group; and increases successively after the age of 15, with the highest age-related prevalence of illness reported being for those 65 years of age and over. The prevalence of illness among males is higher before the age of 15, while among females it is more prevalent after the age of 15 with the highest point reached between the ages of 45-64 years.

The difference between the rates of perceived morbidity between females (21.1%); and males (6.0%); is significant ($Z = 4.3$; $p < 0.00006$). The overall morbidity rate of reported illness, however, is 18.1%.

Types of illness: There were 360 illness episodes reported by 310 persons giving an average of 1.2 illness spells per person per month. In 65 persons (7.9%), the illness spells led to disability among those in the age group 15-64 years. The most commonly zcported illness in the order of freq1lency was Gastrointestinal (26.1%), miscellaneous disorder (23.1%), including headache, fever, pregnancy, urogenital and vague complaints, eye diseases (17.5%), musculoskeletal problems (mainly reumatism) 13.1 %, respiratory conditions 11.1% skin conditions 3% and physical injuries 5%. The age and sex distribution of persons reporting these conditions follw the pattern depicted in Table 1. Moreover, except for physical injuries which were not encountered after the age of 15 years of age, all the preceeding illnesses were also reported as causes for the disabling conditions.

Workloss due to illness: Workloss due to illness is assessed for 819 adults in the age group of 15-64. The overall prevalence rate of reported illnesses in this age group was 22.5% (Table 1). Of these, .110 persons (60%) reported disabling illnesses resulting in work time loss. The prevalence of work time loss due to illness was 13.4% in the age group surveyed. On the average 4.9 days were lost per person. From the aggregate of work days lost, and the total population questioned in the sample, an overall of 0.65 days of workloss per person per month or the equivalent of 7.8 days per year has been reported.

Health care utilization: The type of action taken by ill respondents are presented in Table 2. The percentage of utilization of health care systems for any form of health problems was 57%, with modern health care system, being the leading health care form sought. However over 40% of the persons who reported illness did not seek any health care assistance. The reported reasons were inability to pay for medical services (75%), illness not perceived as requiring intervention (10%), and other reasons (15%).

Table 2. Type of Health care Utilization

Type of Care	Number	%
Health center	164	53.0
Local Pharmacy	4	1.3
Health Center + Local Pharmacy	2	0.6
Traditional Healer	6	1.9
No action taken	132	42.6

DISCUSSION

In this study the prevalence rate of perecived morbidity was 18.1%. Not with standing the paucity of similar studies with a recall period of four-weeks, rates of 19.6% and 27.8% have been reported from rural Korea and Cameroon respectively (11, 12). Compared with similar studies (11, 12), the present study reveals a relatively lower percentage of illnesses.

On the other hand, surveys conducted on the basis of a recall period of two weeks in rural Ghana, Kenya and Nigeria have shown prevalence rates of between 20.8% and 27.8% (13, 14, 15). Bushkens and Slikkerreer, on the basis of a longer recall period of one year, have reported a morbidity rate of 43.8% for communities in the Harrargie region, Ethiopia (7), while a recent study conducted in Gondar region during a 4 week recall period (8) reported 57%.

Since we made use of senior medical studel)ts as interviewers in our survey, a fact known to the community , we had hypothesised that there would be an over reporting of illness by the interviewees in the hope of obtaining immediate medical attention, but this was not substantiated. It was also found that there was correlation between the reported ilInesses and their variation with that of the age and sex of the interviewees, in keeping with the fmdings elsewhere (9, 13, 16, 17).

There were some degrees of similarities between the ilInesses reported by the interviewees in this survey and the records of examinations of patients at the health center for the same period. According to the options, eye disease, malaria and tuberculosis were the main causes for visits to the health center in Addis Zemen. Most of these diseases have been presumed as causes of perceived morbidity under siJnilar settings in Ghana and India (11, 18). It should also be noted that these diseases in the main are of infectious origin.

While work days lost due to illness were reported to be about two.weeks in the Ghanaian and Indian cases (11, 18), in our study only half as many work days were lost. This may be due to the fact that the inhabitants of Addis Zemen are mainly self-employed and as a consequence of which they stay away from work only under conditions of more extreme cases of illness, since the estimate of work time loss due to ilIness in this survey is based on lKiults only. As far as utilization of health care is concerned, 40% of the inhabitants of Addis Zemen reporting illness did not use health care facilities, and reasons given were mainly barriers due to cost. However, utilization of health care has been found to be influenced by several other factors as well (19). As in other comparable settings (3, 13, 20), modern medicine appears to have been well accepted; the health center in Addis Zemen has been in existence for well over 15 years; and the current campaing for increased utilization of health services through health education, is believed to have contributed to the popularity of modem medicine.

The need for similar studies incorporating some of Kroeger's recommendations (4) with respect to length of recall period, list of tracer conditions and validation of interview responses is clear, and we suggest that similar broader studies along the lines indicated be conducted so that a fuller picture of the situation with regard to morbidity will emerge.

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