

Free health care provision and its financial implications in Gondar town, northwest Ethiopia

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Abstract

Background: In Ethiopia based on government regulation; there is provision of free health service for the poor. However users' characteristics and the financial burden on health care provision has not been well investigated.

Objective: To find out if free health care provision really protects the poorest from the burden of payment and to estimate the service cost and financial impact of the above on Gondar College of Medical Sciences (GCMS) referral hospital.

Methods: Records of patients who received free health service at the GCMS hospital between December 1996 and December 2000 were retrieved from the hospital register book. Using a pre-tested uniform questionnaire, data were collected on 1021 patients whose address could be traced in Gondar town.

Results: Among the respondents, 836 (81.9%) were in the economically active age group (15-64 years) and more than half, 646 (63.3%) were females. Outpatients were 642 (62.9%) with an average cost of birr 34.60 per patient/year, while 379 (37.1%) were inpatients with average hospitalization duration of 28.7 days and average cost of birr 86.10 per patient/year. A significant number of respondents, 631 (61.8%) were real poor. The majority, 999 (97.8%) think poverty certificate to be an appropriate means to help the poor and 728 (70.2%) had no problem of acquiring one. More than half of the respondents, 642 (63.3%) were also satisfied with the service given free of charge.

Conclusion: Poverty certificate from Kebele does not exclude those who can afford to pay and creates unnecessary burden on government health service financing. Therefore, more effective screening technique by the concerned authorities is recommended. [*Ethiop.J.Health Dev.* 2004;18(2):125-129]

Introduction

In Ethiopia the financial and human resources available for health care are limited compared with the need for them. The extent of health problems are manifested by shortage of health professionals, the high child and maternal mortality rates and generally low immunization coverage. The under-funded health sector is one of the major causes of the existing weak health care system in the country (1).

Ethiopia is one of the countries in Africa that provide free health services to those "unable to pay". The criteria for the provision of free health care are based mainly on the monthly income of individuals (2 - 3). These criteria changed from time to time. In 1977 for example, all Ethiopians whose monthly income was less than Birr 50.00 (USD 6.0) per month got free health service (2). This criterion was revised in 1981 to Birr105.00 (USD 12.35) per month (3). There was a proclamation on the waiver mechanisms providing the authority of screening to Kebele/farmer associations or city councils (3). Anybody who goes to the above institutions with three witnesses is granted a poverty certificate that entitles the individual for free health service. There are circumstantial evidences that waiver mechanisms are abused by urban dwellers that are not poor, thus lowering revenues unnecessarily. On the other hand, most in the rural areas who might not even be aware of the existence of such system are not benefiting and this adversely affects equity.

The simplest and commonest form of health care financing is fee-for-service; where a fee is charged to recover part of the cost of the service provided. In many countries fee-for-service that may be called a "user charge" is used by government health service delivery institutions; both as means of raising revenue, and as a means of discouraging what may be viewed as "unnecessary demand" (4-5). However, there are different opinions on the use of fee-for-service. In a recent study to identify the success and problems encountered since the introduction of user fee policy, fees reduced attendance at referral hospital and improved use of primary level facilities (6 -7).

It was also found that users are willing to pay when the quality of health care improves through fees (8 -11). Other studies have shown that fees prevent access, or are imposing significant financial hardships on the poor (12 - 15). It is asserted, that some waiver schemes, set up on the ground of equity have been used, inappropriately as a vehicle to include other groups (4). However, the situation in Ethiopia is not adequately investigated.

It is very crucial that the effects on equity and quality of health service under different financing systems be carefully considered. In Ethiopia based on government regulation, there is a provision of free health care for those "who can not afford to pay". However, the characteristics of free health care provision and the

financial burden on the Gondar College of Medical Sciences (GCMS) referral hospital have not been investigated so far. This paper intends to contribute to efforts aimed at exploring alternative means targeting mechanism.

According to the reports of North Gondar Administrative Zone Planning and Economic Development Department, the population of Gondar town in the year 2000 was 157476 of which 48.4% were females. The GCMS referral hospital has 400 beds and gives comprehensive curative and preventive services for the population of North Gondar Administrative Zone and neighboring zones and regions. Based on information of the hospital archives in the five years study period the hospital has rendered health services for 260409 patients both at the out- and inpatient level of which 46178 (17.7%) were free patients.

The main objectives of the study were to find out if the free health care system really protects the poorest from the burden of payment and to estimate the service cost and financial impact of the above system on GCMS referral hospital.

Subjects and Methods

This retrospective study was undertaken in 2001 academic year to analyze the characteristics and financial impact of free health beneficiaries on the financial resource of the Gondar College of Medical Sciences (GCMS) referral hospital.

Records of patients who received free health service at the GCMS referral hospital between December 1996 and December 2000 were retrieved from the hospital register book. In the study period, a total of 46,178 patients received free health service of which 4334 (9.4%) were from Gondar town. Among the patients in Gondar town, 1084 (25.0%) were randomly selected and 1021 (94.2%) were included in the study. The rest, 63 (5.8%) could not be traced and were excluded from the study.

Data were collected using a pre-tested, close and open-ended questionnaire. The major components of the questionnaire included socio-demographic characteristics, monthly expenditure, housing conditions, problem of acquiring free paper for health service, frequency of visit to the hospital and satisfaction on the service.

Eight data collectors who completed grade 12 were recruited to administer the questionnaire. They were trained by one of the investigators. They contacted the free health beneficiaries and filled the required data by making a search on house numbers of free patients from the register of the respective Kebele. During the data collection process, both investigators made supervision and incomplete questionnaires were returned to the concerned data collectors for completion.

Just with the intention of showing the approximate dollar equivalent of the monetary expressions used in the paper a constant exchange rate (1USD = Birr 8.5) is used for the study period (1996 – 2000). The monthly expenditure of study subjects was used as an indirect measure of income level with the assumption of no saving.

User charges that are enforced to recover cost of delivering health services from those able to pay were used to estimate cost of free health service offered. Costs for inpatient and outpatient were estimated separately. Opportunity costs that were not recovered from free patients were considered as the financial impact on the hospital.

The data were analyzed using the statistical package EPI Info version 2000. Chi-square (χ^2) test was applied to determine differences and associations between variables. P-value <0.05 was considered significant.

Results

A total of 1021 free health beneficiaries from all 21 kebeles of Gondar town who visited the hospital from 1996 to 2000 were included in the study. Table 1 shows the socio-demographic characteristics of the study population. The mean age of the subjects was 36.7 ± 18.36 years (the median age was 35 years). The majority, 646 (63.3%) were females and 375 (36.7%) were males. Among the respondents, 836 (81.9%) were in the economically active age group (15 - 64 years). Of the study subjects 343 (33.6%), 336 (32.9%), and 178 (17.4%), were single, married and widowed respectively, while 147 (13.3%) were divorced and 17 (1.7%) were underage. Concerning the average family size of the study subjects, 511 (50%) had 3-5, 284 (27.8%) had 6-9 and 32 (3.1%) had more than 10 family members. As regards the educational status of free health beneficiaries the majority 795 (77.9%) were illiterate, 118 (11.6%) could read and write, 38 (3.7%) visited elementary school (grade 1-6) while 53 (5.2%) had secondary education and only 17 (1.7%) were above grade twelve. Most of the free health beneficiaries 339 (33.2%) were daily laborers and 263 (25.8%) were unemployables that include strata of economically dependent urban population such as beggars and the under aged. The rest were unemployed 142 (13.9%), pensioned 135 (13.2%), self-employed 93 (9.1%) or government employees 49 (4.8%). In the study area, the Kebele committee granted free service privilege. According to the guideline, an applicant, for getting the privilege, must be a resident of the Kebele at least for the previous six months and should not earn a monthly income of more than 105 birr (USD 12.35).

The frequency of visiting the teaching hospital varied. Among the respondents, 472 (46.2%) reported to have benefited from free medical services once, 311 (30.5%) two to three times and 238 (23.3%) four or more times a

year. Of the study subjects, 379 (37.1%) were admitted and the average duration of hospitalization was 28.7 days per year per patient. The average cost of admission (including diagnostic, food, bed and drugs) was Birr 86.10 (USD 10.13) per patient. From the total number of free patients 642 (62.9%) were outpatients and the average cost was Birr 34.60 (USD 4.07) per patient per annum.

Of the total number of patients who visited the hospital during the study period, 17.7% were free health beneficiaries. The total financial burden on the hospital was 13.5% of the total budget. From the total budget used by free patients, our study subjects consumed 31.3%.

Table 1: **Demographic and socioeconomic variables among free health beneficiaries in Gondar Town, 1996 - 2000 (N = 1021)**

Variable	Frequency	Percent
Sex		
Female	646	63.3
Male	375	36.7
Age		
0-14	87	8.5
15-64	836	81.9
≥65	98	9.6
Marital status		
Single	343	33.6
Married	336	32.9
Divorced	147	14.4
Widowed	178	17.4
Underage (<15)	17	1.7
Level of education		
Illiterate (including preschool)	795	77.9
Read/Write	118	11.6
Grade 1-6	38	3.7
Grade 7-12	53	5.2
Above grade 12	17	1.7
Occupation		
Unemployed (includes underage)	142	13.9
Self-employed	93	9.1
Government employed	49	4.8
Daily laborer	339	33.2
Pensioned	135	13.2
Unemployable (e.g. beggars)	263	25.8
Family size		
1 - 2	194	19.0
3 - 5	511	50.0
6 - 9	284	27.8
≥10	32	3.1

Table 2 shows the distribution of patients based on their spending and assets. Based on the minimum wage of government employees, patients who spend below birr 105 were classified as low-income groups. Those who spend between the minimum and twice, i.e. Birr 105-210 were classified as medium earners, while those who spend more than birr 210 were considered as high-income groups. Considerable number of respondents, 631 (61.8%), were below the poverty cut-off point (less than

Birr 105 monthly expenditure) while 285 (27.9%) were medium income earners with average monthly expenditure between Birr 105 and 210; nevertheless 105 (10.3%) were high-income group who spend more than Birr 210.00 per month. About 495 (48.5%) lived in Kebele houses; 349 (34.2%) had their own and 79 (7.7%) lived in houses rented from private owners. The rest, 98 (9.6%) were homeless or dependents living with others. For 486 (82.8%), living in Kebele houses the rent was below Birr 10 (1.18 USD) per month. Most respondents, 706 (69.8%) lived in one-room house, while 305 (30.2%) lived in houses having two or more rooms, but 10 subjects did not respond to this particular question and are believed to be truly homeless.

Some of the free health beneficiaries, 402 (39.4%), including those earning low income, afford to visit private clinics occasionally. There was a statistically significant association between income level and private clinic visit. The likelihood of the medium income group to visit private practice was about 1.5 times higher than the low-income group. Similarly, the high income group visited private clinics 3 times more than the low income group (x2 square trend analysis, $P < 0.001$). However, house ownership had no significant effect ($P > 0.3$) on private clinic visit on all income groups. In all cases, the frequency of seeking free health service was found to have no significant association with income level difference ($P > 0.13$). The main information source as regards the availability of free health services was Kebele offices 546 (53.5%) followed by neighborhood 219 (21.4%) and information from health professionals, 137 (13.4%).

Table 2: **Economic status of free health beneficiaries in Gondar Town, 1996 - 2000 (N = 1021)**

Monthly Income (spending)	Frequency	Percent
Low (<105.00 Birr)	631	61.8
Medium (105-210)	285	27.9
High (>210.00)	105	10.3
Housing condition (asset ownership)		
Kebele House	495	48.5
Rented from private	79	7.7
Own house	349	34.2
Other	98	9.6

Many, 728 (70.4%) had no problem of getting free paper from Kebele and most 936 (91.8%) believed that free paper was given to the needy. Almost all respondents, 999 (97.8%) thought that free paper from Kebele is an appropriate means to support the poor.

Free health beneficiaries, had varied opinion on the quality of service provided to free patients. A significant number, 642 (63.3%) thought that the service given free was equivalent to those who pay, while 365 (35.8%) asserted the service to be partial. Of the dissatisfied subjects, 159 (44.5%) attributed partiality to low

attention and bad treatment of health workers. Some 139 (38.9%) expressed that there was proper drug provision for free patients.

Discussion

This paper retrospectively assessed the user characteristics of free health beneficiaries from GCMS referral hospital for a 5-year period. As indicated in table 1 the main beneficiaries of free health care were females 646 (63.3), showing the burden of disease (as related to maternal diseases) is higher in women and the income status of women and the income status of women is lower than men. The fact that most of the free care users are in the economically active age group, 836 (81.9%); rather than the elderly and children the dependency on government resources is not explained by dependency resulting from old age (above 65 years) or under age (less than 15 years). This might indicate that waiver is used for public health importance such as tuberculosis, and for high priority services such as MCH and FP. As shown in table 1 the majority of free health service users were illiterate 795 (77.9%) indicating that the better the educational status of people the higher their income. Despite this fact, people having high income (i.e.>Birr 210 per month) were not excluded from benefiting the free health care provision. This implies that, although the majority of free medical service users are poor, there are also the haves who benefit from free health care indicating the inefficiency of the free health care system to select the needy. This is supposed to be the outcome of the very low awareness of both the Kebele officials and the patients about the financial implications of free health care.

The free patient rate in the Amhara region is very high reaching up to 85% (16). Therefore, this region is considering proposing the municipality to cover the costs of free patients through its annual budget (17). If health service has to improve in this region, better screening technique or users fee must be introduced. The results of this study showed that the current waiver mechanism is not very effective in screening the poor. Similar study has also shown that those who could afford were given free care (18). This may be the result of false pretence, subjective waiver criteria and informal identification and verification procedure. In addition, as free certificates are granted at kebele level, social pressure on leaders to accept bribe or waive fees for acquaintance might make it difficult to prevent leakage (19-20). Therefore groundwork must be done in the implementation of effective waiver mechanisms to protect the poorest from the burden of payment. Establishment of community decision -making bodies that effectively represent the interest of all groups may be more effective than the present system.

An earlier study showed that cost-sharing group was one third less likely than the free care group to see a

physician when they had minor symptoms, but did not differ significantly in seeking care for serious symptoms (21). This shows that cost sharing creates a sense of ownership, which leads to greater responsibility on part of the users and more accountability on part of providers (22). Among those using poverty certificate some patients in our study used to visit private clinics. This occasional visit of private clinics by some of the free patients is another justification to the problem of the system. Many studies have also shown that users are willing to pay when the quality of health care improves (6, 22). Obviously, beneficiary input may result in increased revenue to enhance quality.

Considering the existing level of development of the country, there is less hope for the introduction of health insurance in the short term. However, it could possibly be introduced at the community level through community health insurance scheme and gradually develop to full fledged insurance particularly in the urban areas. This system worked well at least in some African countries (21-22). A significant number of the free patients live in their own houses, this shows that assets like a house are not given due consideration in selecting patients that should be given free medical services. That is, wealth as a flow concept rather than a stock concept is given more emphasis to support the poor to get free health services. Having assets like a house is an important indicator to distinguish the real poor or in other words government resources are misallocated in the form of paying the health care expenses of those who can afford to pay. On the average, free health beneficiaries consumed 13.5% of the annual budget of the hospital for drugs and medical supplies. This financial burden on the government could have been reduced had better screening technique been used.

According to the findings of the present study, there is leakage of free health service benefits to those who actually are able to pay. Therefore, improved screening technique and creating awareness among kebele officials on the financial impact of free health service is needed.

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