PN-ACD-607
98854

COST SHARING IN ERITREA
ASSESSMENT AND
OPTIONS FOR HEALTH FINANCE

August 13-September 11, 1997

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BASICS Activity Code 017-ER-01- 032
USAID Contract No HRN Q-17-93-00032-00

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ACKNOWLEDGMENTS

I would like to thank the Task Force on Health Finance for providing information on health finance and feedback on the work plan, the outline of this draft report, and the preliminary results and recommendations The members include—

Dr Iyob Tekle, head of Planning, Programming and Evaluation
Dr Ghermai Tesfasellase
Berhana Haile, director, SEMISH
Asemehie Yebio, head of Finance
Dr Micael Ghreiwot, director, Mekane Hiwot Hospital (MHH)

Many people in the Government of Eritrea contributed to this draft report through qualitative interviews and by sharing financial information I would especially like to note the contributions of the computer analysts at SEMISH, including Samuel Goitom for entering the monthly utilization data, and Haile Mariam for supporting the analysis of the EHHSUES data I would also like to thank Eyob Zere Asbu, who is a student at the Health Economics Unit at the University of Cape Town, for sharing his data

Finally, thank you to the USAID Mission in Eritrea, the BASICS office in Asmara, and the BASICS staff in Washington, D C , for making this assignment possible

ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival
DHS	Demographic and Health Survey
EHHSUES	Eritrean Household Health Status, Utilization, and Expenditure Study
ENDL	Essential National Drug List
GNP	Gross National Product
MHH	Mekane Hiwot Hospital
MOF	Ministry of Finance
MOH	Ministry of Health
MOLG	Ministry of Local Government
MOLHW	Ministry of Labor and Human Welfare
NICE	National Insurance Corporation of Eritrea
NSO	National Statistics Office
SEMISH	State of Eritrea Management Information System for Health
TOR	Terms of Reference
USAID	United States Agency for International Development

E

EXECUTIVE SUMMARY

INTRODUCTION

In February 1996, the Ministry of Health (MOH) of Eritrea introduced cost-sharing at all public health facilities on a user-fee basis The cost-sharing scheme was designed to encourage patients to use primary care facilities (except in emergencies) and to encourage an increase in the supply of health care from the private sector The scheme provides substantial subsidies for primary care, whereas patients at hospitals (especially in urban areas) are expected to pay all the costs of their care In addition, the registration fee for hospital outpatients and the room charge for inpatients are lower for patients who are referred from primary care facilities

After the cost-sharing scheme had been operating for 18 months, the MOH asked the BASICS project to field a short-term health finance consultant for 1 month to—

- Review and assess the cost-sharing scheme regarding the quality of care, efficiency, equity, and viability

- Propose feasible options on how to immediately initiate cost-recovery for all medical services on a user-fees basis according to individual's ability and willingness to pay in regard to efficiency and the quality of care provided

The results of the assessment and the options are presented below

Assessment

A Revenue

In 1996, health facilities collected a total of 8,340,811 birr ($1,174,762 at an exchange rate of 7 1 birr/$US), and the majority of revenue appears to be from hospitals Revenue was 14 percent government recurrent expenditures for health care, which were 58,242,030 birr ($8,203,000) in 1996 This is the highest reported percentage for sub-Saharan Africa

Revenue as a percentage of total expenditures at public health facilities is lower than 14 percent, because total expenditures include donor recurrent expenditures and capital costs Estimates suggest that 1996 revenue would be 8 to 10 percent of total expenditures

The zones report that they are recovering from 23 to 59 percent of expenditures for drugs, the percentages for zones are lower than the national total, because expenditures in zones include donor funds for drugs and the national total does not

B Efficiency of the Fee Collection Method

In general, fee collection is operating smoothly The majority of fee collectors have been hired and begun work, and facilities are installing safes

A main issue is that the cost of the fee collectors' salary may be about the same as the revenue collected from the registration fee at some primary care facilities, especially health stations At the 1996 salary for secondary school graduates of 4,068 birr per year, the fee collectors' salary was 20 to 30 percent of revenue collected at health centers and stations, and only 1 or 2 percent of revenue collected at hospitals At the 1997 salary of 10,308 birr per year, the salary is 50 to 80 percent of the revenue collected at health centers and stations

C Efficiency of the Cost-sharing Scheme

1 Introduction

The efficiency of the cost-sharing scheme should be judged relative to the goals it was designed to attain In addition to raising revenue, those goals are to 1) provide substantial subsidies for primary care, 2) charge patients the full cost of care at tertiary care facilities, and 3) encourage patients to use the referral system appropriately Two aspects of the scheme are assessed relative to these goals prices and patient behavior

2 Are the prices appropriate to attain the goals?

It is clear that the registration fees at health centers and stations provides a substantial subsidy for curative care at those facilities Further, the respondents to the qualitative interviews reported that the registration fees have had a positive effect on patients' attitude towards care For example, patients are more likely to take the full course of drugs when they pay registration fees Patients are aware that the registration fees at health centers and stations are less than they would spend for drugs at pharmacies or rural drug vendors

Data are not available to draw conclusions about the prices at tertiary care facilities

3 Have the desired changes in patient behavior occurred?

After the cost-sharing scheme was introduced, the monthly utilization data show a decrease in utilization of care for which fees are charged The number of new outpatient visits decreased beginning in February 1996 at hospitals, health centers, and health stations Hospital discharges also decreased at the same time, but inpatient discharges from health centers did not Multivariate regression analysis showed that these decreases were significant There was no comparable decrease in utilization of care that is free of charge, such as new patient visits for growth monitoring and antenatal care

Respondents to the qualitative interviews said that most of the decrease was among patients with less severe illnesses The decrease in utilization was reducing crowding at health facilities and allowing health workers to spend more time with patients with severe illnesses Some respondents noted that the people who decreased their utilization of care might include a small number of patients with severe illnesses who were unable to pay for care

Health workers appear to be spending more time with patients during repeat visits rather than doing longer consultations for each visit In addition, the utilization of care shifted away from curative care towards preventive care at health centers and stations, but not at hospitals Comparing data on the first six months of 1994 to the first six months of 1997, the total number (new and repeat) of visits for growth monitoring and antenatal care increased substantially at health centers and stations, but not at hospitals

Finally, it is unclear whether or not the cost-sharing scheme is encouraging patients to use the referral system correctly

D Quality of Care

It is important to note that the scheme was not designed with a specific link to improving the quality of care The cost-sharing scheme in Eritrea was implemented in the context of a government that is committed to improving the health of the population, no fee retention by facilities, and very good drug availability

Given that drug availability was good before the cost-sharing scheme was introduced and that the scheme was not designed to improve drug availability, it is not surprising that drug availability did not appear to have improved after the scheme was introduced Respondents to the qualitative interviews noted that ENDL drugs were available before and after the scheme was introduced Administrators noted that the procedures to obtain ENDL drugs have been simplified since the cost-sharing scheme was introduced

Some respondents have suggested that the quality of consultations may have improved, as facilities have become less crowded with patients seeking unnecessary care The utilization statistics cited above suggest that any improvements in the quality of consultations would be in the form of patients having more repeat visits rather than longer consultations

E Equity

1 Access to care

Utilization and consequently expenditures appear to be the same between households with access to a health facility and those without access Similar utilization is the result of two factors that offset each other 1) the incidence of illness was greater in households without access, and 2) among people who were ill, the probability of seeking care was lower in households without

access Ability to pay, measured by health care expenditures as a percentage of household consumption, also appears to be the same between households with access to a facility and those without access

For policy purposes, these results suggest that if health care were to be financed through an annual prepayment or earmarked tax, the amount could be the same regardless of access This is an important result, because it would allow for a somewhat simpler scheme, and the MOLG emphasized the importance of simplicity for any policy that might be recommended

2 Relative economic status

Utilization was consistently higher for households with higher economic status For health care expenditures and ability to pay, the comparisons are somewhat more complicated In households in which at least one person used care, expenditures were only 6 percent of consumption for households in which consumption was greater than the median, in comparison to 12 percent for households in which it was less than the median, and these differences across economic status were significant In contrast, health expenditures were 4 percent of consumption when averaged over all households, and the differences across economic status were not significant

For policy purposes, the question is whether or not the cost-sharing scheme is regressive, i e do people who are poorer spend a higher percentage of their income for health care than people who are better off financially? The statistics presented above show that the scheme is at best neutral, and definitely not as progressive as Eritrea's income tax rates From the perspective of someone who is ill, the scheme is regressive, because the percentage of consumption that people who are poorer spend is twice as high as people who are better off financially From the perspective of all households, the scheme is neutral, because everyone spends the same percentage of consumption The neutrality reflects the fact that people who are better off are consuming more and spending more

3 Poverty certificates

The current policy for poverty certificates is unclear The March 20, 1995 announcement said that the local administration would issue poverty certificates to and pay the bill of patients who are referred to the hospital, but are unable to pay for care Local government officials said that the village administration issues poverty certificates however, patients must also seek authorization from the Ministry of Labor and Human Welfare (MOLHW), which is responsible for payment MOH administrators have been discouraged from seeking reimbursement for the care provided to patients with poverty certificates

The absence of clarity is causing problems for patients, health workers, and the village administrators Many patients who seek care at hospitals have neither money nor a poverty certificate Health workers face a conflict between treating patients and insisting on payment or a

poverty certificate Village administrators do not have uniform standards for which patients are entitled to a poverty certificate

OPTIONS

A Overview of the Economy and the Health Economy

Although only 27 3 percent of the population of Eritrea live in urban areas, the majority of financial activity for health care occurs in urban areas Opinions differ on whether Maekel Zone and urban areas contribute more or less than they receive, and a quantitative estimate is beyond the scope of this assessment The point is that there are more public funds going in and out of the health in urban areas than in rural areas, and the volume of financial activity for health care in urban areas is likely to expand as incomes increase and the demand for health care increases in urban areas In contrast, the tax revenue from rural areas is lower, as is the potential for income growth, and they are likely to require substantial subsidies for health care for the foreseeable future

B Options for Social Insurance

Two options with the most advantages are social insurance programs that finance care at both public and private facilities Neither option is perfect, and there is a tradeoff between an insurance program with co-payments that discourages unnecessary care and one without co-payments that does not require fee collection at health centers and stations These options are generalizations, and it would be possible to design a social insurance system with co-payments at hospitals (and possibly some health centers) where the cost of fee collection is relatively low, and no co-payments at health stations (and possibly some health centers) where the cost of fee collection is relatively high

C Recommendations

1 Social insurance system

The MOH should move towards recovery of a higher percentage of the costs of care in the context of a social insurance system, rather than through price increases within the current system A social insurance system offers the opportunity to use all public finance options to raise revenue for health care, rather than being limited to raising all the revenue at the time that care is delivered or within the health sector For example, Eritrea's income tax rates are progressive and could serve as a standard for the social insurance system

2 Short-run price increases

If price increases within the current system are necessary within the short run, the price increases should be directly linked to quality improvements Further price increases in the absence of

quality improvements will cause further decreases in utilization, but it is not clear that further decreases are warranted on the basis of efficiency A direct link to a quality improvement, such as charging fees for drugs, can offset some of the decrease in utilization and the corresponding decrease in revenue

3 Two types of insurance programs

The social insurance system should have two types of insurance programs one to address the high volume and dynamic health finance issues in Maekel Zone and urban areas, and the other to finance primary health care with much more limited financial resources in rural areas

4 Staged implementation

Operations research and implementation of the social insurance system should begin as soon as possible National Insurance Corporation of Eritrea (NICE) has expressed interest in entering into a 50/50 partnership with the MOH to initiate the insurance program

Civil servants and enterprise employees are an ideal population with which to initiate the program The minimum risk pool for a medical insurance program is 5,000 people, which is more than satisfied by the 20,000 civil servants and 20,000 enterprise employees, plus their families Further, they can be enrolled as a group to avoid problems of adverse selection Finally, civil servants just received substantial pay increases and are financially in a position to pay social insurance premiums

RECOMMENDED TASKS

Cost-Sharing Scheme

1 Establish a uniform policy and a simple process for obtaining poverty certificates

2 Introduce procedures for facilities to report to the MOH on the value of services delivered to people with poverty certificates and to emergency cases

3 Establish routine procedures for fee collectors and the accounting staff at zonal medical offices to estimate facility costs Develop receipts or other forms that list costs as well as fees

4 Conduct a cost study at MHH with estimates of current costs and projected costs when quality improvements are completed

Cost-Sharing Scheme or Social Insurance

5 Include cost estimates, revenue, and utilization data in a comprehensive budgeting process

6 Develop simplified procedures for expenditures that link facility revenue to quality improvements

7 Incorporate cost estimates and revenue projections in the long-term planning process

8 Conduct operations research to identify the most cost-effective ways to provide care for specific health problems or populations

Social Insurance

9 Conduct operations research on insurance program benefits

10 Conduct operations research on reimbursement methods for providers

11 In partnership with NICE, develop a business plan to initiate a social insurance program for civil servants and/or enterprise employees

12 Initiate a process with MOLG and village health committees to develop community-based social insurance in rural areas

I INTRODUCTION

In February 1996, the Ministry of Health (MOH) of Eritrea introduced cost-sharing at all public health facilities on a user-fee basis Although fees were charged at some facilities for some services prior to 1996, the cost-sharing program marked the beginning of registration fees at all facilities, as well as fees for drugs and diagnostic tests at hospitals Cost-sharing in this context refers to user fees that do not recover 100 percent of health care costs, such as the nominal registration fees of 3 and 5 birr at health stations and health centers, respectively Cost-recovery refers to user fees that recover all the health care costs, such as the fees for drugs at hospitals

The cost-sharing scheme was designed to encourage patients to use primary care facilities (except in emergencies) and to encourage an increase in the supply of health care from the private sector The scheme provides substantial subsidies for primary care, whereas patients at hospitals (especially residents of urban areas) are expected to pay all the costs of their care In addition, the registration fee for hospital outpatients and the room charge for inpatients are lower for patients who are referred from primary care facilities The higher fees at hospitals are also intended to encourage patients to seek care from the private sector, and the higher revenues at hospitals are intended to encourage people to invest in the private sector hospitals and clinics For more information, see the MOH Cost-Sharing Announcement, March 20, 1995, in Appendix D

After the cost-sharing scheme had been operating for 18 months, the MOH asked the BASICS project to field a short-term health finance consultant for one month to—

- Review and assess the cost-sharing scheme in regard to the quality of care, efficiency, equity, and viability

- Propose feasible options on how to immediately initiate cost-recovery for all medical services on a user-fees basis according to individual's ability and willingness to pay in regard to efficiency and the quality of care provided

The terms of reference (TOR) and two letters modifying the terms of reference, dated August 4, 1997 and September 12, 1997, are in Appendix A

As the final report of that consultancy, the results of the assessment and the options are presented in the following five sections Section II is an overview of the methodology The results of the assessment are reported in Section III The options for initiating cost-recovery involve insurance schemes as well as user fees, and these options are proposed in Section IV Recommended tasks to improve the cost-sharing scheme and to initiate a social insurance system are described in Section V

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II METHODOLOGY

A Introduction

As listed in the TOR, the assessment and proposal are based on three sources of information 1) qualitative interviews with MOH officials, health workers, and other officials of the Eritrean government 2) quantitative analysis of secondary data, and 3) document review The qualitative and quantitative methods are summarized below For the document review, please see the bibliography in Appendix C

B Qualitative Interviews

I talked with officials at the MOH, Ministry of Local Government (MOLG), Ministry of Finance (MOF), and National Insurance Corporation of Eritrea (NICE) I also interviewed the zonal medical officer, a representative of MOLG, and health workers in three of Eritrea's six zones 1) Anseba, 2) Debub, and 3) Maekel I also interviewed the administrator and chief accountant at Mekane Hiwot Hospital (MHH) The list of people contacted is in Appendix B During the interviews, respondents were asked questions about the following topics

- Describe the current cost-sharing system
- Assess the strengths and weaknesses of the cost-sharing system
- Describe how expenditures are made for the facility
- Has the cost-sharing system led to an increase in resources available to the facility?
- Are people aware of the differences between the registration fee and the cost of services?

Note that the criteria for selecting the number of zones to visit was whether or not I learned new information at interviews, when the information became repetitive, no visits to additional zones were planned The zones visited were located close to Asmara, so some information about the difficulties of implementing a cost-sharing scheme at remote facilities may not have been collected

C Quantitative Analysis

1 Time series data on utilization

A programmer at SEMISH created a special time series data set with monthly utilization data by level of facility (hospital, health center, and health station) for each province for 1994 and 1995 and for each zone for 1996 and 1997 The data included utilization of two services for which fees were charged 1) outpatient visits and 2) hospital discharges Multivariate regression analysis was used to test for changes in utilization before and after the cost-sharing scheme was introduced As a comparison, the data set also included utilization of two services that are provided free of charge 1) growth monitoring and 2) antenatal care

Note that the local government in Eritrea was restructured from 10 provinces to 6 zones in January 1996 For four of the six zones, 1994 and 1995 utilization data from the two provinces that were combined into one zone were added to correspond to the later data on zones For hospitals and health centers (with one exception), the data on the two relevant provinces included the same facilities as the zone This was not the case for health stations, so those statistical tests were performed with national data rather than data by zone

2 *Eritrean Household Health Status, Utilization, and Expenditure Survey (EHHSUES)*

EHHSUES data on utilization and expenditures were used to assess the equity of the cost-sharing scheme Two sets of comparisons were made on the basis of access to health care and relative economics status Analysis of variance (ANOVA) was used to test for differences in utilization and expenditures

Access was defined as living in a town or village with a health facility Solomon Tsegay, who performed the preliminary analysis of the EHHSUES data, advised that the survey data on distance and travel time to the nearest health facility were unreliable Instead of using the survey data, a programmer at SEMISH identified which of the towns and villages in the sample had a health facility

Data on monthly household consumption were used to identify relative economic status Consumption included food that was purchased, produced and eaten, or received as a gift during the previous month It also included one-third of non-food expenditures during the previous three months Households whose consumption was greater than the median were defined as high status, and households whose consumption was less than or equal to the median were defined as lower status

3 *Demographic and health survey (DHS)*

Data in the DHS report provided national statistics on health status, health care utilization, residence (urban versus rural), and employment status

III ASSESSMENT OF THE COST-SHARING SCHEME

A Revenue

In 1996, health facilities collected a total of 8,340,811 birr ($1,174,762 at an exchange rate of 7 1 birr/$US) and the majority of revenue appears to be from hospitals Total revenue by zone and revenue data by level of facility for the three zones that I visited are reported in Table 1 As shown, the majority of revenue was from hospitals, but 30 percent of total revenue was from MHH

Revenue for 1997 is expected to exceed 1996 1996 revenue represents 11 or fewer months of fee collection, because all facilities did not begin collecting fees in February 1996, and some did not begin until April 1996 In addition, the capacity for fee collection is greater in 1997 than 1996 because more facilities have fee collectors and safes (see below) Rough estimates of 1997 revenue (revenue during the first six months multiplied by two) suggest that 1997 revenue will be 20 percent greater than 1996 for two of the three zones that I visited, and about 40 percent greater than 1996 at MHH

Revenue was 14 percent of government recurrent expenditures for health care in 1996, which were 58,242,030 birr ($8,203,000) This is the highest reported percentage for sub-Saharan Africa (Wang'ombe, 1997) Even for Kenya, which has been the site of a five-year, multi-million dollar health finance reform project, it is reported that 37 percent of non-personnel recurrent expenditures are recovered at provincial hospitals, 20 percent at district hospitals and 21 percent at health stations (Collins, et al, 1996), compared to 32 percent of non-personnel recurrent expenditures in Eritrea

Table 2 presents three measures of revenue as a percentage of expenditures by zone Revenue is the same for each measure, but there are three different measures of expenditures 1) expenditures for drugs, 2) government expenditures for personnel and other recurrent costs (excluding drugs), and 3) total recurrent expenditures The zones report that they are recovering from 23 to 59 percent of expenditures for drugs, the percentages for zones are lower than the national total, because expenditures in zones include donor funds for drugs and the national total does not

Revenue as a percentage of total expenditures at public health facilities is lower than 14 percent, because total expenditures include donor recurrent expenditures and capital costs Although data on donor recurrent expenditures and capital costs are not available, one estimate (Yoder, 1995) suggests that 1996 revenue would be about 8 percent of total costs and another estimate (World Bank, 1997) suggests that it would be about 10 percent of total costs.

B Efficiency of the Fee Collection Method

1 Description of the fee collection method

Fee Collectors In the last 18 months, the MOH hired full-time fee collectors for most facilities Their job is to collect money, write receipts, and deposit money at the local office of the Treasury They are accountable for the money collected rather than health workers, and there are stiff penalties for financial irregularities (e g , a 10,000 birr penalty per missing receipt) Health centers and stations have one fee collector per facility Hospitals may have more than one fee collector, and MHH has a total of eight (seven fee collectors and one head cashier)

TABLE 1
1996 REVENUE COLLECTED BY LEVEL OF FACILITY

Zone	Hospitals	Mini Hospitals	Health Centers	Health Stations	Total
Anseba	357,959(a)	–	218,836(a,b)		693,812
Debub	896,562	596,243	107,965	197,556	1,798,327(c)
Gash Barka					710,010
Maekel	--	--	237,443	286,115	597,563(d)
Northern Red Sea					416,644
Southern Red Sea					732,109
Subtotal for zonal hospital, health center, and health station					4,948,466(f)
Mekane Hiwot	2,542,887(e)				
Berhane Ayni	540,374				
Kidisty Mariam	35,349				
Hazhaz	273,736				
Subtotal for referral hospitals					3,392,346(f)
TOTAL					8,340,811(f)

a Estimate for 1996 based of 4th quarter 1996 revenue multiplied by four
b Health centers and health stations not reported separately
c Total reported by MOH financial officer was 1 576 403 07
d Includes 74005 2 for the quarantine center
e Total reported by MOH financial officer was 2 749 238 32
f Subtotals and national total differ from amounts reported by MOH financial because of differences noted in c and e above

The frequency with which the fee collector deposits money is controlled by the number of official receipt books that he/she receives from the Treasury, and varies with the distance to the local Treasury office Although fee collectors initially were required to make deposits on a daily or weekly basis, the MOH and the Treasury subsequently agreed on less frequent deposits for some facilities, taking into consideration the cost of travel (both the vehicle and the fee collector's absence from the facility) to the Treasury office Fee collectors at the most remote facilities now make deposits once a month Wall safes are being installed at facilities where deposits are made less frequently

Fee Collection from Outpatients The fee collection method at health centers and stations is relatively simple The fee collector collects the registration fee from patients and gives one copy of the receipt to the patient and one copy to the health worker To insure that everyone who receives care has paid (with the exception of emergencies), the health worker calls patients to a consultation by the name on receipt

At hospitals, the fee collection method is more complex, because there are fees for diagnostic exams and drugs in addition to the registration fee Figure 1 shows the steps that may be required during an outpatient visit As shown, an outpatient visit may require up to nine steps

Fee Collection from Inpatients Inpatients at hospitals pay a deposit when they are admitted For example, the schedule of deposits at MHH is presented in Table 3 While the patient is hospitalized, the services he/she receives and the price of the services are recorded in the patient record When he/she is discharged, the fee collector prepares a receipt with the total amount due If the total exceeds the deposit, the patient pays the additional amount due, and if the total is less that the deposit, the patient receives a refund

Sick Reports For hospital care, some patients present a sick report from their employer, who accepts financial responsibility for its employees care In 1996, MHH billed 83 employers or organizations for their employees' care, and received 269,717 birr ($39,988) or 10 6 percent of MHH's revenue from them In 1996, the employers were primarily enterprises Although some people thought that civil servants also receive sick reports, most civil servants pay for care out-of-pocket, with a few exceptions, such as of employees of the MOH and the Ministry of Defense

2 Assessment of the fee collection method

In general, fee collection is operating smoothly The majority of fee collectors have been hired and begun work, and facilities are receiving and installing their safes All of this has been accomplished in a relatively short period of time There are obviously some problems at facilities where the fee collectors have not yet been hired and the safes have not yet been installed Some health workers are reluctant to take on the additional responsibility of collecting fees in the absence of a fee collector Some fee collectors and health workers are uneasy about keeping money at the facilities that do not have safes These problems should be resolved as the hiring of fee collectors and the installation of safes proceeds

TABLE 2
REVENUE AS A PERCENTAGE OF EXPENDITURES

Zone	Revenue as % of expenditures for drugs	Revenue as % of government expenditures for personnel and other recurrent costs **(a)**	Revenue of % of total recurrent expenditures
Anseba	36 %	29 %	16 %
Debub	38	35	18
Gash Barka	23	42	15
Maekel **(b)**	34	17	11
Northern Red Sea	na	na	na
Southern Red Sea	59	18	14
Mekane Hiwot	57	41	24
Other referral hospitals	na	na	na
TOTAL	66 **(c)**	18	14 **(c)**

a Other recurrent costs include primary health care expenditures in Anseba, Gash Barka, and Southern Red Sea zones

b Expenditures for other recurrent costs for 1996 are estimated with the 1997 expenditures

c Percentages are lower in zones than the national total because expenditures in zones include donor funds for drugs and the national total does not

FIGURE 1
PATIENT FLOW DURING FEE COLLECTION FROM HOSPITAL OUTPATIENTS

1 Pay registration fee to fee collector
2 Consult with health worker

If health worker orders a diagnostic exam, then the patient follows these steps
- 3 Go to laboratory where the technician writes the price of the exam on the order
- 4 Go to fee collector to pay for exam
- 5 Return to laboratory for exam
- 6 Return to health worker with the results of the exam

If the health worker prescribes drugs, then the patient follows these steps
- 7 Go to pharmacy where the pharmacist writes the price of the drug on prescription
- 8 Go to fee collector to pay for drugs
- 9 Return to pharmacy for drugs

TABLE 3
SCHEDULE OF DEPOSITS FOR INPATIENT CARE AT MHH

Patient class	Surgery	Non-surgical
First	300 birr	200 birr
Second	200	100

TABLE 4
1996 AVERAGE REVENUE BY LEVEL OF FACILITY

Zone	Hospitals	Mini Hospitals	Health Centers	Health Stations	Health Centers and Stations
Revenue					
Anseba	357,959				13,677
Debub	448,281	119,249	15,424	9,878	11,316
Maekel			29,680	12,440	19,276
Mekane Hiwot	2,542,887				
Fee collector's salary as a percentage of revenue (salary = 4,068 birr per year) **(a)**					
Anseba	2 % **c**				24 %
Debub	2 **(c)**	3 % **(c)**	21 %	33 %	29
Maekel			11	26	17
Mekane Hiwot **(d)**	1				
Fee collector's salary as a percentage of revenue (salary = 10,308 birr per year) **(b)**					
Anseba	6 % **c**				63 %
Debub	5 **(c)**	9 % **(c)**	56 %	87 %	76
Maekel			29	69	45 %
Mekane Hiwot **(d)**	4				

a Estimates based on the assumption that 80 percent of health centers and stations had fee collectors in 1996

b Estimates based on the assumption that 1997 revenue at health centers and stations will be 20 percent higher when all facilities have fee collectors

c It is assumed that a zonal hospital has two fee collectors and a mini-hospital has one fee collector

d The estimate is based on the assumption that the head cashier earns a fee collector's salary

A main issue is that the cost of the fee collectors' salary may be about the same as the revenue collected from the registration fee at some primary care facilities, especially health stations Table 4 shows the fee collectors' salary as a percentage of revenue At the 1996 salary for secondary school graduates of 4,068 birr per year, the fee collectors salary was 20 to 30 percent of revenue collected at health centers and stations, and only 1 or 2 percent of revenue collected at hospitals At the 1997 salary of 10,308 birr per year, the salary is 50 to 80 percent of the revenue collected at health centers and stations Note that the calculations reported in Table 4 only include the fee collector's salary, but the that total costs of fee collection also include travel costs to deposit revenue and the capital cost of the safes

From the patient's perspective, another issue is the number of steps required to pay for care at hospitals Fee collection may double the number of steps required for an outpatient visit at a hospital

C Efficiency of the Cost-sharing Scheme

1 Introduction

The efficiency of the cost-sharing scheme should be judged relative to the goals it was designed to attain In addition to raising revenue, those goals are to 1) provide substantial subsidies for primary care, 2) charge patients the full cost of care at tertiary care facilities and 3) encourage patients to use the referral system appropriately Two aspects of the scheme are assessed relative to these goals prices and patient behavior

2 Are the prices appropriate to attain the goals?

This question addresses whether or not the registration fees at health centers and stations offer substantial subsidies for primary care, and whether or not the patients pay the full cost of care at tertiary facilities To begin the assessment, Table 5 summarizes the information available about current prices relative to costs

It is clear that the registration fees at health centers and stations provide a substantial subsidy for curative care at those facilities The cost estimates that are available (Yoder, 1995) suggest that the average cost per outpatient visit for curative care is 31 birr at health centers, compared to a registration fee of 5 birr and 15 birr at health stations, compared to a registration fee of 3 birr Although I have some reservations about the cost estimates (the marginal cost is a more appropriate measure than average cost) and there is considerable variation in average costs across facilities, the differences between the average costs and the registration fees are large enough to conclude that the care is subsidized

Further, the respondents to the qualitative interviews reported that the registration fees have had a positive effect on patients' attitude towards care In some cases, patients value their care more For example, patients are more likely to adhere to treatment (take the full course of drugs) when

TABLE 5
CURRENT PRICES RELATIVE TO COSTS

Services	Prices currently charged	Official price list	Cost estimate **
Referral hospital			
Outpatient (per visit)			na
with referral*	7 birr	7 birr	
without referral*	16	16	
Inpatient (per day)			na
with referral*	1 5	9 5	
without referral*		19	
Zonal hospital			
Outpatient (per visit)			18 to 36 birr
with referral*	6	6	
without referral*	11	11	
Inpatient (per day)			54 to 82
with referral*	1 5	9 5	
without referral*		19	
District hospital			
Outpatient (per visit)		—	36 birr
with referral*	5	5	
without referral*	10	10	
Inpatient (per day)			82
with referral*	1 5	9 5	
without referral*		19	
Health Center			
Outpatient (per visit)			31
registration fee (includes drugs & lab)	5	5	
Inpatient (per day)	1	1	
Health Station			
Outpatient (per visit)			15
registration fee (includes drugs & lab)	3	3	

Footnotes to Table 5

* Patients pay for laboratory tests and drugs in addition to the registration fee

**

a Cost estimate for a zonal hospital is from World Bank Eritrea First Health Project Staff Appraisal Report Draft June 1, 1997

The method for the estimate is not reported

b All other cost estimates are from R Yoder Health Facility Cost Estimates Study 1995 BASICS Technical Directive 000 ER 00 0012

The cost estimates include MOH and donor expenditures for personnel, drugs, other recurrent costs and annual depreciation cost of capital

Note that the cost estimates are based on 1994 data Although the MOH total budget for 1994 (including stipends for ex-combatants) is roughly the same as the budget for 1996 (54 6 million birr in 1994 versus 58 2 million in 1996), the allocation of funds has changed A lower percentage of the budget was allocated to personnel and a higher percentage was allocated to drugs and other recurrent costs in 1996 than in 1994

they pay registration fees In other cases, patients are more aware that care at public facilities is subsidized For example patients are aware that the registration fees at public health centers and stations are less than they would spend for drugs at pharmacies or rural drug vendors

Data are not currently available to draw conclusions about the prices at tertiary care facilities Table 2 shows that patients at MHH are paying 24 percent of the total recurrent costs of care It is not possible to identify which prices are more or less than marginal costs, because a cost study not been performed at MHH in recent years In addition, it is not possible to estimate the value of care that was provided to people with poverty certificates, because the accounting personnel have not had time to perform these calculations in recent years

Although the costs of zonal and district hospitals have been estimated, these estimates are not comparable to hospital registration fees The amount patients pay for hospital care includes fees for drugs and diagnostic exams, as well as registration fees The cost estimates are also subject to the same criticisms noted above for the estimates of costs at health centers and stations Also, it was not possible to estimate the percentage of total recurrent cost recovered at zonal and district hospital, because expenditure data were not available by level of facility

3 Have the desired changes in patient behavior occurred?

After the cost-sharing scheme was introduced, the monthly utilization data show a decrease in utilization of care for which fees are charged As shown in Figures 2, 3, and 4, the number of new outpatient visits decreased beginning in February 1996 at hospitals, health centers, and health stations, respectively Hospital discharges also decreased beginning at the same time, but inpatient discharges from health centers did not Multivariate regression analysis showed that

these decreases were significant There was no comparable decrease in utilization of care that is free of charge, such as new patient visits for growth monitoring and antenatal care

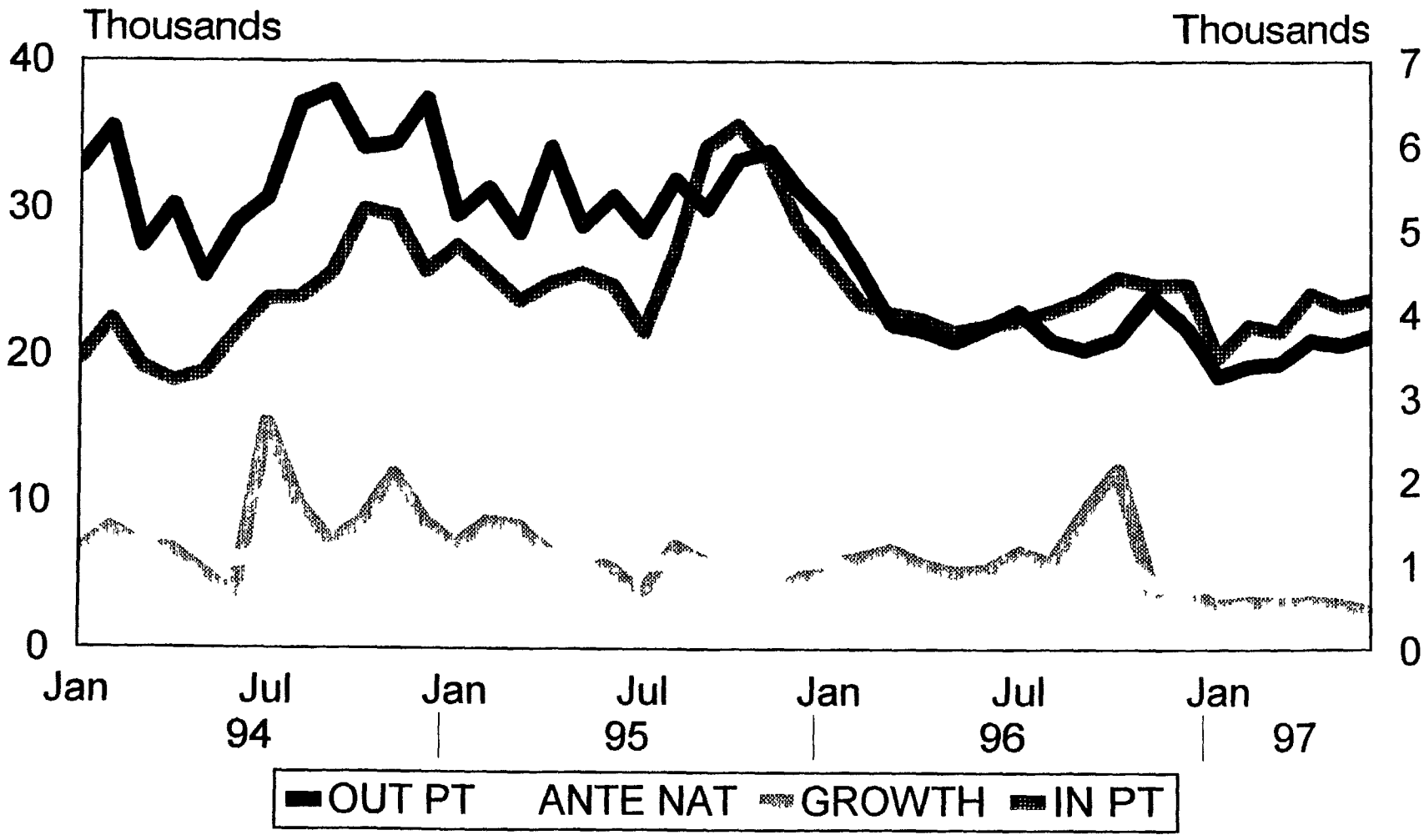
The decrease in utilization could be a source of improved efficiency or a source of concern depending on whether the decrease was among patients with less severe illnesses or patients with severe illnesses who were unable to pay for care Although the utilization data can not address this question, the respondents to the qualitative interviews said that most of the decrease was among patients with less severe illnesses The decrease in utilization was reducing crowding at health facilities and allowing health workers to spend more time with patients with severe illnesses Some officials said that the decrease was among residents of towns and villages that are close to health facilities, because people who live far from health facilities only seek care for severe illnesses

Some respondents noted that the people who decreased their utilization of care might include a small number of patients with severe illnesses who were unable to pay for care Also, the EHHSUES data included information about people who did not seek care Among households in which someone died in the last two years, one respondent (2 percent) said that he/she did not seek care for the person who died because it was too expensive, compared to 44 percent who said that he/she did not seek care because the facility was too far away Among households in which someone with a chronic disease did not seek care, 22 percent of the respondents said that he/she did not seek care because it was too expensive, compared to 20 percent who said that he/she did not seek care because the facility was too far away

If the decrease in the number of new outpatient visits is allowing health workers to spend more time with people with severe illnesses the health workers appear to be spending time with them during more repeat visits rather than during a than longer consultation time for each visit The monthly utilization data also show an increase in the number of repeat visits for outpatients, so the decrease in the total number (new and repeat) of outpatient visits is much smaller than the decrease in the number of new patient visits For example, comparing the outpatient visits in the first six months of 1994 to the first six months of 1997, the number of new patient visits decreased by 33, 23, and 9 percent, at hospitals, health centers, and health stations respectively In contrast, the total number (new and repeat) of outpatient visits decreased by only 12 and 9 percent at hospitals and health centers, respectively, and increased by 15 percent at health stations

The utilization of care shifted away from curative care towards preventive care at health centers and stations, but not at hospitals Again, comparing data on the first six months of 1994 to the first six months of 1997, the total number (new and repeat) of visits for growth monitoring and antenatal care increased substantially at health centers and stations, but not at hospitals Consequently, the total number (new and repeat) of patient visits for curative care and these two types of preventive care did not change at health centers, but increased by 18 percent at health stations

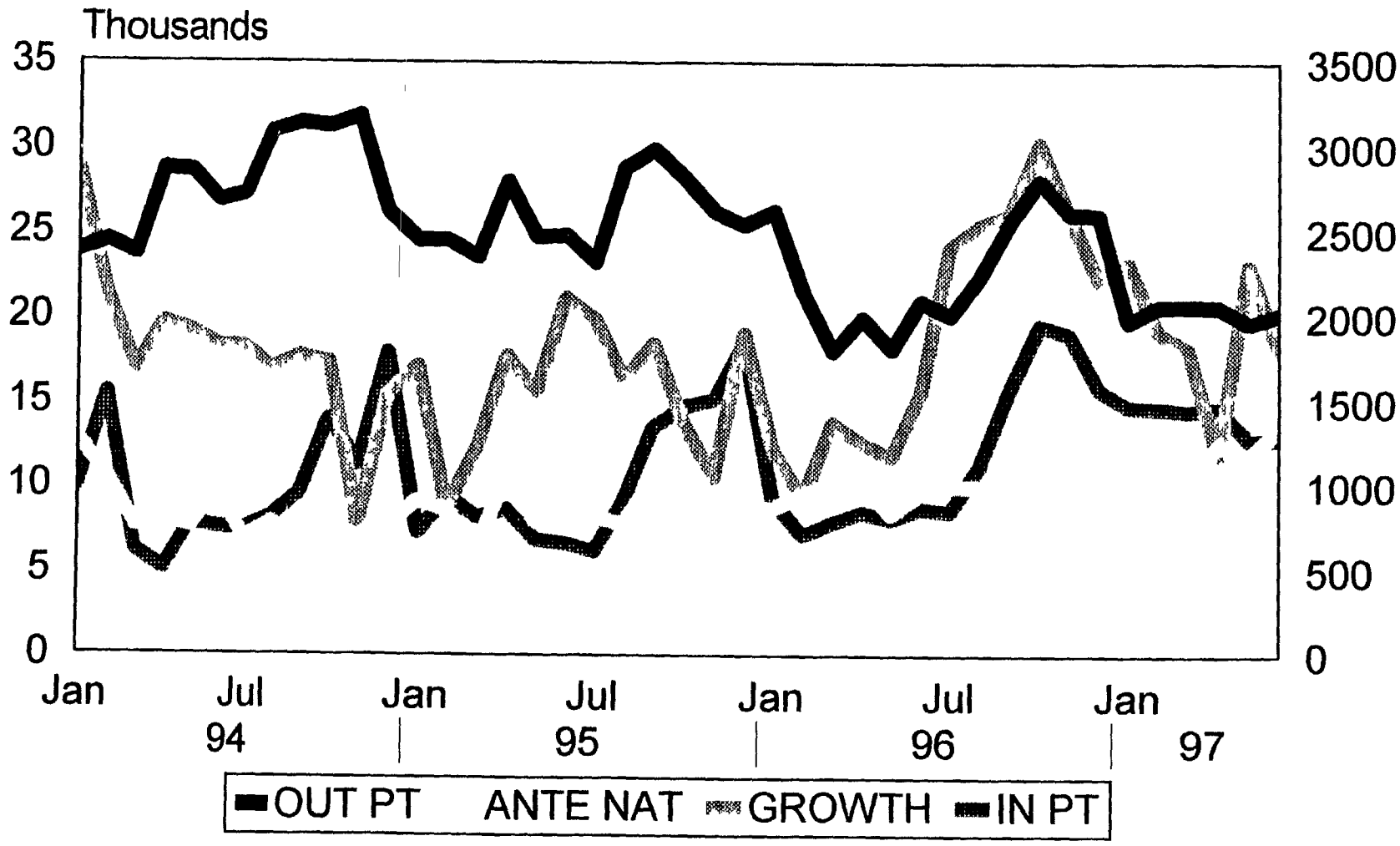
Figure 2 TOTAL FOR ALL HOSPITALS, JANUARY 1994 TO JUNE 1997
Comparison of utilization of fee-for-service and services free of charge



Out Pt is measured in units of 10,000 patients on the left vertical axis Ante Nat, Growth and In Pt are measured in units of 1,000 patients on the right vertical axis Source SEMISH, 1997

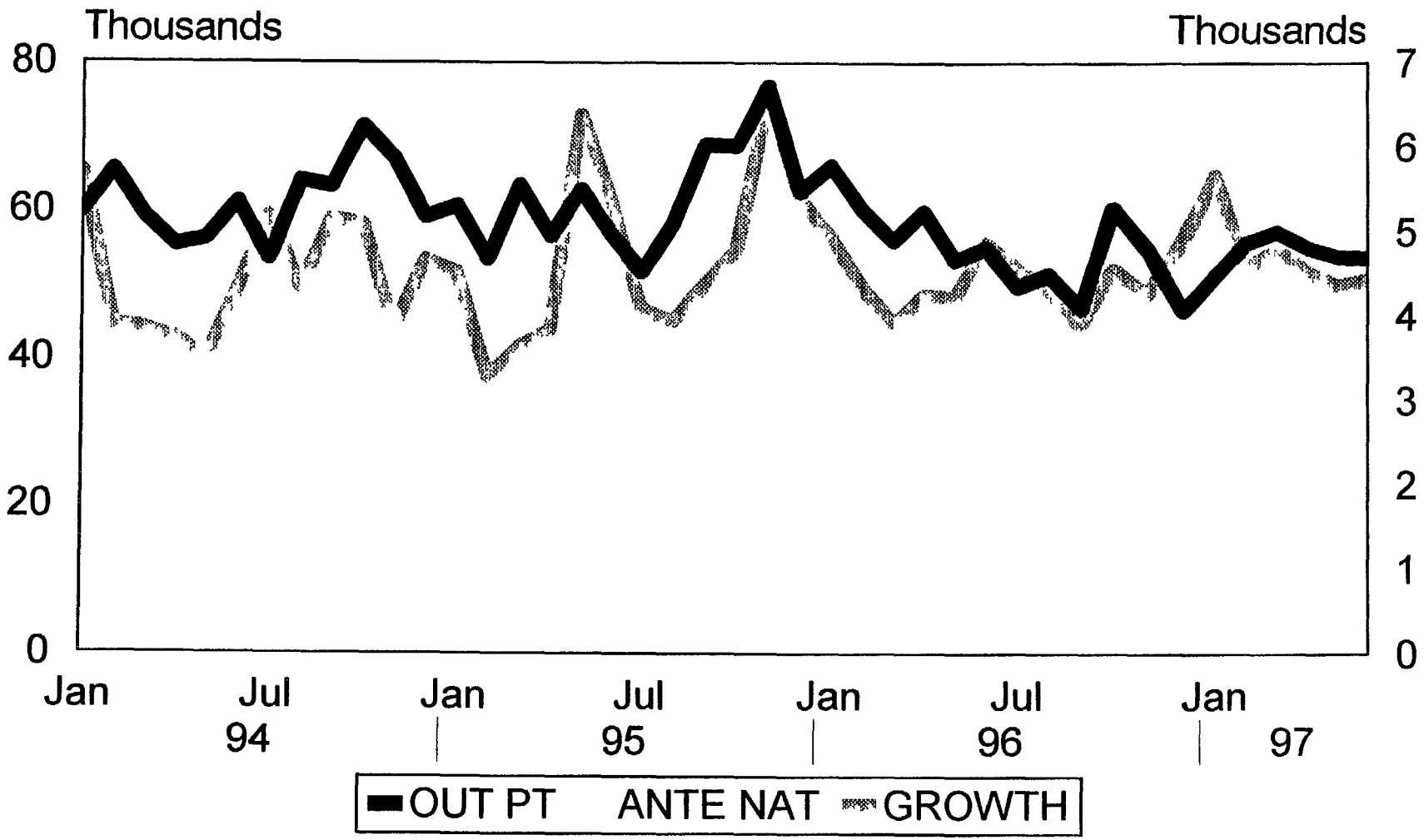
Figure 3 TOTAL FOR ALL HEALTH CENTERS, JANUARY 1994 TO JUNE 1997

Comparison of utilization of fee-for-service and services free of charge



Out Pt is measured in units of 5,000 patients on the left vertical axis Ante Nat, Growth, and In Pt are measured in units of 500 patients on the right vertical axis Source SEMISH, 1997

Figure 4 TOTAL FOR ALL HEALTH STATIONS, JANUARY 1994 TO JUNE 1997
Comparison of utilization of fee-for-service and services free of charge



Out Pt is measured in units of 20,000 patients on the left vertical axis Ante Nat, Growth, and In Pt are measured in units of 1,000 patients on the right vertical axis Source SEMISH, 1997

Finally, it is unclear whether or not the cost-sharing scheme is encouraging patients to use the referral system correctly The outpatients who are no longer seeking care at hospitals could be using care either from the private sector or from health centers and stations At health centers and stations, there could be some new patients who would have gone to hospitals in the absence of the scheme at the same time that other people decrease their utilization because of the registration fees The data on the number new outpatient visits at health centers and stations noted above shows that the net effect of these two possible changes is to decrease utilization

D Quality of Care

To assess the cost-sharing scheme in relation to the quality of care, it is important to note that the scheme was not designed with a specific link to improving the quality of care This is in marked contrast to other cost-sharing schemes in sub-Saharan Africa, such as the Bamako Initiative, that are being implemented in the context of deteriorating health care delivery systems In other sub-Saharan African countries, user fees are collected and retained by facilities to finance quality improvements For example, when user fees finance drugs, there is a direct link between user fees and drug availability (See Litvack and Bodart, 1993)

The cost-sharing scheme in Eritrea was implemented in the context of a government that is committed to improving the health of the population, no fee retention by facilities, and very good drug availability The government has identified health and education as one of the two sectors that are eligible for increases in recurrent expenditures in the near future and invested 87 7 million birr ($12 3 million) or 10 4 percent of capital spending in the health sector in 1996 Laing conducted a drug indicator survey in January 1996 and reported that 100 percent of the drugs on the Essential National Drug List (ENDL) were available in hospitals, 93 percent were available in health centers, and 67 percent were available in health stations (Laing, 1996) He also reported that 91 percent of 15 "marker" drugs were available and concluded, "[This] is very nearly the best reported in any African survey "

Given that drug availability was good before the cost-sharing scheme was introduced and that the scheme was not designed to improve drug availability, it is not surprising that it does not appear to have improved drug availability, respondents to the qualitative interviews noted that ENDL drugs were available before and after it was introduced A comparable drug indicator survey has not been repeated since the scheme was introduced

Administrators noted that the procedures to obtain ENDL drugs have been simplified since the cost-sharing scheme was introduced The MOH has always encouraged administrators to let them know when there are shortages of ENDL drugs, even when the MOH recurrent expenditure budget for drugs has been spent, in the spirit of "will find a way to solve the problem " Administrators noted that since the MOH has been raising additional revenue, less time and effort is required to solve the problem For example, administrators can purchase drugs directly from Pharmecor, rather than through the MOH store

Some respondents have suggested that the quality of consultations may have improved, as the utilization of outpatient visits have decreased and facilities have become less crowded with patients seeking unnecessary care As noted in Section IIIC3 above, patients appear to be having more repeat visits rather than longer consultations It is possible that the duration of consultations has increased somewhat at hospitals, where there has been a decrease in the total number (new and repeat) of visits for curative care and two types preventive care, but not at health centers and stations where the number of those visits has increased

Respondents also noted that other aspects of the quality of care that have not changed since the cost-sharing scheme was introduced and that they would like to see improved included 1) the number of health personnel, 2) training (continuing education) for existing for health personnel, 3) availability of drugs that are not on the ENDL, and 3) vehicles

Finally, the EHHSUES data include patient ratings of the quality of care, so it is possible to learn which aspects of the quality of care have been/are problems for patients Note two caveats to interpreting these data 1) the data were collected only once (after the cost-sharing scheme was introduced), so it is not possible to assess the affects of the scheme on the ratings, and 2) the questions were worded in such a way that it is not possible to distinguish which aspects were a problem in the past and which ones are currently a problem

As shown in Table 6, the majority of patients (68 percent at hospitals, 62 percent at health centers, and 61 percent at health stations) rated the overall quality of service as excellent or good The most important problems for patients appeared to be access to care The majority of patients said that they experienced problems with 1) the facility being too far away, 2) lack of transport to the facility, and 3) a long wait at the facility A majority of hospital patients said that they had experienced problems with the price of care, but this was not the case for health centers and stations About half of the patients noted that they had experienced problems with the availability of medical supplies

E Equity

1 Introduction

The cost-sharing scheme is raising revenue and decreasing utilization, but are the effects on utilization and expenditures are the same for everyone? To address this question, I compared households according to two criteria access to care, and relative economic status There were two types of comparison among people who were ill and sought care, and among all households The latter comparison assumes that the likelihood of being ill is the same for everyone, so that experiences of the subset of households in which at least one person had been ill in the last four weeks can be extrapolated to all households

TABLE 6
PATIENT RATINGS OF THE QUALITY OF CARE

	Hospital	Health Center	Health Station
Percentage who rated overall quality of service as excellent or good	68 %	62 %	61 %
Percentage who ever experienced the following problems			
Care too expensive	59 %	31 %	23 %
Facility too far away	72	61	61
No transport available	74	63	63
Long wait	67	58	57
No medical supplies	41	52	45
Rude and unhelpful staff	12	14	10
Too many separate trips required	26	24	25
Too dirty	7	5	7
Lack of confidentiality	2	1	2
Gender of health personnel	5	6	5
Sample Size	505	504	390

Source State of Eritrea MOH SEMISH and The World Bank EHHSUES data 1997

EHHSUES data were used for the comparisons As noted in Section III D above the data were collected only once (after the cost-sharing scheme was introduced), so the assessment addresses the equity of the scheme rather than changes in equity before and after the scheme was introduced Note that the statistics on utilization and expenditure refer to treatment by any type of provider but about 80 percent of the people sought care from public facilities

2 *Access to care*

Utilization and consequently expenditures appear to be the same between households with access to a health facility and those without access Similar utilization is the result of two factors that offset each other 1) the incidence of illness was greater in households without access and 2) among people who were ill, the probability of seeking care was lower in households without access As shown in Table 7, the percentage of households in which at least one person was ill in the last four weeks was 47 percent in households with access and 57 percent in household without access Among households where at least one person was ill, at least one person sought care in 79 percent of the households with access and in 71 percent of households without access Among all households, at least one person sought care in 38 percent of households with access and in 40 percent of households without access (Note that these utilization estimates are higher than previously reported and imply one episode of illness with treatment per person per year) Expenditures for health care appear to be the same between households with access and those without access As shown in Table 8, the average expenditure per household in which at least one person used care was 28 birr, and the differences between households with and without access were not significant As shown in Table 9, the average expenditure per household when averaged over all households was 11 birr, and the differences between households with and without access were not significant

Considering ability to pay, there is no objective measure of ability to pay, but I have proposed using monthly health care expenditures as a percentage of household consumption as a guideline (Weaver, 1996) According to this guideline, ability to pay for health care also appears to be the same between households with access to care and those without As shown in Table 8, health care expenditures were 9 percent of consumption in households in which at least one person used care, and the differences between households with and without access were not significant As shown in Table 9, health care expenditures were 4 percent of consumption when averaged over all households, and the differences between households with and without access were not significant

For policy purposes, these results suggest that if health care were to be financed through an annual prepayment or earmarked tax, the amount could be the same regardless of access This is an important result, because it would allow for a simpler scheme, and the MOLG emphasized the importance of simplicity for any policy that might be recommended One caveat with this result is that the size of subsamples households in which at least one person used care may not be large enough for the statistical tests to be reliable, but these are the best data available

TABLE 7
ILLNESS AND USE OF HEALTH FACILITIES BY ACCESS TO FACILITIES

	Health facility in town or village	No health facility in village	Total sample
Percentage of households in which at least one person was ill in the last 4 weeks	47 %	57 %	54 %
Percentage of households in which at least one person used a health facility among those with someone ill	79	71	73
Percentage of households in which at least one person used a health facility among all households	38	40	40
Sample Size	325	884	1209

Source State of Eritrea MOH SEMISH and The World Bank EHHSUES data 1997

TABLE 8
HEALTH EXPENDITURES AMONG HOUSEHOLDS IN WHICH AT LEAST ONE PERSON USED A HEALTH FACILITY BY ACCESS TO A FACILITY

	Health facility in town or village	No health facility in village	Total sample
Household transport fees in last 4 weeks among households in which at least one person used a facility *	2 2 birr	3 3 birr	3 0 birr
Transport fees as a percentage of health care expenditures *	2 2 %	8 3 %	6 7 %
Household health care expenditures in last 4 weeks among households in which at least one person used a facility	28 3 birr	26 8 birr	27 9 birr
Estimated household consumption per month *	624 2	399 3 birr	456 7 birr
Health care expenditures as percentage of consumption	6 %	10 %	9 %
Sample size	122	357	479

* Differences between subsamples is significant at 05 level Statistical tests performed with the natural log of the variable to adjust for extreme values

Source State of Eritrea, MOH SEMISH and The World Bank EHHSUES data 1997

TABLE 9
HEALTH CARE EXPENDITURES AMONG ALL HOUSEHOLDS AS A PERCENTAGE OF TOTAL CONSUMPTION BY ACCESS TO FACILITY

	Health facility in town or village	No health facility in village	Total sample
Household health care expenditures during last 4 weeks averaged over all households	10 0 birr	11 4 birr	10 9 birr
Estimated household consumption per month *	562 6 birr	377 5 birr	427 4 birr
Health care expenditures as percentage of consumption	2 %	4 %	4 %
Sample size	325	881	1206

* Difference between subsamples is significant at 05 level Statistical tests performed with the natural log of the variable to adjust for extreme values

Source State of Eritrea, MOH, SEMISH and The World Bank EHHSUES data 1997

3 *Relative economic status*

Utilization was consistently higher for households with higher economic status As shown in Table 10, the incidence of illness was greater and among people who were ill, the probability of seeking care was higher for households in which consumption was greater than the median than in households in which it was less than the median Among all households, at least one person sought care in 44 percent of households in which consumption was greater than the median, in comparison to only 35 percent of households in which it was less than the median

For health care expenditures and ability to pay, the comparisons are somewhat more complicated As shown in Table 11, average expenditures per households in which at least one person used care were 28 birr, and the differences across economic status were not significant Expenditures were only 6 percent of consumption for households in which consumption was greater than the median, in comparison to 12 percent for households in which it was less than the median, and these differences across economic status were significant

In contrast, the results in Table 12 show that the average expenditures when averaged over all household was 14 birr in households in which consumption was greater than the median and 8 birr in households in which it was less than the median, and the differences across economic status were significant Health expenditures were 4 percent of consumption when averaged over all households, and the differences across economic status were not significant

For policy purposes, the issue is whether or not the cost-sharing scheme is regressive, i e do people who are poorer spend a higher percentage of their income for health care than people who are better off financially? The statistics presented above show that the scheme is at best neutral, and definitely not as progressive as Eritrea's income tax rates From the perspective of someone who is ill, the scheme is regressive, because the percentage of consumption that people who are poorer spend is twice as high as people who are better off financially From the perspective of all households, the scheme is neutral, because everyone spends the same percentage of consumption The neutrality reflects the fact that people who are better off are consuming more and spending more

4 *Poverty certificates*

The current policy for poverty certificates is unclear The March 20, 1995 announcement [see Appendix D] said that the local administration would issue poverty certificates to and pay the bill of patients who are referred to the hospital, but unable to pay for care Local government officials said that the village administration issues poverty certificates, however, patients must also seek authorization from the Ministry of Labor and Human Welfare (MOLHW), which is responsible for payment In the absence of clarity, MOH administrators have been discouraged from seeking reimbursement for the care provided to patients with poverty certificates

TABLE 10
ILLNESS AND USE OF HEALTH FACILITIES BY RELATIVE ECONOMIC STATUS

	Household consumption greater than median	Household consumption less than or equal to median	Total sample
Percentage of households in which at least one person was ill in the last 4 weeks	58 %	50 %	54 %
Percentage of households in which at least one person used a health facility among those with someone ill	76	70	73
Percentage of households in which at least one person used a health facility among all households	44	35	40
Sample Size	612	594	1206

Source State of Eritrea, MOH, SEMISH and The World Bank EHHSUES data 1997

TABLE 11
HEALTH EXPENDITURES AMONG HOUSEHOLDS IN WHICH AT LEAST ONE PERSON USED A HEALTH FACILITY BY RELATIVE ECONOMIC STATUS

	Household consumption greater than median	Household consumption less than or equal to median	Total sample
Household transport fees in last 4 weeks among households in which at least one person used a facility	3 1 birr	2 3 birr	2 7 birr
Transport fees as a percentage of health care expenditures	6 %	7 %	6 %
Household health care expenditures in last 4 weeks among households in which at least one person used a facility	32 0 birr	22 0 birr	27 6 birr
Estimated household consumption per month **	670 1 birr	184 4 birr	456 7 birr
Health care expenditures as percentage of consumption *	6 %	12 %	9 %
Sample size	268	210	478

* Differences between subsamples is significant at 05 level

** Difference between subsamples is significant at 05 level Statistical tests performed with the natural log of the variable to adjust for extreme values

Source State of Eritrea, MOH, SEMISH and The World Bank EHHSUES data 1997

TABLE 12
HEALTH EXPENDITURES AMONG ALL HOUSEHOLDS AS PERCENTAGE OF TOTAL CONSUMPTION BY RELATIVE ECONOMIC STATUS

	Household consumption greater than median	Household consumption less than or equal to median	Total sample
Household health care expenditures during last 4 weeks averaged over all households*	14 0 birr	7 8 birr	10 9 birr
Estimated household consumption per month*	670 6 birr	176 7 birr	427 4 birr
Health expenditures as percentage of consumption	3 %	4 %	4 %
Sample size	612	594	1206

* Differences between subsamples is significant at 05 level Statistical tests performed with the natural log of the variable to adjust for extreme values

Source State of Eritrea MOH SEMISH and The World Bank EHHSUES data 1997

The absence of clarity is causing problems for patients, hospital workers, and village administrators Many patients who seek care at hospitals have neither money nor a poverty certificate From the patient s perspective, the process of obtaining a poverty certificate from the village administration and authorization from the MOLHW is cumbersome, especially for someone who is ill It is unlikely that many patients are aware of the role of MOLHW, because few health workers were aware of it Even if patients were aware, the offices of the MOLHW are not as accessible as those of the village administration

Hospital workers face a conflict when patients who need care have neither money nor a poverty certificate Hospital workers have a professional responsibility to heal people, but at the same time, they have an administrative responsibility to insist on either payment or a poverty certificate Respondents to the quantitative interviews said that most hospitals workers are honoring their professional responsibilities, although there are some exceptions

In the absence of a clear policy, village administrators do not have a uniform standard for issuing poverty certificates In some zones, respondents to the qualitative interviews described examples in which the village administration issued poverty certificates to most patients, because doing so is popular with residents and there are no costs to the village administration In other zones, respondents noted that this was a problem during the first year of the cost-sharing scheme that was resolved through discussions between the zonal medical officer and local government officials

F Conclusion

In the last 18 months, Eritrea has implemented a cost sharing scheme that is recovering 14 percent of government expenditures (personnel, drugs, and other recurrent costs) This is a remarkable achievement and one of the highest percentages of costs recovered in sub-Saharan Africa In addition to raising revenue, the scheme seems to be attaining some of its other goals, such as providing substantial subsidies to primary care facilities, discouraging unnecessary care and allowing health workers to spend more time on serious cases and preventive care

The assessment identified some issues that should be addressed in the near future These issues include 1) patient flow at hospitals and 2) unclear policy for poverty certificates and the cumbersome procedures to obtain one

The assessment sheds some light global issues that should be addressed in the context of health system reform rather than in the context of modifications of the cost-sharing scheme These issues include 1) the efficiency of fee collection at primary care facilities, especially health stations, 2) the equity of the cost-sharing scheme, and 3) the relationship between user fees and quality improvements

IV OPTIONS FOR HEALTH FINANCE

A Introduction

Although the MOH has done a remarkable job of implementing one of the best cost-sharing schemes in sub-Saharan Africa it is the first step in health finance reforms that will include 1) recovery of all the costs of care, 2) expansion of the supply of health care from the private sector, and 3) social insurance

In this section, I would like to focus on the future and begin with a brief overview of the prospects for the economy in general, and then place health economics in that context Then I will present some options for health finance and recommendations for a social insurance system, as well as a process for implementing the system

B Overview of the Economy and Health Economy

The economy of Eritrea has grown at an average of 6-7 percent from 1994 to 1996 and is expected to continue to grow at that rate over at least the next few years This growth rate is impressive for sub-Saharan Africa or for anywhere in the world

Data on GNP by sectors of the economy suggest that much of the growth has occurred in the Maekel Zone and in urban areas (Data on the distribution of GNP by zone or between urban and rural areas over time are not available) The rate of growth has been somewhat greater than average in the industrial sector The rates of growth in distribution services and other service sectors has been close to the average The rate of growth of the agricultural sector has been slower than the other sectors

The dynamics of the overall economy suggest that the demand for health and health care has and will continue to grow in the Maekel Zone and urban areas One of the key facts of health economics is that health tends to improve with income Data from the DHS support the idea that health status is generally higher in the Maekel Zone and urban areas As shown in Table 13, infant and under-5 mortality are lower in Maekel Zone than in the other zones, and under-5 mortality is lower in urban than in rural areas

Another key fact of health economics is that expenditures on health care increase with income As the income of a household increases, people are more likely to use health care This was demonstrated by the EHHSUES data reported in Section IIIE3 above As another example, the DHS data in Table 14 show that the percentage of pregnant women who receive antenatal care from a physician or nurse is higher in Maekel Zone than in other zones, and it is higher in urban areas than in rural areas As the income of a household increases, people also demand treatment for chronic as opposed to communicable diseases, and treatment for health problems that may be associated with a higher income life-style such as automobile accidents or smoking-related illnesses

TABLE 13
INFANT AND CHILD MORTALITY RATES BY RESIDENCE AND BY ZONE

	Infant Mortality (per 1000 births)	Under-5 Mortality (per 1000 births)
Residence		
Subtotal- Urban	79 8	128 9
Subtotal- Rural	74 4	159 0
Total	75 6	152 5
Zones		
Southern Red Sea	106 8	238 8
Northern Red Sea	93 4	187 6
Anseba	70 3	146 1
Gash-Barka	87 4	190 1
Debub	71 0	146 2
Maekel	57 3	92 2

Source NSO, Department of Macro Policy and International Economic Cooperation, Office of the President State of Eritrea and Macro International Inc Eritrea DHS, 1995

TABLE 14
ANTENATAL CARE PROVIDER BY RESIDENCE AND BY ZONE

	Doctor	Nurse/ Trained Midwife	Traditional Birth Attendant	No One
Residence				
Asmara	45 7	43 1	3	10 5
Other towns	35 6	45 8	0	18 4
Subtotal- Urban	40 9	44 4	1	14 2
Subtotal- Rural	20 7	18 4	3	60 4
Total	25 0	23 9	3	50 7
Zones				
Southern Red Sea	25 9	2 2	2 3	67 3
Northern Red Sea	14 7	23 1	3	62 0
Anseba	23 5	23 2	0	53 3
Gash-Barka	22 6	15 2	8	61 1
Debub	21 6	21 1	0	57 3
Maekel	42 6	42 9	2	14 0

Source NSO, Department of Macro Policy and International Economic Cooperation, Office of the President, State of Eritrea and Macro International Inc Eritrea DHS, 1995

TABLE 15
EMPLOYMENT WITH CASH EARNINGS BY RESIDENCE AND BY ZONE

	Percent of men 10-64 years old who are employed and receive cash earnings	Percent of women 10-64 years old who are employed and receive cash earnings
Residence		
Asmara	31 %	17 %
Other towns	30	12
Subtotal- Urban	30	15
Subtotal- Rural	7	2
Total	14	6
Zones		
Southern Red Sea	21	14
Northern Red Sea	16	4
Anseba	10	4
Gash-Barka	9	5
Debub	7	9
Maekel	27	14

Source NSO, Department of Macro Policy and International Economic Cooperation, Office of the President, State of Eritrea and Macro International Inc Eritrea DHS, 1995

Considering public finance, it appears that the Maekel Zone and urban areas residents' share of tax revenue is greater than their share of the population Data from the DHS suggest that the majority of tax revenue is from Maekel Zone and from urban areas, even though only 27 3 percent of the population live in urban areas (Again, data on the distribution of government revenue by zone or between urban and rural areas are not available) As shown in Table 15, the percentage of men and women who are employed and receive earnings in cash is higher in Maekel Zone than in other zones, and is higher in urban areas than in rural areas In fact, 62 percent of the men and 69 percent of the women who are employed and receive earnings in cash live in urban areas Employed people with earnings in cash are most likely to pay personal income taxes, as well as pay indirect sales taxes on goods and services through their purchases in cash In contrast less than 2 percent of tax revenue is from the agricultural income tax and land use fees

Residents of Maekel Zone and urban areas also receive government health benefits in excess of their share of the population Again, data on the distribution of government benefits by zone or between urban and rural areas are not available, but a rough estimate shows the relative magnitude of benefits between urban and rural areas In 1996, 76 7 percent of the MOH recurrent expenditure was for hospital administration In August 1997, 65 5 percent of the outpatients at MHH were from Asmara, and at least 72 percent from urban areas Assuming the share of urban residents who are outpatients at MHH is the same for inpatients and for patients at other hospitals, at least 55 percent of the MOH recurrent expenditure are for urban residents (The percentage of inpatients from Asmara and other urban areas is likely to be lower, as are the share of benefits received) [Note that these estimates only address the recurrent expenditures for public health care It is unlikely that the distribution of private health care between urban and rural areas differs much from public sector, because most private clinics and private pharmacies are located in urban areas The distribution may differ for mission facilities and public capital investment]

In summary, although only 27 3 percent of the population of Eritrea live in urban areas, their share of financial activity for health care is much greater Opinions differ on whether Maekel Zone and urban areas contribute more or less than they receive and a quantitative estimate is beyond the scope of this assessment The point is that there are more public funds going in and out of the health sector in urban areas than in rural areas, and the volume of financial activity for health care in urban areas is likely to expand as incomes increase and the demand for health and health care increases in urban areas In contrast, the tax revenue from rural areas is lower, as is the potential for income growth, and they are likely to require substantial subsidies for health care for the foreseeable future

C Social Insurance Options

I would like to begin by explaining that there are countless options for health finance Over the last 50 years, a variety of financial systems, ranging from no health insurance to public insurance to commercial insurance have been implemented in different countries, and within each financial

system there are variations on characteristics such as whether health care is supplied by the public or private sector or both, and whether providers are reimbursed on a fee-for-service or capitative basis

To frame the presentation, I would like to compare four options to the current system The comparison focuses on social insurance rather than commercial insurance because the MOH plans to implement a social insurance system In addition, experts strongly recommend against commercial insurance

> One reform of the [ ] health system that would be most destructive of its proper objective would be to allow the development of COMMERCIAL health insurance Western countries that use health insurance to finance their health sectors do so either through public insurance or very tightly REGULATED, NON-COMMERCIAL social insurance The only exception, the United States, is desperately trying to escape the negative consequences of commercial insurance " (Evans R, et al , 1994)

There are four social insurance options presented in Figure 5 that are distinguished by the characteristics of the insurance program 1) whether or not the program includes copayments to manage utilization and poverty certificates to make care accessible to people who are unable to pay for it, and 2) whether the insurance finances care in public facilities or in both public and private facilities

Each option is reviewed in relation to five criteria that are clearly relevant to selecting an option for Eritrea, based on the assessment in Section III The criteria are 1) does it discourage unnecessary care 2) does it prohibit use by people who are unable to pay, 3) does it foster growth in the supply of health care from the private sector, and 4) does it require fee collection at health centers and health stations, and 5) is there potential for the system to be progressive?

As shown in Figure 5, an option that requires patients to pay a nominal fee or co-payment whenever they use health care will discourage unnecessary care An option that has an effective poverty certificate program will make care accessible to people who are unable to pay An option that finances care at both public and private facilities will foster growth in the supply of health care from the private sector An option that requires patients to pay a nominal fee or co-payment will entail a somewhat inefficient use of resources to collect fees at some health centers and stations Finally, as shown in Section IIIE3, the current system is regressive or neutral, whereas the social insurance system has the potential to be as progressive as the income tax rates

As presented, the two options with the most advantages are social insurance that finances care at both public and private facilities Neither option is perfect, and there is a tradeoff between an insurance program with co-payments that discourages unnecessary care and one without co-payments that does not require fee collection at health centers and stations These options are generalizations, and it would be possible to design a social insurance system with co-payments at hospitals (and possibly some health centers), where the cost of fee collection is relatively low,

and no co-payments at health stations (and possibly some health centers), where the cost of fee collection is relatively high

Focusing on a social insurance system that finances care at both public and private facilities it is possible to divide each of those options into additional options that are distinguished by characteristics such as the benefit package or the reimbursement method for providers Information to compare the advantages and disadvantages of different benefit packages and reimbursements in the context of the Eritrean health care system is not yet available Operations research to obtain such information is recommended in Section V

Figure 5
OPTIONS

Criteria	Current System (No Insurance)	Social Insurance		Social Insurance with Co-payment & Poverty Certificates	
		Public facilities only	Public & private facilities	Public facilities only	Public & private facilities
1 Utilization					
a Discourage unnecessary care	+	-	-	+	+
b Prohibit use by people unable to pay	-	+	+	+	+
2 Foster growth in supply of health care from private sector	**0**	-	+	-	+
3 Efficiency of fee collection at health centers and stations	-	+	+	-	-
4 Potential for progressive finance system	-	+	+	+	+

Key + indicates an advantage, - indicates a disadvantage, and **0** indicates no direct influence

D Recommendations

1 Social insurance system

The MOH should move towards recovery of a higher percentage of the costs of care in the context of a social insurance system, rather than through price increases within the current system The characteristics of the social insurance system are listed in Figure 6

Note in particular that the social insurance system should be financed primarily through tax revenue or a special ear-marked tax One of the reservations that I have about recovering all the costs of care on a user-fee basis is that, from a public finance perspective, user fees are a tax on people who are ill The assessment of equity of the cost-sharing scheme in Section IIIE3 suggests that the user fees are in some ways a regressive form of public finance, and at best a neutral one A social insurance system offers the opportunity to use all public finance options to raise revenue for health care, rather than being limited to raising all the revenue at the time that care is delivered or within the health sector For example, Eritrea's income tax rates are progressive and could serve as a standard for the social insurance system

2 Short-run price increases

If price increases within the current system are necessary within the short run, the price increases should be directly linked to quality improvements As shown in Section IIIC3, the cost-sharing system has caused decreases in utilization, and qualitatively, those decreases appear to be associated with improvements in efficiency Further price increases in the absence of quality improvements will cause further decreases in utilization, but it is not clear that further decreases are warranted on the basis of efficiency A direct link to a quality improvement, such as charging fees for drugs, can offset some of the decrease in utilization and the corresponding decrease in revenue

3 Two types of insurance programs

The social insurance system should have two types of insurance programs one to address the high volume, dynamic health finance issues in Maekel Zone and urban areas, and the other to finance primary health care with much more limited financial resources in rural areas

This distinction between insurance programs coincides with recent evidence on the two types of insurance programs that are emerging in developing countries As shown in Figure 7, Type I programs cover high-cost, low frequency health problems and tend to be associated with hospital care Type II programs cover low-cost, high-frequency health problems and have community oversight

FIGURE 6
RECOMMENDED CHARACTERISTICS OF SOCIAL INSURANCE

1 Provide universal coverage
2 Finance primarily through tax revenue or a special ear-marked tax
3 Include modest co-payments for patients to discourage over-utilization
4 Offer a basic health package
5 Reimburse private and public providers according to a set fee schedule

Source Fuchs V (1996)

FIGURE 7
RISK-SHARING PROGRAMS

Type I	Type II
High-cost, low-frequency events	Low-cost, high-frequency
Tend to be hospital owned	Tend to be community owned
Tend to cover whole district	Tend to be based at the village level
Use actuarial basis or variable costs for calculating premium	Premium set mainly according to ability to pay
Committed to meeting certain designated costs	Committed only to raising extra revenue for services

Source Creese A and Bennett S 1997

In Eritrea, the Type I program serves as an outline of an insurance program for Maekel Zone and urban areas The program would recover most of the costs of care through social insurance premiums and co-payments, but some households may pay premiums at subsidized rates For example, enterprise employees and civil servants might pay 100 percent of the actuarially fair premium, self-employed people and employees of small businesses might pay 80 percent of the premium, and unemployed people might pay 60 percent of the premium Some urban families would also be eligible for poverty certificates

The Type II program serves as an outline of an insurance program for rural areas The program would require substantial subsidies, but there should be some link between a village's level of contribution and its level of services Although the MOLG and village health committees should be involved in the design of the program, I recommend that they consider an annual prepayment that could be collected at the same time as the agricultural income tax

Two types of insurance programs should not lead to two types of health care, and the referral system should serve as the link between care in urban and rural areas For the program in Maekel and urban areas, the co-payments at the hospital and to private providers should be high enough to encourage the use of primary care facilities, as in the current cost-sharing scheme For the program in rural areas, the prepayment should entitle residents to hospital care when referred appropriately

4 Staged implementation

Operations research and implementation of the social insurance system should begin as soon as possible It would be possible to begin implementation in Maekel Zone with a social insurance program for civil servants and enterprise employees within the next year or two NICE has expressed interest in entering into a 50/50 partnership with the MOH to initiate the insurance program As a public enterprise NICE is the appropriate institution to serve as a social insurance carrier

Civil servants and enterprise employees are an ideal population with which to initiate the program The minimum risk pool for a medical insurance program is 5,000 people, which is more than satisfied by the 20,000 civil servants and 20,000 enterprise employees, plus their families (The actual number is somewhat smaller, because not all of these employees are located in Maekel Zone) Further, they can be enrolled as a group to avoid problems of adverse selection Finally, civil servants just received substantial pay increases, and are financially in a position to pay social insurance premiums

Implementation of the social insurance program for civil servants and enterprise employees in Maekel Zone will serve as a model for national implementation First, the program will set the standard for the insurance program It is important to identify the basic package and get some experience with financing it in order to set premium rates for the rest of the urban population In addition, MOH staff, health workers, University of Asmara professors, and others will gain

expertise in designing and implementing the program so that they can serve as trainers for implementation in other urban areas

V RECOMMENDED TASKS

Recommended tasks are described in below Some of the tasks apply to the current cost-sharing scheme, some apply to the social insurance system, and some apply to both of them

Cost-Sharing Scheme

1 Establish a uniform policy and a simple process for obtaining poverty certificates

There is a clear desire on the part of both local government officials and health workers to address the issue of poverty certificates A policy should be designed that includes 1) a uniform definition of who is eligible for poverty certificates, 2) naming a ministry that will be financially responsible for the care given to people with poverty certificates, and allocating a budget to that ministry for that purpose, 3) a simple process for obtaining a poverty certificate, and 4) the duration of time during which a poverty certificate is valid

Note that the Eritrean Relief Committee has recently completed a village study that could be used to define eligibility for poverty certificates The standard should be flexible enough so that a household's eligibility can change when its financial circumstances change (for example, when the head of the household dies or an adult child finds employment) and when economic conditions change (for example, during a drought)

2 Introduce procedures for facilities to report to the MOH on the value of services delivered to people with poverty certificates and to emergency cases

Revenue data on each facility are not currently available, but they will be in the near future Health facilities and the zonal medical administration report revenue data to the Treasury on a monthly basis and to the MOH semi-annually Although the zonal medical administration has revenue data for each facility, only total revenue is reported to the MOH In the future, monthly revenue data will be reported to SEMISH for each facility The information will include subtotals for revenue from 1) registration fees, 2) laboratory exams, 3) x-ray exams, 4) drugs, 5) inpatient fees for hotel expenses, and 6) other

Although the SEMISH data will be an important improvement in the MOH's financial information, additional information is necessary to manage the cost-sharing scheme and to account for resource utilization Hospitals should keep track of the value of the care provided to patients with poverty certificates, and all facilities should keep track of the value of care provided to emergency cases These data are necessary to verify that the utilization statistics correspond to either revenue or the value of care for emergency care and poverty certificate cases

Hospitals should also account for revenue from different sources, such as 1) fee for service, 2) sick reports, and 3) insurance Although MHH accounted for these revenue in the past, they have been unable to continue since their accounting staff was reduced in 1995

3 Establish routine procedures for fee collectors and the accounting staff at zonal medical offices to estimate facility costs Develop receipts or other forms that list costs as well as fees

Health workers and patients need to have accurate information about the cost of care Health workers should be more cost-conscious in their use of resources Patients should be aware of the value of their care, even if the price they pay reflects a substantial subsidy

The first step is to regularly estimate the cost of care at each facility Some costs, such as drugs, do not vary across facilities, but others, such as capital costs and personnel costs, vary considerably These costs depend on the size and age of the facility or the number of staff and their professional qualifications Fortunately, capital costs and personnel costs are relatively constant over time, for most facilities, personnel costs only need to be estimated once or twice a year and buildings costs even less frequently

For health centers and stations, costs can be estimated by accounting staff at zonal medical offices and fee collectors The fee collectors at each facility can be assigned to collect the necessary information on staff, medical equipment, and other capital every year During a routine trip to deposit revenue with the local Treasury office, fee collectors can meet with the accounting staff at the zonal medical office to make the cost estimates The accounting staff will require a short training to learn how to estimate costs at health centers and stations The accounting staff can also be responsible for performing annual cost estimates at zonal hospitals

The cost estimates for each facility can be used to inform health workers about the cost of care recorded on patient receipts or other forms For health centers and stations, it may be possible to simply write the cost estimate on the official Treasury receipts, or it may be necessary to design a special Treasury receipt for health care

Modified receipts or other forms would also improve patient flow at hospitals Prescription forms that list all drugs and their prices would be simpler for the health worker to fill out, and would eliminate the need for patients to get price information from the pharmacy before paying the fee collector for the drugs A similar form could be developed for requests for diagnostic tests

4 Conduct a cost study at MHH with estimates of current costs and projected costs when quality improvements are completed

A study of marginal costs at MHH is necessary to assess whether or not its prices are appropriate, as noted in Section IIIC2 This study is also an essential step before price changes can be

recommended MHH is scheduled for major renovations in the next few years, so the cost study should estimate the current costs, as well as costs when the renovations are completed

Cost-Sharing Scheme or Social Insurance

5 Include cost estimates, revenue, and utilization data in comprehensive budgeting process

The MOH is implementing a comprehensive budgeting process in 1998, which is an opportunity to introduce cost estimates, revenue, and utilization data to the budgeting process Each zonal medical office will submit a budget to the MOH that is based on information from facilities within that zone Each zone will need to justify its budget to the MOH, which will in turn need to justify its budget to the Budget Office of the President Cost estimates, revenue, and utilization data are ideal tools for budget justifications

In urban areas, a facility's budget should be closely linked to its revenue Even if 50 percent of the budget at primary care facilities is subsidized, each facility's budget should be roughly twice its revenue Facilities with more revenue serve more patients and need larger budgets An exception is a facility that serves a population with a high percentage of people who are eligible for poverty certificates In this case, the budget justification should include the value of care given to people with poverty certificates (see Task 2 above) or utilization data Another exception is a facility that has unusually high costs, such a remote facility with high transportation costs In this case, the budget justification should include cost estimates

In a rural social insurance program with annual prepayments, the budget justification should rely more on utilization data

6 Develop simplified procedures for expenditures that link facility revenue to quality improvements

A closer link between revenue and the budgeting process is the first step towards creating opportunities for quality improvements Changes in the procedures for expenditures should accompany changes in the budgeting process The procedures should allow health workers at each facility some discretion to make quality improvements while maintaining the integrity of the expenditure process Within hospitals, departments should also have some opportunities to initiate quality improvements Currently these initiatives are not possible, because the procedures for expenditures require specialized personnel

7 Incorporate cost estimates and revenue projections in the long-term planning process

Decisionmakers should consider financial sustainability, based on the cost estimates and revenue projections, when making long-term plans The MOH is investing in two new hospitals in Barentu and Mendefera that are estimated to increase recurrent costs by 25 to 30 million birr per year, or 43 percent of MOH recurrent expenditures (World Bank, 1997) There are plans to

continue to construct or renovate other facilities over the next several years The Human Resources Development Plan for the MOH proposes a 77 percent increase in the number of personnel, and an increase in personnel costs by 16 9 million birr per year, or 29 percent of MOH recurrent expenditures (MOH, 1996) (These estimates of personnel costs do not include the recent salary increase for civil servants) Decisions of this financial magnitude should be based on a fairly clear understanding of the recurrent costs and the sources of revenue to finance them

8 Conduct operations research to identify the most cost-effective ways to provide care for specific health problems or populations

The cost estimates and greater awareness about costs (see Tasks 3 and 4) should create opportunities to conduct operations research on cost-effectiveness MOH officials, health workers, and researchers at the University of Asmara could do this research The University of Asmara has a university-linkage grant (funded by USAID) with three universities in the United States that could also contribute to this research The three universities are 1) University of California at Berkeley, 2) Johns Hopkins University, and 3) State University of New York (SUNY) at Albany

Social Insurance

9 Conduct operations research on insurance program benefits

As background to this task, I want to offer a brief explanation about insurance When a person purchases insurance he/she is paying a small amount over time to prevent a large financial loss all at once For example, assume that the price of an episode of illness with inpatient care at MHH is 400 birr, and that one person in each household has an episode illness with inpatient care each year An insurance program that covers inpatient care at MHH might have a premium of 40 birr per month, or 480 birr per year The annual premium is greater than the price of inpatient care, because there are administrative costs of running the insurance program (Administrative costs at NICE are about 25 percent)

In general, insurance benefit packages can be either comprehensive or catastrophic A comprehensive benefit package covers all types of care, including outpatient visits, dental care, and optometry, in addition to inpatient care A catastrophic benefit package may cover only inpatient care or care that exceeds some maximum price, such as 1,000 birr per episode of illness, or household expenditures that exceed some maximum amount, such as 5,000 birr per year

To design a benefit package there are two issues about which more information is necessary The first issue concerns the types of care and the prices for which it is worthwhile to pay to prevent a financial loss At 400 birr for inpatient care, most people may prefer to borrow money from family and friends when an illness occurs rather than pay for insurance throughout the year If hospital prices increase by 5 or 10 times to recover all the costs of care (see Task 4), people may

prefer to pay insurance premiums to prevent having to pay 4,000 birr for inpatient care all at once

The other issue is to compare the cost of the fee collection method to the administrative costs of the insurance program For outpatient care at hospitals where the fee collection costs are relatively low, it may be more efficient for patients to pay out-of-pocket than to finance care through a social insurance system Similarly, many enterprises in Asmara have first-aid clinics, and it may be more efficient to maintain these clinics than to finance this type of care through a social insurance system In contrast, for care at health stations where the fee collection costs are relatively high, it may be more efficient to finance care through the social insurance system

10 Conduct operations research on reimbursement methods for providers

The choice of reimbursement methods depends somewhat on the care that is covered by the insurance benefit package (see Task 9) Potential reimbursement methods include fee-for-service, fee per diagnosis or diagnostic-related group, case-based reimbursement, and capitation

11 Develop a business plan to initiate a social insurance program for civil servants and/or enterprise employees in partnership with NICE

The business plan should include 1) the employees covered, 2) the benefit package, 3) cost of care, 4) premium, 5) method of paying premium, 6) amount and method of paying co-payments, 7) roles and responsibilities of each partner, and 8) training requirements Much of this information will be available from Tasks 3, 4, 9, and 10, but additional research will be necessary on the costs of care in the private sector and to calculate premiums

Calculating premiums will require estimates of health care expenditures by civil servants and enterprise employees Health insurance companies require about five years of data (experience) to calculate premiums Data for this duration of time are not available from patient records, and it will be necessary to base premiums on survey data Although this information could be collected through a household survey in Maekel region, similar to the EHHSUES survey, the data may be more reliable and less expensive to collect through a work site survey of civil servants and enterprise employees that focuses on utilization and expenditures of health care (Note that the sample size required to calculate premiums is fairly large If the information is collected through a household survey, the sample should be stratified to over sample civil servants and enterprise employees)

12 Initiate a process with MOLG and village health committees to develop community-based social insurance in rural areas

It is important to begin implementation of the rural social insurance program at the same time as the program in Maekel Zone, because working with the village administration and village health committees is a slower process that will take longer to design and implement It would be best to

begin implementation in a zone that already has village health committees that could address health finance issues For example, respondents to the qualitative interviews said the village health committees in Anseba region are able to begin working on health finance issues In contrast, respondents expressed concern about the ability of the health committees in Debub to oversee an insurance scheme on an on-going basis (as opposed to their current role in short-term oversight of health facility construction)

APPENDIXES

APPENDIX A

TERMS OF REFERENCE & LETTERS MODIFYING THE TERMS OF REFERENCE

TOR FOR SHORT TERM HEALTH FINANCING CONSULTANT

1 Review and assess the cost sharing scheme initiated by the MOH in February 1996, in light of the quality of the care, efficiency, equity and viability

2 Propose feasible options to the Minister of Health on how to immediately initiate cost recovery for all medical services on user - fees basis according to individuals' ability and willingness to pay in light of efficiency and quality of care to be provided

3 Propose options on how to provide and ensure sustainable medical care in hospitals health centers and health stations associated with cost recovery schemes

4 suggest options to the Minister on how health insurance scheme could be initiated and gradually developed nation-wide

AND/

5 Study on the feasibility of hospital financial and administrative autonomy

Minister
Ministry of Health

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b) *TIME FRAME AND SUPERVISION*

The MOH has determined that this work should commence immediately The estimated duration of work is 25 working days or one calendar month whichever is longer The consultant will be under the direct supervision of Dr Iyob Tekle, Head of Planning and Programming, MOH, and work closely and supported by Mr Tewolde G/Yesus Head of Administration Department and Mr Asemhey Yebio Head of Finance Section of MOH and Dr Nosa Orobaton, BASICS Chief of Party

c) *CONTACTS/ REPORTS/DATA TO BE USED*

Resources available to the consultant for the successful completion of this work include but are not restricted to the following

1 Documents which describe the MOH policies and programs in Health Financing

2 Eritrea Demographic and Health Survey Report, and data set as applicable

3 Household Expenditure and Health Seeking Behavior Survey from Gash Barka and Debub Regions (Data + Report)

4 Health Profiles and Annual Reports of Regional Health Offices

5 Action Health Plans of the Regions

6 Consultations with senior officers and policy makers in the MOH

7 Consultations with regional medical officers health workers

8 consultations with selected heads of hospitals and health centers and health stations

9 Consultations with senior officers and policy makers in Eritrea Ministry of Finance

10 Consultations with National Statistics Office, and SEMISH

11 Consultations with National Insurance Corporation of Eritrea (NICE) if applicable

d) DELIVERABLES

1 A preliminary report of findings
2 A detailed working draft report describing the issues and options
3 A report of deliberations and discussions of a workshop wherein the detailed findings of the consultation
4 A final report detailing the findings and incorporating recommendations from the workshop

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دوله ارتريا
وزارة الصحة

The State of Eritrea
MINISTRY OF HEALTH

August 04/1997
ጋስ/18/1994/97

To: BASICS
A s m a r a

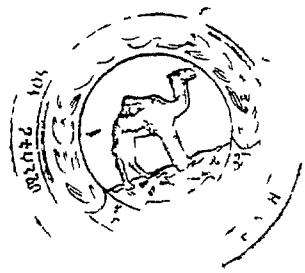
We refer to Dr Marcia Weaver s reply that was enclosed with your letter dated 1 August 1997

From her letter it is to be inferred that if a study on both the cost - sharing schemes and hospital financial and administrative anatomy is to be done an in-depth analysis will not be possible

Therefore to make a relatively detailed investigation that will be helpful for Ministry's decision making we would like that the consultant focus on Cost Sharing and Cost Recovery as indicated in items No 1 2 of the TOR which is attached herewith for her reference

As we have already expressed our concern on time we would once again emphasize that Dr Marcia Weaver[consultant]initiates the work in the shortest time possible

Sincerely yours



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MINISTER OF HEALTH

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USAID Office
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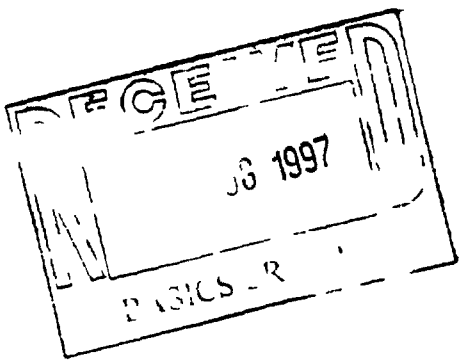

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September 12, 1997

To BASICS
Asmara

We refer to the TOR for Short Term Health Financing Consultant

Note that section d) lists 4 deliverables 1) preliminary report of findings, 2) detailed working draft report describing issues and options, 3) report of deliberations and discussions of a workshop wherein the detailed findindg of the consultation are presented, and 4) final report detailing the findings and incorporating recommendations from the workshop

At the request of the H E Saleh Mekv, Minsister of Health, the workshop was cancelled Consequently, the only deliverable required is a final report that presents the assessment of the cost sharing scheme and describes options for initiating cost recovery and social insurance

Sincerely yours,

Berhane G/Tensave
Head of Health Services Department

cc USAID Office
Asmara

APPENDIX B

LIST OF PEOPLE CONTACTED

LIST OF PEOPLE CONTACTED

Ministry of Health
H E Saleh Meky, Minister of Health
Dr Berhane G/Tensaye, Director General for Health Services
Dr Iyok Tekle, Head of Planning, Programming & Evaluation
Dr Ghermai Tesfasellase
Berhana Haile, Director SEMISH
Eyasu Hagdu, Program Officer
Tewolde G/yesus, Head of Administrative Department
Asemehie Yebio, Head of Finance
Dr Goitom Melorahtu, Communicable Disease Division
Dr Ephrem Zewoldi, Medical Services
Iyassu, Pharmaceutical Services
Samuel Goitom, programmer SEMISH
Haile Mariam, programmer SEMISH
Eyob Zere Asbu, student at Health Economics Unit, University of Cape Town

Mekone Hiwot Hospital
Dr Micael G/reiwot, Director
Ghebremicael Testargghi, Administrator
Kidane Araya, Cashier
Teklit Ghebrehiwet, Chief accountant
Fessaye Dndemariam, Accounting clerk
Saba G/Yesus, Typist

Zoba Maakel
Dr Mineab Sebhatu Regional Medical Officer
Lemlem Habtemariam, accountant
Tedros Tewelde, Nurse Felegehiwet Urban Health Station
Akberet Tesfiri, Nurse Felegehiwet Urban Health Station

Zoba Debub
Mohari Tseggai, Vice Governor, Zonal Administration
Dr Berhane Debru, Regional Medical Officer
Dr Gob Micoal, Pharmacist Mendefera Provincial Hospital
Temesohen Haile, Laboratory Technician, Provincial Mendefera Hospital

Zoba Anseba
Jossef Araia Vice Governor, Zonal Administration
Dr Andom O/Mariom, Regional Medical Officer
Zekarias, Provincial Hospital Administrator
Alazar Haile Kifle, Health Assistant, Elabered Health Center

Ministry of Finance
Dr Goitom, Director General of Inland Revenue

Ministry of Local Government
H E Kidane Tsege, Minister of Local Government

National Insurance Corporation of Eritrea
Zeru Woldemichael, General Manager
Misghna Nemaram, Head Underwriting Department
Tuguabo Moba, Manager Marketing

National Statistics Office
Solomon Tsegay, programmer for EHHSUES

USAID/Asmara
Glen Anders, Mission Director
Ann Hirschey, Health Advisor
Yohanes Ghebrat, Health

BASICS
Nosa Orabaton, Chief of Party
Jeremy Clark, Health Information System Advisor
Karobi Bhatta Charya, Community Mobilization Consultant

APPENDIX C

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APPENDIX D

MOH COST-SHARING ANNOUNCEMENT, MARCH 20, 1995

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دولة ارتريا
وزارة الصحة

The State of Eritrea
MINISTRY OF HEALTH

March 20,1995

FINANCINC OF HEALTH SERVICES

The Ministry of Health (MOH) has conducted a study to initiate a health service fee structure to finance the provision of health care The aim of the study was to set-up a fee structure so that patients would be required to pay for most of the health services which at present are provided almost free of charge The study has bee approved by the Ministry of Local Governments and the Provincial Health authorities It has already been submitted to G O E for official approval and is expected to be in force in the very near future

The highlights of this study which indicates the government's commitment to establish a fees-for-service policy , are hereunder summarized

More than 80% of the population of Eritrea live in the rural areas and depend , to a large extent on food aid for their survival , They suffer from deferent nutrition and diseases most of which are due to lack of proper nutrition and poor sanitation. Unless the economic situation shows substantial improvement it is unlikely that most of the rural population would be able to pay for health services provided by Primary Hea th care (PHC) programs or by Hospitals
However, providing free health service involves a substantial expense on the part of the government Fu ther more , the recipients of free hea th care may develop some negative attitudes such as a sense of dependency and also may not appreciate the fact that free health services are actually paid for by the government

By stages all expenses on health services should have to be recovered through a system of user fees and eventually a health insurance scheme

Patients referred to hospital but unable to pay the charges would be required to bring a letter from their local administration affirming that the sa c local administration wou d settle the hospital bill

Those suffering from communicable diseases, sexually transmitted diseases and mental patients will continue to receive, free health care Psychiatric patients seeking treatment as out-patients, however, will be required to pay for medication

It is essential that the quality of health service must improve in terms of diagnostic services, drug supplies etc If the cost-recovery-scheme is to work satisfactorily It is only then that the patients would be prepared to pay for the services.

Registration fee nominal fee at PHC level) collected at all levels of the health delivery system should not be sent to the central treasury but should be left to the local administration for the maintenance of the health facilities premises and for the payment of fees for destitute patients

Financing Schemes

For financing health services the following options are considered suitable for immediate application

i) Charging a Nominal Fee for health services at the PHC level

ii) User Fees to be collected by secondary and tertiary Hospitals for treatment diagnostic services, medication, in patient and out-patient care and all other services provided by a Hospital

iii) The introduction of a limited Health Insurance Scheme It is understood that given the prevailing level of economic development of the country such a scheme would be readily applicable only to civil servants, employees of commercial and industrial establishments and other salaried people At present this class comprises only a small percentage of the total population

iv) The long term plan is to institute a Compulsory National Health Insurance Scheme.

<u>Registration Fee.</u>

At Health Station -2 Birr
-At Health Centers -3 Birr

The registration card would be valid for repeat visits for a period of one month

In patients in Health centers would be charged 0.50 Birr for a maximum of seven days If their condition requires further hospitalization they would be referred to the provincial hospital

Vaccination ,MCH and emergency services for the first 24 hours will continue to be provided free of charge

User Fees Hospitals

Reports on expenditure on health indicates that almost three-fourth of the total out-lay on health services is spent on hospitals , ie. on curative services It is therefore necessary that a system to recover this cost should be in place This would best be done if the hospitals charge for all services including registration

In establishing a fee structure for hospitals the following were taken into consideration

i) All hospitals are located in urban areas urban dwellers are for the most part, given servant's and employees in the private sector who have a fixed income Consequently they have the means to pay for their own health care

ii) Although no studies are available, the number of patients who seek treatment, at a considerable cost, is the only private hospital in Asmara, in the private clinics and those who purchase drugs at private pharmacies seem to indicate that the existing capacity to pay for health care is quite high.

iii) The government would be able to use some of the funds acquired from hospitals for the expansion of the PHC services

iv) User Fees charged by the hospitals would cause patients to seek treatment at the Health Stations and Health Centers and thus encourage the public to fully benefit from PHC services This would considerably reduce by-pas and hence the pressure on hospitals

v The additional clerical and administrative work that will follow the introduction of a fees payment system can be handled by the

existing administrative personnel and therefore does not require additional man-power

v The charging of fees for health services in government hospitals is expected to encourage individual investors and non-governmental organizations to establish their non hospitals and clinics This would give the private sector an opportunity to play an important role in the development of the health care business in Eritrea .

		Registration Examination		Hospital (General)	Bed	Hosp (special)	Bed
1	Hospital.Sub-province	4	7	958	19 15	-	
2	Hospital Regional	5	8	958	19 15	33 09	
3	Central Hospital	6	15	9 58	19.15	33 09	