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ASSESSMENT OF PROPOSED  
REFORMS OF KENYA'S  
NATIONAL HOSPITAL  
INSURANCE FUND

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# TABLE OF CONTENTS

	<u>Page</u>
PREFACE .....	i
EXECUTIVE SUMMARY .....	iii
I. INTRODUCTION .....	I-1
A. Study Approach .....	I-1
B. Organization of This Report .....	I-2
II. NHIF OVERVIEW .....	II-1
A. Historical Role of NHIF .....	II-1
B. Membership Categories .....	II-1
C. Level of Contributions .....	II-2
D. Benefits and Provider Reimbursement .....	II-2
E. Employer Supplements to NHIF Benefits .....	II-3
F. Distribution of NHIF Provider Payments .....	II-4
G. Organizational Status .....	II-5
III. PROPOSED CHANGES IN NHIF .....	III-1
A. Transformation to a State Corporation .....	III-2
B. Increased Membership Base .....	III-3
C. Progressive Contributions for Compulsory Members .....	III-4
D. Shared Contribution With Employer .....	III-4
E. Expanded Benefits, Including Outpatient Care .....	III-5
F. MOH Regulation of Hospital Charges .....	III-5
G. Use of Surplus for Health Related Projects .....	III-6
H. Plans for Implementation .....	III-6
V. ADMINISTRATIVE FEASIBILITY OF PROPOSED REFORM .....	V-1
A. Organization Control .....	V-1
B. Current Operational Capacity and Deficiencies .....	V-6
1. Administration/Registration .....	V-6
2. Accounting .....	V-10
3. Inspectorate .....	V-14
4. Computer Division .....	V-16
C. Administrative Implications of the Proposed Reform .....	V-18
1. Personnel Issues .....	V-19
2. Automation .....	V-22
3. Space Planning .....	V-25

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## PREFACE

From April 24 through May 15, 1989 Dr. Leslie Alexandre and Mr. Stephen Franey participated in a multi-donor Health Financing Mission in Kenya. The objectives of the Mission--which was jointly funded by the United States Agency for International Development (USAID), the World Bank, and the United Nations Children's Fund (UNICEF)--were twofold. In the short-term, the objectives were to evaluate the Government of Kenya's (GOK) initial cost-sharing proposals for the health sector with special emphasis on their efficiency and equity (including administrative arrangements for the collection of fees and their subsequent expenditure) and to identify priority quality improvements at Kenyatta National Hospital (KNH) in preparation for the proposed International Development Agency (IDA) Health Rehabilitation Project. In the medium-term, the objective was to identify studies whose findings can be used to direct a larger IDA-financed health sector operation as a follow-up to the Health Rehabilitation Project.

Eight professionals comprised the mission, which was directed by Mr. Nicholas Burnett of the World Bank. Collectively, these individuals were experts in medical care cost sharing, the design of household surveys and other studies of medical utilization and expenditures, hospital facilities planning, the design and implementation of user fee collection systems, and health insurance.

Dr. Alexandre and Mr. Franey were assigned joint responsibility for reviewing the proposed reform of Kenya's National Hospital Insurance Fund (NHIF) to ascertain its financial and administrative feasibility. Specifically, they were charged with analyzing the proposed revisions in premium structure, benefit package, and reimbursement rates; and assessing the potential for revenue generation. They were also asked to analyze the proposed changes from the perspective of NHIF's organizational structure, staffing, and administrative/management capacity; and were requested to identify staff training and equipment needed to implement the restructuring. Finally, they were asked to propose recommendations on future investigations that should be undertaken before any firm decisions on restructuring NHIF are made by GOK. The information and recommendations presented in this report represent their collective efforts and shared conclusions.

The authors wish to sincerely thank Mr. Mulli, Mr. Odeny, and other representatives of NHIF for their cooperation, assistance, and support. They would like to acknowledge the contributions of the many individuals who so readily agreed to be interviewed as part of this study. They would like to extend their appreciation to

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members of the Steering Committee who worked so diligently in gathering necessary information in preparation for their arrival. Finally, they would like to thank the donors for their financial support of the project, as well as members of the Mission who participated in the creation of a stimulating environment that was both professionally challenging and personally rewarding.

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## EXECUTIVE SUMMARY

### Introduction

From April 24 through May 15, 1989, we participated in a multi-donor health care financing mission in Kenya. The goals of the mission, which was funded by the World Bank, the United States Agency for International Development and the United Nations Children's Fund, were to evaluate the Government of Kenya's cost sharing proposals and to identify priorities for improving the quality of care at Kenyatta National Hospital. Our role in the mission was to assess the financial and administrative feasibility of a proposed reform of Kenya's National Hospital Insurance Fund (NHIF).

Our conclusions and recommendations are based on information gathered through a review of the original NHIF law; the new legislation proposed by NHIF and the Ministry of Health (MOH); Ministry of Finance (MOF) comments on the proposed reform; and several documents pertaining to health care financing and delivery in Kenya. We also interviewed many individuals representing a broad range of constituencies likely to be affected by a restructure of NHIF. Most of our conclusions regarding the financial viability of the Fund under the new legislation were derived based on an analysis of NHIF historical data combined with assumptions about expected revenue, utilization and reimbursement rates under the new system.

### NHIF Overview

The National Hospital Insurance Fund was created in 1955 to provide access to private, higher quality, hospitals by the upper income population and by all races. For a monthly contribution of 20 Ksh, the Fund covers up to 180 inpatient hospital days per year per family. Contributions are mandated for adults (i.e., those 18 years or older) earning at least 1,000 Ksh per month and are voluntary for adults earning a lesser amount.

Apart from permitting voluntary members beginning in 1982, virtually no substantive changes have been made in the membership categories, contribution scheme, benefits and organizational status of the Fund since its inception. Membership has increased from 40,000 contributors in 1967 to more than 800,000 currently. Once comprised almost exclusively of relatively healthy Kenyans, the Fund's membership now

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is believed to include a large segment of the middle-income population. About half of the participants are civil servants. Voluntary contributors comprise less than 2 percent of the Fund's total membership.

NHIF contributions are regressive in nature, and are paid entirely by the contributor. Employers are mandated to collect NHIF contributions via deductions from wages and transfer these contributions in a timely manner to the Fund through the purchase of NHIF revenue stamps. Non-employed and self-employed adults with the required level of earnings are supposed to participate, but the practical problems of identifying these persons and collecting their contributions has limited their enrollment.

Hospitals, nursing and maternity homes are reimbursed a flat rate per day (or per admission) by NHIF, irrespective of services actually provided. Oftentimes, the NHIF per diem is much less than the hospital's actual charge, leaving the patient with large out-of-pocket expenses. All public employers, and many private ones, however, provide direct subsidies to their employees to help cover such out-of-pocket medical expenses.

NHIF payments are skewed towards private facilities and away from mission and government hospitals. Reimbursement rates are lowest for government hospitals (40 Ksh per confinement), often too low to cover the administrative costs of filing NHIF claims. In addition, government hospitals have no incentive to claim reimbursement from the Fund since all of the revenue generated from their efforts goes directly to MOH.

The Fund is organized as a low-level parastatal, and it is operated as a department of MOH rather than an independent agency. All of NHIF's employees are seconded from MOH and MOF, and its budget must be approved by the Treasury. Despite the fact that NHIF has consistently operated with a surplus of contributions over claims expense, the Fund cannot use its surplus to hire staff, purchase vehicles to conduct inspections, or make necessary enhancements in office space and automation.

### Proposed Changes in NHIF and Plans for Implementation

Earlier this year, NHIF drafted legislation, with input from MOH, whose enactment by Parliament would result in a total restructure of the Fund. The new law would convert NHIF into a state corporation responsible to a Board of Trustees. The Board would be comprised of representatives of MOH, MOF, NHIF, employers, hospitals and contributors.

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Corporate status would provide NHIF with much greater autonomy, including control over its own budget and the ability to increase contributions and benefits without an act of Parliament. The Fund has also proposed that it be empowered to regulate hospital charges, and that it be allowed to invest some of its surplus in the form of loans to health care projects.

The proposed law would expand compulsory membership to include farmers and members of cooperative societies. Cooperatives would be mandated to help administer the program, just as employers do now, i.e., register all members who qualify as contributors, collect contributions and obtain registration cards.

Contributions would be progressive (i.e., income-related) for compulsory members of the Fund and would be shared equally between the employer and employee. Special members would have to pay the entire contribution themselves. NHIF has proposed eight income groups, ranging from 1,000-2,500 Ksh per month to 13,001+ Ksh per month, with an associated monthly contribution ranging from 50 to 400 Ksh. Voluntary members would be required to contribute 50 Ksh per month.

Benefits would be expanded to include some coverage for hospital outpatient services for all members of the Fund, as well as spectacles, dentures, wheelchairs, crutches and artificial limbs for contributors only. Inpatient reimbursement rates would be increased.

At best, only superficial planning for the implementation of these sweeping changes has been undertaken by the Fund. Plans for automation, organizational structure, the use of space, and the decentralization of Fund activities to an expanded number of regional offices are vague.

Fund Management has considered some of the broad administrative and operational implications of the proposed changes. These managers, however, seemed to be of the mind that critical implementation issues can be resolved quickly, without detrimentally affecting the level of service historically provided.

### The Role of Private Health Insurance (MOVE TO RIGHT PLACE)

The recently released Kenya Five-Year (1989-1993) Development Plan suggests that NHIF become a broker for private health insurance policies. This suggestion was made by the Ministry of Planning (MOP) without input from MOH, MOF or the Fund itself.

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Meetings were held with representatives of MOP, the Insurance Commission, a major insurance company, Cooperative Insurance Services and other concerned parties to more completely understand this proposal and whether or not it is viable. Based on what was learned, we concluded that the proposal is ill-conceived financially and that Kenya's private health insurance market is not sufficiently developed to support this plan.

Financial Viability of Proposed Reform

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## I. INTRODUCTION

This report presents the results of our analysis of the proposed restructuring of Kenya's National Hospital Insurance Fund (NHIF). The assessments made, conclusions reached, and recommendations proposed were developed as part of a multi-donor Health Financing Mission in Kenya, whose short-term objective was to evaluate the Government of Kenya's (GOK) initial cost-sharing proposals for the health sector. NHIF's significance in this broader evaluation was its proposed role in facilitating the implementation of policy initiatives and relieving constraints on recurrent financing through rapid revenue generation.

The specific focus of the NHIF review involved an analysis of the feasibility and likely impact of changes proposed by Fund Management. This analysis included an assessment of the proposed premium and benefit changes, the administrative/management capacity of NHIF, and the feasibility of implementing the proposed expansion in the manner prescribed. The specific methodological approaches employed in this analysis and the organization of the remainder of this report are described in subsequent sections of this introduction.

### A. Study Approach

The information and recommendations presented in this report were derived from a review of the original NHIF legislation; the new legislation proposed by NHIF and the Ministry of Health (MOH); Ministry of Finance (MOF) comments on the proposed reform; and several reports pertaining to health care financing and delivery in Kenya. A list of the documents reviewed for this mission is provided as Appendix A.

In addition to reviewing all the written materials available to us regarding NHIF and health care financing issues in Kenya, throughout our stay in the Republic we met with a myriad of individuals representing a broad range of constituencies. Among the persons we interviewed were representatives of NHIF, MOH, MOF, the Ministry of Planning (MOP), the Ministry of Cooperatives (MOC), the Insurance Commissioner, the Cooperative Insurance Services, a private health insurer, the Kenya Federation of Employers, and an employer participating in NHIF.

Our goal was to understand NHIF in both its current and proposed context, the role of private health insurance in Kenya, and the attitudes of employers and

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cooperatives towards NHIF and private health insurance. Appendix B provides a list of all the interviews we conducted while we were in Kenya.

An important aspect of our assignment was to assess the financial viability of NHIF proposals for restructuring. We were fortunate to be able to borrow NHIF's logs of claims made during FY1987/88 and enter this information into a LOTUS database for subsequent analysis. Also entered into the database was information about each NHIF-approved hospital, including name, location, category of current reimbursement (i.e., per diem or flat), current reimbursement rate, and proposed rates for inpatient and outpatient services.

This database was used to assess the financial reasonableness of the proposed benefits in relation to the revenue anticipated from the contribution schedule. Having all the data in a single database--so that mathematical formulas and calculations could easily be applied--allowed us to vary NHIF's underlying assumptions regarding average family size, the percentage of the covered population that would annually use a specific benefit, and reimbursement levels, to ascertain the financial effects of various scenarios on the Fund's liquidity. This technique--known as sensitivity analysis--was the third methodological approach we employed to assess the proposed restructuring of NHIF.

## B. Organization of this Report

Seven additional chapters comprise this report. Chapter II provides a general overview of the National Hospital Insurance Fund, including a historical perspective on the creation of the Fund and a description of the current covered population, contributions, benefits, distribution of payments and organizational structure. Chapter III summarizes the legislation drafted to restructure NHIF, and explains the impetus for the proposed changes.

Chapter IV addresses the financial feasibility of the proposed reform of NHIF. The proposed benefits are described, along with their rationale and a discussion of the incentives created by the plan design. The proposed contributions are reviewed by category of membership. A considerable portion of this chapter is devoted to the relationship between estimated benefit costs and revenue from contributions. The implications of the findings from our analysis with respect to NHIF and MOH revenue generation are discussed.

Chapter V examines the administrative feasibility of restructuring NHIF in the manner set forth by the proposed legislation. Two major components are discussed--the

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change to a state corporation and the effect of proposed changes on NHIF operations. This assessment evaluates proposed changes with respect to personnel issues, the degree of automation required and space planning.

Chapter VI highlights additional implementation issues and suggests a realistic time frame for restructuring NHIF in accordance with proposed recommendations. Broader health sector policy issues that should be considered in restructuring NHIF are delineated in Chapter VII. The eighth and final chapter of our report summarizes our proposed recommendations and delineates additional analyses that should be undertaken, and technical assistance that should be provided, prior to the implementation of any sweeping changes in the status and operations of NHIF.

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## II. NHIF OVERVIEW

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## II. NHIF OVERVIEW

This chapter provides a brief overview of the National Hospital Insurance Fund's (NHIF) historical role, summarizes the Fund's key design features and describes its present organizational status. Significant historical or current problems/issues are highlighted in the description, as they represent some of the impetus for the proposed restructuring that will be summarized in the next chapter.

### A. Historical Role of NHIF

The National Hospital Insurance Fund was created by legislation in 1966--shortly after independence--to provide access to private, higher quality, hospitals by the upper income segments of the population and by all races. During Kenya's colonial period, not all races were permitted to use these private facilities. In fact, amenity facilities were utilized almost exclusively by non-Africans.

According to P.W. Kariuki (1985)--a former Director of NHIF--it was believed that NHIF coverage would help to alleviate the crowding at government facilities resulting from the provision of free services. It was also believed that NHIF would serve as a vehicle for pooling the risk of individual illness through compulsory contributions to a fund that would be used to pay for inpatient treatment at private hospitals, nursing homes (i.e., facilities typically providing general medical care with some surgical capacity) and maternity homes.

### B. Membership Categories

Participation in NHIF was originally restricted to individuals 18 years of age or older who earned at least 1,000 Ksh per month (or 12,000 Ksh per year), plus their spouses and children. Individuals with this income level were required by law to make NHIF contributions. In 1967, the first year of actual NHIF operation, there were only 40,000 contributors to the Fund (Kariuki, 1985). The majority of these contributors were, and continue to be, government employees. In 1972, the legislation creating NHIF was amended to allow individuals 18 years of age or older with an income below 1,000 Ksh per month to voluntarily contribute to the Fund. As with the compulsory contributors, spouses and children of voluntary contributors are also covered by NHIF.

Eligibility criteria for NHIF participation have not changed since 1972. Rising income among Kenyans, however, has increased enrollment in the Fund to more than 300,000 contributors in 1989. Once comprised almost exclusively of relatively wealthy Kenyans, NHIF has evolved so that its membership now includes a large segment of those considered to be in the middle of the income distribution.

As noted previously, more than half of all NHIF contributors are civil servants. Employees working for private businesses also must participate in the Fund if their income is above the specified 1,000 Ksh per month. Non-employed and self-employed persons earning more than 1,000 Ksh per month are also supposed to contribute to the Fund. In reality, the practical problems of identifying these persons and collecting the requisite contributions have limited their participation in NHIF. To date, no significant effort has been made to use the cooperatives as a vehicle for collecting contributions and distributing membership cards to self-employed persons. Voluntary contributors comprise less than 2 percent of the current NHIF membership.

#### C. Level of Contributions

The required monthly contribution for NHIF coverage is 20 Ksh per month. Despite dramatic changes in the income level of Kenyans and the costs of providing medical services, the contribution level has remained fixed for 23 years. Employers are not currently required to share in the cost of the contribution paid by their employees.

The regressive nature of NHIF contributions has been repeatedly recognized and documented. This, however, is such an important aspect of the current design of the Fund that it warrants attention. Irrespective of total income, all contributors are required to make the same contribution for insurance coverage. That contribution represents a greater percentage of total income for low versus high income wage earners. In addition, since upper income persons are apt to use more expensive and presumably higher quality facilities (because they can better afford to pay the amount not covered by NHIF), and the Fund pays a higher per diem to these facilities, NHIF consequently pays a greater amount on behalf of wealthier contributors.

#### D. Benefits and Provider Reimbursement

NHIF benefits have not been altered since the Fund's inception, although the amounts reimbursed to hospitals, nursing homes and maternity homes have been

increased. NHIF covers up to 180 days per contributor (i.e., no more than 180 days per family) per year of inpatient treatment in NHIF-approved facilities. There are no incentives within the plan to minimize unnecessary utilization of inpatient services or avoid prolonged lengths of stay. In fact, by only covering inpatient services, there is an incentive to have certain procedures that normally could be safely performed in an outpatient setting be conducted in a hospital.

NHIF reimburses most approved hospitals, nursing homes and maternity homes on a per diem (i.e. flat fee per day, irrespective of treatment rendered) basis. In a few instances, such as for maternity care, the Fund reimburses a flat rate per case. NHIF has generally established six classes of hospitals, based on estimation of the level and quality of services provided by the facility.<sup>1</sup> Each class of hospital is associated with a single per diem rate. The highest of the per diems is 150 Ksh and the lowest is 60 Ksh. All treatment provided within an institution is reimbursed at the assigned per diem (or per case) rate.

Government hospitals are not reimbursed using the standard per diem classes, but rather are paid a flat rate of 40 Ksh per admission. This rate has historically resulted in very few claims being submitted to NHIF for reimbursement. Directors of government hospitals have suggested that the current remuneration is not sufficient to offset the expenses associated with the paper work and administrative capacity necessary to file claims.

The reimbursement rates established by NHIF bear little, if any, relationship to the charges of the institution or its actual costs. In many instances, particularly at the more expensive private facilities in Nairobi, such as Nairobi Hospital, H.H. Aga Khan Hospital and M.P. Shah Hospital, the amount reimbursed by NHIF is only a small fraction of the actual bill. At some mission hospitals, NHIF reimbursement is reported to not only cover the charges but, in some instances, to subsidize the costs of care provided to impoverished patients. However, hospitals whose charges exceed NHIF reimbursement are not precluded from balance billing the patient for the difference.

#### E. Employer Supplements to NHIF Benefits

An important factor that was not made clear in any of the documents reviewed for this mission--perhaps because it was not fully understood by previous individuals

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Note: 1. Recent rate review requests have produced two exceptions to the six standard class; one at 90 Ksh per day and the other at 65 Ksh per day.

investigating health care financing in Kenya--is that the government provides a large subsidy to the costs of treatment for its own employees. Until 1989, this subsidy was for outpatient as well as inpatient treatment. Concerns related to possible abuse of the outpatient benefit, budgetary constraints, and a misinterpretation of a recommendation from the Ministry of Planning, resulted in the government temporarily eliminating the outpatient subsidy.

**F. Distribution of NHIF Provider Payments**

NHIF reimbursement is greatly skewed toward private hospitals, and nursing and maternity homes rather than government or mission hospitals (see Exhibit II-2). During fiscal year 1987/88, private hospitals, nursing and maternity homes accounted for just 26 percent of NHIF-approved facilities, but they claimed 58 percent of total NHIF reimbursements. Community and mission hospitals represented 30 percent of NHIF-approved facilities and they accounted for 40 percent of total claims made. More striking is that government hospitals, which represent 44 percent of all NHIF facilities, claimed slightly more than two percent of total NHIF reimbursement. [In addition to having the lowest reimbursement (40 Ksh per case), government hospitals have no incentive to bill NHIF since the revenues generated from this endeavor go directly to MOH.] The most significant changes that have occurred between FY1987/88 and FY1984/85 are the shift in claims made from community/mission hospitals to nursing/private hospitals and the dramatic increase in government approved hospitals.

**Exhibit II-2  
COMPARISON OF CLIENTS MADE BY HOSPITAL CATEGORY--FY1985 AND FY1988**

<u>Hospital Category</u>	<u>FY1984/85</u>			<u>FY1987/88</u>		
	<u>Claims Made (Ksh)</u>	<u>Percent of Total</u>	<u>Number of Facilities</u>	<u>Claims Made (Ksh)<sup>1</sup></u>	<u>Percent of Total</u>	<u>Number of Facilities</u>
Nursing and Private	54,871,575	50.6%	32	77,947,951	57.8%	55
Community and Mission	51,653,808	47.6	55	53,780,971	39.8	62
Government	1,976,220	1.8	18	3,201,015	2.4	91
<b>TOTAL</b>	<b>108,501,603</b>	<b>100.0%</b>	<b>105</b>	<b>134,929,937</b>	<b>100.0%</b>	<b>208</b>

NOTE: 1. Does not include claims for home confinement and foreign medical care.

SOURCES: NHIF records; Kariuki. "The National Hospital Insurance Fund--Progress, Problems and Prospects." December, 1985.

A potentially serious problem is the uneven distribution of payments within categories of hospitals. For example, in fiscal year 1987/88, out of 55 private hospitals, nursing and maternity homes, 16 were responsible for 37 percent of total claims paid to this group of facilities. A single institution was responsible for 14.6 percent of total reimbursements to private facilities. The lack of homogeneity among the claims experience of private facilities relative to community and mission hospitals has led some to suggest that a certain degree of fraud exists in the system of hospital payments. This conclusion is difficult to support or refute in the absence of information on the percentage of patients being treated in each facility and the relative severity of their illnesses, which might account for longer lengths of stay.

G. Organizational Status

NHIF is a statutory body established by Parliament (i.e., a parastatal) but it is not a corporation with the usual powers and obligations that accompany corporate status. The Fund is managed as a department of the government, with its funds allocated by the Treasury. At the end of each fiscal year, NHIF is required to reimburse the Treasury for all of its administrative expenses, including any rental for office space, and salaries for staff seconded to it, as well as pension contributions on behalf of these staff.

Failure to be officially designated as a State Corporation, with the increased degree of autonomy accompanying that status, has severely hindered the development of NHIF. Despite the fact that the Fund has been running with a growing surplus of premium contributions over claims expense, NHIF cannot use any of the surplus to hire staff, purchase desperately needed vehicles for officers to use in making inspections, or make necessary enhancements in office space and automation. Virtually all of NHIF's employees are seconded from MOH and MOF. When GOK is undertaking financial austerity measures, NHIF must follow suit, despite its self-supporting status. NHIF has been unable to keep pace with the increased demands in administration placed on it by a steadily rising membership.

### III. PROPOSED CHANGES IN NHIF

Earlier this year, the National Hospital Insurance Fund (NHIF) drafted a document in the form of proposed legislation, whose enactment by Parliament would result in a total restructure of the Fund. Originally, when our mission began, we had the impression that Dr. Brian Abel-Smith's report for SIDA, "Discussion Paper on Issues and Options in Health Financing", may have substantially influenced the content of the legislation. In extensive discussions with senior officials at NHIF, it became clear that this report was not a major factor in the proposed reform.

According to NHIF Management, the reform document was drafted jointly with the Ministry of Health (MOH), and represents the end product of an evolutionary process. Over the years, a number of suggestions for strengthening NHIF have been identified, discussed, and occasionally documented. The one study that seems to have most significantly influenced NHIF's thinking regarding its restructure is a "Report on The Study Tour on Financing of Health Services in Sweden, (the) Netherlands, West Germany and South Korea". This report was authored by Mr. Mulli (Director, NHIF), Mr. Kang'ela (Undersecretary, Treasury) and Mr. Njoroge (Undersecretary, MOH) upon their return from a tour of these countries to learn about their national health insurance programs.

Although each of the countries visited has their own unique scheme for financing and delivering health care services, a number of common elements between the various systems were identified in the report and include:

- An equal sharing of the contribution between employer and employee
- Benefit payments of 80 to 90 percent
- Prescription fees paid by the patient before drugs are supplied
- Cash payments for sickness
- Coverage of inpatient and outpatient services
- Maternity and parental benefits (i.e., allowances for the cost of caring for children and parents)
- Coverage of the cost of transportation to and from medical facilities
- Control of inpatient utilization through the use of a general practitioner as a gatekeeper

- Cash payment for burial expenses
- Fully automated systems for claims administration
- Compulsory health insurance for 95 to 100 percent of the population
- Some degree of cost sharing.

As indicated in the subsections that follow a number of these features were incorporated into the proposed restructuring of NHIF. Based on the tenor of their report, it is clear that the Kenyan officials who participated in the study tour were very impressed with what they observed in the developed countries they visited, and are anxious to see Kenya move forward in a similar direction.

The written proposal prepared by Fund Management, in conjunction with MOH officials, addresses organizational status, contribution schemes, benefits (i.e., services covered and level of payment), plans for expanding membership, monitoring of hospital charges and the use of any Fund surplus. In addition, in our meeting with NHIF officials, we were provided with their thinking regarding the implementation of the proposed reform. Each of the proposed changes is described briefly below, followed by a short discussion of the Fund's ideas about the forthcoming implementation.

#### A. Transformation to a State Corporation

The first change advocated by NHIF, and virtually everyone interviewed on this subject, is a change in organizational status from a parastatal to a state corporation (essentially a more autonomous parastatal). The state corporation will be managed by a Board of Trustees under the Minister of Health.

Membership on the Board will be comprised of:

- Permanent Secretary to MOH
- Permanent Secretary to the Treasury
- Director of Medical Services
- Director of NHIF (as an ex-officio member)
- Not more than seven Trustees appointed by the Minister of Health, as follows:
  - Two employer representatives
  - Two hospital representatives
  - Three representatives of contributors.

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Trustees will be appointed for a term not to exceed three years, but can be reappointed indefinitely. The Minister of Health will be responsible for appointing the Board Chairman. There is no discussion in the proposed legislation of staggering Board terms, suggesting that all of the Trustees will turn over at the same time if they are assigned equal terms.

Corporate status will provide NHIF with control over its own budget, enabling the Fund to hire and manage its own staff, and purchase supplies, vehicles and equipment as necessary to accomplish its legitimate functions. There does not appear to be any disagreement among relevant parties that this change is imperative for NHIF to adequately meet its current responsibilities.

#### B. Increased Membership Base

NHIF has proposed three membership categories, "standard", "special" and "voluntary", the first two of which are compulsory. Standard members are employed persons with an average monthly income of more than 1,000 Ksh. Special members are self-employed persons with an average monthly income of more than 1,000 Ksh. Voluntary members are individuals with an average monthly income below 1,000 Ksh who choose to participate in NHIF. Married women who work and make more than 1,000 Ksh per month will also be required to contribute to NHIF.

The intent of adding a special membership category is to draw farmers and members of cooperative societies into the Fund. Although this population is currently mandated to participate in NHIF, administrative systems to support the collection of contributions and distribution of registration cards have never been established. Hence, the percentage of members of cooperatives and other self-employed persons participating in NHIF has been minimal.

Under its new structure, NHIF plans to be much more aggressive in assuring participation in the Fund by members of cooperatives. Cooperatives will be mandated to have a role in the administration of the program. They will be required to register all members who qualify as contributors, collect their contributions and obtain their registration cards. Essentially, the cooperatives will be mandated to assume the role of "employer" in the NHIF system. Just as employers are penalized for failure to make timely contributions to NHIF, cooperatives will also be so penalized.

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C. Progressive Contributions for Compulsory Members

NHIF has proposed that the contribution schemes associated with standard and special membership be progressive (i.e. persons with a higher income make a larger contribution for identical benefits), resulting in upper income members subsidizing the costs of care for lower income members. NHIF has suggested eight income groups ranging from 1,000-2,500 Ksh per month to 13,001+ Ksh per month, with an associated monthly contribution ranging from 50 to 400 Ksh.

This is clearly a more progressive system than one in which all contributors make the same monthly contribution irrespective of income. However, this proposal suffers from the fact that within a given income group, those earning less will pay a larger percentage of their income as a contribution than those earning more. On the other hand, lower income groups pay less income tax than higher income groups.

D. Shared Contribution With Employer

For the wage earning population (i.e. the employed) required to belong to NHIF, the Fund has proposed that the contribution be shared equally between the employer and the employee. Currently, the entire contribution is deducted out of the employee's wages.

This proposal, which was not explored with the business community prior its introduction, raises serious equity considerations. First, a special member (i.e. farmer or member of cooperative) will be required to make a contribution equal to the total amount contributed on behalf of a standard member in the same income group. In other words, special members will not receive a break in their contribution despite their lack of an employer with whom to share the cost.

Second, voluntary members will pay a flat rate of 50 Ksh per month for their coverage, irrespective of income level. The effect of this proposed contribution scheme is that employed persons making between 1,000 and 2,500 Ksh, whose share of the required contribution will be 25 Ksh per month, will pay less for their coverage than those who are unemployed and earning less.

#### E. Expanded Benefits, Including Outpatient Care

NHIF has proposed a significant expansion in the benefits provided by the Fund. The inpatient benefit will remain at 180 days per year per contributor (i.e. per family), but the per diems paid to hospitals will be increased substantially. Whereas inpatient per diems now range from 60 to 150 Ksh, they will subsequently range from 80 to 400 Ksh.

For the first time, outpatient services will be covered, but only when provided by an NHIF-approved facility. NHIF has developed a set of per diem reimbursement rates for hospital outpatient treatment. Each hospital has been assigned a single per diem which NHIF proposes to pay, irrespective of what services are actually provided during the outpatient visit. These outpatient "per diems" range from 50 to 200 Ksh. The outpatient hospital benefit is limited to a maximum of 1,000 Ksh per contributor per year. NHIF has also proposed to pay at least 50% of the cost of spectacles, dentures and routine (non-diagnostic) medical examinations, and at least 60% of the cost of artificial limbs, wheelchairs and crutches for contributors only. The Fund has also suggested paying a burial expense grant of up to 5,000 Ksh to the spouse or person responsible for burial arrangements.

With respect to births occurring outside of an approved hospital, NHIF has proposed to pay up to 150 Ksh for the services of a registered mid-wife or other medical practitioner in connection with the birth. Finally, the Fund has stated that regarding claims for services received outside of Kenya, "The Board of Trustees may, at their discretion, authorize payment of benefits for hospital treatment of any contributor, his spouse or child resident in Kenya who obtains treatment abroad."

#### F. MOH Regulation of Hospital Charges

The proposed legislation will empower the Minister of Health to regulate hospital charges. The exact mechanism for how MOH will accomplish this assignment was not made explicit in the proposals. The legislation did indicate, however, that the rates hospitals were charging as of March 1, 1989 cannot be increased without prior approval by the Minister.

## G. Use of Surplus for Health Related Projects

NHIF has proposed that it be allowed, under the direction of its Board and with approval from the Minister of Health, to invest its surplus in the form of loans to medical or health related projects.

## H. Plans for Implementation

Our discussions with NHIF Management indicated that the Fund plans to restructure immediately upon passage of the legislation by Parliament. However, minimal planning for the implementation of these sweeping changes has been undertaken. The senior managers we met with had considered some of the broad administrative and operational implications of the proposed changes. These managers, however, seemed to be of the mind that critical implementation issues could be resolved quickly without detrimentally affecting the level of service historically provided.

NHIF Management was very willing to share with us their thinking about implementation issues. For example, the Fund has proposed automating a large portion of what is currently almost exclusively a manual claims processing system, and has begun to solicit support for the purchase of a computer from donor agencies. However, the basic step of defining user requirements, a fundamental prerequisite to purchasing the necessary hardware and software, has not yet been attempted.

The Fund has suggested that it will reconfigure existing space to incorporate the computer, at least until construction of a new building to house NHIF has been completed. As far as we could ascertain, NHIF has not yet determined whether major electrical modifications will be required to accommodate the computer and all of its associated peripherals (e.g., terminals, printers, etc.) and, if so, whether it is feasible to make such changes.

The Fund has proposed a phased implementation for opening additional regional offices to serve the expanding base of rural contributors. It plans to open four offices annually; all NHIF activities other than claims payment will be decentralized. How the fund arrived at this number, where these offices will be located and how they will be staffed is unclear.

Despite the lack of any substantive planning to support implementation, our impression is that the Fund feels confident that its proposed restructure can be quickly and easily accommodated.

## NATIONAL HOSPITAL INSURANCE FUND

The National Hospital Insurance Fund (NHIF)--created in 1966--was originally established as a parastatal intended to assist government employees afford to stay at the high quality private hospitals that were formally the province of the colonials and to relieve congestion in free public facilities. Over the last 20 years employed, self-employed, and non-employed earning over 1,000 Ksh per month or 12,000 Ksh per year have been compulsorily mandated to contribute 20 Ksh per month to the Fund. The benefit received applies to the contributor, his/her spouse, and children and includes only inpatient care up to a combined family maximum of 180 days per year in NHIF approved hospitals. The reimbursement rate varies according to the class of hospital to which the patient receives care. There are currently six rates. The highest is 150 shillings a day and the lowest is 40 shillings per stay which applies only to government hospitals.

Levels of contributions, benefits and reimbursement have remained approximately the same during the ensuing two decades. Inflation and increases in per capita income have expanded coverage to a larger segment of the employed population, while reimbursement levels have lost any relevance to cost incurred with only a small portion of the total hospital invoice--in some instances--being covered by the benefit. In an attempt to update the design features and correct selected inadequacies (e.g., a regressive contribution scheme, inappropriate utilization incentives, etc.) the Fund proposed a broad restructuring.

### NHIF Restructuring Proposal

The proposal prepared by Fund Management for restructuring NHIF in early 1989 addressed organisational, contribution, benefits, and monitoring aspects. The following is a summary of the changes proposed:

- Establish NHIF as a State Corporation managed by a Board of Trustees
- Increase the rate of contributions using a graduated scale that is income based and financed through an equal 2 percent payment by employee and employer
- Add to current membership categories: farmers and members of cooperatives, persons whose incomes are less than 1,000 Kshs per month but who wish to belong to the Fund, and working married women
- Increase the inpatient reimbursement benefit consistent with the rise in contributions

- . Introduce an outpatient treatment benefit and partial payment for dentures, spectacles, crutches, wheel-chairs, medical check-ups and a burial grant
- . Empower the Minister of Health to regulate hospital charges and periodically review the operations of the Fund
- . Authorize the NHIF Board of Trustees to invest surplus funds in medical or health related projects.

### Initial Conclusions and Recommendations

After a detailed analysis of the proposed NHIF restructuring plan, and a review of comments from the Ministry of Health and the Ministry of Finance, the following conclusions were reached:

- . Sufficient information was not available on patterns of utilization of special and voluntary member categories to actuarially assess potential liability.
- . Even excluding these additional membership categories, proposed benefits--especially those associated with outpatient care would create liabilities greater than the funds available from contributions.
- . While the current process for registering contributors and processing claims was adequate, the additional workload associated with an increase in contributors and benefits could not be accommodated manually, and the introduction of automation was at least a year away.

These initial conclusions led the Mission to suggest a phased implementation plan that protected the financial viability of the Fund while allowing sufficient time to collect necessary socioeconomic, demographic, and utilization data on existing and proposed contributions and to define automation requirements, procure necessary equipment, and adequately train staff. As part of the suggested phased implementation approach, we recommended the following modifications to the proposed NHIF restructuring plan:

- . Contributions should be based using 15 income groups until administrative procedures will facilitate application of a straight percentage of actual income
- . Membership should be mandated only for current contribution categories
- . Employers should be required to contribute 10 percent of the total amount of contributions deducted from employees
- . Only an inpatient benefit should continue to be provided

- . A co-payment equal to the charge of the first full day of inpatient care should continue to be assessed
- . Reimbursement to all providers should be doubled based on current levels of payment until better cost and quality data are available for specifically adjusting rates
- . Use of generated reserves should be restricted to alternatives specified in the Trustee Act
- . The terms of service for the NHIF Board of Trustees should be staggered to insure continuity.

These recommendations were evaluated by the Fund and accepted as proposed with one modification; reimbursement to providers was more than doubled creating the potential for excessive reserves that will not directly benefit contributors and are not required to limit the Fund's financial exposure. What follows is an analysis of the financial impact of the proposed reform.

### Relationship of Benefit Costs to Contributions

Revenues used to pay for the proposed inpatient benefits will be generated from employee and employer contributions. For purposes of this analysis we have assumed that the majority of funds will come from standard and voluntary contributors as the infrastructure to more fully include self-employed persons (i.e., special contributors) is not currently in place. Table 1 shows the income groups, the associated contribution levels, anticipated number of participants, total employee contributions, total employer contributions, and total revenue for 1989-90 by membership category. The number of contributors is taken from estimates derived by Fund Management.

Based on the preceding assumptions, total revenue from contributions for 1989-90 is estimated at 12,345,564 Kenyan Pounds. This revenue is offset by payments to providers for services rendered, administrative costs, rent, and equipment. A detailed breakdown of these costs follow.

Table 2 shows the 1987-88 estimated costs of providing inpatient benefits based on the distribution of similar claims in 1989-1990. The total number of claims was projected using the historical use rate of 11 percent of eligible contributors. Total inpatient costs were calculated by multiplying the maximum daily rate by 9.7 days--the average length of stay in 1987-88--and subtracting one full day as a co-payment. The resulting figure was then multiplied by the estimated number of claims to project total inpatient costs.

**Table 1**  
**ESTIMATED CONTRIBUTIONS FOR 1989-1990 BY MEMBERSHIP CATEGORY**

<b>Membership Category</b>	<b>Monthly Income (Rsh)</b>	<b>Monthly Contribution Level (Rsh)</b>	<b>Estimated Number of Participants</b>	<b>Total Annual Employee Contributions (R)</b>	<b>Total Annual Employer Contributions (R)</b>	<b>Total Revenue (R)</b>
<b>Standard</b>	1,000-1,499	30	120,520	2,169,360	216,936	2,386,296
	1,500-1,999	40	72,312	1,735,488	173,549	1,909,037
	2,000-2,999	50	48,207	1,735,452	173,545	1,908,997
	3,000-3,999	80	30,209	1,405,032	145,003	1,595,035
	4,000-4,999	100	15,947	956,820	95,682	1,052,502
	5,000-5,999	120	10,230	736,560	73,656	810,216
	6,000-6,999	140	8,068	677,712	67,771	745,483
	7,000-7,999	160	5,378	516,288	51,629	567,917
	8,000-8,999	180	2,266	244,728	24,473	269,201
	9,000-9,999	200	1,511	181,320	18,132	199,452
	10,000-10,999	220	600	79,200	7,920	87,120
	11,000-11,999	240	400	57,600	5,760	63,360
	12,000-12,999	260	360	56,160	5,616	61,776
	13,000-13,999	280	240	40,320	4,032	44,352
	14,000-14,999	300	150	27,000	2,700	29,700
15,000-and above	320	100	19,200	1,920	21,120	
<b>Voluntary</b>	<b>0-999</b>	<b>60</b>	<b>15,000</b>	<b>540,000</b>	<b>54,000</b>	<b>594,000</b>
<b>Total</b>			<b>331,498</b>	<b>11,223,240</b>	<b>1,122,324</b>	<b>12,345,564</b>

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**Table 2  
PROJECTED 1989-90 INPATIENT COSTS**

<b>Numbers of Procedures</b>	<b>Proposed Maximum Daily Rate (Rs)</b>	<b>Percent of Total Claims</b>	<b>Estimated Number of Claims</b>	<b>Total Inpatient Costs (Rs)</b>
1	400	3.9	1,422	247,428
4	350	10.6	3,865	588,446
7	300	5.4	1,969	256,954
12	250	7.6	2,771	301,346
12	200	5.5	2,006	174,522
21	180	21.2	7,731	605,337
55	150	33.8	12,325	804,206
31	120	5.9	2,151	112,282
72	80	6.1	2,225	77,430
<b>Total</b>			<b>36,465</b>	<b>3,167,951</b>

The accompanying table estimates that the total inpatient benefits to be paid out for 1989-90 will be 3,167,951 Kenyan Pounds. If administrative costs and rent/equipment expenses (estimated by the Fund at 2,000,000 and 450,000 Kenyan Pounds respectively) are incorporated, total expenses equal 5,642,951 pounds. This results in an estimated reserve of 6,702,613 Kenyan Pounds. While maintaining some reserve is necessary and prudent, the proposed residual is both excessive and not sufficiently related to the amount contributed and benefits received by employees and employers.

Based on the preceding analysis, we recommend that Fund Management proportionally reduce the amount of monthly contributions at each income level. We also strongly suggest that the Fund only double existing reimbursement rates to providers until it has an opportunity to study existing institutions cost structures.

### Next Steps

During the next fiscal year--and after the introduction of the suggested reforms--the following additional studies and/or assistance will be required to support the NHIF restructuring:

- . Build a national consensus among the various constituency groups represented by the Fund on the objectives and goals for NHIF and its role in the broader health policy framework
- . Assess the potential of sharing/linking selected activities (i.e., collection of member contributions) with the National Social Security Fund
- . Develop an actuarial database for setting insurance benefits and estimating liabilities
- . Analyze labor market effects associated with employer health care contributions
- . Assist in the development of automation requirements, equipment procurement, and staff training
- . Develop a provider quality and cost reporting system for establishing reimbursement levels
- . Develop an implementation plan for incorporating additional NHIF reforms over time.

The preceding studies/assistance should be used to rationalize various policy objectives (e.g., the use of insurance payments in the cross-subsidisation of public facilities, etc.) so that they can be incorporated in the subsequent reforms that follow.

### Subsequent Implementation

Using the actuarial, provider quality and cost, and health policy information available from the recommended studies performed during the first phase of implementation, it is envisioned that subsequent reform of NHIF will follow quickly and include expanding the membership to other categories of contributors, an increase in the scope and magnitude of benefits, and an adjustment in reimbursement levels to reflect differences among providers in quality and cost. These modifications will include changes that incorporate explicit policy objectives.

## V. ADMINISTRATIVE FEASIBILITY OF PROPOSED REFORM

This chapter describes the National Hospital Insurance Fund's (NHIF) present administrative capabilities and assesses them against the requirements for reforming the Fund. For purposes of this discussion, administration encompasses management control, personnel and physical resources, and operational capacity. These are critical components, as the Fund will be evaluated by its various constituency groups based on the efficiency that it applies in registering contributors, processing claims, and reimbursing patients and/or providers for services received and/or rendered. Stated in a different way, the benefit realized will be measured by constituents according to its increased purchasing power, and its impact on routine points of interaction (e.g., payment, registration, etc.).

The remainder of this chapter assesses the Fund's administrative strengths and weaknesses relative to the proposed restructuring. This chapter is organized into the following three sections:

- Organizational Control
- Current Operational Capacity and Deficiencies
- Administrative Implications of the Proposed Reform.

### A. Organizational Control

Restructuring NHIF from a parastatal to a State Corporation is an important and necessary change for the Fund. Under the new structure, most Fund decisions will be made with Board approval and Ministry of Health (MOH) oversight, providing NHIF with a much greater degree of autonomy. For example, NHIF will be able to change contribution levels without an act of Parliament.

One positive result of raising contribution levels more often than every 23 years is that payments to hospitals can be adjusted periodically, thereby maintaining the value of the benefit to contributors. Also, contributions can be modified to cover the expense of additional benefits the Fund may choose to offer.

As a State Corporation, NHIF will finally be in charge of its own destiny. Even though the Fund has been financially self-sufficient since its inception (i.e. contribution and investment revenues have exceeded claims paid), it has not had control over its administrative expenditures.

NHIF's budget is currently reviewed and approved by MOH. For all practical purposes, an increase in the administrative budget for NHIF is synonymous with a reciprocal decrease in MOH's budget. Thus, it is very difficult to gain approval for additional administrative expenses beyond the bare essentials, such as personnel costs and rent. In fact, certain essentials, such as the vehicles required to conduct legally mandated inspections, are not being approved. This is frustrating to NHIF Management, which would like to use part of its surplus to improve the efficiency of its operations.

Planning to meet current and future needs is frustrating, if not futile, when the Fund is powerless to control the hiring and promotion of its own staff or implement the systems required to manage its operations. Restructuring NHIF offers the Fund an opportunity for much needed relief in the areas of staffing, transportation, automation, and general administrative affairs.

### NHIF Staff

At present, NHIF is staffed entirely by employees seconded from MOH and the Ministry of Finance (MOF). The level to which the Fund is staffed is therefore subject to the generosity of the residing Permanent Secretaries of Health and Finance. NHIF is not authorized to hire its own staff for approved positions that cannot be filled from MOH or MOF.

Employee salaries are paid directly by the ministry from which the employee is seconded. At the end of each fiscal year, NHIF reimburses the supporting ministries for salary expenses.

Although not specifically identified to us as a problem, it seems possible that the individuals seconded to NHIF are not the top echelon workers, since it is unlikely that a ministry would want to loan out its best employees. It also seems possible that politics could at certain times affect decisions regarding seconding employees to NHIF, placing the Fund in a precarious position with respect to its staffing needs.

When employees are seconded to NHIF they enter and leave with the same job classification and grade as they had in their prior position. Since there is no opportunity for promotion within the Fund, most employees leave within a relatively short period of time after they have been trained. As a result, there is a chronic shortage of experienced and senior officers in NHIF.

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In 1985, Kariuki identified inadequate staffing as the root of many of NHIF's visible problems. He demonstrated that NHIF staffing has not kept pace with its level of growth. In 1967, the first year of Fund operations, there were 27 employees responsible for 40,000 contributors, 800,000 Ksh in revenue and 600,000 Ksh in claims paid. Over the next 16 years, the number of fund contributors increased by 15-fold to 600,000, while revenues and expenses grew to 121,000,000 Ksh and 119,000,000 Ksh respectively.

During the same period of time, approved staff grew to only 194 employees. Even though these permanent staff positions were, out of necessity, supplemented by 109 temporary clerical positions, this growth rate was hardly commensurate with the increased workload for which the Fund was responsible.

Now there are more than 800,000 contributors to the Fund, twenty times the original 40,000. The Fund no longer employs temporary staff, and the number of permanent positions has been increased to approximately 400 since Kariuki's report. In addition, some of the positions have been upgraded.

While staffing levels have improved substantially, the number of employees still seems to be low relative to the volume of manual work that must be accomplished. Right now, each additional contributor creates the same amount of work for the Fund. To keep pace with the work load, the rate of increase in Registration and Accounting staff should therefore be set at a level proportional to the rate of increase in contributors. If NHIF were automated, however, an increase in staffing directly proportional to the increase in enrollment would not be required for those two divisions, because the amount of work required for each additional contributor would be marginal.

Numerous NHIF problems have been attributed to insufficient staffing, including delays in posting new membership cards, extreme lateness in paying claims, and, according to the Fund itself, a failure to produce audited financial statements for the past five years. We were informed by Fund Management that these statements are currently being produced by an accounting firm in Nairobi and they are expected to be available for all five years on July 1, 1989.

With the restructure, all of NHIF's employees will be hired by and work for the Fund. We believe that more appropriate staffing will improve the efficiency of Registration and Accounting, help avoid the level of disruption in overall NHIF operations that has been reported to occur during membership renewal, and permit more employers and hospitals to be inspected on a regular basis.

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Direct control over its own manpower requirements will enable NHIF to structure a more balanced organization with respect to staffing. At present, the Fund appears to have a serious shortage of senior and mid-level managers. The ability of NHIF to conduct performance reviews and promote within the organization should help motivate employees to excel at their jobs and remain with the Fund for a longer period of time.

Employee morale can be expected to improve as a result of the restructuring. Currently, seconded employees may feel as if they have been banished to NHIF, given its equivocal status. Converting NHIF into a State Corporation will allow Fund officials to start building an organization for which employees can take pride in working. In addition, employees should feel less tenuous about their future career opportunities in and outside of NHIF.

### Transportation

Vehicles are critically needed by NHIF. At present, the vehicles located at the field offices of the Fund are in disrepair and cannot be used reliably to visit employers and inspect hospitals that are located at any significant distance. Having control over its administrative expenditures will allow the Fund, with Board approval, to purchase the required number of vehicles that are needed in each location. This seems both reasonable and appropriate to us.

More working vehicles will enable the Fund to visit more employers, and hopefully increase the percentage of eligible contributors that are participating while reducing fraudulent behavior on the part of employers. Of equal importance, the Fund needs to be able to visit its approved hospitals more often to assess the quality of services provided and be assured that these facilities are acting in accordance with the legislation regulating NHIF reimbursement.

There has been considerable speculation about the level of fraud that is occurring in at least some of the private hospitals and nursing homes. Some hospitals are suspected of billing NHIF for patient stays or patient days (i.e. nights spent in the hospital) that never occurred. Other hospitals and nursing homes are reported to be engaged in helping persons who are not really eligible for NHIF to enroll in the Fund and then keeping their contribution cards and billing NHIF for episodes of inpatient treatment that never occurred. A more visible presence by NHIF in its approved hospitals could help reduce this type of fraud, which is difficult to detect after the fact.

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## Automation

This topic is covered more completely in later subsections. Suffice it to say here that there can be no doubt in even the casual observer's mind that NHIF operations would be far more efficient if they were even moderately more automated than at present.

To its credit, the Fund manages to accomplish all of its requirements: registration, renewal, claims payment, inspection and general administration reasonably well given the mountains of paper with which it must contend. Nonetheless, things inevitably get lost in such a system and complaints with the time it takes NHIF to enroll new contributors and pay hospital claims are pervasive. There is also a noticeable absence of needed management reports, which are impossible to routinely generate in a totally manual environment.

Under the restructure, as with the purchase of vehicles, NHIF may determine its requirements for automation and can purchase equipment as necessary. It will not, however, be able to avoid the government bureaucracy surrounding purchases of major equipment if it decides to buy a mainframe computer rather than pursue the donation of one from USAID or other donor agencies.

NHIF has wanted to automate for many years, but has been precluded from doing so due to external controls over its budget. We view the proposed restructuring as very positive in eliminating this artificial and inefficient layer of control over NHIF operations.

## Fund Management

Under the restructure, the NHIF Director will be held accountable to a Board of Trustees that includes representatives of NHIF, MOH, MOF, employers, hospitals and consumers. Enabling these concerned parties to participate in setting policies and making decisions for the Fund will facilitate the development of an NHIF that is more responsive to the needs of its constituencies.

This type of representation has been desired by at least some parties, for example, the Kenya Federation of Employers (KFE). The Federation is comprised mostly of private sector employers, but also some parastatals, hospitals, railways, cooperatives, non-government organizations and farmers. It was established to promote fair labor practices, generally from the perspective of management, and it often defends the interests of employers with the government. According to the Federation's Director, Mr.

Tom Owour, employers are likely to be supportive of NHIF's reorganization and even share the contribution with their employees, so long as employers and workers have a meaningful voice in how the Fund is managed.

With two notable exceptions described below, we are comfortable with the proposed Board composition and general responsibilities of the Trustees described in the proposal. We would, however, suggest that the Board terms be staggered so that not all board members are replaced at one time. This will provide for better continuity on the Board, and allow new members sufficient time to get acclimated.

Regarding the proposed use of the Fund's surplus, presuming a surplus continues to be experienced, we are not in favor of the Fund making loans to selected health care projects. We feel that it would be preferable to have a carefully planned investment strategy that balances the need for very safe investments with the desire to achieve reasonable returns. We believe that the planning, development and financing of health facilities should be the sole purview of MOH.

Our second concern with NHIF proposed responsibilities relates to the establishment of hospital charges. It is not clear to us how NHIF proposes to make these decisions. Frequently, hospital charges have little relationship to the costs of providing the care. Before NHIF takes on the role of determining what a hospital can charge, it needs considerably more information about the services provided by the institution and their relative quality. Although the goal of controlling hospital charges is admirable, we would discourage the Fund from embarking into this difficult and often very political process until it has the requisite information to substantiate its decisions.

## **B. Current Operational Capacity and Deficiencies**

NHIF is organized into four divisions: Administration/ Registration, Accounting, Inspectorate and Computer. The responsibilities of each division are described below along with the procedures for their accomplishment. All of the NHIF official forms we could gather (nearly a complete set) are provided in numerical order in Appendix C.

### **1. Administration/Registration**

Administration is responsible for personnel administration, including maintaining office supplies and vehicles, and preparing the annual estimates of recurrent expenditure. We did not spend much time assessing the Administration component of this division. Instead, we focused on Registration.

Registration is responsible for two main activities: 1) processing application forms for new contributors and distributing membership cards, and 2) the annual surrender and renewal of these cards.

### New Contributors

Registration of a new NHIF member is initiated upon receipt by the Fund of an application form. There are separate application forms for each membership category: employed (NHIF #2); self-employed (NHIF #5); and voluntary (NHIF #6 and 6A, where applicable).

The first task of Registration is to visually check the form for completeness and accuracy of detail. Next, an alphabetically ordered computer printout of the master membership file for the year (about 800,000 names) is manually checked to see if the applicant was previously an NHIF member. Once this has been determined, the application is further reviewed at the "approving counter". If the approving officer is satisfied, he assigns either the old number or a new number to the application and records it in a register he maintains. Membership numbers are assigned sequentially.

Next, the application form is passed to the data processing division, where information from the application is keypunched on to a diskette. Diskettes containing membership information are later taken to the Central Bureau of Statistics (CBS) where a batch job is run (usually at night) on the government computer to print the hard copy membership cards.

The printed cards are returned to the area that originally reviewed the application. This area within the Administration/Registration Division is responsible for sending membership cards to either the employer or the individual contributor.

The membership card is printed on cardboard-like paper and is a three-fold form that separates at serrated edges. One portion of the form--the contribution card--is to be kept on file by the employer; one portion--the identification card--is given to the employee/contributor; and the residual part--the "small portion" remains at NHIF for updating the membership file and recording claims paid on behalf of the contributor. Self-

employed and voluntary contributors are required to keep the contribution and identification cards individually.

The employer (or individual contributor, in the case of self-employed and voluntary members) must place stamps on the back of the contribution card, indicating that the required monthly contribution has been made. Alternatively, some employers use a franking machine in lieu of a stamp to mark the card.

Instead of placing stamps on individual contributor cards, some large private and public employers (such as the ministries) are permitted to use a Certificate of Contributions Paid (NHIF #7) to indicate they've made the required contributions. This form is given to employers who pay for their contributions all at once, for a specified group of employees.

NHIF stamps are purchased by the employer at NHIF offices or at local post offices. When it is time to renew membership, the employer returns the previous year's cards to show that all contributions were made. In addition, when a claim is submitted to the Fund on behalf of an employee, the contribution card must accompany the claim so that NHIF is certain the contributions are current before the claim is paid.

The contributor's portion of the membership card serves as an identification card for providers at the time services are rendered and for NHIF when the individual submits a claim in person to the Fund. In addition, the back of the identification card contains a Record of Hospitalization that is filled out by the hospital after the contributor or his dependent is hospitalized.

The portion of the card retained at NHIF is used as the basis for information entered in the Fund's master membership file. The back of the card is used to monitor the total number of hospital days paid by the Fund on behalf of the contributor and his covered dependents.

New members join the Fund all year long. In recent years there has been a sharp increase in the rate at which new contributors are joining, creating significant increases in workload for the Registration Division. Between 1985 and 1988, the number of new contributors rose by one-third, from about 600,000 to 800,000.

If there is a 10% increase in new contributors this year, Registration will have to contend with 6,000 to 7,000 new contributors every month. Given all of the manual checking that is required to register a new contributor, this is no small task.

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## Renewal of Existing Contributors

The Fund operates on a fiscal year, from July 1 through June 30. June is renewal month. During this month, all employers, self-employed contributors and voluntary contributors must surrender their contribution cards (or certificates of contribution) from the prior year so that new cards can be issued. The volume of work associated with renewal is enormous. As a result, June and July are the Fund's busiest months.

To begin the renewal process, the employer returns the contribution cards (or certificates of contributions paid) for his employees to the Fund, along with a surrender/application form in triplicate. This form (NHIF #12), which is available on request from NHIF, provides the name and membership number of each NHIF contributor from the previous year, their passport or other identifying number, employment number, and names and identification numbers of all covered dependents.

The surrender/application form also lists the number of stamps that were purchased on behalf of the contributor last year. If the card is not being renewed, the employer must state the reason (e.g., the person is no longer employed by the firm) and the date coverage ends.

A similar surrender/application form (NHIF #11) is used by self-employed and voluntary contributors. When cards are returned to NHIF through the mail without a surrender form, it becomes the responsibility of the Registry Assistant to complete the necessary surrender/ application form for each card or group of cards received.

During the renewal process, the first task of NHIF is to scrutinize each and every card to assure that all of the required contributions were made, and that the affixed stamps are genuine. It is also the responsibility of the Inspector to assure that the names on the surrender/application forms tally with the number of cards surrendered. If the Inspector is satisfied that the cards are of the correct number and properly stamped, they are passed along to the approving officer who further inspects the cards and passes them on to the card room.

In the card room, membership cards for the new fiscal year are waiting to be sent out to the employers, self-employed and voluntary contributors. These cards are printed prior to the start of renewal, sorted by employer, and ready to be dispatched as soon as the surrender form and previous year's cards have been received and checked. Employers and individuals that fail to surrender the previous year's cards cannot obtain cards for the current year.

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Based on the volume of uncollected cards for fiscal year 1988/89 we observed in the card room, it appeared to us that perhaps tens of thousands of cards had never been collected because the contributor or the employer had not surrendered the prior year's card. It was not possible to determine the reasons why the old cards were not surrendered; it may have been in some cases that the contributor no longer worked for the employer or was no longer required to participate because of a reduction in income level.

Persons working in the card room during the renewal period review the stack of cards for an employer against the surrender/application form to assure that the appropriate number of cards are sent. The portion of the card that remains with NHIF ("the small portion") is detached prior to dispatch, and forwarded to the Chief Accountant for filing.

A similar process transpires at the NHIF offices in Kisumu, Nakuru, Nyeri and Mombassa. These area offices are provided with the membership cards for all of the NHIF employers in their provinces and then they collect the old cards and issue the new ones.

When an Inspector believes that the cards have not been fully stamped, he passes them along with the surrender/application form to the Senior Inspector or Chief Inspector for appropriate action. The Penalty section of the Fund is responsible, in conjunction with the Administration and Inspectorate divisions, for calculating late contributions and the associated penalties, and billing non-compliant employers.

After the appropriate action has been taken, all application forms for new members and surrender/application forms are filed in the record room. Application forms for each year are grouped in thousands by membership number. Locating a single application means sorting through up to 1,000 forms. Surrender/application forms from employers in a given year are sorted by industry type and then filed in alphabetical order by name of employer. Surrender/ application forms for self-employed and voluntary members are filed in alphabetical order by name. All correspondence to and from employers is filed in the registry room, along with employer inspection reports.

## 2. Accounting

The Accounting Division is responsible for all of NHIF's financial affairs. It sells NHIF stamps and collects revenue from this activity; pays claims submitted by hospitals and individual contributors; makes all payments related to Fund activities; handles banking and bank reconciliation; and prepares the annual accounts of the Fund.

Our review of this division focused almost exclusively on the payment of claims. Each month, Accounting processes over 10,000 claims by hand. There are two categories of claims: those submitted directly by hospitals ("hospital claims") and those submitted by individual contributors who already paid the provider for their treatment ("general claims").

When hospital claims are received by the Fund, either by post or hand delivered, they are immediately forwarded to the Accounts Registry. The first job is to stamp all claims with the date received by NHIF. These claims are then recorded in the Hospital Claims Register.

Hospitals are supposed to submit all their claims for a given week at one time, with an NHIF form entitled "Statement of Account for Week ending..." on the top of the stack. This form (NHIF #18) provides a sequential listing of claims by claim number; the number of NHIF stamps on the contributor's card; the name of the patient; the contributor's NHIF number; the invoice number; the number of patient days for which the patient received care; the amount claimed; the bed number and any comments. Hospitals typically wait until all 22 entries on Form #18 have been completed before submitting the claims package to NHIF. Depending on the volume of care provided to NHIF members, multiple forms could be submitted per week or only one form sent per year.

After the hospital claims are recorded by the Accounts Registry Clerks, the claims are summed to confirm that the total number of claims received from the hospital matches the total provided on the account statement. After the Accounts Registry Clerk is satisfied with this initial accuracy check, the claims are forwarded to a Claims Supervisor.

Claims received from individual contributors also are forwarded promptly to the Claims Registry for date stamping, numbering and recording in the General Claims Register. General claims are then given to a Claims Supervisor.

When general claims are submitted at the counter of NHIF, a supervisor is responsible for certifying that the contributor's card or certificate of contribution paid is current and that the claimant's personal information on the identification portion of the NHIF card matches that on the claim form (NHIF #3). The contribution and identification cards must be returned to the contributor once the details are verified as correct.

Once the hospital claims have been passed to the Claims Supervisors, they are grouped in batches and assigned a batch number. That number is recorded in the Batch Register along with the number of claims in the Batch. General claims are also batched

and numbered, however more information about these claims is recorded in their register: contributor's name, address and NHIF number, date of service, amount, and claim number.

Claims supervisors can reject claims before they are batched. Two reasons for a denial of payment at this early stage in processing are incomplete information or late submission. Claims are required to be submitted to NHIF within 90 days of the date of admission.

NHIF has form letters (refer to the end of Appendix C) with room for additional comments that it sends when claims are denied. When the reason for denial is insufficient information, providers and contributors may have their claim reconsidered by providing NHIF with the requested information.

Batched and numbered claims are sent to the Computer Division for key punching. After all of the claims in a particular batch are keypunched, they are returned to the Claims Supervisors to be verified. At this point, claim clerks must check whether the claim application and admission forms have been filled out correctly; obtain the contributor's "small portion" (i.e. that portion of the NHIF membership card that is retained by the Fund for recording utilization and benefits) from the Filing and Sorting room; compare the details in the "small portion" and the claim form to see if they agree; record the number of days hospitalized on the back of the "small portion"; and prepare a payment voucher that is forwarded to the supervisor with the claim.

At this time, the Claims Supervisor verifies whether the number of days pertaining to a particular claim is recorded on the back of the "small portion"; that the cumulative number of hospital days does not exceed 180; and that the payment voucher is completely accurate. When the supervisor is satisfied, he signs the Certificate in the payment voucher and then enters the payment voucher in the payment voucher register and assigns it a number. The payment voucher and supporting documents are then passed on to the Examination section.

Examiners are responsible for verifying all the details in the claim. The examiners must compare information on the claim form with the information on the "small portion"; ensure that the number of hospital days is accurately recorded on the "small portion"; and re-verify that the cumulative number of hospital days recorded on the "small portion" does not exceed 180. When examiners are satisfied with their review, they release the "small portion" back to the Filing room.

Next, examiners are required to scrutinize the claims/vouchers and all supporting documents to be satisfied that the claims are authentic; the payment vouchers are properly prepared; and the supporting documents are genuine and agree with the claims they support. At this point, the examiner enters the details in the appropriate Hospital Registers, and then passes the payment vouchers to the Accountants for authorization.

Payments can be authorized only by an Accountant I, Accountant II or Senior Accountant. Before authorizing payment, the accountant must ensure that all internal checks in preparing the vouchers have been complied with, as indicated by signatures in the payment vouchers; the claims are genuine; and the payment vouchers are totally correct.

Once the accountant has signed the payment voucher, the claim is transferred to the Cashier for payment. The cashier is responsible for ensuring that the claim is signed by an authorized officer; the check is allocated, written and forwarded to the persons responsible for signing checks; all the written checks are returned after being signed; all checks are registered appropriately; and, when checks are collected by individuals (rather than hospitals), the full name and signature of collector and his NHIF identification number are obtained.

We were informed by senior officials of the Fund that claims are almost always paid within two weeks of their receipt by the Fund. Reports from private providers and the mission hospitals suggest that the time between claim submission and payment is actually much longer, even after accounting for the time the claims are in the post. Some providers have indicated that they are not paid unless they physically present themselves at the Fund and wait for a check to be processed; others have gone so far as to suggest that "special favors" are required to hasten payment.

In our few weeks in Kenya, it was very difficult to get a clear reading about the magnitude or the pervasiveness of the problem of late payments. Given the enormous amount of manual checking and re-checking of claims to assure their authenticity, a problem in paying claims within two weeks would hardly be surprising. This is particularly true during the renewal period, when staff resources may be reallocated to additional activities.

Kariuki (1985) recognized that late payments by the Fund to hospitals was a problem. He also pointed out, however, that some of the delay was due to the extra degree of scrutiny being given to claims in light of increased reports of fraud by certain hospitals.

### 3. Inspectorate

The Inspectorate Division is responsible for the inspection of employers to ensure that they maintain a current record of all their employees; deduct the required contribution of 20 Ksh per month for each employee earning over 1,000 Ksh per month; purchase NHIF stamps; and affix these stamps to the contribution cards. This Division is also responsible for the inspection of NHIF-approved hospitals to ensure that they meet the required standards for their NHIF classification, which serves as the basis for their per diem reimbursement rate, and that they are complying with the law.

At the time of our mission, there were 27 employees in the Inspectorate Division--10 in Nairobi and four to five in each of the four provincial offices. The actual number of officers responsible for conducting inspections is less than 20, because some of the Inspectorate employees are secretaries and clerks.

NHIF officers are currently responsible for inspecting some 6,000 participating employers and 208 hospitals. With such a small staff, it is impossible for the Inspectorate to visit every NHIF employer and hospital each year. The Division does "as many inspections as possible".

It was reported to us that from May 1988 through April 1989, 383 inspections of Nairobi-area employers were conducted. These inspections resulted in the collection of more than 365,000 Ksh in late contributions and almost 146,000 in penalties. Over 1.3 million Ksh in late contributions and penalties were collected between July 1988 and April 1989 from employer inspections conducted by the NHIF field offices.

NHIF inspectors are required to visit all employers that should potentially be participating in the Fund. NHIF obtains its list of employers to inspect from the Attorney General's Office. Since all firms are required to have a business license, this is reportedly the most comprehensive list of employers available in Kenya.

Employer inspections are conducted at the place of business where the employer's records are maintained. Inspections may take a few hours to several days or weeks, depending on the size of the employer and the degree to which his personnel records and NHIF records are automated. Inspectors may be working on more than one inspection at a time in cases where employers require a period of days or weeks to compile the requisite information.

NHIF Form #17, which is completed by the inspector for each employer inspection, drives the inspection process. This form includes employer details: the

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purpose of the visit; names of persons interviewed; personnel data applicable to NHIF contributions; information on how the employer pays the Fund (e.g., purchases stamps, uses a franking machine, etc.) and how current the contributions are; complaints by the employer and/or the workers regarding NHIF; advice and suggestions that are given to the employer and/or the workers by the inspector; and any offenses observed by the inspector and recommended action. The concluding portion of NHIF #17 states what action is to be taken by each of the other NHIF divisions. Each report must be signed and dated by the inspector.

Penalties assessed by NHIF are prescribed by law. Failure on the part of an employer, or an individual contributor, to pay the required contribution prior to the first of the month and to cancel the stamps with ink is associated with a 4,000 Ksh penalty and a possible prison sentence. In addition, there is a 5 percent penalty on premiums that were not paid on time.

When an employer refuses to comply with an inspector, he makes his request for information in writing. If an employer persists in being non-cooperative with the inspector, the employer can be taken to court by the Fund, but this rarely happens. If an employer that has been non-compliant regarding his contributions is cooperating with the inspector, then the preference is to not go to court. Instead, every effort is made to bring the firm into compliance with the law. Fewer than 50 cases a year are tried in court.

In the few cases that are tried, NHIF inspectors must act as the prosecutor. The process is time consuming and difficult, since most employers hire trained attorneys to represent their interests. The match up can be very uneven in terms of legal skills, but NHIF usually wins these cases because they are clear cut cases of abuse on the part of the employer. If found guilty, the employer must pay the arrears, penalties and court costs.

NHIF inspectors must also review NHIF-approved hospitals on a regular basis to ensure they are maintaining certain standards of care and that they are complying with the NHIF law regarding claiming benefits. These inspectors are also called upon to inspect hospitals that are applying for NHIF approval or for an increase in their NHIF reimbursement.

The exact process that is used to inspect hospitals is unclear. No hospital inspection form exists, raising questions about what criteria are used for evaluating whether hospitals are meeting their NHIF obligations.

A serious issue that should be considered is the appropriateness of having the same group of officers inspect both employers and hospitals. It seems to us that different skills might be required to inspect a hospital versus review the records of an employer. It is true that a certain portion of the hospital inspection must involve reviewing records; however, some portion of the inspection, hopefully, also focuses on the relative level of quality of services being delivered by the facility. This seems to call for some understanding of hospital management and, ideally, a certain amount of clinical training.

In addition to being grossly understaffed relative to the existing volume of work, the Inspectorate also suffers from major transportation problems. As described in Section A of this chapter, vehicles in the field offices are old and do not constitute reliable transportation. The vehicles often break down when inspectors are on the road. In addition, there is only one vehicle per field office, although there are at least two officers. This creates significant problems in scheduling inspections and general inefficiencies. Districts are large and more transportation is required to adequately inspect employers and hospitals throughout the area.

Similar transportation problems existed in Nairobi until last year, when a truck that can seat 10 people was purchased for the Fund. Now this truck is used to drop off inspectors around Nairobi and pick them up later in the day. As a result of this change, inspections in Nairobi are reported to be going much smoother.

#### 4. Computer Division

The Computer Division, which would be more appropriately named the Data Processing Division, was established in 1981 to improve efficiency in the storage and retrieval of membership and benefits information. This division is responsible for entering contributor information into a computer file; printing the membership cards; and entering information from claim forms into a computer file. Originally, it may have been intended that this division process claims using a computer, but this has not yet transpired.

Most of the staff of the Computer Division are data entry clerks who are trained in keypunching data. The Chief of the Computer Division does most of the Fund's computer programming, along with minimal assistance from other programmers as they become available. There is a tremendous shortage of trained programmers available to NHIF. This is true in other government agencies as well, since the private sector pays

salaries to computer programmers that are considerably higher than what can be earned in the civil service. According to NHIF officials, as soon as a programmer has been trained by the Fund he takes a job in the private sector. The degree to which its reliance on employees seconded from MOF exacerbates NHIF's problem in obtaining and keeping programmers is unclear.

During registration, application forms for new contributors are sent to the Computer Division for keypunching. The data elements necessary for printing the membership card and updating the master membership file are keypunched onto diskettes for transfer to the government computers at CBS. It is very difficult for NHIF to get access to the CBS computer due to heavy demand; therefore, much of the Fund's data processing is done at night.

Membership cards are printed at CBS and brought back to NHIF. A computer printout listing all NHIF contributors in alphabetical order is also generated at CBS for Registration.

The enormous size of the master membership file creates problems in processing and storing the data. In our discussions with the Fund, it became clear to us that there are much more efficient ways that the data could be managed if NHIF had the appropriate computer resources and technical assistance.

One of the most surprising and exciting things we found when touring NHIF's keypunch room is that a tremendous amount of claims data is actually entered onto diskette, for purposes of data verification. The diskettes are erased after they have served their function so that they can be re-used, but we understand that they are first backed up on tapes stored at CBS. If so, a wealth of data exists from which to produce management information for the Fund.

The claims data elements that are captured in computer-readable form are:

- Hospital identification number
- Claim number
- Nature of injury or illness (e.g., workers compensation, etc.)
- Date of admission
- Date of discharge
- Bed number
- Nature of treatment (i.e., medical, surgical, maternity, or therapy)
- Number of stamps the contributor had paid (NHIF relies on the number indicated by the hospital.)

- Serial number (only if certificate of contribution is used instead of card)
- Amount claimed
- Number of patient days (length of stay)
- Hospital's (NHIF) per diem
- Hospital invoice number
- Date of claim (i.e., date signed by hospital)
- Contributor's NHIF number
- Relationship of patient to contributor (i.e., contributor, spouse or child)
- Date claim received by NHIF
- Batch number assigned to the claim by NHIF
- Number of items in the batch
- Total amount claimed for the batch.

These data elements have been entered since 1979. It is thought that at least five years of historical data are available on tape. If this is true, a priority should be assigned to retrieving these data and analyzing them to learn more about Fund operations, the utilization of benefits by members and the cost of these benefits.

NHIF is very anxious, with good reason, to purchase its own computer as soon as possible. The scope of work that could be accomplished in an automated environment is much greater than what is currently being done using the CBS computers. Ideally, NHIF would like to be in an on-line, real time, computing environment, where data entry and claims processing would be performed on three 8-hour shifts, 24 hours a day. With state-of-the-art software designed for claims processing systems, it would be possible to automate the eligibility and enrollment functions of the Fund, as well as claims payment.

### C. Administrative Implications of the Proposed Reform

NHIF will become a much more complex organization as a result of the proposed restructuring. Registration will have to cope with new contribution categories, a large increase in the number of contributors, and an income-related contribution scheme. Accounting will be responsible for paying outpatient as well as inpatient claims, a task that cannot be accomplished without automating the claims processing function. The Inspectorate will need to conduct more inspections, due to more contributors and the Fund's expectation that more employers will default from NHIF participation after the

are required to share in the contribution. In addition, the Inspectorate may have to help educate cooperatives about their administrative role and will be required to inspect these societies as well. The Computer Division will be responsible for developing automated systems to support the other NHIF divisions.

To accommodate these expanded responsibilities, widespread changes will be required in personnel, automation and the use of space.

### 1. Personnel Issues

Restructuring NHIF in the manner described in Chapter III will require a new organizational structure. The details of this structure should not be set forth until a strategic plan for NHIF has been developed. This plan should state the mission of the Fund, its goals and objectives, its general organization, its strengths and weaknesses, and how it plans to meet its objectives. The document does not have to be lengthy, but should provide enough information to allow each division to create a detailed plan and budget for accomplishing its respective functions.

NHIF's initial thinking as to what its organization should look like under the restructure is reflected in a very general organizational chart (Appendix D) that identifies new divisions of the Fund and the senior management positions. NHIF officials are suggesting that the Fund be organized into four divisions: Administration, Operations, Finance, and Computer. The manager of each division will report to the Director, along with the Fund's Auditor.

According to the organizational chart, Administration will be comprised of planning, general administration, personnel and public relations. Operations will be responsible for inspections, revenue, and registration. Finance will pay inpatient and outpatient claims and handle all accounting for the Fund. The Computer Division will be in charge of data capture, systems analysis and computer operations.

NHIF must now begin to detail its organization. Ideally, the Fund will begin its efforts in this regard by writing thorough job descriptions for the senior managers of each division, and assign or hire staff for these positions. Job descriptions (for all NHIF positions) should include a brief overview of the Fund and what it is mandated to accomplish; the nature of the position; specific responsibilities; required and desired qualifications; job grade/classification (within the civil service system); and salary range.

A high priority for the senior managers will be to define the staffing needs of their respective functional areas, write job descriptions and fill the positions from within or outside of NHIF. An important aspect of personnel planning for NHIF will be to evaluate the qualifications of existing (seconded) staff against the qualifications required by the new organizational structure. If they have a choice, employees who are qualified to work for the new NHIF should be encouraged to remain with the Fund. Undoubtedly, these persons will need to see a clear career path with ample opportunity for advancement to be motivated to stay.

The Fund currently employs approximately 400 people. This may be a sufficient number of staff for the proposed reorganization, but a change in the nature of the positions in which these individuals are employed seems inevitable. For example, if the Fund automates the registration and renewal process, fewer staff may be needed in Registration and/or the nature of their jobs may be quite different than at present. In addition, more staff will be necessary in the Computer Division to support the Registration function. Without greater automation, the Fund will require a huge increase in staffing to accommodate more contributors, a more complicated contribution scheme, and coverage for a broader range of services.

Irrespective of whether NHIF is restructured, the Fund could benefit greatly from expanded expertise in a number of areas related to its mission. In particular, we recommend that the Fund add staff who are trained in basic principles of insurance; actuarial analysis; organizational planning, budgeting and management; public relations; management information systems; computer programming; systems design and engineering; and financial analysis. In addition, we would suggest hiring one or two nurses, or other clinically trained professionals, to assist the Fund in inspecting hospitals and in reviewing questionable claims.

In planning its personnel requirements and expenditures, NHIF should take into account staff training needs. Currently, NHIF employees receive relatively little training before they begin working for the Fund. For example, NHIF officers are given an introductory course in the workings of the Government. Then, new officers and inspectors are assigned to experienced officers for on-the-job-training. NHIF inspectors also receive a 6-week training course on how to conduct inspections and prosecutions. Lacking throughout the organization is a carefully structured training program supported by written materials.

At one time in the Fund's history, officers were trained in general management skills, but this type of education is no longer provided. This has contributed to a void of

NHIF managers with a broad orientation toward their responsibilities, who feel competent in their management and supervisory skills.

NHIF should consider dedicating a staff person to training and development. This officer can coordinate with the Director of Personnel Management for GOK to plan training courses for NHIF. Ideally, a short training course will be designed for each division, whose content is specific to the requirements of the jobs in that particular area. Each division's training course will be integrated into a broader training program that covers the essentials of government employment and the structure, function and operations of NHIF.

NHIF ought to support additional training and education of some of its employees, on an as needed basis. Extra training might take the form of university classes; special conferences or training programs, in and out of Kenya; a sabbatical to study insurance for a year in the United States or other developed nation, etc. Certain positions, such as some of the "high technology" jobs, will require ongoing education to remain current.

In addition to technical training required to remain current in a particular specialization, it would be ideal if NHIF could establish a program of professional development for employees it wishes to keep and promote. For example, the Fund might want to train some of its employees in public speaking or cross-train them in a number of different jobs. The goals of professional development are to motivate employees to remain with the Fund and to build future managers.

NHIF could benefit greatly from the establishment of written policies and procedures to guide its operations. Some of the Fund's procedures have been documented in the form of memoranda to relevant staff upon a significant change in operations (Appendix E). There is not, however, a formal policies and procedures manual that can be referred to in order to understand exactly what is supposed to transpire in each division of the organization.

A senior manager of the Fund should be responsible for compiling, maintaining and updating the policies and procedures manual. This activity should begin as soon as possible. The manual should be distributed throughout the senior ranks of NHIF, but be available to all inquirers from within or outside of the Fund.

The manual should be in the form of a three-ring binder so that individual pages can be replaced easily as policies and procedures are modified. Each page in the manual should contain the effective date, and each new policy or procedure should be signed and dated by the Director or his designee.

A carefully written and maintained policies and procedures manual will assure consistency in the application of Fund policy and provide written documentation to support decisions of the Fund that are questioned. It will also be a valuable tool in staff training.

## 2. Automation

NHIF must begin processing claims in an automated environment if it is to begin paying for outpatient services. As it is, the Fund is challenged to pay more than 10,000 inpatient claims per month manually. The anticipated volume of outpatient claims is several times the number of inpatient claims. There is no conceivable way that outpatient claims can be paid in a timely or accurate manner without computerization.

Even if NHIF decides not to cover outpatient services, the Fund should begin to automate its operations. The Fund is drowning in paper. Organizational efficiency would improve dramatically by computerizing registration and renewal. Instead of having to look up everything manually when a new contributor application is received by the Fund, the contributor's name and identification number could simply be entered into the computer (through a terminal) to see if the contributor has been an NHIF member.

Contributions could be kept track of on the computer, as well as any information connected with the contributor and his employer. In addition to data entry, storage and retrieval, the computer can be used to generate all standard correspondence to contributors, including the mailing of membership cards.

The Fund should also begin to pay claims using a computer. There are many claims processing software packages on the market that would more than adequately meet NHIF's needs in this regard. In fact, most claims processing software will keep track of eligibility and enrollment; pay claims, including printing the reimbursement check; handle accounting functions; and produce routine management reports.

Greater availability of more complete and usable data is a significant advantage of automated claims processing. Most claims payment systems generate routine accounting reports, as well as reports on claims payment turnaround time (i.e. percentage of claims paid within a certain number of days of receipt), and claims processing efficiency. Increasingly, these software packages also provide reports on population demographics and expense and utilization trends. The former type of information will assist NHIF in improving its operational efficiency; the latter information can assist the Fund in making projections of future benefits.

Another reason for automating the claims payment function is that the "small portions" of membership cards can be eliminated. Problems in locating the utilization history of a given contributor will be minimized, since this information is maintained by the system. In addition to reducing potential errors in claims processing, automation will bring much needed protection of records against fire or water damage. The registers in which claims are recorded are very vulnerable to the elements. Although computer accidents can occur, resulting in the loss of information, the threat of these problems can be virtually eliminated through nightly back-ups of the system and other built-in safeguards.

Although not as critical as for Registration and Accounting, there are some good reasons for also automating the Inspectorate Division. Automation will allow the Division to keep better track of inspections and their outcomes, and to readily generate statistics about the division. In addition, based on reports of the current and prior years' inspections, certain employers can be targeted for subsequent yearly inspections. Setting priorities for inspections should improve the rate of return per inspection.

NHIF plans to automate as soon as possible. We are very supportive of its ultimate goal of operating in an on-line, real-time environment 24 hours per day. However, minimal planning has been undertaken so far to support the introduction of automation. NHIF proposes to acquire a mainframe computer, preferably through a donation from USAID or other donor agency, that would be located on-site in its Nairobi headquarters. Regional offices would be equipped with terminals, presumably linked to the mainframe via modem, for conducting enrollment. All claims processing would be centralized in Nairobi. The feasibility and appropriateness of these suggestions has not yet been evaluated.

Before any purchases of hardware or software are made, an in-depth analysis must be undertaken to define NHIF's systems requirements. This process entails a systems expert evaluating each of the divisions to fully understand what they do and what types of systems (manual, as well as automated) make the best sense for their particular needs. The systems expert will take into consideration such factors as the nature of the tasks and the volume of transactions.

Once user requirements are established, NHIF can, with additional technical assistance, begin to evaluate commercial software packages that accomplish all, or at least most of, what NHIF needs. The selection of a claims processing software package generally drives the selection of hardware, since most of these software packages are designed to run on the equipment of only one or two vendors. Nonetheless, NHIF, or

whatever organization is making the hardware purchase, may wish to develop vendor specifications in the form of a request for proposal (RFP) and send them out to whatever vendors can supply the requisite hardware.

It is strongly recommended that the RFP process and computer purchase be handled by a donor agency rather than NHIF. If NHIF is responsible for the bid, it will be forced to comply with government requirements that the purchasing department for GOK select the vendor. There is strong and legitimate concern on the part of NHIF that if the usual bureaucracy is followed in purchasing a computer, the Fund will end up with equipment that does not meet its needs, simply because the price is lower. While price is certainly an important consideration, it would be a critical mistake to select a computer based exclusively on this factor. NHIF needs to purchase reliable equipment from a reputable vendor that has a local office capable of servicing (or replacing) the equipment 24 hours per day.

Selection of a computer and vendor contract negotiation are followed by hardware installation and testing; software installation, modification and testing; and finally, staff training. The entire process, from the start of user requirements definition through training probably cannot be completed in less than 18 months.

A detailed plan should be developed to guide the entire process of automating NHIF. This plan should provide a description of each of the major tasks and their anticipated time frame; measurable milestones (preferably illustrated on a Gantt chart or other project management visual aid); and the individual or team responsible for each task. Careful planning up front will help avoid time consuming and expensive errors in system design and implementation.

We suggest that the staff of NHIF begin to be prepared for automation at the earliest possible date. Moving to a computerized environment will be a radical departure from the way things have been done historically at the Fund, and oftentimes employees do not respond well to change. Some employees may be fearful of the new technology; all employees are expected to need a lot of training and support to feel confident operating in an automated environment.

### 3. Space Planning

NHIF's office accommodations are modest. As we walked into the building's entryway, we were confronted with dozens of old file cabinets from the Fund, suggesting a lack of room for these files in any of the NHIF offices. The rooms where files, records

and old membership cards are stored are very crowded; also, many records are stored in cardboard binders rather than metal file cabinets, which seems to present a fire hazard. It is our understanding that although the Fund is supposed to purge old files and records every three years, this activity does not always take place.

NHIF is renting the building that it occupies. The building seemed rather full to us, although we did not undertake a formal assessment of the Fund's use of space. We were, however, taken on a tour of each of the Fund's four divisions and it was apparent that most offices were occupied. If the Fund needs to hire many more people in Nairobi, it will have to implement different work shifts or rent additional space.

The Fund has designated a large room to house the computer it plans to purchase. Mainframe computers require a temperature-controlled (cool), clean environment. It is not clear that the existing building affords an opportunity to create such a "sterile" environment. In addition, the electrical capacity of the building must be investigated to be certain that the computer can be properly accommodated.

Senior NHIF officials indicated that plans are underway to build a new building in Nairobi to house NHIF. Part of the proposed high-rise, whose construction costs would be born by NHIF, would be rented as a source of revenue.

There is no question that the Fund could benefit from more and newer office space. Whether or not it should use some of its surplus to construct a building warrants further investigation and financial analysis. Among the variables to be considered in a financial analysis are rental costs; construction costs; the existing supply and demand for rental space in Nairobi; and the opportunity costs of not investing the surplus in something else.

NHIF should attempt to answer a number of important questions before making this investment. Will it be more cost-effective in the long-run for NHIF to build rather than rent? What are the non-monetary advantages and disadvantages of building versus renting? Who will oversee construction? Who will manage the rental space if NHIF owns a building? Would it be better for NHIF to purchase an existing building rather than construct a new one?

Outside of Nairobi, NHIF currently has four regional offices. With the restructuring, the Fund plans to open four more regional offices each year, at least through 1993/94. All NHIF activities, other than claims payment, will be decentralized to these regional offices. The locations of the new regional offices and their level of staffing have yet to be determined.

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Decentralization makes good sense in that employers, cooperatives, contributors, and hospitals will have more direct access to the Fund. However, considerably more planning is warranted in this area. Opening four offices each year may overtax the Fund, more from a human resource than a financial standpoint. It might be easier for the Fund to phase in the opening of new offices, such that it starts by opening one or two offices in year one, two or three in the subsequent year, etc. More thought should also be given to what Fund activities should be decentralized. For example, it might make sense for claims to be paid locally, depending on the controls that could be built into the claims processing system to prevent fraud.

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