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**Health Insurance and Managed Care in Morocco:
Status and Potential**

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ABBREVIATIONS

BCP	Banque Centrale Populaire
CHU	Centre Hospitalier Universitaire
CNOPS	Caisse Nationale des Organismes de Prévoyance Sociale
CNSS	Caisse Nationale de Sécurité Sociale
DH	Dirham (US\$1 = 8.57 DH on March 10, 1992)
DRG	Diagnostic related group
GOM	Government of Morocco
HMO	Health maintenance organization
IEC	Information, education, and communication
IPA	Independent practice association
JSI	John Snow, Inc.
OCP	Office Chérifien des Phosphates
MSP	Ministère de la Santé Publique (Ministry of Public Health)
PPO	Preferred provider organization
UMT	Union Marocaine des Travailleurs
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

In the past decade, declining public sector health budgets and a growing population in Morocco have combined to decrease the availability and quality of public health services in that country. At the same time, several factors have combined to increase the size of the private health sector. A growing number of physicians and inpatient clinics operate in the private sector. However, growth of this private sector is hindered by the limited buying power of the Moroccan population.

Currently, few Moroccans are covered by any type of health insurance. Approximately 10% are covered by mutual insurance plans for public sector employees under an umbrella organization known as the *Caisse Nationale des Organismes de Prévoyance Sociale* (CNOPS). Another 4% of the population is covered by private insurance plans or mutuals set up by private employers.

Insurance and mutual plans have become increasingly important as a source of health financing. By 1987, 18% of the country's health expenditures were made by insurers and mutuals. The government of Morocco, faced with reduced public health budgets, is seeking to relieve the government's burden by expanding the role of insurance in paying for health services.

This study, launched by USAID, aims to (1) describe the health insurance market in Morocco and its potential for development and (2) examine prospects for the creation of managed care arrangements within the Moroccan health sector.

INSURANCE

Part I of this study, Insurance, was written by Patricia Danzon, Allison Percy, Harold Hunter, Frank Abou-Sayf, and Larbi Jaidi. This section examines the current roles and potential for future expansion of different types of insurance in Morocco, including:

- CNOPS and its member mutuals
- the social security fund, or *Caisse Nationale de Sécurité Sociale* (CNSS)
- private insurance companies and self-insurance

CNOPS

The CNOPS is an umbrella organization of eight mutuals covering public sector employees. In theory, it is financed by a 2.5% payroll contribution from employees and a 3.5% contribution by the government as employer. In reality, the government does not contribute its 3.5%, but rather provides a varying annual subsidy to the CNOPS. In 1989-1990, employee contributions made up over 55% of CNOPS finances, while government and quasi-public employers contributed approximately 45%. These contributions finance a system of health insurance for members. Each member mutual also levies additional payroll taxes to support supplemental health benefits and other services.

CNOPS pays for health services for its members through two primary mechanisms: direct reimbursement of patients for medical expenses incurred and payments to health care providers for bundles of services. Ambulatory care is reimbursed at 80-100% of a schedule which is well below current private sector charges, resulting in a rate of reimbursement for actual expenses incurred by

CNOPS members of 55%. While some inpatient care is also reimbursed in this manner, CNOPS also offers third-party payment contracts to private clinics. Under these contracts, the clinic is reimbursed directly by the CNOPS for care given to CNOPS members according to a contracted fee schedule. Fees are set for a more comprehensive unit of service than under traditional fee-for-service arrangements. This bundling of services is intended to control costs by reducing incentives for the clinic to multiply services.

Both strengths and weaknesses were identified in the management of CNOPS. The strengths include enrollment of 85% of the eligible population, development of a sophisticated on-line claims database, and implementation of contracts with private clinics providing for prospectively determined payment for a bundle of services. Weaknesses include chronic budget deficits, delays in reimbursement, and a suboptimal structure of benefits providing first-dollar coverage but setting no limit on the amount of copayments that the patient may be required to pay out-of-pocket in case of catastrophic illness. It is also possible that the new contracting arrangements will increase rather than reduce costs, because of selective participation. The extent to which the management of CNOPS and its member mutuals have the power to address these weaknesses is unclear.

Recommendations regarding the CNOPS include:

- development of more selective third-party payment contracts with cost-effective providers
- development of the capability to analyze costs and utilization by clinics and physicians
- assessment of the redistributive effects of the current contribution and benefit structure
- development of a coverage option with a higher deductible but a limit on the patient's out-of-pocket expense
- reduction in the delay in reimbursing members and providers
- reassessment of the reimbursement fee schedule to bring it more closely into line with the marginal costs of services, but with higher copayments for services where demand is price elastic
- determination of the government contribution at the beginning of CNOPS' financial year. The CNOPS should then be required to operate within that budget, except to the extent that it has accumulated reserves from prior years.
- offer policyholders the option of switching among mutuals to introduce a limited degree of competition among the mutuals and strengthen incentives to modify insurance to provide the maximum value to policyholders

CNSS

The CNSS operates a mandatory social security system into which all non-governmental employees must contribute. Some contributions are paid in full by the employer, while others are split with the employee. Benefits include small payments to workers with children, sick pay, fixed

payments to workers who have incurred medical expenses, disability leave, and retirement pensions. While none of these benefits include health insurance *per se*, some are tied to the incidence of illness.

The CNSS also acts as a provider of health services through the operation of 13 polyclinics throughout Morocco. These polyclinics are well equipped and staffed, but operate with very serious losses. Fees for services at these clinics are higher than those in public hospitals, but well below those charged by most private clinics. Until recently, a third-party payment agreement existed between CNOPS and CNSS whereby services provided to CNOPS members were paid directly by CNOPS without any copayment by the member. This agreement broke down in 1991 because of a financial disagreement between CNSS and CNOPS.

Recommendations regarding CNSS include:

- an analysis should be undertaken of how current CNSS illness-related benefits are being used to determine whether a restructuring of benefits might be desirable
- if mandatory health insurance is instituted in Morocco, CNSS contributions and benefits should be reevaluated to reduce contributions and benefits related to illness

Private Insurance and Self-Insurance

Over twenty private insurance companies offer health insurance in Morocco, covering approximately 4% of the population. Most insurance is written through group contracts to employment-related groups. The private insurance market has reportedly operated at a loss overall for a number of years. Heavy regulation of other insurance lines (automobile, liability, life, etc.) has led insurance companies to use health insurance as a "loss leader", attracting customers to its other, more profitable lines of insurance by offering health insurance below cost. Some employers have chosen to self-insure through the creation of private sector mutuals for their employees.

Premiums for private insurance are generally split between the employer and the employee. Average annual costs for the three private insurers interviewed ranged from 297 to 520 DH per insured, or 1230 to 2220 DH per policyholder for family coverage.

Potential for Expansion of Health Insurance on a Voluntary Basis

Several factors affect the potential to expand health insurance on a voluntary basis in Morocco. The demand for such insurance by the population is affected by: income, expected use of medical care, proximity to private medical providers, insurance overhead costs (which add to the costs of insurance), and the availability of free public care. The demand for insurance might increase if less expensive, more cost-effective insurance products were available.

The main obstacles to the growth of private insurance include:

- the availability of heavily subsidized public care undermines demand for health insurance
- the cost of current products is a significant percentage of income for a large fraction of the population

- for those in the declared sector, required contributions to CNSS undermine the demand for additional insurance
- moral hazard and overhead costs increase the cost of insurance
- the fact that the population of Morocco is young and largely healthy reduces demand for insurance
- there are regulatory, legal, and code of ethics obstacles to offering more cost-effective insurance products

Mandatory Health Insurance

Currently, a draft law is being discussed by the Government of Morocco which would institute a system of mandatory health insurance. One likely effect of such a system would be to force all affected workers to spend more on health insurance and health care. This mandate is effectively an increase in taxation of workers, with a requirement to spend the proceeds on health insurance that most workers would value at less than its costs.

Since mandatory health insurance increases the costs of companies in the declared sector, it is likely to increase incentives for companies to operate in the undeclared sector, resulting in a net loss of tax revenue for the government. In addition, unless minimum wages are adjusted downwards, those workers who currently receive minimum wages may lose their jobs as firms try to maintain their total labor costs.

Conclusion

It appears that a significant expansion of health insurance could take place without making insurance mandatory if some of the regulatory obstacles to offering more cost-effective insurance products were removed. This includes eliminating obstacles to competition among physicians, including uniform fee schedules. Insurers should be permitted to contract selectively with providers that have demonstrated an ability to deliver good quality care at reasonable cost. Regulation of rates for life and other forms of insurance should be modified to prevent distortion in competition and inadequate rates for health insurance.

MANAGED CARE STRATEGIES

Part II of this report, Managed Care Strategies, was written by Harold Hunter, Frank Abou-Sayf, Allison Percy, and Larbi Jaidi. Managed care strategies, including health maintenance organizations (HMOs), are one way of controlling rising costs of health coverage. Some forms of alternative reimbursement systems have already begun to emerge in Morocco. These include third-party payment contracts between CNOPS or employers and health providers. Some of these contracts reimburse providers a fixed amount per case rather than on a fee-for-service basis. However, our interviews indicated that some clinics are using these contracts selectively, accepting only those patients that they expect to be able to treat for less than the contract fee and refusing patients whose care is likely to cost more. Such behavior defeats the purpose of these contracts.

Managed Care Under Present Conditions

A number of legal and ethical code hurdles exist today that prevent the development of a prepaid health care system in Morocco. These include the lack of a legal framework for group medical practice, rules against salary compensation of physicians in the private sector, the right of the patient to free choice of provider, and the lack of a regulatory status for HMOs. Moreover, certain structural factors within the health sector may affect the potential for managed care development. Competition, which is a fundamental requirement for the existence of HMOs, is severely limited by the existence of insurance monopolies for government employees (the CNOPS mutuals) and by structural problems within the private insurance industry.

Definition of Managed Care Strategies

A number of different organizational models exist for managed care arrangements. These include staff model HMOs, group or network model HMOs, preferred provider organizations (PPOs), and individual practice associations (IPAs). In general, managed care techniques involve:

- Restriction of providers from whom members may seek care and selective contracting with efficient and cost-effective physicians, hospitals, pharmacies, etc.
- Incentives for less expensive practice patterns (i.e. referrals, hospitalization, etc.)
- Peer pressure through coordinated group practice or salaried practice
- Utilization management either prospectively, concurrently, or through retrospective review of claims
- Providers often participate in the financial risk of health services utilization

Demand for HMO Products

As noted, alternative reimbursement systems are starting to take hold in both the private and governmental sectors. A number of facilitating factors exist for the development of managed care in Morocco, including a rapidly growing formal sector, an increase in women in the labor force, an excess of physicians, a system of wage checkoffs for fringe benefits, concern by employers about the rising costs of health care fringe benefits, a large number of parastatal firms with a stable workforce and rich fringe benefits, and increasing acceptance of the group practice of medicine.

A number of inhibiting factors also exist, including laws prohibiting the corporate practice of medicine, suspicion of non-public sector solutions by trade unions, lack of purchasing power by many segments of the population, public perceptions that only tertiary care is valuable, and lack of knowledge among purchasers of care of the concept of dual or multiple choice of health plans. Most of these factors can be addressed through marketing efforts or through legal and regulatory changes.

The results of this study indicate that insurers and providers were positive about the introduction of managed care arrangements, particularly HMOs, into the Moroccan health care system.

Potential Sponsors of Managed Care

In order to create managed care arrangements, potential sponsors (both providers and financiers) must be interested in developing them. Currently, official fee schedules create restrictions on the ability to vary prices for health services. On the other hand, market saturation in the private sector may make physicians more willing to try new service delivery and financing mechanisms in order to compete. The availability of financing for HMO development is unclear, but may be assisted through the development of a loan or loan guarantee program by the Moroccan government and USAID.

Managed care arrangements require business management skills to administer risk pools and capitated arrangements and to control utilization and practice patterns. Moreover, they require a regulatory agency that functions by promoting competition. Both of these areas might benefit from technical assistance and training investments if managed care is to be developed.

Recommendations

The current legal and regulatory obstacles to the development of managed care strategies should be addressed. This would include providing a legal framework for the group practice of medicine, allowing salary compensation, allowing physicians to participate in the financial risk of health care utilization, and interpreting freedom of choice to mean freedom of choice of health plan.

Other initiatives could assist the development of managed care in Morocco. A system should be developed to pool contributions to fund health care for irregularly employed workers. Once managed care arrangements are developed, firms could be required to offer dual health insurance options.

In the near future, a full-scale feasibility study for the development of an HMO or other managed care arrangement in Morocco should be undertaken. Possible future project activities to support managed care development include implementing a loan guarantee program to encourage the development of innovative managed care arrangements and conducting a demonstration experiment to assess whether HMOs or other managed care arrangements are able to provide at least the same level of care available under traditional insurance arrangements while reducing the total costs.

INTRODUCTION

A. Background: The Problem

Despite difficult economic challenges in the 1980s, the Kingdom of Morocco has maintained a modest rate of economic growth to achieve a GNP per capita in 1989 of 7400 Moroccan dirhams (DH), or 880 U.S. dollars. While the total population grew at approximately 2.6% annually during 1980-1989, the urban population grew at approximately 4.3% per year during that same period. By 1989, the urban population as a percentage of the total population had grown to 47% (up from 32% in 1965).¹ These factors combined to increase the size and sophistication of the population demanding health services.

Since the early 1980s, there has been a marked growth in the supply of private health services in the country. From 1985 to 1989, the number of physicians practicing in the private sector increased by 27%.² Stimulated by the growing effective demand for private health services, private physicians and clinics invested in sophisticated medical technologies, most notably radiology equipment (x-ray, ultrasound, CT scanners, etc.). Expenditures by insurance plans and mutualist organizations grew to 18% of all health expenditures by 1987 (see Table 1).³

Source of Payment	1980	1987
Household Out-of-Pocket Payments	55%	55%
Ministry of Public Health	23%	19%
Mutuals and Insurers	12%	18%
Other (Employers, etc.)	10%	8%
TOTAL	100%	100%
Total Health Expenditures in 1987: 4.7 billion DH (3.1% of GDP)		
Source: Groupement ICONE-SEDES. <u>Etude du Système de Financement des Secteurs de Santé</u> , Ministry of Public Health, Kingdom of Morocco, 1990.		

At the same time, there has been a decrease in public funds allocated to provide health care: from 1982 to 1986, real per-capita recurrent expenditures by the Ministry of Public Health (MSP) fell

¹World Bank, World Development Report 1991, Washington, D.C.: World Bank, 1991.

²Laurence M. Day et al., Morocco Private Health Sector Study: Findings and Project Design Recommendations (Arlington, VA: JSI, 1991), p. 9.

³Ronald J. Vogel and Suzanne J. Stinson, The Health Services Market in Morocco: Structure and Performance (Report of a Mission for USAID), July 1989, p. 18.

by 31 percent.⁴ This necessitates either decreased use of health care (quantity or quality) or increased payments (through insurance or out-of-pocket payments) for individuals. (It would be nearly impossible to make up for such a large drop in expenditures through improved efficiency in the public sector.) In fact it appears that both these responses have occurred: there has been some decrease in quantity and quality of health care in the public sector and some increase in private funding of health care through health insurance contributions and out-of-pocket payments.⁵

Quantity and quality of services **per person served** in the public sector need not necessarily deteriorate when the public sector reduces total funding if the more limited resources are concentrated on fewer people. This has occurred to some extent: middle and upper income people are increasingly using the private rather than the public sector, except for tertiary care. This is partly in response to some increase in charges for public hospital services. But because the public sector has not yet implemented a fully adequate system of charges for hospital services, decrease in quality has become a major mechanism for rationing demand for services that exceeds the quantity that can be supplied with limited budgets available to public hospitals. These hospitals have used some mix of rationing by prices, by delays in availability, and by reduction of quality. This has led some people to shift demand from the public to the private sectors; but this has entailed an increase in financial risk (because the private sector must charge for its services) and possibly some failure to seek appropriate care because of lack of ability to pay.⁶

The shift in demand of higher income people away from the public sector has apparently not been sufficient to maintain public sector resources per capita for lower income people. Surveys of households and of public hospital patients confirm anecdotal evidence that the quality of services available in public hospitals is less than that desired and that even those with very limited means are having to pay for some services and supplies in public hospitals, including drugs, surgical supplies, food, etc. Conserving public sector resources for those who truly cannot afford to pay is one reason for the interest in expanding private health insurance for those who can afford to pay.

However, coverage of the Moroccan population by private or quasi-private health insurance remains low. Approximately 14% of the population has some form of health insurance: 10% are covered by one of the eight public sector mutual insurance companies making up the Caisse Nationale des Organismes de Prévoyance Sociale (CNOPS); most of the remaining 4% are covered by insurance companies or private sector mutuals.⁷ As will be discussed below, the range of insurance products available to consumers remains limited. Some of the CNOPS mutuals and some private health insurers operate with a tendency to chronic deficit. This appears to reflect to some extent the use of insurance products that make limited use of potential strategies for controlling costs, as well as other

⁴Vogel and Stinson, p. 16.

⁵Both Centres Hospitaliers Universitaires (CHUs, public sector tertiary care facilities) and some regional public hospitals have been made financially autonomous over their non-personnel operating budgets. Some of these hospitals recover a significant portion of their operating costs from fees. The Hôpital Ben M'sik, a public regional hospital in Casablanca, collects almost 40% of its non-personnel operating costs from patients, the rest coming from MSP and local government subsidies. In contrast, the CHU Ibn Rochd in Casablanca collects only 10-15% of its non-personnel operating costs from patients.

⁶By "appropriate" care we mean care that is cost-justified, i.e. the expected benefits exceed the full social cost of providing that care.

⁷M.N. Guedira, "La Couverture Sociale en Matière de Maladie Maternité au Maroc," Congrès Maghrébin des Sciences Médicales, Tunis, May 13-16, 1991, pp. 13-14.

institutional features of the CNOPS and private insurance markets. It appears that there is a potential for expanding health insurance coverage, if more cost-effective insurance products were available. Thus the time is ripe to assist the health insurance sector to develop affordable and appropriate insurance products, control rising costs, and expand coverage.

B. Objectives of Study

The primary objectives of this study are (1) to assess the current status of health insurance in Morocco and the potential for expansion of coverage; (2) to evaluate the feasibility of integrating managed care models into the health insurance market; and (3) to make recommendations to USAID regarding both its possible role in stimulating the development of health insurance and managed care in Morocco and other possible project activities which could be incorporated into USAID bilateral activities to support the development of health insurance and managed care.

In order to assess the status and potential of health insurance in Morocco, this study includes:

- description of various sources of insurance coverage currently available, including public sector mutual insurance organizations (organized under CNOPS), private insurers, employers operating self-insurance programs, and CNSS cash indemnity coverage
- discussion of the strengths and weaknesses of each type of coverage under current conditions (laws, market, etc.)
- assessment of the health insurance market in Morocco and its potential to expand among salaried workers, the agricultural sector, the informal sector, and other population groups
- appraisal of the opportunities and threats posed by the draft legislation on obligatory health insurance

To assess the feasibility of incorporating HMOs or other managed care options into the insurance market in Morocco, the study will provide:

- description of alternative reimbursement systems currently being used in Morocco and their relationship to managed health care principles
- analysis of legal and regulatory factors affecting the potential for development of HMOs and managed care
- assessment of the demand for HMOs and managed care by the public
- estimation of potential supply of HMO-type arrangements, including interest by both health providers and potential financiers (banks and insurers)
- estimation of possible costs of developing an HMO, both in terms of investment costs and potential premiums and capitation levels

PART I: INSURANCE

by Patricia Danzon, Allison Percy, Harold Hunter, Frank Abou-Sayf, and Larbi Jaidi

A. THE CURRENT INSURANCE MARKET IN MOROCCO

This section describes the CNOPS and public sector mutuals, the CNSS, stock insurers and other private insurance arrangements, and evaluates their major strengths and weaknesses. Section B discusses the potential for expansion of insurance coverage.

1. CNOPS and Public Sector Mutuals

There are eight public sector mutuals organized as a federation under the Caisse Nationale des Organismes de Prévoyance Sociale (CNOPS). In 1990, CNOPS had 828,532 members. Including spouses and children, there were a total of 2,651,378 CNOPS beneficiaries during that year, or approximately 10% of the total population of Morocco.

Medical Services Covered

Services covered are categorized as *secteur commun* and *secteur mutualiste*. Services that are considered as *secteur commun* are uniform across the eight mutuals, and include quite comprehensive basic medical, surgical, diagnostic and dental care, plus pharmaceuticals, for most major diseases.

Under the *secteur mutualiste*, individual mutuals cover most of the patient's copayment in the *secteur commun* (see below), and may cover additional services at their discretion. The extent of these additional benefits differs across the mutuals, depending on their financial status. Examples include eyeglass coverage, special clinics (dental, dialysis, etc.), and institutions for the handicapped.

Provider reimbursement and patient copayment

a. Traditional fee-for-service benefits: Until recently, the coverage has been basically a fee-for-service indemnity form of coverage, with the patient having totally free choice of provider. This still applies to the majority of ambulatory services. Under this system, the provider bills the patient on a fee-for-service basis. While fees billed to the patient are in principle regulated by government, in reality few if any physicians adhere to the official maximum fees allowable by law. Rather, physicians in each town apparently tacitly agree upon common fee levels, usually well above the "official" fees.

The patient submits a claim to the CNOPS and is reimbursed based on a fee schedule set by the Ministry of Health. Since this official fee schedule has not been indexed to keep pace with inflation, it has fallen increasingly below the fees actually billed to patients. Reimbursement by the CNOPS currently averages roughly 55% of the fee actually charged (see Table 2).

The official fee schedule for private sector services is uniform throughout Morocco. This may have important effects on the relative access of patients in urban and rural areas to medical care, since it affects patients' ability to pay and physicians' incentives to locate in rural vs. urban areas. Since physicians' costs and actual fees are likely to be higher in urban areas than in rural areas, because of higher rents and other costs in urban areas, reimbursement based on a uniform schedule

countrywide implies that actual out-of-pocket costs are probably higher in urban areas. Although monetary out-of-pocket costs to patients in urban areas may be higher, patient time costs of seeking care are lower in urban areas because of the greater availability of physicians per capita. Thus it remains unclear what the net effect of the common fee schedule is on patients' ability to pay, on the fairness of the distribution of CNOPS benefits between rural and urban contributors, and on the incentives for physicians to concentrate in urban areas.

No. of Claims	1,473,997	
Member Expenses Incurred	444,833,168	DH
Reimbursements		
Secteur Commun	189,504,371	DH
Secteur Mutualiste	53,282,267	DH
Total Reimbursements	242,786,638	DH
Avg. Percent Reimbursed	54.6 %	
Source: CNOPS		

For *secteur commun*, the CNOPS reimburses the patient at 80% of the approved fee schedule. The remaining 20% is reimbursed out of the *secteur mutualiste*; two mutuels reimburse the full amount, the remainder reimburse only 80% of the 20% (i.e. 16%). The actual administration of both parts of the reimbursement for *secteur commun* is performed by the CNOPS.⁸ Mutuels directly administer certain special clinics (e.g., dental clinics, dialysis services), institutions for the handicapped, eyeglass services, and certain other services.

b. Contract providers: The CNOPS has recently adopted a strategy of expanding the extent to which it pays providers based on contractual agreements. So far, this form of contract reimbursement has been offered only to clinics. It does not yet apply to the bulk of ambulatory care provided by general practitioners and other physicians in solo practice, partly because of the greater difficulty of defining a comprehensive "episode of care" for ambulatory care.⁹

For several years, CNOPS had an agreement with the polyclinics run by the Caisse Nationale de Sécurité Sociale (CNSS, the social security system for private sector employees). CNOPS members could be treated at CNSS polyclinics and CNOPS would reimburse CNSS for 100% of the costs of their care, leaving the patients with no copayment. The fees used in this agreement were

⁸CNOPS receives premiums paid for both the *secteur commun* and *secteur mutualiste* by all members. It retains the *secteur commun* premiums and a portion of the *secteur mutualiste* and gives to the mutuels only the amount of premiums not earmarked for health care reimbursements.

⁹This experience is similar to the experience of the Medicare program in the U.S. A system of per case payment has been implemented for acute care hospital services, but so far it has not been possible to extend this to ambulatory care because of the difficulty of categorizing care into distinct types of episodes that should reasonably be expected to have similar costs of treatment.

only slightly higher than the official government fee schedule and were well below normal private clinic fees. No specific bundling or managed care provisions were incorporated into the agreement. However, recently there has been a financial disagreement between CNSS and CNOPS regarding 13 million DH in unpaid billings, resulting in a breakdown of the third-party payment agreement.¹⁰

Table 3 Billings and Percent Reimbursed Third-Party Payment Arrangements CNOPS Members, 1990	
No. of Claims	203,422
Billings	206,360,277 DH
Reimbursements	
Secteur Commun	153,915,047 DH
Secteur Mutualiste	29,032,115 DH
Total Reimbursements	182,947,162 DH
Avg. Percent Reimbursed	88.7%
Source: CNOPS	

Table 4 Billings and Percent Paid Third-Party Payment Arrangements CNOPS, 1990					
Provider	Claims	Billings	Payments		
			Sect. Com.	Sect. Mut.	Total Pmts.
CNSS Polyclinics	8.9%	20.5%	12.8%	17.0%	13.5%
Mutualist Clinics	17.5%	11.6%	11.0%	16.0%	11.8%
Mut. Dental Clinics	43.7%	8.2%	7.7%	15.5%	8.9%
Public Hospitals	14.4%	3.2%	3.3%	4.4%	3.5%
IMP and IPS	2.4%	1.2%	1.5%	1.0%	1.4%
Overseas Treatment	1.0%	38.1%	45.2%	24.7%	41.9%
Private Clinics	0.3%	1.5%	1.6%	2.1%	1.7%
Analysis Services	0.8%	6.5%	6.8%	9.1%	7.2%
Travel Costs	0.3%	0.8%	1.1%	0.1%	1.0%
Cardiovascular League	10.3%	7.9%	8.3%	9.3%	8.5%
Misc.	0.3%	0.5%	0.5%	0.9%	0.6%
Total	203,422	206,360,277 DH	153,915,047 DH	29,032,115 DH	182,947,162 DH
Source: CNOPS					

Over the past few years, CNOPS has increased its use of special third-party payment contracts with private clinics. Under these contracts, if a patient receives services from a clinic with which the

¹⁰See *L'Economiste*, January 16, 1992, p. 16.

CNOPS has entered into a contract, the clinic is reimbursed directly by the CNOPS at approximately 90% of a schedule that has been agreed upon between the CNOPS and the clinic. The clinic can bill the patient for the remaining 10% out of pocket.

Recently, standard agreements to which any clinic may adhere have been drawn up between CNOPS and some regional medical associations. These will be likely to extend the number of clinics providing third-party coverage for CNOPS members. Clinics are categorized into three groups, A to C, depending on their average quality or technical complexity. Under the new agreements with the regional medical associations, providers within each of the three categories will be paid according to a uniform fee schedule within each region of the country, although the schedules differ to some degree across provider categories.

Under the contracts, fees are set for a more comprehensive unit of service than under traditional fee-for-service. For surgical services the fee is a fixed amount for the complete surgery, including the physician, drugs, "hotel" and other services provided by the clinic. For hospitalizations for medical problems, there is a fixed, all-inclusive daily rate. Currently, the daily rate for medical hospitalizations at category A and B clinics is 375 DH (35 DH of which is copayment by the member).

This new system of paying clinics on the basis of a prospectively determined fee for a bundle of services resembles in basic structure the DRG (diagnosis related group) system of payment for hospital services developed originally by the U.S. Medicare program. With a DRG payment system, hospitals are paid a fixed amount per admission, adjusted for the patient's diagnostic category. Such a system puts the provider at risk for all costs incurred for the admission and thus creates strong incentives to control costs. However it also creates incentives to "cream skim", i.e. to avoid patients that are expected to entail costs that exceed the fixed payment amount, or to admit patients unnecessarily if their expected costs of treatment are below the fixed reimbursement rate. The U.S. Medicare program has therefore implemented a system of "outlier" payments and other review procedures to attempt to control for these potentially undesirable effects of such a system.

The CNOPS contracts also have some features designed to control "cream skimming", but it remains unclear how these will operate in practice. In principle, contract clinics are required to take all insured patients at the contract rate, but if this is difficult to enforce in practice, the fixed payment per admission reimbursement system may create access problems for high risk patients.¹ There are currently provisions that the clinic can request additional payment from the CNOPS if the patient has complications. This reduces the risk for the clinic in admitting high risk patients but also reduces incentives to control costs if the amount of the additional payment depends on the costs actually incurred without a significant degree of "copayment" by the clinic. Under the Medicare DRG system in the U.S., there are "outlier" payments for patients whose length of stay or total costs exceed the average for that DRG by a predetermined amount (normally more than two standard deviations from the mean). The hospital is then reimbursed 60 percent of the average per diem rate for the days in excess of the outlier threshold. Effectively this system provides the hospital with a reinsurance policy with a large deductible (two standard deviations) and a 40 percent copayment rate.

Although this may not be the ideal system for the CNOPS, the general principles may be useful. The experience under this system may offer some lessons that could be applied to the system

¹In reality, several private clinics have indicated that they reject CNOPS patients if they expect that the costs of their care will be well above the fee stipulated in the clinic's contract with CNOPS. According to the management of CNOPS, this is prohibited in these contracts.

of contract payments adopted by the CNOPS. At present the system is too recent to evaluate, to determine whether it does strike an efficient balance between cost control incentives for providers, while providing access for patients and assurance that cost control will not be pushed too far.

Financing

In theory, the *secteur commun* services are financed by a flat percentage payroll tax on base salary. Currently, employees contribute 2.5 percent. In principle the state or employer contributes an additional 2.5 percent plus 1 percent for overhead expense. In practice, the state does not automatically contribute its 3.5 percent; however several times each year the state makes a contribution that covers some fraction of any deficit between contributions and expenditures incurred (or expected) on benefits paid during the year. In 1989 and 1990, the state contribution has averaged 34% of total contributions, employee contributions are 56% and employer contributions (*cotisations patronales*) of the quasi-public employers averaged 11%. A relatively small amount of additional funding is obtained from additional charges.

The *secteur mutualiste* is financed by additional payroll taxes (1.5%-1.8% of base salary) and fees.¹² New enrollees who did not join when they first became eligible are required to contribute some percentage of the annual contribution for each year of prior eligibility during which they did not enroll. The contribution rate has recently been reduced and is now only a flat fee of 72 DH.

Population covered

Table 5 shows trends in the number of employees and dependents covered by each of the eight public sector mutuels. Participation is voluntary (except for the military and the police), but the structure of contributions creates strong incentives to participate (see below). Participation has increased in recent years, in part because the required contribution for years of service when the employee was eligible but did not contribute has been reduced.

Year	Members	Spouses	Children	Total Beneficiaries	Annual % Change
1980	396,685	239,773	796,894	1,433,352	--
1984	561,195	285,595	937,960	1,784,750	6.1%
1986	633,365	330,402	1,002,142	1,965,909	5.1%
1987	694,077	351,444	1,039,031	2,084,552	6.0%
1988	750,147	433,082	1,238,780	2,422,009	16.2%
1989	794,418	478,923	1,277,471	2,550,812	5.3%
1990	828,532	500,493	1,322,353	2,651,378	3.9%

Source: CNOPS

Previous enrollees who have retired can continue coverage by making an annual contribution that is far below their actuarial cost.

¹²Most mutuels also collect an additional 0.7%-1.0% payroll contribution for retirement and death benefits.

Management

In describing the management of the CNOPS and other insurers in Morocco we emphasize that we are not evaluating the performance of any individual. We point out some of the strengths and weaknesses of the insurance products offered and the management practices that we were able to observe or infer. However, in seeking to understand the performance of management we focus on the incentives and constraints under which management operates, rather than the skills or shortfalls of individuals. This is consistent

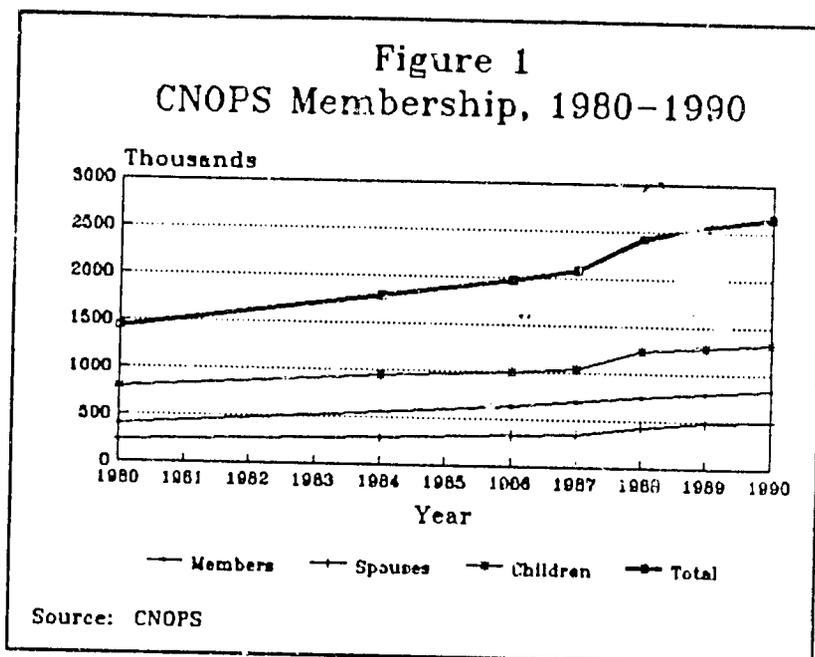
with the standard approach of economic analysis, which emphasizes the importance of designing incentive structures that are conducive to efficient behavior, and then assumes that, at the margin, individuals respond to incentives. The emphasis here on incentive structures should not be understood to imply that other factors are not also important in determining management efficiency. However policy analysis is most useful if focused on incentive structures that can be changed, whereas individual goals and commitments are much harder for policy-makers to influence.

In the case of the CNOPS and public sector mutuals, it is particularly inappropriate to attribute performance to any particular individual because authority is divided within the federation structure. The CNOPS is governed by an elected board of delegates that is responsible to a general assembly. The general assembly has control over major policy decisions that affect the operation of the CNOPS and the individual mutuals. Thus managers of the CNOPS and the individual mutuals have limited autonomy, although they may have very considerable influence.

a. Strengths

The public sector mutuals have succeeded in enrolling a large fraction of their potential eligible population. They have recently taken initiatives in adopting provider-targeted strategies for controlling costs, to supplement the more traditional consumer-targeted strategy of copayment. Specifically, the new system of contracting with clinics includes limited forms of prospective payment and bundling of services that create incentives for providers to control costs, by putting them at risk for most of the costs incurred for any given unit of services. This is a useful step in the direction of a more general strategy of prospective payment and provider incentives for controlling costs, which should be part of a managed care strategy.

The CNOPS has also recently put in place a sophisticated, on-line database on claims, that can already be used for monitoring use by individual policyholders. The system can also in principle be used to monitor use by individual clinics, for example to compare contract providers to fee-for-service providers to determine if the contract system in fact saves money. The database may in the future have the potential for monitoring patterns of use by individual physicians.



At present the system is being used to check a claimant's payment status (whether they have paid their contributions), and to monitor claims filed and reimbursement paid, on an individual or family basis, for the last three years. This can in principle be exploited to perform more aggressive utilization review or selective contracting with providers that practice more cost-effectively. However as noted elsewhere in this report, this potential cannot be fully exploited as long as either law or custom protects the patient's free choice of provider, the provider's free choice of practice style and the right of all providers to be offered the same contractual terms by mutual insurers, which is part of the current agreement between the CNOPS and the regional medical associations..

b. *Weaknesses*

1. *Deficits*

Several of the CNOPS mutuals have been in chronic deficit on the *secteur commun* for several years. There appear to be several contributing factors. First, the state has contributed on average less than the share stipulated in the CNOPS statutes. Second, the federation structure results in division of control over the major parameters of the coverage: premiums and benefit structure. Thus management at the level of both the CNOPS and the individual mutuals has little autonomy for controlling revenues or costs for the *secteur commun*.

But third, given these constraints, management has apparently so far not engaged to the extent feasible in careful actuarial projections of revenues and expenditures, or strategic planning to bring the two into balance. Management has so far apparently not undertaken actuarial projections of costs and revenues under alternative types of insurance coverage, to devise strategies to prevent deficits in a manner that is least burdensome to policyholders. The claims information system appears to be used primarily to check for fraudulent claims. Although it could currently be used to monitor and analyze aggregate expenditures by clinic (not solo physician) or type of medical service (e.g. trends in use of drugs, diagnostic tests, etc.), so far this capacity has not been exploited. The ability to monitor use patterns by individual physicians has not yet been established because of resistance to the establishment of a physician-specific code number. Thus so far management appears to have reacted to deficits in a rather passive manner; it has not adopted proactive management strategies to assure that such deficits do not occur, to the extent possible given their restricted freedom of action.

However this apparent "failure" to avoid deficits probably reflects, to some extent, the incentive structure: part of any overrun will be borne by the State, through increased subsidies. Moreover any surplus cannot be redistributed to policyholders as a dividend or a reduction in next year's premiums, but must be invested in reserves or *oeuvres sociales* (social works, usually the building of new clinics and other investments). Specifically, for sake of illustration, assume that the State on average makes contributions sufficient to offset 80% of any deficit. Then for every 100 DH spent in "overruns", the State (or general taxpayers) bear 80 DH of the cost, whereas CNOPS policyholders bear only the remaining 20 DH. Conversely, if the CNOPS engages in aggressive cost containment, 80% of any savings accrue to the State.

The options open to management for covering a projected deficit are to raise premiums, cut benefits or delay the reimbursement of patients and providers. In practice, delay in benefit payment has become an important mechanism for adjusting to projected deficits. This strategy reduces costs, by reducing the total outlays to patients and providers made during a year. Delaying reimbursement also increases revenues for the CNOPS, by increasing the interest earned on contributions; there may also be a reduction in expenditures to the extent that policyholders are discouraged from filing claims. Anecdotal evidence suggests that policyholders simply do not bother to file claims for relatively minor

costs, because the low level of reimbursement and the delay make it simply not worthwhile to file. Delay in reimbursement is thus a mechanism whereby insurance benefits to policyholders are in fact reduced but without making explicit cuts.

The persistence of deficits and delays in reimbursing policyholders may appear to indicate inefficient management; certainly the delays reduce the value of the insurance to policyholders. However this analysis suggests that in order to change this behavior, to increase the real value of the insurance to the policyholders, it may be necessary to change the incentive structure facing management, since the current structure imposes very weak penalties for running deficits. One simple improvement would be for the State to make a contribution that is fixed in amount at the start of the year and is independent of the deficit actually incurred. This is the already the letter of the law, but it is not implemented in practice.

A second, more radical change would be to give policyholders more freedom of choice to enroll in any one of the mutuals. Currently, employees have a choice only between enrollment in the mutual that covers their sector or no coverage. The contribution structure creates strong incentives to remain enrolled, once enrolled. This lock-in feature means that management does not face any competition. If each mutual faced real competition from the other mutuals, management of each would have to operate within budget constraints and would have stronger incentives to maximize the value of the insurance that it provides to policyholders, given their contributions. A more complete analysis of the current interlocking systems of the eight mutuals would be required to determine the extent to which competition among the mutuals could be increased without changing the basic structure of the CNOPS mechanism.

2. *Structure of benefits*

The structure of benefits provided by the CNOPS has several features that are inconsistent with optimal insurance coverage.¹³ Anecdotal evidence tends to confirm that policyholders are quite critical of the coverage.

Consider first the traditional system, whereby the physician bills the patient and the patient is reimbursed according to a fixed fee schedule that is on average considerably less than the actual fee. Such "indemnity" insurance does in principle have the advantage of creating incentives for patients to seek out relatively low cost providers, since the patient bears the full marginal cost of using providers who charge more than the approved fee schedule. However this is of little value if physicians in a particular area in practice all charge the same fees.

The fee schedule that determines the patient's reimbursement and the schedule of actual fees that are charged by providers have not been designed with the goal of creating incentives for efficient use of medical care by patients and providers (who act as patients' agents in determining the actual use of care). To achieve efficient use, copayments should be higher for services that are highly price-elastic, than for less elective services for which demand is probably less price sensitive. Ideally, reimbursement levels for providers should be equal to the marginal cost of producing each service when using efficient production techniques. If there are fixed cost to be covered, then the mark-up of reimbursement level over marginal cost should be related to the price-elasticity of demand. While it

¹³By "optimal" insurance coverage, we mean the structure of coverage that policyholders would prefer, given the costs of providing alternative forms of coverage. Principles of optimal coverage are established from economic theory and from observing the types of coverage that policyholders choose to buy in competitive insurance markets.

is surely not practical to set fee schedules to correspond precisely to this ideal, it is likely that the current schedule could be significantly improved.

Second, a more efficient reimbursement structure would include a deductible to deter the filing of minor claims, and probably include an upper limit or stop-loss on the total out-of-pocket payment that an individual or family could incur during a single year. Although coverage under the CNOPS has no ceiling on the amount that the CNOPS will pay, it also has no ceiling on the amount that the patient may be required to pay out-of-pocket. Thus it provides too much first dollar coverage and insufficient catastrophic coverage. For care reimbursed under the traditional fee-for-service system, 80% of claims are for amounts under 1,000 DH; these claims account for 47% of total payments. For payments to contract providers, 81% of claims are for less than 1,000 DH; they account for 14.8 percent of costs (see Table 6).

Table 6
CNOPS Claims Paid, By Size of Payment
1990

Payment Size	Traditional Fee-for-Service				Third-Party Payment (Contract Providers)			
	Beneficiaries		Total Claims		Beneficiaries		Total Claims	
	Number	%	DH 1,000	%	Number	%	DH 1,000	%
< 1000 DH	270,995	80.1%	116,037	47.2%	89,871	80.6%	27,141	14.8%
1000-1999 DH	49,018	14.5%	68,198	27.7%	12,531	11.2%	17,670	9.7%
2000-2999 DH	11,729	3.5%	28,329	11.5%	3,380	3.0%	8,230	4.5%
3000-3999 DH	3,761	1.1%	12,120	4.9%	1,487	1.3%	5,225	2.9%
4000-4999 DH	1,436	0.4%	6,737	2.7%	957	0.9%	4,869	2.7%
5000-5999 DH	703	0.2%	3,813	1.6%	532	0.5%	2,943	1.6%
6000-6999 DH	313	0.1%	2,013	0.8%	499	0.4%	3,281	1.8%
7000-7999 DH	177	0.1%	1,304	0.5%	209	0.2%	1,617	0.9%
8000-8999 DH	120	0.0%	3,838	1.6%	65	0.2%	2,395	1.3%
> 9000 DH	247	0.1%	3,399	1.4%	1,715	1.5%	109,577	59.9%
TOTAL	338,499	100.0%	245,787	100.0%	111,446	100.0%	182,947	100.0%

Source: CNOPS

The manager of one mutual noted that over 40% of expenditures are for minor items that patients could pay for out-of-pocket. Although he advocated changing the coverage to provide less first-dollar coverage and better catastrophic coverage, he apparently felt powerless to try to implement such changes in benefit design. This presumably reflects the fact that benefit changes must be adopted by a vote of the general assembly representing all the mutuals and must be uniform for all policyholders. The current structure of the CNOPS appears to preclude the possibility of offering policyholders a choice among several coverage options, including one with a significant deductible but better catastrophic coverage. Both theory and anecdotal evidence suggest that a significant fraction of policyholders would prefer more catastrophic coverage and less front-end coverage.

However, the conclusion that the current CNOPS coverage provides too much front end coverage and insufficient catastrophic protection is tentative because of the availability of care through the public sector at free or highly subsidized cost. Upper limits on insurance coverage are common

in insurance regimes in other countries where private insurance is essentially a supplement to free public care. It suggests a lack of demand for more comprehensive private coverage, given that public care is available at highly subsidized cost. It is a policy question for the GOM whether it wishes to permit those with private insurance to continue to use public sector services as a source of coverage as a last resort. This is part of the larger question of how to integrate private insurance with public sector services in a manner that is efficient and equitable. This is an important question, but detailed analysis is beyond the scope of this report.

Although the new system of quasi-prospective payments through contracts has some structural advantages, the potential is not being fully exploited. First, it is not being used to contract selectively with cost-effective providers, possibly because of legal constraints on selective contracting. Second, it was suggested to us that the fixed rate paid to contract providers was set higher than average reimbursement paid to the clinics that provide a comparable set of services on a fee-for-service basis. Some mark-up over expected cost may be necessary to induce contract clinics to bear the risk that they face under the fixed payment system.

However as long as clinics have the option of selecting either fixed contract or fee-for-service reimbursement, the introduction of the new system is likely to result in an increase in total costs to the CNOPS. The reason is that clinics that opt for the contract system are likely to be those that have expected costs below the contract fee schedule, either because they are relatively efficient, offer low quality or treat relatively healthy patients, compared to the average clinic in their category. Conversely, clinics that have expected costs in excess of the fixed contract schedule are unlikely to join the contract system, since they would lose money. Thus as long as the system is voluntary, the CNOPS faces a severe risk of biased selection that may well result in an increase in costs. So far there has been no system set in place to monitor whether savings do actually occur, or to verify whether this biased selection is occurring under the contract system. There is also no monitoring of the differences in care provided by contract providers and non-contract providers. This is essential to understanding the effects of this system on costs to the CNOPS and availability of care for patients.

3. *Overhead costs*

The administrative costs of the CNOPS are reported to be under 10% of revenues collected. This is lower than the reported overhead of stock insurers, but this is not a valid comparison, because there are hidden costs associated with the operation of the CNOPS that do not appear on accounting statements. Virtually the only administration function undertaken by the CNOPS is claims administration. Marketing costs are minimal, because each mutual essentially has a monopoly, reinforced by the contribution system (see below) for the employees in its sector. They do not incur actuarial costs and do not have to attract equity capital, because the state contributions provide the buffer fund functions for which private insurers hold equity capital, making up most of any deficit that occurs. The public mutuals also do not pay taxes. We have not been able to obtain a reliable breakdown of overhead costs for different functions for the CNOPS and other insurers. However, because of the special role of the state and the lack of competition facing the CNOPS, such comparisons would be invalid, even if data could be obtained.

Discussion

In evaluating the management of the CNOPS and public sector mutuals in Morocco, it is important to recognize that managers in mutual insurance companies operate under different incentives and constraints than do managers in stock companies (see, for example, Mayers and Smith, 1981). In a

private mutual insurance company, the policyholders own the company i.e. the policyholders are the equity owners, whereas in a stock company, the policyholders and the equity owners are distinct. This identity between policyholders and equity owners in a mutual is both a strength and a weakness. The advantage in theory is that a mutual can be run solely in the interests of the policyholders; by contrast, a stock company is forced by competition in equity markets to attempt to maximize profit to the equityowners. Profit maximization is not necessarily contrary to the interests of consumers. In competitive markets with well-informed consumers, profit maximization by firms benefits consumers: the pursuit of profit leads firms to minimize cost and design products that satisfy consumers preferences. As Adam Smith first showed, this is the fundamental reason why competitive markets can generally be relied on to produce an allocation of resources that yields the maximum possible well-being to consumers.

However if customers are not well-informed about the risks or other quality dimensions of a product, then profit maximization by firms cannot be relied on to maximize consumer well-being. In the insurance context, it is sometimes argued that for-profit stock insurers have incentives to mislead consumers about insurance products, exaggerating the benefits, understating the gaps in coverage and possibly taking undue risks that may erode future solvency and ability to pay claims.¹⁴ This criticism has been made of stock insurers offering health insurance in Morocco. The extent of such problems is very hard to evaluate, and differs by line of insurance and by population group. Consumer misperceptions are less for lines of insurance where consumers make claims frequently, so can learn by experience about how well the company pays on claims; for example, consumers are in a better position to evaluate health insurance than life insurance. Concern over consumer exploitation is also less where consumers have experience with different lines of insurance (life, fire, accident, health, etc.), and where intermediaries such as employers serve the role of evaluating the products offered by different insurers, as is common in health insurance.

Although the potential for consumer exploitation may be a reason to prefer mutuals to stock companies in some contexts, the mutual form of insurance also has disadvantages. First, a mutual cannot raise equity capital; it has to rely on retained earnings to build up the reserves necessary to tide over fluctuations in claim costs. Second, the management of a mutual company has more discretion and is much harder for owner-policyholders to monitor than the management of a stock company. If management of a stock company operates inefficiently, the value of the equity falls and this gives equity owners an incentive to dismiss the management. By contrast, it is difficult for policyholders of a mutual to evaluate the efficiency of management, since there is no publicly traded equity, whose price reflects the efficiency of management. Moreover, even if policyholders are dissatisfied with management in a mutual, it is much harder for them to dismiss the management. Typically, this takes a vote of a majority of policyholders or their delegates, and most policyholders simply do not have a strong enough incentive to get informed and become active in the management of a mutual. Of course it is true that dismissing the management of a stock company also requires a vote of the majority of the shareholders; however because equity is tradeable, a single shareholder can accumulate enough of the shares to control a majority and has a financial incentive to do so. Thus the objective of many corporate takeovers is to command a sufficient block of votes to change management and improve the efficiency with which the corporation is operated. The threat of takeover and dismissal is the most extreme incentive for managers of corporations to operate efficiently. Other less extreme devices are that they are often paid partly in the form of stock bonuses or options, so that their own salary is directly tied to the performance of the corporation. Managers

¹⁴This point was made by one interviewee with respect to private insurers in Morocco. Insolvency within the insurance sector in Morocco has been a serious problem which led the Ministry of Finance to control premiums and benefits in nearly all other lines of insurance besides health.

of mutuals face much weaker threats of being removed if they are inefficient and cannot be paid in the form of equity in the company.

These general principles about how the form of organization affects the incentives of management are important in understanding the performance of the mutuals in Morocco. In the case of the public sector mutuals and the CNOPS, the situation is further complicated by the role of the state. Although in theory the state is supposed to pay a contribution equal to 3,5 percent of the base salary of policyholders (*adhérents*), in fact the state pays a contribution that depends on the actual deficit incurred in the *secteur commun*, although this is somewhat vague and is not a guarantee to make up the deficit fully. If the state simply made up the deficit, it would be effectively the equity owner or residual claimant with respect to deficits. In that case the CNOPS management would have very little financial incentive to control costs. In practice the state pays only some fraction of the deficit, determined by negotiation and state budget constraints. Thus the management of the CNOPS does not even face the requirement to breakeven that managers of private sector mutuals normally face.

Cross subsidies

The structure of contributions to the CNOPS system implies a set of cross subsidies among different categories of workers that participate; there is also probably an implicit net transfer from those who are eligible but do not participate to those that do participate.

Since contributions are set at a uniform percentage of base salary, within the class of workers that participate there is a net transfer from single workers, those with few dependents, those with low expected medical expense and those with relatively high salaries, to those with low salaries, large families and high utilization of medical services. Anecdotal evidence on the categories of workers that do and those that do not choose to contribute is consistent with the hypothesis that participation is relatively advantageous for older workers with families.

There also appears to be a cross-subsidy from rural to urban workers. Utilization of health services is higher in urban areas than in rural areas.

The existence of cross subsidies from young to older workers is implied by the fact that workers who join after the initial date of eligibility are required to contribute a certain amount per year for each year of non-contribution. Retired workers can retain benefits by maintaining contributions at a rate that is far below the actuarially fair level. The system is being adjusted to facilitate these contributions, by making them deductible from the pension at source.

The cross-subsidy from workers who choose not to participate to those who do participate results from the fact that those who do not contribute do not get a rebate equal to the value of the employer contribution. In the long run the employer contribution to any job-related employee benefits is borne by workers in the form of lower cash wages. Thus for any category of worker, wages reflect the expected or average employer contribution for that category. Since those employees who choose not to contribute their 2.5 percent do not receive any higher wages, they are effectively paying a wage offset but receive no benefits in return. Thus there is a net transfer from those who do not choose to participate to those who do.

The CNOPS database offers the possibility of measuring the extent of cross subsidies among different groups of individuals, to determine whether the actual distributional effects are consistent with those desired by the membership or with general notions of vertical and horizontal equity. So

far such analysis has not been undertaken. The system is based on the notion of solidarity. It would be useful to analyze existing contribution and expenditure data, by type of employee, in order to determine the net distributional effects of this system. This would help clarify the potential for expansion of a mutual structure based on a similar solidarity principle to other sectors (see below).

Recommendations with respect to CNOPS

The first set of recommendations could be implemented by the CNOPS without any change in law or institutional structure.

1. Analyze the selection of clinics into the new system of contract reimbursement, to determine if biased selection is occurring.
2. Monitor the experience under the new system, to determine whether clinics that opt for contract reimbursement in fact have lower per patient costs than those paid fee-for-service.
3. Develop the capability to analyze utilization and costs on a per clinic and per physician basis. Use this information to contract more selectively with providers that provide cost-effective care. The structure of patient copayments could be used to create incentives for patients to use providers who practice cost-effectively, if freedom of choice of provider cannot be limited directly. At present patient copayments are 10% of the contract fee if they use contract providers; copayments are unregulated but are probably higher for most fee-for-service providers. The CNOPS has created these incentives for patients to favor the contract providers, without verifying that the contract providers in fact provide services that are better value for money -- either lower cost or better quality for equivalent cost.
4. Analyze expenditures relative to contributions for different categories of policyholder -- by age, family size, income level, urban/rural location -- to determine the net redistributional effects of the current fixed percentage contribution rate. Based on this information, evaluate whether the actual cross-subsidies across worker categories correspond to social goals.
5. Consider offering an option with a larger deductible but a limit on the patient's out-of-pocket expense, as an alternative to the current copayment structure. As preparation for this, analyze the distribution of expenditures by the CNOPS and out-of-pocket payments by individuals on a per policyholder or per family basis. At present there is no information on the percent of individuals or families that incurred various levels of out-of-pocket expense. Thus it is not possible to evaluate whether the CNOPS benefit structure in fact provides good financial protection.
6. The CNOPS should commit to reimbursing providers and patients within a reasonable period of time. Delay in reimbursement is equivalent to devaluing the insurance benefits to patients and reimbursement levels to providers.
7. The fee-for-service fee schedule and the average out-of-pocket payment by patients, by type of service, should be analyzed. If necessary, it should be modified to bring it more closely into line with the marginal costs of producing the various services, but with higher copayments (lower reimbursement) for services where demand is relatively price elastic.

The following recommendations would require changes in institutional structure:

1. The state contribution should be determined at the beginning of the CNOPS' fiscal year. The CNOPS should then be required to operate within budget, except to the extent that it has accumulated reserves from prior years. Such changes would put the CNOPS on the same breakeven basis as any other mutual insurance company. They would increase the incentives of management to develop the actuarial projections and cost control strategies necessary to operate on a breakeven basis.
2. The feasibility of offering policyholders the option of switching among mutuals should be analyzed. This would introduce a limited degree of competition among the mutuals and would strengthen incentives to modify the insurance offered to assure that it provides the maximum value to policyholders, within the given contribution levels.

2. CNSS

The Caisse Nationale de Sécurité Sociale (CNSS) operates a mandatory social security system into which all non-governmental salaried employees in the declared sector must contribute. This has been extended to include salaried employees in agriculture.

Financing

The CNSS is financed by payroll taxes, set as fixed percentage of salary up to certain limits. For some benefits the contribution is divided between the employee and the employer. (See Table 7.)

	Family Benefits	Social Benefits	
		Short-term	Long-term
Contribution Rate (as % of salary)	10%	0.66%	5.04%
Employer Portion	100%	2/3	2/3
Worker Portion	0%	1/3	1/3
Contribution Ceiling	None	3,000 DH	

N.B. Agricultural workers do not participate in Family Benefits portion.
Fishermen contribute 4.65%-6% of their gross sales for separate coverage.
Source: CNSS

Benefits

The CNSS benefits are in the form of cash indemnity payments payable to contributors in certain circumstances. The major types of benefit and level of benefits are shown in Table 8. Although the CNSS does not provide health insurance directly, the cash payments that are payable in the event of illness or disability can be viewed as a form of health insurance.

Population covered

In 1990, the CNSS covered 672,000 workers, up from 535,000 in 1985 and 457,000 in 1980.¹⁵ In 1989, workers covered by CNSS were distributed between industry (36%), building and public works (21%), services (14%), commerce (12.5%), and agriculture and fishing (6%). This group included 81.5% male workers and 18.5% female workers.¹⁶

¹⁵Figures provided by CNSS.

¹⁶Guedira (1991), p. 10.

Table 8
CNSS Benefits (as of 1986)

FAMILY BENEFITS	
Family Allocations (in cash)	36 DH/month per child, from first to sixth child. (Raised to 54 DH for first three children in 1988.)
Family Health Assistance	From 300 DH (for a family with one child) to 800 DH (for a family with 6 children), payable upon presentation of a medical claim. Intended as a prelude to the development of a health coverage system.
SOCIAL BENEFITS	
<i>Short-term Benefits</i>	
Daily Illness Indemnities	26 weeks at 50% of salary, plus 26 weeks at 67% of salary. Must contribute for at least 54 days during the six months prior to stopping work. Payments begin 7 days after stopping work due to illness.
Daily Maternity Indemnities	10 weeks at 50% of salary. At least six weeks must come after delivery. Must contribute for at least 54 days during the 10 months prior to stopping work.
Death Benefits	2 months of deceased worker's salary, with a minimum of 1,000 DH and a maximum of 2,000 DH.
Childbirth Leave	Three days leave granted to employee upon the birth of a child. Employer is reimbursed by CNSS for three days' salary.
<i>Long-term Benefits</i>	
Invalid Pension	50%-70% of salary, depending on length of contribution of disabled worker. Begins when Daily Illness Indemnities end and stops when individual becomes eligible for Old-Age Pension benefits. Individual must have contributed for at least 1080 days, including 108 days during the 12 months preceding stopping work.
Old-Age Pension	50-70% of salary, depending on length of contribution of retired worker. Workers are eligible to receive pension at obligatory retirement age (60 years). Individual must have contributed for at least 3240 days before eligible for old-age pension benefits.
Survivor Pension	Transfer of right to pension to the spouse(s) and children of the deceased worker.
Source: CNSS	

Since participation is mandatory, trends in the number of persons covered under the CNSS reflect changes in the industrial structure of Morocco and the incentives for operating in the declared vs. the undeclared sectors in general, rather than simply the net value of the CNSS insurance program as perceived by workers. However, because participation in CNSS is mandatory for declared firms and entails a significant payroll tax, the value that employees perceive in the CNSS benefits may be a significant factor in a marginal employer's decision to operate in the declared sector. A more complete analysis of the costs and benefits to firms and their employees of operating in the declared sector in general, and the relative importance of the CNSS taxes and benefits compared to other factors, would be useful in designing GOM strategy towards health and other forms of insurance; however such analysis is beyond the scope of this study.

Management

The CNSS is administered by a 24-member tripartite commission that includes representatives of the state, employers and employees. Day-to-day administration is headed by a general director.

As in the case of the CNOPS and public sector mutuals, the division of authority and constraints within which management must operate make it difficult to assess the extent to which actual performance reflects the skills and efficiency of individual managers vs. the institutional and incentive structure within which management must operate. Persistent problems are likely to be indicative of underlying structural deficiencies rather than individual shortcomings.

Financial performance

With respect to the insurance programs, Guedira (1991) reports that the long term benefits section has been in chronic deficit, but has been supported by transfers from the family benefits division which has operated in surplus (see Table 9).

Table 9
CNSS Revenue and Benefits Paid, 1987-1990
(in millions of DH)

	1987	1988	1989	1990	% in 1990
REVENUE					
Premiums					
Family Benefits	1,240.2	1,327.0	1,433.2	1,570.0	56.5%
Short-term Benefits	56.7	63.8	68.1	74.6	2.7%
Long-term Benefits	153.0	511.9	545.1	595.0	21.4%
Total Premiums	1,749.9	1,902.7	2,046.4	2,239.6	80.6%
Financial Products	325.7	380.7	428.9	529.4	19.1%
Misc. Other Income	1.0	3.0	10.0	10.0	0.4%
Total Revenue	2,076.6	2,286.4	2,485.3	2,779.0	100.0%
BENEFITS PAID					
Family Benefits	476.8	612.4	631.3	648.4	42.6%
Short-term Benefits	34.3	46.9	59.0	61.0	4.0%
Long-term Benefits	576.0	644.6	728.4	811.0	53.3%
Total Benefits Paid	1,087.1	1,303.9	1,418.7	1,520.4	100.0%

Source: *La Vie Economique*, June 28, 1991, p. 14.

In addition to the insurance programs, the CNSS also operates 13 polyclinics that it built during the 1970s and 1980s. These polyclinics have operated with very serious losses. Estimates of the magnitude of the CNSS clinic deficits may vary, depending on whether they are calculated on operating costs alone or whether some amortization of fixed costs is included, and if so the rate of amortization. Nevertheless, it seems unlikely that any reasonable allocation of costs would convert the massive reported deficits into a surplus. Previous studies have examined the causes of the deficits of the CNSS polyclinics,¹⁷ and their conclusions are not reported in detail here. This report addresses these issues only to the extent that they are relevant to our scope of work, i.e. identifying potential for and obstacles to expanding health insurance in Morocco, in particular, the feasibility of expanding insurance related to the (

In 1980, an agreement was drawn up between CNOPS and CNSS to allow CNOPS members to seek care at the CNSS polyclinics. This agreement stated that the CNSS polyclinics would bill CNOPS for services rendered to its members according to a fee schedule which, while above that which applies to public hospitals, was well below the charges imposed by most private clinics. In return for this agreement by CNSS to charge below-market rates for services, the CNOPS directed volume towards the CNSS clinics by eliminating the normal copayment: CNOPS covered 100% of the charges for members who received care at CNSS polyclinics. This agreement broke down in 1991 over a disagreement between CNSS and CNOPS regarding 13 million DH of CNSS billings

¹⁷See, for example, Pierre Mouton, *Problèmes de la Caisse Nationale de Sécurité Sociale du Maroc*, World Bank, 1988; *La Vie Economique*, June 28, 1991.

which CNOPS disputes. Before this breakdown, approximately 15% of CNOPS members sought care at CNSS polyclinics.¹⁸

One issue that must be answered in assessing the causes of the CNSS clinic deficits is the relationship between the CNSS and the CNOPS. As the largest insurer in Morocco, the CNOPS can exercise considerable influence over the revenues of any provider. Careful analysis of the CNOPS-CNSS arrangement would be necessary to determine the extent to which it reflected a mutually advantageous form of preferred provider contract; inferior bargaining power on the part of the CNSS; or unwise decisions to provide a "quality" of care that is too costly, given patient willingness to pay and normal fees payable to other competing providers. These alternatives are not mutually exclusive.

A fair evaluation of the causes of the pattern of deficits and surpluses across the various CNSS benefit categories depends on the constraints and opportunities within which CNSS management operates. If the law stipulates that each benefit category should attempt to remain in balance; does it provide management with the flexibility to adjust either benefits or contribution levels in order to bring the system into balance? If the law is vague on objectives and restrictive in strategies available, then management cannot be held fully responsible for deficits.

For long term benefits, such as retirement, long term disability and survivor benefits, a true insurance approach would define balance in terms of the revenues relative to the discounted present value of losses incurred, i.e. including claims actually paid plus the present value of claims expected to be paid arising out of obligations incurred in the policy year. An alternative approach is to define balance on an annual pay-as-you-go basis, or possibly averaged over a period of several years. If this is the approach used by the CNSS, then prudent management requires that some level of reserves be maintained to carry the system through temporary fluctuations in revenues and outflows that are caused by such factors as cyclical fluctuations in employment. For example, such pay-as-you-go systems invariably incur deficits during periods of economic downturn because employment and therefore revenues fall while claims increase.

Prudent management of an insurance system that provides benefits related to retirement and disability also requires long term forecasts of demographic trends, employment rates etc., because these factors determine whether current levels of benefits will be sustainable at current tax rates. Social security systems in several countries are facing projections of major deficits due to declining birth rates and increases in life expectancy, which reduce the ratio of workers paying in to retirees, survivors and disabled workers receiving benefits. Although such projections are never very accurate, particularly for the more distant future, they certainly should be made if this has not already been done, in order to get a better idea of the long term solvency of the CNSS. Although this is not immediately relevant to the issue of health insurance, it is extremely relevant to the question of whether the CNSS has the ability and incentive structure necessary to expand its operations into more explicit health insurance benefits. It is also relevant to whether the question of whether CNSS contribution rates should be increased in order to finance a health insurance benefit. If projections show that tax rates will have to increase in the future in order to finance underfunded long term benefits, that makes it less desirable to raise taxes to finance health insurance.

The experience of several countries that operate quasi-public bodies like the CNSS is that the efficiency of management depends critically on designing an institutional structure that gives management responsibility and holds it accountable for outcomes. The movement in many countries

¹⁸L'Economiste, January 16, 1992, p. 16.

towards corporatization or privatization of agencies that were previously departments of government reflects this experience. The objective of corporatization, most broadly defined, is to give management well-defined objectives and the autonomy to make the decisions necessary to achieve those objectives, so that performance can be monitored and sanctions can be imposed for inefficient performance. It appears that the management of the CNSS (and to a lesser extent the CNOPS) has at best poorly defined objectives, little autonomy and faces few penalties. Given these constraints and incentives, it is hardly surprising to observe chronic deficits, questionable investment decisions as in the CNSS clinics, and poor operations of these investments. In order to improve the efficiency of the operation of the CNSS programs, what is required is a careful analysis of the current incentive structure and constraints, including informal political pressures under which the CNSS operates, and a political willingness to make significant changes in this institutional structure. Providing technical assistance, for example in the form of management training and information systems, is likely to be of little value until this fundamental structure is changed in a way that provides the incentives and flexibility to use these management tools.

Although the CNSS benefits are not specifically allocated to reimbursement of medical expenses, some of the payments are contingent on the occurrence of an illness or disability and thus constitute a form of health insurance. There are arguments for and against converting these cash medical benefits into an explicit form of health insurance that reimburses for medical expense.

The strongest argument in favor of converting the cash illness-related payments into more conventional health insurance is that this would target the benefits to those who incur the greatest medical expense. Currently, benefits increase with the duration of the illness but do not vary with the need for medical care, given the duration of the illness.

One argument against the conversion is that it restricts the recipients' freedom of choice. Some individuals may prefer cash indemnities to health insurance that reimburses specifically for medical care, because cash indemnities leave the recipient greater freedom to choose how to spend the money. In general, the value of any transfer payment to the recipient is higher if the transfer is given in the form of cash rather than being tied to consumption of particular goods and services such as medical care. The recipient can then spend the money in the way that is most valuable to him or her. Some may argue that people tend to underestimate the benefits of medical care; if so, tying benefits to medical care would encourage more appropriate levels of use. Although individuals are certainly not very well informed about the benefits of specific types of medical care, this only justifies a requirement that they buy health insurance if on average people systematically underestimate the benefits of medical care. It is far from obvious that on average people underestimate the value of medical care, given the incentives of physicians to overestimate the benefits of medical care when they counsel patients.

A second argument against converting the cash benefits to medical reimbursement benefits is that it would generate moral hazard, i.e. it would also encourage spending on medical care that is worth less than its cost, because insured patients face less than the full price of medical care. There might be some offsetting benefit if the elimination of cash benefits reduces the associated moral hazard, i.e. that cash payments that are contingent on claiming illness or temporary disability create incentives to exaggerate or fraudulently report illness, in order to qualify for the benefits. Thus the number of workdays lost might decrease if benefits are in the form of medical reimbursement rather than cash.

It is sometimes argued that CNSS contributors should be entitled to use the CNSS clinics either free of charge or at subsidized prices. Of the total over 15% payroll tax contributed to the

CNSS, 2.25 percentage points are allocated specifically to the CNSS polyclinics' amortization and operating costs. Several reports¹⁹ have pointed out that these contributions do not entitle employees to receive free medical services from the CNSS clinics, whereas CNOPS members (i.e. public employees) were until recently reimbursed at 100% for services received in CNSS clinics.

Although this may seem inequitable, it does not necessarily follow that the best solution is to entitle CNSS contributors to use the clinics free of charge or at subsidized rates. The CNSS contributions to the polyclinics should be viewed as an investment made on behalf of CNSS contributors. Normally the contributors/investors might expect to receive a reasonable financial return on such an investment. The problem arises here because it was apparently a bad investment that does not yield a positive financial return. But if CNSS contributors were given free use of the clinics, as a form of in-kind return on the investment, the operating costs of the clinic would increase and the assessments necessary to break even would have to increase. This would be grossly inequitable among CNSS contributors, since only those who live reasonably close to the clinics could take advantage of the services. As discussed in greater detail later, it seems unwise to expand mandatory contributions to the CNSS in order for it to provide health insurance, until its management capabilities have been demonstrated.

Recommendations

1. An analysis should be undertaken to determine how the current CNSS illness related benefits are being used. Specifically, do they serve as a valuable source of disability insurance against major income losses or are they being misused for short term sick leave? Is there evidence of abuse, i.e. prolonging duration or claiming days that are not really necessary? If this analysis concludes that the current structure of illness-related benefits does not constitute a valuable source of insurance against significant loss, then three options should be considered. One is to restructure the benefits, with significant copayments on short term illnesses. The second option is to convert (some of) the cash payments into health insurance. The third option is to reduce the contribution rate. These options are not mutually exclusive.
2. If a mandatory health insurance is enacted, then the CNSS benefit structure should be reevaluated, with a view to reducing contribution rates and cash payments for illness related benefits. Without such a downward revision of cash illness-related benefits, the fraction of current income that workers would be forced to contribute to illness-related insurance probably would be too high. Forcing contributions to insurance coverage when workers would rather have higher cash wages will create an added incentive for employers and workers to operate in the undeclared rather than the declared sector. This defeats the purpose of expanding insurance, since workers in the undeclared sector do not contribute to the CNSS and most do not buy insurance voluntarily. It would also reduce tax revenues to the GOM.

¹⁹See Vogel and Stinson (1989), Norris et al. (1986), World Bank (1991).

3. Private Insurance

In 1988 there were 18 "stock" companies and 3 mutual companies in the insurance sector in Morocco. There are currently 22 companies that write private health insurance policies. Several of the insurance companies began under foreign ownership: for example, Wafa was owned in part by New Insurance Society and Norwich Insurance Society. It is now entirely Moroccan owned. Recent easing of restrictions on operation of foreign-owned firms in Morocco will facilitate the entry of foreign insurers into the health insurance market, if opportunities arise. A few of the largest global insurers are offering insurance products increasingly in developing health insurance markets in other countries. For example, Aetna has contributed to the development of insurance in several countries of Latin America, Australia and New Zealand. So far international insurers have not entered the Moroccan market. The team visited three of the largest insurers, as well as a firm that chose to self-insure.

Total revenues of the private insurance industry have grown to nearly 4 billion DH, up from 2.6 billion in 1987. Life and disability insurance products (life, workers' compensation, accident, and disability) represented a little less than 20% of revenues. This percentage is low relative to other countries, in part because these categories of loss are covered by the compulsory contributions to the CNSS for workers in the declared private sector. Thus for a significant fraction of the population that do not buy such products, private insurance functions as supplementary insurance to CNSS benefits.

The World Bank (1991) estimated that insurance which pays for the cost of health care (i.e. health and workers' compensation) represents 2% of private insurance premiums. Health insurance revenues amounted to 236 million DH in 1987. It is not clear whether payments for motor vehicle accidents under Loi 1.84.177 of October 1984 may be used to defray the costs of health care of accident victims.

Sources of Coverage

Most insurance is written through group contracts, many of which are employment-based. Employment groups offer several advantages as a source of insurance: there are economies in premium collection and providing information to enrollees; such groups are also reasonably well protected against adverse selection, although new hires, part time workers and temporary workers may still pose an adverse selection risk.²⁰ Thus employment that tends to be irregular, cyclical or seasonal is still exposed to adverse selection risk and this is probably one factor limiting expansion of coverage to employment groups that are currently not covered.

Although employment groups are the major source of coverage in Morocco, many employers do not arrange for health insurance plans for their workers. In understanding the reasons why employers do not offer coverage, it is important to realize that the costs of health insurance and other job-related non-wage benefits must ultimately be borne by workers in the form of lower wages, if employment opportunities are to be maintained. An employer in competitive markets can only employ labor as long as the value of the worker's contribution to output exceeds the cost of employment, including wage and non-wage compensation. Thus if non-wage compensation is increased, e.g. because health insurance is offered as a condition of employment, then wages must fall

²⁰For this reason, such workers are commonly excluded from employment-based health insurance plans in the U.S.

by the amount of the employer's contribution.²¹ Employers have strong incentives to offer a health plan if workers are willing to pay for the cost of such a plan through lower wages. Thus to the extent that many firms do not offer coverage, this reflects lack of willingness to pay on the part of the employees. One reason for this is the high level of mandatory contributions to CNSS insurance. Since private companies must remit almost 15% of salaries to CNSS, this tends to reduce demand for health insurance.

One insurance company, Wafa Assurance, currently has 150-200 group health contracts, covering roughly 45,000 individuals. The mean group size is approximately 220-300 beneficiaries, or less than 100 subscribers. The fact that these small group contracts have proved viable with modest administrative overhead costs is quite encouraging. Wafa's administrative overhead cost of 22% is quite reasonable, comparable to rates for groups of this size in the U.S. The administrative loading is an important component of the real price of insurance, since it is the charge, over and above the expected benefits, that the policyholder pays for the insurance.

Several insurance companies affiliated with banks have developed health insurance for their depositors, especially for those in the professions. This is of interest, since it suggests that bank depositors may be a viable group around which to arrange insurance, as an alternative to employment. The information on such groups is limited. One insurer (Wafa) began to offer health insurance to Wafa Bank depositors in the early 1980s. Roughly 900-1000 families signed up, which is a relatively large group. Interviewees reported that the product proved to be expensive and subject to abuse by insureds, which may have been due in part to adverse selection. The subsequent experience of this plan and others offered through banks should be investigated further, to determine whether such groups are potentially viable.

Of Wafa's 22% overhead rate for health insurance, approximately 10% is for commissions and other marketing expenses. Most insurance appears to be marketed through brokers in Morocco. The reasons for this are unclear and should be investigated further. In the U.S., although most insurance was initially written through agents or brokers, the development of the "direct writers" that market directly through their own sales personnel has been a significant stimulant to competition in the insurance industry. Direct writers appear to have lower overhead costs than insurers that use independent agents, possibly because they provide fewer services than the full service agency firms. Nevertheless, because brokerage commissions are a significant fraction of insurance overhead in Morocco, it would be useful to determine whether there are legal or regulatory obstacles to insurers offering coverage directly, without using brokers. Such direct writing could also act as a stimulus to price and services competition, by enabling insurers to provide information directly to potential clients.

In Egypt, medical societies, bar associations, and other professional groups offer health insurance to their members through mutual insurance companies. Such mutuals organized through trade or professional associations are another potential mechanism for providing insurance in Morocco. Such mutuals may initially lack experience with claims administration and rate setting and may be too small to take benefit from all possible economies of large scale. However these services can be contracted out to a commercial insurer, as some self-insured firms do, so inexperience and small scale need not be a serious obstacle to formation of small mutuals.

²¹Of course if the employer simply offers the insurance and workers can contribute on a voluntary basis by making a payment to the insurer, then pre-contribution wages need not fall. However such an arrangement offers less protection against adverse selection than one in which the employer makes the contribution and therefore employees have a stronger inducement to participate.

Premiums and Benefit Structure

Premiums vary by benefit level and by the experience under the plan, with some retroactive adjustment of the premium at the end of each contract period. The benefit structure includes mandatory copayments, limits, and some exclusions on covered services. There generally can be up to three ceilings: one per illness, an annual ceiling, and a per person lifetime ceiling. One company indicated that only 1% of beneficiaries reached the ceilings (usually 15-20,000 DH annual ceiling per illness). This suggests that despite the ceilings, these policies do provide virtual catastrophic coverage. Policies are guaranteed renewable, but not necessarily at the same rate. At least one of the companies is emphasizing new products which, with encouragement, could encompass managed care techniques.

The average annual cost ranged from 297 to 520 DH per insured, or 1230 to 2220 DH per policyholder. Thirty-five to forty percent of claims costs were for medications, while doctor's visits and consultations averaged around 15% of claims costs.

Payment of claims by some insurers is reported to take a long time, and this was given as one reason why one employer decided to self-insure. Cash flow is a concern of all providers as well as of the insurance companies.

Self-Insurance

In countries such as Brazil in which contribution to social security for health benefits has been mandatory, as well as in the U.S. where 80% of all firms have purchased health insurance, some companies choose not to use insurance companies as fiscal intermediaries but rather to self-insure. An intermediate option is for the employer to retain most of the risk but purchase excess insurance to cover very large losses, e.g. losses above some threshold. Many self-insured firms contract with an insurance company or other intermediary to process claims. In such cases the firm may adopt one of the benefit plans offered by the insurance company.

The ability of an employer to self-insure without assuming unreasonable risk depends on the size of the employer (number of beneficiaries). This is simply the result of the law of large numbers, whereby the risk (variance) of the average (mean) loss in an insurance pool decreases in proportion to the number of individuals in the pool, assuming that losses are uncorrelated across individuals.²² Smaller firms can achieve some degree of self-insurance by buying excess insurance for large losses.

Provision of company owned and/or company provided services for the company's employees can be considered a form of self-insurance. The employer may own their own polyclinics, or contract directly with physicians.²³ This strategy is more likely with large, parastatal companies (such as OCP in Morocco) which are located in isolated areas. This provides an opportunity for a type of managed care. However, to the extent that this limits competition and freedom of choice for employees, cost and quality of care may be unsatisfactory, and workers may resent the lack of

²²For health insurance it is reasonable to assume very low correlation across losses in the pool.

²³There is currently a dispute within the medical profession in Morocco regarding *médecine de travail* (work medicine) and the legality of the provision of curative services (*médecine de soins*) by employers. While some companies do hire physicians who provide curative care to employees, in principle these physicians are supposed to be restricted to providing preventive services (monitoring work safety conditions, etc.).

freedom of choice of provider and be suspicious of the motives of the company clinics and doctors. These concerns apply more in urban areas where employees could have a choice; in remote areas company provided care may offer better alternatives to workers than would be available otherwise.

When self-insurance allows free choice of provider, the same potential for overutilization exists as in a commercial insured group. However a self-insured employer may have more flexibility, in the current Moroccan context, to use a number of managed care techniques, particularly if the self-insured firm contracts directly with providers and has more control over the claims database than would be the case if a commercial insurance package were purchased. These options include:

- sharing risk with the provider through withholds from income and gain or loss based on cost containing behaviors
- utilization management
- identifying high cost employees, services, providers, and types of cases
- intervening to modify behavioral and practice patterns
- selective contracting with only limited numbers of lower cost, high quality specialists, tertiary services, facilities, or coverage of a limited formulary of drugs, etc.

In Morocco (as in other countries), not all self insurance is chosen on the basis of operational efficiency or treatment effectiveness. There may be tax advantages (if commercial insurers are subject to premium taxes that self-insured firms do not pay) and regulatory advantages (if commercial insurers are subject to onerous regulations that do not apply to self-insured firms). Another important incentive for self-insurance is avoidance of premiums that are actuarially unfair, given the loss experience of the particular firm. A self-insured firm pays only for the expenses incurred by its employees and dependents. Therefore if a commercial insurer sets rates that are not experience-rated for each employer, the employers that have below average costs have incentives to self-insure.

Self insurance should not be discouraged. It can significantly reduce costs for companies that use it to take a more active role in controlling costs. It also provides an important competitive stimulus to commercial insurers. However, some review of the tax and regulatory status of self-insured firms vs. commercial insurers should be undertaken. In principle it is desirable to have a level playing field, so that firms have incentives to self-insure only if they can provide insurance more cost-effectively than a commercial insurer can. However this does not necessarily mean that taxes and regulation should be identical for self-insured firms and insurers. There should be some regulatory surveillance to assure that firms that elect to self-insure in fact have the solidity to deliver the services promised to employees. It is probably sufficient to require a minimum size (number of covered employees), value of net revenues, and number of years in business rules as criteria to qualify for self-insurance.²⁴

²⁴Because employers are primarily in business for reasons other than providing insurance, once they have established a reputation and some "brand name" capital, they have significant incentives to maintain financial solvency. Asset and reserve requirements are therefore not appropriate. Even for commercial insurers, detailed asset and reserve requirements have not proved to have a significant effect on insurer solvency in the U.S. and probably are not worth the cost of implementation, which is significant.

An example of a self-insured business is the Banque Centrale Populaire (BCP). The BCP was originally insured by an insurance company for their 5,500 employees (17,000 beneficiaries). After experiences that suggested fraud and abuse, they formed their own mutual and assumed responsibility for claims processing, rate setting, and provider relations. At present, the cost approximates 875 DH/year/family. Mr. Ibnabdeljalil, the Director of Individual Clientele, noted that while the BCP would like an insurance company as a partner, they have not been able to find one. They cover retirees as well, and these are quite expensive. The benefits provide for 85% reimbursement of medical expenditures (thus 15% copayment), with a 30,000 DH/person/year limit. No beneficiary has yet reached the ceiling. They also self-insure for life insurance, but the costs quoted are for health insurance only.

The BCP is a bank which specializes in financing cooperatives and small business. In the past, they financed the establishment of many doctors' offices, but now consider this a poor area for lending. They seem wary of financing rural health cooperatives and say that they cannot sell insurance directly. Moreover, they cite the restrictions on the corporate practice of medicine and free choice of provider as possible legal stumbling blocks to the establishment of such cooperatives.

The BCP's health insurance administrative expenses are 2.3 million DH (out of 11 million DH total expenses, or 21%). Forty-five percent of beneficiaries have at least one claim a year. The fact that fifty-five percent do not have a single claim in the year is evidence of the point noted later, that one reason for the relatively weak demand for health insurance is that many Moroccans do not use much medical care, in part because many are young and in good health. The BCP mutual is currently in litigation with several clinics regarding claims.

Based on the nature of its banking business, it appears that the BCP could be in a good position to be an investor in developing insurance products for the informal sector. However, ability to pay relative to expected cost of coverage may be a significant obstacle. A family premium might reach 200 DH/month, assuming a small contract size and a large family unit. An average family unit of nine individuals was quoted by the Ministry of Handicrafts. This possibility for development of more cost-effective coverage through the BCP and offered to the banks' clients bears further exploration. In addition, other self-insured enterprises should be contacted, to determine the potential for expansion of this approach.

B. THE POTENTIAL FOR EXPANSION OF HEALTH INSURANCE ON A VOLUNTARY BASIS IN MOROCCO

1. Introduction

One of the current concerns of the GOM is that Moroccans are using less health care per capita than other countries at similar income levels, and that this is in some sense suboptimal, i.e. that Moroccans would be better off if they increased their spending on health care relative to other goods and services. A second concern appears to be that, given the level of income and health care spending, Moroccans have suboptimal insurance: they face significant financial risk and may therefore delay or forgo use of health care due to short term lack of funds.

Several institutional features of the current Moroccan health care and insurance regulatory systems probably do result in levels of insurance and possibly of health care spending that are below optimal, i.e. what would be chosen by well-informed consumers in well-functioning markets. For example, several features of the law, regulations and informal rules have impeded the development of cost-effective insurance products, i.e. forms of insurance that provide protection against major financial loss but include mechanisms that discourage excessive use that raises the price of the insurance. Without such cost control devices built into the insurance, individuals are faced with a choice between buying a quite comprehensive "Cadillac quality" insurance, with many nice features (free choice of provider, no deductible, coverage of most services) but that costs more than they are willing to pay for health care, or simply forgoing insurance and paying out of pocket when they use care. For the lower income population (some 50% of the total) there may be no real choice. But for the remainder that are paying significant amounts out of pocket for medical care, there probably would be demand for insurance if more cost-effective insurance products were available.

Of course there are many factors that contribute to the lack of more widespread development of insurance coverage. Cultural factors, misperceptions of the benefits of some types of care, the availability of highly subsidized public care, and other factors also play a role, and we expand on some of these below. Many of these factors cannot be influenced by the types of interventions in the system that we have been asked to consider. We focus on a limited set of interventions that are amenable to change by policy-makers in the short term; but the role of these other factors must be recognized in order to assess the likely effects of any intervention that changes at most one part of the system. In particular, we do not address in great detail the role of the public system. But a more complete analysis of the development of an efficient and equitable insurance system for Morocco should consider carefully the interaction between the developing private insurance markets and the public sector. Failure to consider and plan for these interactions could reduce the efficiency and increase costs in both sectors.

To the extent that interventions can remove or correct regulatory or market "failures" that have prevented the development of efficient insurance markets, there is a potential for a net increase in welfare from the resources available. This should be distinguished from interventions that simply redistribute resources between population subgroups and interventions that simply force everyone to reallocate their own resources from other uses towards health insurance and health care. Of course the preferred intervention is one that makes people better off by reducing inefficiencies and thereby increases output or utility, rather than simply redistributing resources and making some people worse off.

In general, in planning for the expansion of insurance in Morocco, policy-makers should be clear on whether the objective is (1) to increase total spending on health care, because in their

judgement current spending is perceived to be suboptimal i.e. that Moroccans would be better off if they spent more of their given income on health care, or (2) to expand financial protection but without necessarily increasing expenditures on health care. It is critical to realize that expanding insurance, either through mandates or inducements, will not increase the total resources available to Moroccans -- on the contrary, it will decrease resources available for non-health care uses because of the overhead costs of operating insurance systems. Moreover even a well designed health insurance system will tend to increase use of some health services that are not cost-justified as well as services that are cost-justified, and is also likely to increase the prices paid for medical inputs. Increased spending on health care, even if covered by insurance, necessarily decreases the resources available to people for spending on other goods and services.

This does not mean that health insurance should not be expanded. If current spending on health care and health insurance really is "too low", then some reallocation of spending towards health insurance and health care would enhance well-being.

The potential for expansion of health insurance in Morocco on a voluntary basis depends on consumers' perceptions of the value of insurance, and their willingness and ability to pay for it; the potential for expansion also depends on the ability of insurers to supply insurance products at prices that consumers are willing to pay. Thus factors on both the demand and the supply sides of the market must be examined in understanding the potential for expansion and where interventions by government might be most effective.

2. Demand

The demand for insurance depends on such factors as a family's expected income and the stability of income, since buying insurance requires a commitment to make a steady flow of payments over time; expected use of medical care, which depends on health status, in particular, risk of major medical expense; convenience/proximity to private medical providers; expected price of medical care; the effective price of insurance, which depends on the insurer's overhead costs and other factors that affect the premium relative to expected medical benefits; the price (money and time price) of medical care (high money prices for care generally increase demand for insurance, high time prices reduce demand for insurance); the quality and availability of substitutes, notably care in the free public sector or traditional medicine; and information and cultural factors that affect propensity to use medical care and demand insurance.

Income

Roughly 50 percent of the population are considered indigent or of insufficient means to be expected to pay any significant amount for health insurance.²⁵ Of the remaining 50 percent, roughly 15 percent are already covered through CNOPS, private insurance or self-insured plans. The remaining 35% of the population is a potential target.

²⁵Some percentage of these could be expected to make some copayment for some medical services, primarily to discourage excessive use, even if such payments do not contribute significantly to recovery of total costs.

Expected use of medical care

Over 50 percent of the population is under 20. As a result, of the population who are not covered by health insurance, many are children or young adults. Their expected use of medical care is relatively low. For young adults, automobile and workplace accidents are among the major reasons for use of medical care, but these are already covered through mandatory workplace and automobile insurance.

Proximity to private medical providers

Of the population not covered, those who reside in rural areas will not have access to a sufficiently wide range of private providers to generate a potential demand for their services and hence for insurance against these costs.

Insurance overhead

On average, administrative overhead costs are roughly 20-30 percent of premiums for private insurance. This administrative load is an additional cost, over and above the cost of medical benefits, that must be paid if a person buys insurance. High overhead costs discourage purchase of insurance.

However, the effective loading charge is higher for those who are below average risk (and lower for those who are above average risk) if insurance premiums are community rated, i.e. not adjusted on the basis of expected cost for an individual's risk class. Limited use of rating on the basis of actuarial category by some insurers implies that insurance is actuarially unfair for those who perceive themselves to be low risks; not surprisingly they choose not to buy coverage. Thus community rating exposes insurers to adverse selection and tends to defeat the goal of expanding the extent of coverage. The intent may be to force low risks to subsidize high risks. But the desirability of such subsidies is not self-evident. Not all high users of medical care are poor; not all suffer from severe medical conditions and some of those that do may be the result of years of poor health habits. The free public sector already effects a cross subsidy from low to those high risks that are sufficiently sick to require tertiary care.

The effective loading is also relatively high for those who are not in groups that can be offered insurance through employment, banks, trade or professional organizations.

Availability of free public care

The existence of free public care of acceptable quality undermines the demand for private medical care and insurance against the costs of such care. Thus the growth of demand for private sector care has paralleled the decline in quality of and access to public sector care. However, as long as the public sector does not charge for its services, availability of free public care will undermine demand for insurance for those medical services where public quality is acceptable and/or where the cost of providing a higher quality private sector source is very high. Tertiary care, which is provided almost exclusively by the CHUs in Rabat and Casablanca, appears likely to remain a public sector activity for the foreseeable future.

In recent years the failure of public health budgets to keep pace with increasing demand and the allocation of limited public funds increasingly to tertiary care (see Vogel and Stinson, 1989) has meant that public hospitals no longer provide a free alternative, even if patients are willing to accept the quality. Increasingly, shortages at public hospitals force patients to purchase drugs and other

essential supplies outside the hospital. The evidence from surveys of public hospitals and households confirms that even those of very limited means are having to pay for care in public facilities. Thus as long as this stringency of public budgets continues, it is reasonable to assume that the public health sector does not provide a free alternative, that Moroccans face significant expected out-of-pocket costs of medical care if they get ill, even if they use the public hospital system, and hence that there should be a demand for insurance against the risk of such costs, if the right insurance products are available.

Recent evidence indicates that the average price paid for a hospitalization in a financially autonomous public hospital is 267 DH for a non-indigent patient.²⁶ While this is clearly not beyond the means of a middle income person, it does not include the costs of ambulatory care. Thus the availability of subsidized public care surely does and will continue to erode the demand for insurance, unless the quality of public care, including medical excellence and amenities, becomes totally unacceptable.

There are important issues related to optimal public provision of and charging for tertiary care in the context of a strategy for developing broader private insurance that need to be addressed in future research on expansion of health insurance in Morocco. These issues relate to both efficiency and equity.

- a. How to assure optimal expenditure on tertiary care: such care tends to be relatively costly and is not necessarily the most cost-effective use of limited public health budgets.
- b. How should access to publicly provided tertiary care be allocated? Charges may be desirable to discourage overuse. The non-indigent could be expected to insure against such charges. However charges for public sector services create a barrier to access for the indigent, unless there is a program of insurance for the indigent or a better system of reducing charge levels for those who are indigent or near indigent. The present system of indigence certificates does not address the problem of the near poor who do not qualify for indigency status, but lack the means to buy private insurance.
- c. The distribution of costs. Charges would tend to distribute more of the burden to higher income groups and those with private insurance, if charges are in fact not collected from the uninsured. Thus introducing charges for tertiary care would probably distribute more of the cost to higher income/higher users of care.

3. Supply of Insurance

The supply of insurance can be expected to develop in response to demand, in the absence of constraints.

Potential for Expansion of CNOPS

Each of the mutuals that are federated under the CNOPS currently is limited to employees of a particular sector, their dependents and retirees who previously contributed. The statute that established the CNOPS limits it to act as an agent for these public sector mutuals. Thus the

²⁶Based on an interview with the director of the Hôpital Ben M'sik in Casablanca.

population that could potentially be covered by the CNOPS and its affiliated mutuals is limited, unless this structure were changed.

Within the existing constraints, the potential for expanding the number of people covered is limited. Already over 80% of eligible persons participate in CNOPS. The remainder are probably disproportionately young, single employees, particularly in higher paid positions, for whom the premium structure is actuarially very unfair because of the absence of differentiation by age and family size. They may rationally anticipate medical costs that are less than the required contribution of 2.5% of their base salary. Some of the non-participants may be older workers who would have to contribute an additional amount for each (or some limited number) of prior years eligibility for which they did not contribute. This penalty for new adherents was recently reduced and has resulted in some increase in participation.

The number of persons covered by the CNOPS could be increased if coverage were extended to working spouses of participants. Under current rules, spouses of participants are covered only as long as they themselves are not working. Once a spouse takes a job, they must either contribute an additional 2.5% premium or remain uncovered. This penal rate of contribution not only is likely to reduce the number of spouses that are insured but also reduces incentives for spouses to work, since loss of coverage acts as a tax on working.

The fact that about 15 percent of employees decline to contribute their 2.5 percent, even though it is levered by a non-taxable employer contribution of a matching 1.75 percent (the government has on average paid less than the full matching percent of 3.5 percent specified by law) suggests that those who choose to remain uncovered value the coverage at less than 60 percent of the cost of coverage. If such workers are forced to participate, this is equivalent to a tax on these workers at the difference between the value that they implicitly place on such coverage and their contribution, direct and indirect.

Expansion of the Mutual Model to Other Sectors

The management of the CNOPS has expressed some interest in trying to expand the public sector mutual model to other sectors, including possibly the federations that represent the artisans. An example cited was the federation of fisheries.

There are several possible obstacles to extending the public sector mutual model to other sectors. First, for those with relatively low income, the average contribution as a percentage of income might have to exceed 6% of total income, whereas it is only 6% (assuming full employer contribution) of base income for the public sector mutuals on average. At lower levels of income, individuals probably prefer to spend a smaller fraction of their income on medical care. Therefore to be attractive, insurance products must be relatively low cost but nevertheless offer a significant increase in coverage compared to that already available through the public sector. This means a policy design that effectively controls low benefit use and covers only services that are valued at cost and convey significant financial risk to policyholders.

Second, in sectors of the economy where employment is much less stable than the public sector, the solidarity principle may not be feasible. If solidarity is interpreted to mean that all members of a group are covered, whereas only those who are currently employed actually contribute, then in groups whose average unemployment rate is high, the percentage contribution rate on those working must be larger. For example, if applied to the federation of construction workers, assume to illustrate that each construction worker is working only two thirds of the year. Then during the

period when he is working, on average each contributor would be supporting half the cost of coverage for a family of non-contributors. This not only raises the contribution rate for those working; perhaps more important, it reduces incentives to work, as does any form of unemployment insurance. Of course this work disincentive effect of unemployment insurance is not a reason for having no such insurance; however it does mean that the coverage should be designed to minimize such disincentives.

In general, it is worth pointing out that community rating (i.e. charging uniform premiums regardless of how expected or actual expenditures differ across policyholders) does not necessarily result in an equitable sharing of the burden of high risks, unless a large enough population is covered under mandatory insurance. This however, raises other problems discussed elsewhere in this report. Community rating as operated currently by the public sector mutuals and proposed under the mandatory insurance law requires that the low risks in a particular group subsidize the high risks in that group. If each group were a random sample of the population, this might conform to some definitions of equity. But the insurance groups that actually exist do not all contain an equal share of low and high risk individuals. Some employee groups contain a higher proportion of older people who have higher health costs, some contain a higher proportion of low risk younger workers. Thus the effective "tax" imposed on a low risk worker depends on the ratio of low to high risks in his particular group. Community rating can result in a quite arbitrary distribution of the burden of paying for high risks. It also creates incentives for groups of low risk individuals to split off, in order to insulate themselves from subsidizing higher risks. Some evidence of this tendency has occurred in Germany, where individual firms with relatively low risk employees are increasingly electing to separate from larger groups in order to establish their own insurance entities and avoid subsidies to higher risk groups. As this trend increases, the government is increasingly mandating transfers among the groups, in order to spread the costs of the higher risks. Thus in the long run, a system built around mandatory community rating within groups is likely to encourage sorting, as low risks opt into their own groups; this is either unstable or defeats the objective of subsidizing high risks.

Of course in principle this sorting can be prevented by requiring open enrollment, as is proposed by the law. However if this is applied to employment-based groups, including those that self-insure, it is likely to undermine and possibly eliminate the willingness of employers to sponsor coverage. This would be extremely unfortunate, since employer sponsored coverage has real advantages in terms of reducing administrative costs and eliminating adverse selection.

Potential for Expansion of Private Insurance

All three insurance companies we spoke with indicated that the potential for expanding coverage under present law is limited. This may reflect several factors: limited incomes; availability of free or subsidized public sector care; "crowding out" of demand because of the mandatory contributions to the CNSS in the group market; adverse selection in the nongroup and small group market; and possibly the lack so far of low cost insurance products.

There appear to be some opportunities for expanding coverage by creating lower cost insurance products. All three insurance companies indicated that catastrophic insurance (with a large deductible based on total cost or days of care) would be workable as a basic benefit. They agreed that there is a need and a market for hospitalization-only insurance. Although there is some risk that hospital-only coverage could create incentives for potentially expensive hospital care to be substituted for lower cost primary care, the evidence from the RAND health insurance experiment (Manning et al., 1987) showed that high copayments on ambulatory care tend to reduce rather than increase hospital expense, i.e. ambulatory and hospital care tend to be complements, not substitutes.

With the data available to us we are not able to estimate the premium level at which such a hospital-only or catastrophic plan could be offered. Average total cost per insured under Wafa's current policies was estimated at 297 DH. Assuming an overhead rate of 25%, this would require a premium of 371 DH for an individual, or 1,485 DH for a family of four.²⁷ Table 10 shows estimates of the current costs of private insurance compared to average salary levels. The insurance cost estimates are based on the average annual cost per policyholder reported by the private insurance companies interviewed. Al Amane reported an average annual cost per policyholder of 2220 DH and premiums of 2340 DH. Their costs (plus 25% to cover overhead and profit) were used as the basis for the high insurance cost estimate in Table 10. Wafa Assurance and Atlanta both reported costs per policyholder about 1230 DH (no premium levels were reported). Their costs (plus 25%) were used as the basis for the low insurance cost estimate in Table 10.

Although health insurance is often sold as a package with other lines and was seen as a loss leader by the insurers we interviewed, there is no reason why health insurance need be intrinsically unprofitable, if benefits are well-designed and companies are free to set premiums at adequate levels. If health insurance is currently unprofitable in Morocco, this may be the result of regulation of other lines of insurance. Other lines of insurance are subject to heavy regulation of rates and benefits. As in any industry, if prices are regulated above competitive levels, firms have an incentive to compete on non-price dimensions of this or complementary products, in order to expand their market share of the profitable line. If regulation prevents competition in the form of expanding benefits for the life and casualty products, then firms compete by offering complementary products such as health insurance, at rates that are below expected costs. This may make it difficult for other insurers that do not offer life and casualty insurance to compete, since the firm offering only health must price it to cover cost. It may also reduce insurers' efforts to engage in accurate monitoring of costs for health insurance and create the perception that health insurance is intrinsically unprofitable, since the reasons for the lack of profitability are not immediately evident.

²⁷It is unclear whether the 22% overhead figure that was given was expressed as a percentage of benefit payments (as assumed here) or as a percentage of total premium.

Table 10
Average Gross Wages and Current Insurance Cost Estimates

Sector	Average Gross Wage ¹ (1990 DH)	Insurance Cost ² as % of Salary	
		High Cost (2750 DH/yr)	Low Cost (1500 DH/yr)
Manufacturing Sector	25,490 DH	10.8%	5.9%
Government Sector			..
High cadres	63,549 DH	4.3%	2.4%
Middle cadres	33,976 DH	8.1%	4.4%
Other personnel	27,718 DH	9.9%	5.4%
All levels	34,529 DH	8.0%	4.3%
Minimum Wage Estimates ³			
Industry, commerce, professions	13,000 DH	21.2%	11.5%
Agricultural sector	7,000 DH	39.3%	21.4%

¹All wage estimates have been converted to 1990 dirhams. Manufacturing wage estimates are from 1988, government sector estimates from 1989, and minimum wage estimates from 1990.

²Based on average annual cost per policyholder from interviews with private insurers, plus 25% for administrative costs and profit margin. Premiums are likely to be somewhat lower than this currently because most insurers offer health insurance at a loss, as discussed earlier in the paper.

³Because minimum wages are on an hourly or daily basis, these yearly minimum salaries are only estimates.

Source: Bulletin du Centre Marocain de Conjoncture No. 3, June 1991, plus interviews with private insurance companies.

This experience suggests several important lessons. First, regulation of prices and benefits (in this case, for life and casualty) is no guarantee that prices will be held to competitive levels. On the contrary, industries can often manipulate regulation to maintain prices above competitive levels. Second, even if prices are above competitive levels (which appears to be the case for these other lines) this does not guarantee that the excess profits will be used to increase reserves and solidity of the company. Thus price regulation is a futile strategy if the objective is to preserve solvency. The overall risk of an insurer depends on pricing, underwriting, investment quality etc., i.e. a very large number of factors that a regulator cannot conceivably monitor. Regulation of one dimension tends to simply shift risk-taking to other dimensions, in this case offering other lines below cost. The solution is **not** to regulate prices in all other lines, because this will simply shift risk taking to other unregulated dimensions that regulators cannot observe, while at the same time distorting prices in ways that impede competition and efficiency in the markets for insurance.

The Director of Development at Wafa noted that insurance has increased utilization. This underscores the need for development of better strategies for controlling insurance-induced overuse (moral hazard). For large groups, rating strategies that include some risk sharing with the customer (e.g. retroactive premium adjustments, dividends, and experience rating) are being developed and should be encouraged. They create incentives to conserve on the part of policyholders, and reduce risk to the insurer, which in turn permits a lower premium. There is also a need to monitor various types of fraud (e.g. false claims, overbilling, double billing, services not rendered).

The companies that we spoke to are considering new products and understand the need for lower cost products. This is very encouraging. Lack of information is not likely to be a problem in the long run. This is a relatively new market and some start up costs related to information are to be expected. Participation by foreign insurers, which has only been admitted recently, could increase the flow of information by drawing on experience in other lines. Information of two types is needed. The first is information about the types of policy design that might be used to control costs and deliver benefits more effectively. Here, experience from other countries may offer useful lessons and technical assistance could be valuable. The second type is information about practice styles, utilization patterns and outcomes of providers, that can be used for selective contracting. Such information does not yet exist in Morocco, although some of the large insurers have the capability to develop it from their own databases.

Although there are potential gains to sharing certain types of provider-based information among insurers, e.g. on outcomes, in general sharing of information on insurer loss experience should not be encouraged. In order to be valuable, information sharing must relate to similar policies. Thus setting up an information-sharing mechanism tends to stultify competition and innovation in benefit design.

Insurance coverage would potentially be increased if it were made mandatory. However the availability of insurance products under such a mandate would depend on the response of the insurance industry. There appeared to be support or at least acceptance of mandatory benefits as long as certain conditions are met:

- a minimum set of benefits should be required, but prices should be allowed to vary
- there should remain a free market for at least non-basic benefits
- basic benefits should have a high deductible (10-25,000 DH were mentioned)
- there should be transparency in claims for monitoring use
- fraud, misuse, and abuse of the system are controlled

These last two conditions may require more cooperation by providers, including provider identification numbers, to facilitate monitoring of use by providers and matching of claims by providers and policyholders. It was also noted that a single rate of contribution may distort incentives to contain costs and may compromise equity.

At first the private insurer representatives we spoke with were pessimistic regarding the applicability of HMOs in Morocco. However, this may have been based on a misunderstanding of HMOs and on associations with the CNSS polyclinics. Once the definition of an HMO was clarified, private insurers were supportive of the concept. They expressed enthusiasm for managed care principles such as paying providers on a risk-based or capitation basis, selective contracting, and incentives for early and preventive care. This suggests a need for information to correct mistaken impressions about the continuum of managed care strategies and provider-insurer arrangements that might be used. (See Part II, Managed Care Strategies.)

Tax-treatment

The employer contribution to health insurance premiums is exempt from income tax and other payroll taxes. Since the average marginal tax rate on the total of these taxes is 30-50 percent, this is a significant subsidy to employer-provided coverage. This form of subsidy is inequitable for several reasons. First, it discriminates against non-employment coverage, since it is available only to those who obtain insurance through employment. This is surely one factor contributing to the fact that virtually all insurance is employment-based in Morocco. Second, it is regressive, because the value of the subsidy depends on the employee's marginal tax rate, which increases with income. It is also costly to the government in terms of forgone tax revenues. This means that in order to raise any given level of tax revenues, marginal tax rates must be higher than would be required in the absence of the exclusion. Higher tax rates in turn fuel incentives to avoid taxable activities. This is a serious problem in any country, but is particularly acute in countries where the taxable sector is a small fraction of the economy, marginal tax rates on that sector are high, and evasion into the untaxed/undeclared sector is a real possibility for many firms.

Excluding employer contributions from taxable income of employees is also inefficient. Like any subsidy, it reduces the price of health insurance to the consumer below its true social cost, and thereby encourages purchase of overly lavish insurance. This has the effect of encouraging wasteful use of medical care and fuels the rate of growth of health care costs. It is widely agreed by health economists in the U.S. that a similar tax exclusion for employer contributions is a major factor driving the excessive growth of health care costs in the U.S.

These concerns might at first sight appear irrelevant in the context of Morocco, where the concern is to expand health insurance. However the concern is to encourage the number of people that have cost-effective insurance. The problem with the open-ended tax-subsidy is that it reduces incentives to seek out cost-effective types of insurance, because the employee does not bear the full marginal cost of more lavish coverage. For example, it encourages the purchase of first dollar coverage of routine expenditures, whereas without the subsidy people would be more likely to choose plans with deductibles and insurance only of major expenses. Note that although this discussion refers to the purchase of coverage by individuals, it applies equally to employer provided coverage, under the standard assumption that the coverage provided by employers reflects the preferences of their employees. This assumption, which is made in all economic analysis of employer-provided fringe benefits, is based on the simple logic that an employer has an incentive to minimize its costs of obtaining its desired labor force. Labor costs are minimized by providing the compensation package that is most attractive to workers. For example, if insurance costs the employer 1,000 DH but is valued by employees at 1,200 DH, the employer could provide the insurance and reduce cash wages by 1,100 DH and leave both employee and employer better off.

Main obstacles to growth of private insurance

1. Since people buy insurance primarily for protection against major expense, the availability of heavily subsidized public care for major illness undermines demand for private insurance. The average cost of hospitalization in public hospitals is still quite manageable for a middle income family. Quality is below that desired, but for tertiary care a CHU is still the best option.
2. For more routine expense, it may still be a rational choice not to buy insurance. Buying insurance adds a loading charge of 20-25% and encourages low benefit use which must

ultimately be paid for through a higher premium. For example, if an individual expects to spend 500 DH on medical care, moral hazard could increase this to 600-700 DH, the administrative load adds, say, another 25%, leading to a total cost of insurance of 750-875 DH. This is more than 50% increase in cost of medical care. The additional care used is worth something, but less than its cost, by definition. Thus, unless one is very risk averse it would be better to remain uninsured. This is even more true if providers charge higher fees to insured patients, which may sometimes occur.

3. The fact that the population is basically young and healthy also reduces the demand for insurance. Interviews revealed that 40-50 percent of **insured** individuals use no care in a given year (at least make no claims). Since the insured population is likely to include disproportionately those who anticipate medical needs and is subject to moral hazard of having insurance, this suggests that those who currently remain uninsured may have very low expected medical expense, in which case insurance is of relatively low value (particularly given the public system for catastrophic coverage). There is little reason to force them to have insurance, other than to force less reliance on the public system.
4. Obviously, people would be more likely to buy insurance if insurance products controlled moral hazard-induced excess use (and prevented physicians raising fees). There are several regulatory/legal/code of ethics obstacles to offering more cost-effective insurance products. These include: freedom of choice requirements for patients and restrictions on selective contracting only with preferred providers, obstacles to capitation and salary payment of physicians, and informal impediments to price competition among doctors. Efforts to remove or mitigate these obstacles should be given high priority.
5. There is very encouraging evidence that, due to the increased supply of physicians and resulting increase in competition, a few more cost-effective insurance products are being developed. It is too early to judge the effects of a wider range of insurance products on the demand for coverage. It would be most unfortunate if the new law stultified these developments.
6. Demand for medical reimbursement insurance is further undermined by the compulsory contributions to the CNSS. CNSS benefits include cash sickness payments which are a form of quasi-health insurance, although not restricted to medical care and long term disability payments. The total CNSS contribution to various forms of insurance is a very heavy tax on workers in the declared sector. This presumably reduces their willingness to contribute to another form of insurance. Insurance for workplace accidents and auto accidents is also already mandatory. These are probably among the most frequent causes of need for care for young workers. The existence of this coverage therefore also undermines the demand for a more general health insurance coverage.

Mandatory health insurance

It is clearly true that mandating will expand insurance and hence potentially expand the business of the insurance industry. Thus it is not surprising that insurers would endorse it provided that it leaves premium flexibility. However, as already noted, a significant expansion of insurance without a mandate might be achievable.

If insurance is to be mandated, only basic medical benefits should be covered, including preventive care that has been shown to be cost-effective, with significant copayments and excluding treatment abroad. The participation of CNSS clinics as insurers may be undesirable, and certainly should not be obligatory or favored.

A uniform fee schedule would be undesirable as the exclusive basis for reimbursement. That precludes capitation, flexible bundling of services with prospective payments for the bundle, and other innovative reimbursement strategies. The experience of other countries (Canada, Japan, Germany) indicates that, when faced with a system of national health insurance, the medical profession tends to prefer uniform fee schedules, because this preserves more freedom of treatment and involves less risk and less hassle. It is also less hassle for insurers. But that does not mean it is better for patients. In the long run, volume increases, costs increase and this leads governments/insurers to adopt expenditure caps in order to control total costs. This is an extremely inefficient method of allocating health care resources and limiting the growth of expenditures. If insurance is to be mandated, benefits to Moroccans will be maximized if insurers are allowed to compete on ways to deliver the required minimum benefits in the most cost-effective manner. Competition in the design of reimbursement and provider/ insurer contracts is beginning to take place and it would be unfortunate if this were stifled before the benefits have been realized.

In our view, it is far from obvious that the overall benefits of mandatory coverage would outweigh the costs. But many of the costs and benefits have not yet been studied, even to the extent that existing data permit, and the distributive questions are necessarily a matter of judgement.

Likely Effects of Mandating Health Insurance

One likely effect of the proposed mandatory health insurance coverage would be to force all workers in the declared sector to spend more on health insurance and health care. Even if the mandate is placed on employers, in the long run the costs will be borne by workers, either in the form of lower wages or fewer jobs. This mandate is effectively an increase in taxation of workers, with a requirement to spend the proceeds on health insurance that workers value at less than it costs. If they valued it at cost, they would likely have bought it voluntarily (absent misperceptions etc.).

Some of the additional care may be worthwhile, but some will not be, particularly if insurers are forced to offer lavish benefits and barred from competing on price, benefit design, and cost control strategies. Similarly, some of the additional financial protection will be valuable but much will not be worth its cost, particularly if the law requires extensive coverage.

Thus the mandate forces workers to spend more on health insurance and health care than they appear to want to. This health insurance "tax" will be less if the minimum benefits include only those proven cost-effective and the financial protection is for catastrophic costs, not routine costs.

If the law mandates contributions as a fixed proportion of salary, regardless of age, family size, etc., this implies cross-subsidies that may not necessarily be consistent with notions of equity. The principle of solidarity suggests a system of subsidies from the haves to the have-nots. But no study has been done yet (although such a study could be done on the CNOPS data) to determine who really benefits and loses from a system that requires contributions at a rate proportional to income. Not all high users of medical care are the most poor or in need.

Since the mandate substantially increases the total insurance tax on the declared sector, it is likely to increase incentives to operate in the undeclared sector. This shifting will reduce total

government revenue, unless income and other tax rates on the declared sector are increased, which will further increase incentives to operate undeclared or simply not to operate at all. Given the high rate of unemployment and the small taxable sector in Morocco, these effects should be given serious study before implementing a law that adds a 6% tax over and above existing very high tax rates.

Those most likely to lose their jobs are those who are currently working at minimum wages, since the minimum wage floor prevents wages from adjusting downward to maintain constant the total cost of compensation to the employers. If the law is enacted, the minimum wage should be redefined to include contributions to health insurance (and other payroll taxes), in effect reducing their minimum wage.

If the open enrollment requirement is retained, self-insurance will cease to be attractive to employers. This is unfortunate, since this may be a relatively low cost way of providing insurance.

The major beneficiaries of this mandate are medical providers, since the demand for care will increase and competition is probably not sufficiently strong to eliminate excess profits, at least in the short run. Insurers may gain, but only if there are barriers to competition and entry, and they manage to control the regulation. If rates are regulated at inadequate levels, insurers will withdraw from the market.

If the objective is to expand insurance by a mandate, the goal could be achieved at less distortion to employment by simply placing the mandate on individuals; i.e. all individuals with income above a certain level would be required to obtain insurance. They could get this coverage through employment or through any other means, for example, another group or individual cover. Whether or not it is feasible to enforce such a system in Morocco would be worth addressing before placing the mandate on employers.

Conclusion

It appears that a significant expansion of insurance could take place without making insurance mandatory if some of the regulatory obstacles to offering more cost-effective insurance products were removed. This includes eliminating obstacles to competition among physicians, including uniform fee schedules and requirements that all have access to the same contracts offered by insurers. Insurers should be permitted to contract selectively with providers that have demonstrated an ability to deliver good quality care at reasonable cost. Regulation of rates for life and other forms of insurance should be modified, to prevent distortion in competition and inadequate rates for health insurance.

PART II: MANAGED CARE STRATEGIES

by Harold Hunter, Frank Abou-Sayf, Allison Percy, and Larbi Jaidi

Managed care strategies, including HMOs, are one way of controlling rising costs of health coverage. Assessing the extent to which such strategies might be applicable to the Moroccan context, and the feasibility of initiating an HMO or managed care experiment in Morocco, is the purpose of this part of the report. First, the methods currently used in Morocco to reimburse providers are reviewed. Next, an analysis is made of the possibility of implementing a new reimbursement approach, namely the HMO, which is one managed care strategy.

A. CURRENT ALTERNATIVE REIMBURSEMENT SYSTEMS

Currently, the most common type of insurance coverage in Morocco involves retrospective reimbursement of the patient. The member pays for the services and files the necessary documents with the insurance company to be reimbursed. Reimbursement may take months after submission of the appropriate documents, although reimbursement by private insurers is reported to be considerably quicker than that by CNOPS. Private insurance companies normally reimburse members a percentage (usually 70-90%, depending on the contract) of the actual medical costs incurred, while the CNOPS and mutuels reimburse a percentage of a set fee schedule, resulting in an average rate of reimbursement of actual expenses incurred of about 55% (see Table 2 in Part I).²⁷ Recently, CNOPS and private insurance companies have developed alternative reimbursement systems which provide for third-party payment by the insurer directly to the provider, with or without a copayment by the member. These arrangements are, to date, restricted to surgery, inpatient care, and other high-cost items which members would have difficulty paying for up front. A description of the various types of arrangements follows.

1. Fee-for-Service Reimbursement Schedules

a. Determination of Fees

Fee-for-service schedules are the most widely used types of agreement. They can be in various forms:

- reimbursement based on billings, within set ceilings for the total expenses actually incurred: this type is common between providers and private insurance companies. In this case, the official fees established by the GOM are used only as guidelines to dissuade providers from overcharging.
- reimbursements based on a fixed, official schedule, but without ceiling on the total level of expenditure: this type is used by the CNOPS and by the Mutuels.
- reimbursement based on fees fixed in a contract between the insurer (CNOPS, employer, private insurer) and the provider (private clinic, etc.). Fees are normally fixed at rates corresponding closely to the official fee schedule.

²⁷Pharmaceuticals are reimbursed as a percentage of their cost rather than based on a specific fee schedule.

A complete description of the structure and implementation of the official fee schedule or nomenclature can be found in Appendix 2. The official nomenclature is established in regulatory law by the MSP in collaboration with other government agencies, CNOPS, and professional organizations. In general, this nomenclature establishes a coefficient for each type of service depending on its complexity. These coefficients are multiplied by *lettres clés* for each category of service (surgery=K, lab test=B, radiology=RZ, consultation=C, etc.). The *lettres clés* are assigned monetary values which differ by provider--public hospital, CHU, private provider, etc. The charges for hospital days (including room and board) are also determined in the same set of regulations based on a classification of hospital beds.

b. Reasonability of Fees

The official fees are based on a cost estimate of various services that was published in December 1984. Before 1984, they had not been modified since 1975.

Nearly without exception, the fees charged by private medical practitioners exceed the official fees. The difference between the two fees varies depending on the service and on the location of the provider. The difference is larger for surgical services than for medical and outpatient services. It is also greater in large cities. This difference can be as much as three times the official fee.

The following reasons are cited by private physicians to explain these differences:

- the official fees are not based on an objective estimation of the cost of medical services.
- the update of the fees is not conducted regularly: the last update was done in 1984.
- the cost of hospital rooms is not sufficiently differentiated based on their quality or class of service.

c. Implementation

The classification of services into an official nomenclature was originally conceived as a tool to limit costs. In actuality, it has not served this purpose. By not addressing the number of services, this approach contributes to increased spending. The growing pressure on the cost of medical services in the last few years has encouraged providers to protect themselves against its effects by increasing the number of services. In addition, physicians within a geographical area have often developed implicit agreements on prices that are well above the official rates allowed by law. Few if any attempts are made by the government to enforce the "official" fees in the private sector.

In addition, the categorization of services into groups has made it poorly representative of the complex reality of medical interventions. Thus, the fee for a visit is irrespective of its duration. This deficiency encourages multiple visits for what could otherwise be treated in a single visit.

Finally, the terminology is inflexible and has not evolved with medical technology. As a result, providers tend to distort the definition of the service and to equip themselves with modern equipment that will allow them to be reimbursed more favorably. Some equipment also allows them

to increase the number of services provided, thus reducing the unit costs and increasing their net reimbursement.

2. Per-Case Reimbursement

Per-case reimbursement is relatively new in Morocco and remains less common than fee-for-service arrangements. It is limited to two types:

- contracts between the CNOPS and polyclinics and private clinics, and
- contracts between some public employer groups and physician offices.

About six or seven months ago, the CNOPS provided private clinics with a suggested per-case fee schedule that was approved by the national and regional medical associations (*Ordres des Médecins*). The medical associations did not mandate participation, but rather left it to the individual physician and/or clinic. This approach is, however, not recent. It was introduced by CNOPS about ten years ago for certain categories of care, but was abandoned by both parties using it. Providers criticized the slowness of reimbursement, while the CNOPS complained that providers had increased the volume of services following establishment of the schedule.

Recently, the CNOPS decided to attempt to repeat the experience in a modified form, limiting it at first to private clinics and to some physician offices where some high-cost interventions take place (laser ophthalmology and angiography). One reason for the renewed interest of CNOPS in developing contracts with private providers was its growing dispute with the CNSS polyclinics, mentioned in Part I.

Since their creation, the CNSS polyclinics had established an agreement with the CNOPS to accept 100% third-party payment for treatment of CNOPS members. This agreement is presently suspended, and the two parties are presently in litigation concerning the number of pending claims and the reimbursement amounts due.

On the other hand, private clinics that have signed contracts with CNOPS have apparently decided that they allow sufficient room for maneuvering and continue to use them selectively. Increasing competition within the private medical sector and weak demand have encouraged private providers to retain their mutualist clientele.

a. Determination of Fees

Fees are established for two unit types of service:

- a hospital day for diagnostic services and medical cases, including room and board and ancillary services, and
- the complete treatment of an inpatient episode. Episodes are classified into five categories based on the complexity of the case. The fee includes all expenses incurred (hotel costs, drugs, lab tests, follow-up, etc.) and does not depend on the length of stay.

Here too, calculation of these fees was not based on actual charges. Rather, they were determined from the official rates and took into consideration the financial requirements of CNOPS.

b. Reasonability of Fees

Private clinics estimate that the CNOPS per-case fees are far from representing actual costs. Increased competition forces new clinics in particular not to reject this schedule. However, they use it selectively: those treatments (particularly minor services) which are reimbursed somewhat reasonably are accepted, while others with unreasonably low reimbursement (particularly expensive treatments) are not. Contract fees are applied only to those services for which the clinic believes the fees cover their actual costs.

Of the clinics which do participate in the CNOPS contracts, many are outside of the Rabat-Casablanca corridor and thus have lower fixed costs. Other clinics have refused outright to participate.

c. Implementation

In practice, the application of the schedule defeats its cost-saving purpose. For per-case schedules, clinics often accept or reject patients under the contract based on whether the patients have the means to cover the difference of the cost out of pocket. For per-diem schedules, physicians keep patients longer than needed to make up the cut in fees.

B. MANAGED CARE UNDER PRESENT CONDITIONS

This section will examine the possibilities for developing prepaid health care in general, and HMOs in particular, both under the present conditions and following the implementation of the draft law on mandatory insurance.

1. Legal Status

A number of legal and ethical code hurdles exist today that prevent the development of a prepaid health-care system in Morocco. These hurdles, which are listed below, need to be removed or waived if the development of an HMO or other managed care arrangement is to be implemented in Morocco.²⁸

a. Group Practice

At present, the MOPH licenses physicians to practice only on an individual basis in the private sector. This restriction applies neither to the public sector nor to CNSS clinics. While a few

²⁸The national medical association, the *Ordre des Médecins*, is in the process of revising the code of medical ethics (*Code de Déontologie*), which has not changed since independence. The contents of the new code are not yet known, but will have an important effect on the development of new alternative delivery and financing strategies in the health sector.

group practices have begun to develop in some areas, the legal status of these practices remains unclear, leading to difficulties in obtaining credit, etc.²⁹

The fact that a medical enterprise has no legal status has been clearly expressed to this team as a major concern and hindrance by private sector physicians. This problem is all the more acute for the development of HMOs in Morocco. Closed panel or network model HMOs cannot exist without group practice, although other types of managed care can work with physicians in solo practice, such as preferred provider arrangements and gatekeeper models where the provider is put at risk through a withhold from fee income.

b. Salary Compensation

According to the code of medical ethics, there must be a direct payment relationship between physician and patient. This requirement is interpreted by most people as forbidding private physicians from being compensated on a salary basis (although physicians in the public sector and CNSS and mutualist clinics are salaried). Before the implementation of HMOs, this requirement may need to be waived. Alternatively, payment might be made on a regular basis like a salary but be derived from fee revenues, thus not breaching the law.

c. Patient Freedom of Choice

The same code of medical ethics states that the patient must have the freedom to choose his/her provider. This freedom seems to be strongly protected by the medical community and is reiterated in the draft law.

Whether HMOs will fit into this law seems to be a matter of interpretation. One interpretation in favor of HMOs would consist of considering the member as choosing the HMO providers and then agreeing to limit his/her care voluntarily to these providers in return for other considerations. A more authoritative decision on this matter needs to be made.

d. Physician Freedom to Prescribe Treatment

This is another element dictated by the code of medical ethics. The physician must be free to prescribe any treatment that he/she sees fit. In all likelihood, this situation will not be seriously altered in a managed care environment. Nonetheless, the sometimes serious pressures imposed through utilization review in HMOs, as well as pressures imposed by the provider's peers, may be interpreted as diminishing the physician's freedom to prescribe the preferred treatment. Here too, a more authoritative decision needs to be made.

²⁹See Day et al. (1991) for a more thorough description of some of the legal and regulatory obstacles facing private sector physicians.

e. Insurance Status

Another issue will be the regulatory status of HMOs. In some state in the U.S., HMOs are regulated under the insurance laws, while in other states they are regulated under different statutes. The regulatory status of any HMO in Morocco will have important implications for its operation and will need to be clarified early in the planning process. This issue needs to be looked into as soon as possible.

Unfortunately, the draft law does not address or solve any of these issues, other than reiterate some of them. It would be consequently expected that passage of this law will not in itself alter the legal situation facing HMOs.

2. **Competition**

It was argued above that HMOs can only exist in a competitive marketplace. Today, competition is severely limited by the existence of insurance monopolies for government employees (the mutuels) and by structural problems within the private insurance industry.

Under the draft law, which will constitute the framework for HMO operation as well as for other insurance approaches, competition is restricted even further by mandating in addition other aspects, notably the plan's benefits and the rate and mode of calculation of premiums. A more detailed analysis of these aspects of the draft law is presented in Appendix 3.

3. **Clinic Networks**

The strength of an HMO is partly determined by the comprehensiveness of the services it provides (thereby minimizing referrals, see number 5 below), and by accessibility to the preferred providers that make it up (thereby attracting more members and improving its risk pool). Consequently, many private and semi-private clinics of a typical size and specialization will need to enter into a network agreement to succeed in an HMO model. Although some multispecialty clinics do exist, there is no experience as far as the legal framework within which network agreements among smaller clinics will take place. As a result, HMOs in their early stages may be marred with legal and financial problems resulting from using such new formulas for clinic networking.

Here too, the draft law does not address the modalities that will govern clinic networking.

4. **Group Versus Individual Enrollment**

A rather elementary underwriting principle is that enrolling groups of employees generally results in averaging out the risk, assuming that healthy and unhealthy members are randomly enrolled in any specific employment group. Conversely, enrollment of individuals may result in substantially high risk, since individuals may pick and choose insurance products based on the individuals' immediate needs.

The issue of whether an HMO will be allowed to offer individual enrollment needs to be addressed. Interviews conducted with private-sector physicians who are clinic owners indicate that they are averse to individual plans. On the surface, it does not appear that the elimination of

individual plans will create a problem in the short run, when mostly government and large-industry employees will be subject to the mandatory coverage law.

5. Referrals and Outside Services

Referrals and outside services could constitute a major source of problems in setting up HMOs. A referral is a service that the HMO physician group cannot provide in its network and consequently authorizes the patient to seek elsewhere. Referrals are costly to the physician group if it is liable to pay for them; hence the need to offer as many specialties as possible within the network. It is at this juncture that managed care may be most effective if the gatekeeper is careful and selective. Further, the scope of referral is limited by contract and subject to review. Uncontrolled referrals and poor accounting of them was a major reason for several HMO bankruptcies in the U.S.

Based on interviews conducted with physicians who are clinic owners, physicians feel strongly against being liable for referrals. If the clinic owners cannot be convinced to accept liability for referrals, a limited number of alternatives remain:

- Contract only with large multispecialty clinics or clinic networks with a large number of specialties. This alternative will substantially limit the number of candidates for HMO development.
- Contract with smaller clinics, but only for limited services. This alternative will substantially limit the ability of HMOs to provide cost-effective care.

Outside medical care is care that the member seeks outside the HMO network with no authorization from an HMO physician. Here too, physician sentiments were even more strongly expressed against being financially liable for such services. With the exception of emergency care, it is conceivable that outside medical care can be excluded in an HMO agreement. In this case, the patient would be liable for the total cost of care. However, it should be ascertained whether this restriction is considered to limit the member's freedom of choice of provider.

6. Utilization Review

An essential component of HMOs is their consent to utilization review by an outside agency subject to a well defined protocol of care. Although new to the medical practice in Morocco, the process of utilization review seems to be tolerated by the medical community as reported in interviews with this team. However, this toleration exists only when the reviewers are medical doctors (*médecins de contrôle*). This condition is understandable and does not seem to create any problem of significant magnitude.

7. Size of the Risk Pool

Because the establishment of HMOs in Morocco is a new experience, the total demand is largely unknown. At the micro level, there is even greater uncertainty as to the number of HMO members that will subscribe to a particular set of preferred providers, that is, to a particular HMO.

Another elementary underwriting principle is the law of large numbers. Simply stated, this means that the larger the membership pool, the less severe the insurance risk. Given this phenomenon, the question arises as to what is the minimum number of members that have to subscribe to a particular HMO to make the endeavor actuarially viable. Furthermore, should the government interfere, through legislation, to set up a minimum number of enrollees to qualify a group practice for an HMO for the group's own sake?

8. Outpatient Coverage Only

Given the Moroccan reality, a potentially interesting scenario for HMO coverage can develop, and is described below.

Because of the prevalence of a relatively large number of independent physician offices and the availability of publicly subsidized inpatient care, it may be attractive to offer an HMO version where an office network would cover members for outpatient services only. This arrangement is attractive, especially in the early stages of managed care in Morocco, because it limits the risk to the provider. However, safeguards must be ensured to avoid the tendency to refer patients readily to inpatient settings.

C. HMOS AND OTHER MANAGED CARE PRODUCTS

1. Definition

Despite the presence of alternative payment systems in Morocco, the demand for an HMO product is not yet established or understood by physicians, purchasers, or the public. By the term health maintenance organization is meant: 1) an organization that is prepaid by persons or groups who buy the service; 2) that this prepayment is on a regular (usually monthly) capitation basis and 3) that the HMO -- which is the insuring organization -- bears risk against costs exceeding revenues.

The term HMO has been largely supplanted in the U.S., where it originated, by the term managed care or coordinated care. However, managed care includes plans which are essentially fee for service, such as preferred provider organizations in which the physician or other provider of service is paid on a discounted charge or fee-for-service basis. Such alternatives currently exist in contracts (*conventions*) between insurers such as CNOPS or private firms and clinics for a bundled set of services encompassing an episode of illness or event such as a delivery or surgical procedure. Although per case payments seem to be largely confined to surgery and have not reached the sophistication of payment by diagnostic related group (DRG), these arrangements would seem to create incentives to providers to be judicious in the volume of hospital days and ancillary services delivered. Yet, the true benefits of a prepaid system depend on changing incentives from giving more services to conserving use of services. In the HMO in the U.S., this is accomplished by putting the provider or insurer at risk, by controlling behavior of providers through group norms or peer pressure through utilization review, or by making excessive utilization less profitable by paying the provider a fixed monthly fee for each member (capitation).

There are several models of HMO that are recognized, each of which has a different organizational configuration and payment methods. The **staff model HMO** consists of an organization that employs the physicians and may own or contract with hospitals. The HMO collects the premiums, sets the rates, and bears the risk. Physicians are encouraged through bonuses, norms

of practice developed through the "medical culture" of the organization, and mutual interest in the financial health of the HMO to use care in admitting and discharging from hospital and prescribing drugs and ancillary services to patients, though few formal monetary incentives are used.

In the **group or network model**, the HMO, which is essentially the insuring organization, contracts with a single group or multiple groups of physicians. The group is generally paid on a capitation basis. Sometimes this capitation payment is set as a percentage of the total capitation paid to the HMO by the employers, unions, or individuals who purchase the product. This is known as a sub-capitation. Other times the group is paid a fixed fee adjusted to reflect utilization of services. Group model HMOs involve the group practice of medicine to optimize coordination. Incentives in the group model are shifted to the providing group, which must allocate its group capitation among individual providers. This involves balancing the income requirements of different members of the group with the maximizing of prepaid revenues and profitability. With a group formed solely for the purpose of serving HMO members, this presents fewer problems. For an existing group with existing fee-for-service business (which would be the majority of participating providers), two different sets of incentives are operating. For capitated HMO patients, income is maximized by hospitalizing less, prescribing less, and ordering fewer tests. For the remaining patients, the financial incentives clearly favor more service. This difference becomes more acute when there are many non-HMO patients and where there are a high proportion of surgical specialists in the group.

In Morocco, the question of group practice is subject to legal interpretation. Must a group form a *société anonyme* equivalent to a corporation with limited liability, or can a partnership agreement be developed that would allow sharing facilities, equipment, and revenue without violating Moroccan law and medical ethics?

A number of managed care and collective financing approaches, other than HMOs, could be considered for implementation in Morocco. These are areas that may be addressed in the proposed small grant and loan guarantee programs, as well as by private sector or semi-public investments.

Preferred provider organizations (PPOs), sometimes called Preferred Provider Arrangements, are essentially contracts with physicians, pharmacies, and other providers of health care by an insurer or purchaser (e.g., an employer) in which the provider agrees to discount their usual and customary fees or prices in return for being designated a preferred provider. An employee or insured person using a preferred provider obtains a discount, usually from 10-30%. Thus, the consumer obtains care at lower prices, while the physician or other provider gets a larger number of patients or customers by being designated a preferred provider. In addition, preferred providers agree to abide by utilization review and quality assurance mechanisms (i.e., be managed). The consumer has the incentive to use preferred providers but is not locked into using them as in a closed panel HMO.

The providers do not bear insurance risk, nor are they employees of the purchaser or insurer of care. The advantage of these types of arrangements are:

- 1) they may save money for the insurer through discounts
- 2) they may save money for the patient
- 3) they allow control of utilization and may facilitate quality assurance

PPOs, however, may have the disadvantages of:

- 1) narrowing consumer choice
- 2) complicating the management of medical practice

Utilization review is often included to prevent physicians from increasing volume. Sometimes only preferred providers may be used, in which case the consumer is locked into an Exclusive Provider Organization (EPO).

A PPO is one of several point of service (POS) plans where the patient decides whether to use the network at point of service but pays a price to go outside the network. Open-ended HMOs are another type of POS option.

An **individual practice association (IPA)** is a group of physicians or other providers which contracts with an HMO or other insuring organization on a prepaid basis and which in turn pays its members on either a capitation or a fee-for-service basis, often with an amount withheld to act as an incentive to utilize specialist, ancillary, or hospital referrals appropriately.

An IPA arrangement allows the physician to maintain his/her own independent office but receive payment through the IPA from an HMO. In theory, the IPA physician is insulated from control of his practice in this form of organization. In reality, incentives to contain costs and practice a certain conservative style of medicine depend on the proportion of HMO patients, the rules of the IPA that mandate review of case records, and the form of payment to the physician. Some physicians who participate in IPAs are paid through capitation, but the majority are paid on a fee schedule with a proportion of fees held back in a risk pool. If utilization is under the predicted rate (hospital days, ancillary services, specialty referrals, or even drugs could be at risk), the doctor gets a bonus; if utilization is over the predicted (pre-budgeted) rate, he gives up a portion of the money set aside. The incentives, therefore, are again to render few services. Both physicians and hospitals can be put at risk.

With a PPO or an IPA, legal issues may arise in Morocco about free choice of doctor. In the PPO case, as long as the choice exists, albeit at a higher price, it may be legal. Fortunately, antitrust issues are not a factor.

The possibilities are multiplied when one considers that hospitals may be owned or contracted by the HMO. Hospital contracts may be on a bundled per case basis, a per diem, or may be subcapitated to bear a greater degree of risk. If an asset such as a hospital is owned by the HMO, the risk is the variable cost of an occupied bed. In addition, a single HMO may contract with groups, individual physicians, and hospitals, and may also have its own staff model plan.

Another type of managed care is a **single service product**. In the U.S., this type of product exists for mental health services most often, but also for dental care, chronic care, or even specialized providers such as chiropractic. This is also known as a "carve out" (since they are separately insured). In Morocco, this type of managed care product may be applicable to insuring pharmaceutical services. Pharmacies may be PPOs reimbursed on a fixed fee and incorporating patient deductibles and copayments.* The level of benefits (copayment level, ceiling, exclusions, etc.) would determine the premiums within bands of risk. The advantage would be greater predictability and continuity of pharmacy services as well as control of costs through a pre-set dispensing fee. The disadvantage is that pharmacy utilization depends on health status and physician prescribing practices. Some economies, nevertheless, could be effected through formularies and restrictive drug lists,

monitoring of claims to prevent duplicate drugs, and drug utilization review. Whether generic substitutes exist for most drugs is not known but could make a difference in unit price. Managed care carve outs may have potential in Morocco if the patient, purchaser, physician, and other providers are incentivized and informed.

General Principles of Managed Care

In general, managed care techniques involve:

- Restriction of providers and selective contracting with efficient and cost-effective physicians, hospitals, pharmacies, etc.
- Incentives for less expensive practice patterns (i.e. referrals, hospitalization, etc.)
- Peer pressure through coordinated group practice or salaried practice
- Utilization management either prospectively (e.g., second surgical opinions), concurrent review, or retrospective review of claims

Often these techniques are incorporated into the **gatekeeper model**, in which the primary care physician is financially responsible for the patient and is at risk for hospitalization, specialty referrals, or other services. The advantage is that overutilization is minimized if incentives are sufficient. Disadvantages include patient bypassing the primary care physician and paying out-of-pocket for expensive services, underutilization, and skimping on services.

Finally, in a system where there is consumer choice, especially with internally subsidized rates, sicker and higher using people will opt into the most comprehensive plan, while those who are low users (such as the 15% of government employees who do not contribute to CNOPS mutuals) will stay out of the insurance pool. The higher users make more demands on the system, further driving up the costs and driving better risks out of the insurance plans. This may be prevented by limiting the number of choices available or carving out high cost services, creating an assigned risk pool that would distribute high using enrollees among different plans, or making the government the insurer of last resort. In some ways, this exists now with the nearly free public system.

There are a number of ways an HMO in Morocco can develop a more flexible organizational format to meet legal requirements and the preferences of patients as well as companies and governmental agencies that act as agents to buy health care.

- Adjusting rates by age and sex (community rating by class)
- Adjusting copayments and deductibles based on group experience while leaving premiums unchanged
- Offering a **point of service option** (partial reimbursement if the member seeks care outside the plan) to enrollees of closed panel plans (i.e. staff or single group models)
- Reinsuring on an aggregate or per case basis beyond a limit of expense

- Incorporating retrospective, concurrent, or prospective review of utilization. Pre-approval is usually required for surgery or expensive treatment.
- Careful selection of physician participants. This is important in all model types.

Non-Managed Care Approaches

- **Voucher System**

A type of financing which would not depend on employment or a policy with an insurer or managed care company is a voucher system, in which the government gives each person a voucher based on the income of the individual which could be used to purchase health insurance. Such a system might be appropriate in a system of publicly subsidized insurance for certain low income groups. This alone would be the antithesis of managed care, yet it would be the essence of free choice. One concern would be whether the vouchers could be able to be sold or redeemed for cash. A person may use the voucher to buy an insurance plan with managed care features. The advantage of this system is that a person could buy exactly what they value, be it medical care when they are sick or insurance protection when healthy. The danger is that persons would not make good choices for the long run and may find themselves in need of care but with the voucher expended on other goods and services or unnecessary types of care. The relative lack of information and market power of individual consumers could compromise the equity and efficiency of any voucher arrangements.

- **Public Sector Investment**

Another strategy that should be studied is government investment in the public system, to actively compete with the private sector. This would involve creating private sector incentives in the public system for managers, physicians, and employees, a customer service orientation, and marketing of services. Another aspect would be regionalizing and vertically integrating the public system, expanding and downsizing when appropriate, and tracking costs and revenues.

2. Demand for HMO Products in Morocco

As noted, alternative reimbursement systems are starting to take hold in both the private and governmental sectors. Contracts between insurers and providers give members discounted services at a limited number of providers (similar to preferred provider arrangements in the U.S.). Capitation payment and greater organization of health care delivery would need to be added to complete the picture to conform to the common definition of the HMO. However, the team encountered a common misunderstanding of the term HMO in Morocco: most individuals who had heard of HMOs believed that by definition there would be no copayment for services through an HMO. Although the term has come to connote first dollar coverage, this need not mean no patient cost sharing. In fact, first dollar coverage which creates incentives to use preventive services can be combined with a catastrophic risk protection, and repetitive unnecessary use of the system could be discouraged through patient cost sharing by designing benefits that make unnecessary utilization more expensive in terms of time or out-of-pocket costs.

Several precursors exist for the development of managed care and their evolution into HMOs. Others may develop through industrialization, urbanization, and maturation of the medical industry. Other precursors do not yet appear to be part of the environment at this time.

Some **facilitating** factors are:

- a rapidly growing formal sector
- the increase of women in the labor force, creating demand for routine pediatric, obstetric and family medicine services which contain promise for delivery of preventive and primary health care services³⁰
- a growing number of private insurance contracts.³¹ The development of organized, coordinated systems such as HMOs presume some experience and confidence in collective financing of health care
- an excess of physicians which allows the allocation of medical resources to new forms of organization
- sufficient numbers of hospital beds in most market areas, including well-equipped, well-located private clinics
- a system of wage checkoffs for fringe benefits in the salaried workforce³²
- a system of payment for health care needs of public sector employees through the eight public sector mutuals and their umbrella organization (CNOPS)³³
- concern by employers about the rising costs of health care fringe benefits as a factor of production
- a large number of parastatal firms with a stable workforce and relatively rich fringe benefits
- the increasing acceptance of the group practice of medicine by physicians and the public (although a legal framework for group practice remains to be developed)

³⁰The urban female labor force grew by 12.1 % (from 852,000 to 955,000) in a single year from 1988-1989. Bulletin du Centre Marocain de Conjoncture, No. 3, June 1991, p. 49.

³¹From 1980-1989, the number of health insurance policyholders in Morocco more than doubled from 474,997 to 1,055,251, and the number of beneficiaries of these policies also more than doubled from 1,717,096 to 3,460,878. Moreover, the percentage of these beneficiaries who were covered by private insurance as opposed to mutuals grew from 14 % to 17 %, indicating a rise in the importance of private insurance carriers. See M.N. Guedira (1991), p. 14.

³²See CNSS benefits description in Part I.

³³See description of CNOPS coverage in Part I.

There are reasons to be optimistic about the growth of collective financing through insurance and prepaid group practice plans that contain the essential elements of the HMO. However, a number of factors that could **inhibit** their growth and development also exist in Morocco. Examples are:

- laws prohibiting the corporate practice of medicine
- suspicion of non-public sector solutions by trade unions
- the lack of purchasing power by many segments of the population, combined with irregularity of wages
- the lack of potential fiscal intermediaries among the informal sectors and among small employers
- public perceptions that only tertiary care is valuable
- lack of understanding of actuarial factors in setting of premium rates
- public perception that only the most comprehensive package of benefits should be covered
- lack of understanding by providers of incentives required to implement HMO-like systems
- lack of knowledge among purchasers of care of the concept of dual or multiple choice of health plans

Most of these inhibiting factors can be addressed through marketing and IEC programs, except the first, which will require regulatory or legislative change or reinterpretation. The rest can be remediated through a well-designed communications strategy targeted to the employer community, the worker community, and officials charged with regulating and purchasing health care services for government employees. In order for such a campaign to succeed, regardless of how well targeted and implemented, the actual products must be available and seen to be effective in the marketplace. For this reason, several insurance products, including an HMO-like plan, should be brought to market and offered by several stable, large, visible purchasers of care.

The elements of managing such entities must be developed and any subsidy for startup or initial operating deficits through grants, loans, or loan guarantees needs to contain assurances that the entity possesses:

- fiscal strength
- commitment to a 5-8 year period of breakeven
- quality assurance and utilization management expertise
- ability to strengthen marketing, enrollment, utilization, and cost information systems
- appropriate contracting procedures

- adequate plans, procedures, and expertise in provider relations
- procedures for ensuring smooth enrollee/patient relations
- underwriting and ratesetting mechanisms and controls

Beyond these factors that would be specified in the initial application and business plan, the regulatory environment must be developed. This entails creating and refining the regulations and setting up the regulatory agency. Regulation needs to address fiscal solvency and strength to meet claims and/or service costs. HMO laws often are the responsibility of the same agency that enforces health insurance statutes and, despite separate enabling acts, require either (a) a minimum of reserves as a guarantee fund and/or (b) reinsurance and/or (c) hold harmless agreements with providers. These issues will have to be addressed as a part of any organized effort to stimulate the financing of health care through insurance and other social financing arrangements.

Regulations of insurance products also need to address other consumer protection issues such as truth in marketing, pricing, reimbursement on a prompt basis, and a host of other issues concerning enrollment, benefits covered, contracts, protection against fraud and abuse by enrollees and providers, etc.

The HMO, moreover, has obligations to assure care as well as to indemnify insureds or providers. This brings the regulatory body into the realm of assuring the availability, timeliness, and quality of services as an implicit part of the contract. In addition, if the HMO is a provider of care, other areas of regulation apply, such as licensure of the facility, personnel and equipment requirements, zoning and building codes, and rules concerning the storage and dispensing of drugs and the operation of laboratory facilities and radiology equipment.

Tax issues for an HMO in Morocco would include the payment of a tax on assets as well as on profit (as income tax on individual owners or the *société anonyme*). While health insurance premiums paid by the employer as an employment benefit are not taxed, value added taxes are applied to medical services.

D. Potential Sponsors of Managed Care Plans

The demand for HMO care as a subset of insurance depends on willingness and ability to pay and the availability of substitute sources of financing health care, including: public facilities; CNOPS for public employees; private insurance and self insurance for private firms and parastatals; and, to some extent, CNSS for private sector employees.³⁴ These arrangements are likely to expand as the new mandatory insurance law is phased in. In addition, private clinics may be able to raise the capital for initially funding managed health plans.

³⁴While CNSS does not provide health insurance *per se*, it does provide maternity benefits, sick pay, small family allowances, and some fixed payments to ill members, in addition to operating 13 polyclinics which offer services at lower than market rates.

There are a number of areas that determine if there is a market for managed care products:

- The ability to vary prices and the lack of government price controls

In Morocco, official fee schedules apply to a large part of the formal sector. Competition also exists from the quasi-public CNSS polyclinics offering services at subsidized rates. Although official fee schedules are not adhered to by the private sector, they set a benchmark and may create incentives to increase the volume of services.

- Sufficient purchasing power by potential consumers

This is true for all insurance. However, managed care is generally a supply-side response to escalating costs to purchasers of care. It is difficult to assess if there is enough discretionary purchasing power by employers after taxes, CNSS contributions, and other mandatory payments are made. The government should certainly consider shifting some mandatory contributions to fund the employer share for health insurance premiums.

- Excess physician capacity

Each year, Morocco's medical schools graduate approximately 800 new physicians. Many of these physicians move into private practice after completing their public service requirement. As shown in earlier studies,³³ there is growing evidence of market saturation in the private health sector, leading private practitioners to be more willing to try new service delivery and financing mechanisms in order to compete. Our interviews indicated that practitioners may be willing to try managed care arrangements, although this needs to be assessed in more detail.

- Familiarity by the public and purchasers with health insurance

The concept of insurance presumes a future orientation and a commitment to early intervention and continuity of care, which may not be sufficiently developed in Morocco. This, combined with an appetite for tertiary care, pharmaceutical products, and high technology services, may preclude the rapid development of managed care arrangements.

- Sufficient capital to fund managed care development efforts

Morocco has a fledgling equity market which may be too thinly capitalized to afford the luxury of managed care investments such as HMOs and less stringent forms such as hospital-based IPAs or PPCs. The GOM, assisted by the USAID Mission, may wish to develop a loan or loan guarantee fund for this purpose. One form could mirror the U.S. HMO Act in giving grants for feasibility studies followed by loans during the startup phase. Banks, insurance companies, parastatal firms, and CNSS could be potential lenders and/or borrowers and would have to judge each project by the usual investment criteria. CNOPS and one or more of its component mutuals may

³³See Day, et al. (1991).

wish to manage some of the care provided to their members through a more formal and comprehensive basis than a few contracts with clinics. They may wish to fund these efforts as well. Since, however, some of these entities are not investors accustomed to evaluating risks and returns, some education and technical assistance may have to be provided.

- A medical profession sophisticated in practicing in a more controlled, incentivized environment

This also can be amenable to relatively modest training investments

- Business management capable of administering risk pools and capitated arrangements and controlling utilization and practice patterns

This would require a database that would yield per member per month costs and revenues and an accounting system that not only can accrue income and expenses but can estimate incurred but not reported claims. The insurance industry in Morocco appears to have good MIS systems that, with coding modification, could be able to serve this function. The mindset of managers may be more difficult to change. Perhaps some short term training could be part of the assistance contemplated. Among the areas of management that need to be addressed, marketing, strategic planning, MIS, finance, and accounting would be useful to physicians, investors, and lay managers alike.

- A regulatory agency that functions by promoting competition

The persons charged with regulating health insurance in Morocco have a complex task to assure that companies involved remain solvent, that consumers are protected from abuse by insurers and providers, that competition is fair, and that a reasonable level of quality is assured.

It is tempting to offer prescriptive solutions in a country like Morocco to prevent the duplication of services, gaps in access, and escalation in costs of health services that have plagued the United States. This is particularly true when one sees the number of CT scanners, dialysis units, and other high technology equipment purchased that could be used more efficiently. Yet, the U.S. has witnessed the untoward effects of programs such as certificates of need (capital controls) and mandatory ratesetting (price controls). One can only hope that the stimulus to the health insurance industry by mandatory benefits will not create burdens on the workforce and on export industries. If prices and products are left to the creativity of individuals, perhaps the new law will balance equity and efficiency. The majority of states in the U.S. are debating mandatory insurance. Morocco and the U.S. are in a position to learn from each other and to extend a basic level of health care to those that, through weak labor market attachment or social neglect, have not had access to health care.

D. RECOMMENDATIONS

1. Clarify and provide an adequate legal framework for the group practice of medicine. As stated earlier, the legal framework for group practice is unclear and penalizes entrepreneurial physicians.

2. Allow for a more liberal interpretation of the direct payment relationship between physician and patient to allow salary compensation. Salary compensation can play a role in the structure of some managed care operations, although it is not in and of itself a deterrent to inappropriate or inefficient health-care delivery and in fact raises the danger of skimping on care.
3. Allow the interpretation of freedom of choice to mean freedom of choice at the plan level rather than at the physician level. That is, a member would be allowed freedom of choice between a plan that offers treatment by a large number of physicians versus treatment by a small number of physicians in return for other considerations.³⁶
4. Dual option requirement: Should the HMO model be implemented in Morocco, the GOM may consider passing legislation to require each employer to provide two types of coverage from which each employee could choose one. This requirement would encourage competition for the benefit of the consumer and provide the member with the freedom of choice that is mandated in Morocco.
5. Provide a legal framework that will allow physicians to be partly at risk for members covered. This framework could be regulated under insurance.
6. Conduct a demonstration of a system of health insurance vouchers for people in the informal sector which combines free choice of provider with purchasing power without tying patents to a large employer. This would work better in an urban area.
7. Develop a system to pool contributions to fund health care for irregularly employed workers. This could be aggregated into a fund and augmented by subsidies, much like a health cooperative. This would lend itself to integrated development activities.
8. Conduct a full-scale feasibility study for the development of an HMO or other managed care arrangement(s) in Morocco (see below).
9. Implement a loan guarantee program to encourage the development of innovative managed care arrangements.
10. Conduct a demonstration experiment to assess whether HMOs or other managed care arrangements are able to provide at least the same level of care available under traditional insurance arrangements while reducing the total costs.

AN ALTERNATIVE REIMBURSEMENT MODEL: THE HMO

After a careful study of the health-insurance conditions available in Morocco, it is recommended that a demonstration study be conducted to ascertain the appropriateness of an HMO model in the country. A detailed description of such a demonstration study is provided for USAID's review in a separate report. Conduct of this demonstration study would not be possible for several years; however, a detailed feasibility study for the establishment of an HMO in Morocco can be conducted in the near future.

³⁶As the director of the CNSS stated, one can have limited choice within free choice.

Feasibility Study Parameters

1. Legal and Regulatory Restrictions

A number of potential legal restrictions to the implementation of HMOs were raised and discussed earlier, notably restrictions on group practice, modes of salary compensation, and freedom of choice. The possibility of establishing an HMO under these potential constraints should be closely examined.

2. The New Law on Mandatory Insurance

Although passage of the mandatory insurance aspect of the new law seems to be very likely, the details of the new law do not seem to have been finalized. The feasibility of an HMO should be reconsidered insofar as these details restrict competition. It has been the position of this team that HMOs cannot exist in a non-competitive environment. Consequently, severe restrictions on competition such as those that appear in the last draft version of the law may eliminate the conditions conducive for the establishment of HMOs in Morocco.

3. Cost of coverage

Not enough data were available to estimate the cost of health-care coverage. A best-guess estimate is in the range of 1500-2750 DH per member per year, including administrative costs. A more precise estimate needs to be obtained, and should be made in light of the mandated coverage that will be determined by the new law on mandatory insurance.

Furthermore, issues such as the location of the study, the type of HMO network, the financing agency, and the financing mechanism need to be confirmed.

APPENDIX 1

List of Persons Contacted

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Mr. Abdelkader EL HADDAD, Directeur de la Réglementation et du Contrôle
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Ms. Khadija MESHAK, Chef de la Division des Affaires Juridiques

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Clinique Dar Essalam

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Clinique Tour Hassan

Dr. PAEZ

APPENDIX 2

Description of Official Nomenclature for Medical Services

1. REGULATION OF FEES FOR MEDICAL CONSULTATION AND SURGERY SERVICES

In Morocco, fees for medical and surgery services are set through regulatory procedures. The procedures vary depending on the facility involved: public sector hospitals, medical teaching hospitals and autonomous hospitals (SEGMA hospitals), and private sector hospitals. The quasi-public sector (CNSS polyclinics and mutual insurance clinics) has its own fee system using the public facilities' fee schedules as a reference.

1.1 Public Hospitals Sector

The Prime Minister is authorized to set fees (with the exception of work-related accidents, in which case the Ministry of Labor is the department authorized to set the fees).

Under the current regulations (either a law or a simple ministerial circular), some segments of society or individuals are entitled to free medical care and are exempt from paying hospital admission fees. The categories covered include the poor, freedom fighters and veterans of the army of liberation, prisoners, students, foreigners whose countries of origin have signed a reciprocal agreement with Morocco, staff of the Ministry of Health, and civil servants with work-related accidents.

Fees for individuals subject to payment for health care services are charged at two levels: hospital inpatient care, and outpatient health care services.

Hospital Inpatient Care

The initial law setting daily fees for hospital stays, health care, and surgery services performed in health facilities was enacted on 30 June 1955.

This law, which was to a great extent based on French law of that period, provides the broad guidelines for setting the fees, defines the method for calculating the daily rates for hospitalization (room fees) and prices for medical and surgical services provided during a patient's stay in the hospital, as well as deductions and exemptions.

This law is outdated. The only portions that are still in effect are the provisions pertaining to the calculation of fees for health care and surgery services, deductions and exemptions.

Other laws have amended some provisions of the initial law. In this regard, one should distinguish between:

The Daily Fee for Hospitalization:

This is a fixed sum to pay for room and board and all overhead costs. Over the years, the daily rate for hospitalization has been changed as follows: in 1958 (initial fees), 1961, 1975, and 1982 (readjustments of fee schedules).

Currently, and since 1982, the fees are as follows:

	Private Individual Ward	Ward with 2-4 beds	General Ward
• All Medical categories	60.00 DH	45.00 DH	40.00 DH
• Surgery (all types) and maternity care	65.00 DH	55.00 DH	45.00 DH

Accommodation fees for individuals accompanying inpatients in public hospitals who are provided a private room at their own request are set at 100 DH per person per day including food (decree dated 12 June 1956).

Fees for Inpatient Services:

These pertain to fees charged for specific inpatient services and related health services.

The monetary values of the *lettres clés* (key letters) used to calculate health care and surgery fees and fixed fees for deliveries were set by a decree enacted on 22 July 1957. The schedule of rates has not been changed since then.

C	6.00 DH
K	2.50 DH
Ker (or RZ)	2.00 DH
B	0.50 DH
Normal Delivery	100.00 DH
Twin Delivery	125.00 DH

Hospitalization Fees

This is the total amount owed by the inpatient. It is made up of the total of the two fees above (room + board for total patient days and health care services provided during stay) depending on the applicable fees for the current regulation, and in accordance with the calculation method specified by the regulation.

	Private Individual Ward	Ward with 2-4 beds	General Ward
• Health care	$P_j + C + Z_n + B_n$	$P_j + \frac{1}{2}(C + Z_n + B_n)$	$P_j + \frac{1}{3}(C)$
• Surgery & Specialties	$P_j + K_n + Z_n + B_n$	$P_j + \frac{1}{2}(K_n + Z_n + B_n)$	$P_j + \frac{1}{3}(C)$
• Maternity Care Normal Delivery	$P_j + Z_n + B_n$ + fixed fee	$P_j + \frac{1}{2}(Z_n + B_n)$ + $\frac{1}{2}$ fixed fee	$P_j + \frac{1}{3}(C)$
• Complicated Delivery	$P_j + K_n + Z_n + B_n$ + fixed fee	$P_j + \frac{1}{2}(Z_n + B_n + K_n)$ + $\frac{1}{2}$ fixed fee	
• Cesarian Delivery	$P_j + K_n + Z_n + B_n$	$P_j + \frac{1}{2}(K_n + B_n + Z_n)$	$P_j + \frac{1}{3}(C)$

P_j : fee for daily rate; C : consultation; K : surgery; K_n , RZ or Z : radiology (x-ray); B : laboratory analysis; n : number of services provided.

Not all hospitals have private wards. In hospitals that have them, they are used mostly by mutual insurance clients or patients who need intensive care. There is a trend towards eliminating general wards. The most common wards have 4 to 6 beds per unit.

In practice, the provisions of the regulations are not applied. The hospitalization fees that public hospitals charge only include fees for total patient days (room and board) and medical consultation (C). In other words, the rest of the health care services provided are not billed.

As far as the general wards are concerned, the patient pays for the first 20 days. For stays exceeding this period, the room is not billed.

- Outpatient Services

Consultations provided by general practitioners are free of charge, with the exception of work-related accidents.

Consultations provided by specialists of public sector hospitals and diagnostic centers are charged a single fee of 20.00 DH set by a law enacted on 20 September 1973. The implementation of this law has been suspended since 28 February 1974 because of practical problems it created.

Consultation fees for work-related accidents are set at 22.00 DH for general practitioners (C) and 37.00 DH for the specialists (C_2).

Fees for medical evacuation by ambulance are regulated based on the power of the vehicle (horsepower and distance covered in kilometers).

1.2 FEE RATES FOR CHUS AND AUTONOMOUS HOSPITALS

It is the Ministry of Health (MOH) which, by law, sets the fees for inpatient care provided and total patient days.

Fees for inpatient care and surgery:

These rates are set based on the monetary value of the key letters used to calculate health care, surgery and related services provided by the hospitals. With effect from 26 July 1989, the fee rates are as follows:

C1	General Practitioner	25.00 DH
C2	Specialist	40.00 DH
C3	Consultation by Professor	55.00 DH
RZ	Radiology (x-ray)	6.00 DH
K	Surgery and Specialized care	7.00 DH
B	Analysis (lab)	1.10 DH
D	Dental Care	5.55 DH
	Preparation of a medical certificate	30.00 DH

Fixed fee for delivery:

	Normal delivery	Twin delivery
Without episiotomy	150.00 DH	190.00 DH
With episiotomy	300.00 DH	340.00 DH

Specialized paramedical services (kinesitherapy, orthopsy, orthophony)
..... 30.00 DH per session

The rates for specialized medical services and laboratory tests are set based on a coefficient which is multiplied by value of the key letter. These coefficients are assigned in accordance with the nomenclature of professional health care providers, dentists, midwives and paramedical staff, as well as biomedical services stipulated by various laws and regulations of the MSP (laws dated 13/12/1977).

The coefficient for some health care services which are not included in the nomenclature have recently been set (July 1989). These include:

CT Scanner	Z 140
Ultra Sound	Z 50
Physiology (BHB)	B 100
Manometry or PH metry	K 45

Daily rate for hospitalizations

Since 1989, the fixed daily rate for hospitalization has been set as follows:

	Private Individual Ward	Ward with 2-4 beds	General Ward
All types of in-patient care	120.00 DH	60.00 DH	50.00 DH
All types of Surgery	150.00 DH	70.00 DH	60.00 DH

For the individual accompanying the patient and also staying in the hospital with the latter, the fixed room and board fee is 100 DH per day.

The fees for intensive care are fixed daily rates including room and board and all medical services provided:

Burned patients	1000.00 DH/day
Medical or Surgical Resuscitation	1000.00 DH/day
Dialysis	700.00 DH/session

Total Bill for Hospitalization

Total hospitalization bills are based on the length of stay and fees for inpatient care services.

Fees for inpatient services and room and board costs must be paid in full for all types of wards for the entire period of stay in the hospital.

1.3 PRIVATE SECTOR

Under a delegation of authority granted by the Prime Minister, the Minister of Health is the relevant authority which sets prices and fees.

To date, the services covered by the law are as follows: medical fees, dental care, laboratory analysis, inpatient care in clinics, services provided by midwives and nurses, and pharmaceutical products.

The methodology for calculating fees in the private sector is based on the official schedule (or nomenclature). Each service is assigned a key letter and a coefficient according to this official schedule.

There are two types of schedules: one covers services provided by physicians, dentists, midwives and paramedical staff; and the other covers bio-medical services. In fact, the actual fees charged by the private sector do not correspond to the official fees. (See Part II, Section A of the report.)

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1.4 FEES OF CNSS POLYCLINICS AND MUTUAL INSURANCE CLINICS AND CNOPS LIABILITY RATES

The CNSS polyclinics and mutual insurance clinics have their own fee schedules. They are based on the official nomenclature for medical and surgical services. In addition to the fee schedules used in the clinics run by its member mutuels, CNOPS sets its own schedule of liability rates for the reimbursement of health care costs incurred by its policy holders. (See list of fees provided by M. Zaouak). These rates, as well, are based on the official nomenclature, with monetary values for some key letters higher than those for CHUs and autonomous hospitals, but lower reimbursements for consultations.

The monetary value assigned to the key letters of the various services in each of the above cases is higher than those set by public hospitals, medical teaching hospitals, and SEGMA hospitals. However, it is lower than that of the private sector.

APPENDIX 3

Brief Analysis of the Draft Law On Mandatory Insurance *by Frank Abou-Sayf*

A detailed analysis of the draft law was conducted by a World Bank team after this team left Morocco. For this reason, only a brief analysis of this law will be conducted here. The purpose of this analysis is to tackle the major issues that have the most direct implications on the private insurance sector.

The draft law is in the form of a royal decree appended by a set of regulations. The decree portion includes many detailed stipulations. Given the difficulty of changing part of a decree, it is preferable to move these details to the regulation part which is easier to change. In addition, the regulations document imposes numerous requirements for services covered and their copayments. It is recommended that these requirements be carefully scrutinized with an eye to minimizing them. It is the opinion of this team that copayments are crucial at this juncture of reform and should be carefully established.

A number of ambiguities and potential sources of problems exist in the way some articles are formulated. These articles are listed below and the problems briefly pointed out.

- Article 22 states that the employer contribution will be made only upon presentation of the employee medical record. Such arrangement is contrary to numerous managed-care delivery systems and could present a hindrance to the establishment of an HMO, should one deem to be needed in Morocco.
- Article 37 states that the employee can change insurance company any time, and that the insurance company has to cover an employee for a period of at least 2 years. This statement is contradictory. Furthermore, the need for a minimum coverage period is questionable. In a free market, other disincentives exist for frequent disenrollment, such as initiation fees, loss of continuity of care, waiting periods for certain services, etc.
- Article 55 states that a member could retroactively activate his/her membership after a period of up to 6 months. This allowable lag may create unfair burdens to the insurance company, such as when a member who is delinquent in his/her payment has discovered an illness that is better covered by an insurance company than by another. This member could then decide retroactively to switch insurance to receive the more advantageous coverage. In a competitive market, shorter deadlines for premium payment are usually clearly delineated and strictly adhered to.
- Article 61 states that the government will determine the service charge that will be applied as a penalty for late payment. This level of control is unnecessary.

As it relates to the development of the private health sector in Morocco, the proposed law has a number of critical features.

1. Mandatory Insurance

This mandate is applicable to all salaried and non-salaried employees with the exception of handicraft apprentices and domestic workers (Article 5). As such, the law will eventually expand the eligibility considerably. However, in the short term, only those individual government and quasi-government employees who chose not to be covered by mutuals will be affected at the time of implementation of the new law. It is estimated that those employees account for about 15 percent of those eligible. Presumably, those employees elect not to be covered largely as a result of good health. Consequently, passage of the mandatory aspect of the law will lead to a universal pool of lower-risk members in its early phases.

On the other hand, the introduction of mandatory health insurance is usually accompanied by a substantial increase in health-care utilization and, thus, costs. Under these conditions, the necessity of developing alternative reimbursements approaches becomes more imperative.

2. Competition

Through a number of articles, notably Article 17, the member's freedom of choice of providers is expressed. This freedom is being interpreted as encouraging competition. This, unfortunately, is not necessarily so: freedom of choice, albeit sterile, could exist in a non-competitive environment. This limitation is particularly alarming given the controls that the GOM is assigning to itself as described in the following paragraph.

In Articles 20, 55, 61 and 62, the government is charged with setting various tariffs, dues, and even late service charges. In Article 8 of the Regulations, the GOM goes as far as setting the membership dues at 6 percent of the employee's salary, and in Articles 10 and 11 of the same document, the copayments are also imposed. These acts will result in weakening and perhaps eliminating competition.

3. Non-Discrimination

The delineation of the terms of non-discrimination is clear and is an essential aspect in a private-sector-driven health insurance. It will also help minimize the shift of risk from the private sector to the public sector.

4. Benefit Definition

The regulatory document that accompanies the draft law defines in detail a generous set of mandated services which include services that are not medically necessary (e.g. treatments at natural spas, *cures thermales*). Such services will only contribute to cost inflation with no clear benefits. It is recommended that mandatory benefits be set to a minimum, and that they be structured in a manner that will encourage preventive services and protect against catastrophic coverage. Member copayments are strongly recommended and should be designed so as to encourage preventive services and deter from unnecessary utilization.

5 Freedom of Choice

Article 17 specifies that members have the freedom to choose providers in just about all their categories, from physicians to suppliers of durable medical equipment.

Although an essential feature, the concept of freedom of choice may interfere with a number of alternative-care approaches, where members are bound to specific providers as managers of their care in return for other advantages. It is hoped that such delivery methods could also be within the spirit of the law: by virtue of free choice, the member elects to be bound to a number of physicians (i.e., limit his/her freedom of choice) in return for other advantages.

6. Premium Set-Up

As mentioned above, the Regulatory document specifies the membership contribution to be universally 6 percent of the member's salary. Apparently, the reason for this intervention stems from local experience where insurance companies undercut competition with lower premiums only to end up not fulfilling their share of subsequent coverage. It has also been expressed to this team by more than one source that, should this premium prove to be too high, the insurance company could use the surplus to offer more services at no additional cost. Another argument used by protagonists of this control is that competition could take place with quality of care and with the additional coverage over and above that which is government-mandated.

Notwithstanding these justifications, it is strongly recommended that the government not establish a set premium. Such action will only weaken competition. To avoid unfair competition, a closer role of the regulatory commission whose existence is being decreed in the same draft law should be envisioned. This beefed-up responsibility is feasible in the Moroccan environment.

Also, at a period where financing is a crucial issue, it is less efficient to set a high premium by law and allow insurance companies the latitude to add services at will than to cover a basic skeleton of services.

Finally, the same argument of inefficiency of delivery could be advanced for competition only at the over-insurance level: a better use of the health-care dirham could be made by allowing competition at the basic coverage level instead.

APPENDIX 4

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