Towards a national health insurance system in Yemen

Part 1: Background and assessments

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Abbreviations

A.B.	Arab Bank
A.C.C.B.	Agriculture Co-op Credit Bank P
A.I.	Arab Insurance
AIDS	Acute Immune Deficiency Syndrome
AOK	General Local Health Insurance Fund
BCG	Bacille-Calmette-Guérin – Tuberculosis Immunisation
bn	billion
BUPA	British United Provident Association
BYR	Billion Yemeni Rial
C.B.	Central Bank
ca.	circa = approximately
CBHI	community based health insurance
CBHS	community based health services
CHIC	Centre for Health Insurance Competence
CIA	Central Intelligence Agency of the United States
CSO	Civil society organization
DG	Director General
DHS	district health system
DPT3	Diphtheria-Pertussis-Typhus Trivalent Vaccination
e.g.	for example
EBP	Essential basic package
EC	European Community
EIU	The Economists Intelligence Unit
EMRO	Eastern Mediterranean Regional Office of WHO
EPI	Expanded Program on Immunization
EU	European Union
f	female
GDP	Gross Domestic Product
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
GPC	General People's Congress
GTZ	German Agency for Technical Cooperation, German Development Corporation
H.O.C.	Hunt Oil Company
H.S.G.	Hayel Saeed Group
HE	His Excellency
HI	health insurance
HIA	Health Insurance Authority
HMO	Health Maintenance Organization
HIV	human immunodeficiency virus
i.e.	that is
ibid.	At the same place in the same source
ID	Identification card
IDI	International Danish Insurance
ILO	International labour office

Abbreviations

IMF	International Monetary Fund
InfoSure	Health Insurance Evaluation Methodology and Information System of GTZ
LIFDC	low-income and food deficit country
m	male
M.I.	Mareb Insurance
MCH	Mother and child health
MDG	Millennium Development Goals
MENA	Mediterranean and North Africa Region
mio	million
MIS	Medical Insurance Specialists
MoCS&I	Ministry of Civil Services and Insurances
MoE	Ministry of Education
MoF	Ministry of Finance
MoH	abbreviation of MoPH&P
MoPH&P	Ministry of Public Health and Population
MoPIC	Ministry of Planning and International Cooperation
mR	million Rial
N.B.Y.	National Bank of Yemen
na	not available
NGO	Non-governmental organization
NHIS	National Health Insurance System
NHS	National Health System or Service
ny	No year mentioned in documents and publications
OECD	Organization of Economic Cooperation
P.B.M.A.	Public Board for Meteorology & Aviation
P.C.T.	Public Corporation for Telecommunication
P.E.C.	Public Electricity Corporation
PAPFAM	Pan Arab Project for Family Health
PDRY	People's Democratic Republic of Yemen
PHC	primary health care
PPO	Preferred Provider Organization
PRSP	Poverty Reduction Strategy Paper
Q	quarter of a year
Re	Re-insurance
RoY	Republic of Yemen
SBS	Seguro Básico de Salud – Health insurance in Bolivia
Sec. Pol.	Security Police
SHI	Social Health Insurance
SimIns	Health Insurance Simulation Model of WHO and GTZ
SNN	social safety net
STD	Sexually transmitted diseases
SUMI	Seguro Unitario Materno Infantil – Unitarian Mother-Child Insurance (Bolivia)
T.I.I.B.	Tadhamon International Islamic Bank
T.Y.	TeleYemen
TSI	Targeta Sanitaria Individual – Individual health card
UK	United Kingdom, Great Britain
UNDP	United Nations Development Program
UNICEF	United Nations Infant, Children and Education Fund (normally called United Nations Children's Fund)
US$	Dollar of the United States of America
USAID	United States (of America) Agency for International Development
VIP	very important person
W.B.	Watania Bank
W.I.	Watania Insurance

Abbreviations

WB	World Bank
WHO	World Health Organization
Y.I.B.	Yemeni Islamic Bank
Y.I.I.	Yemen Islamic Insurance
Y.R.I.C.	Yemen Re-Insurance Company
YAR	Yemen Arab Republic
Yem.	Yemenia Airlines
YemDAP	Yemen Drug Action Programme
YR	Yemeni Rial
YSP	Yemen Socialist Party

Preamble

Based on a Decree of the Cabinet of the Republic of Yemen the Ministry of Public Health & Population (MoPH&P) contracted in June 2005 Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH for conducting a study on situation assessment and proposals for a national health insurance system. GTZ formed a consortium together with World Health Organization and International Labour Office. Together with the Republic of Yemen the World Bank and the World Health Organization co-financed the study. We would like to acknowledge the good partnership of all parties involved.

The consultancy contract requested the consortium to present

I	by two months of commencement of the consultancy:	1.	A report summarizing the main findings of the situation assessment (summary of relevant documents, review of national insurance schemes, analysis of the health financing opinion schemes as well as outcome of the visits and interviews of relevant stakeholders).
II	before the end of the consultancy:	1.	Findings of the study which include a report on proposals for health financing alternatives.
		2.	A proposal framework for national health insurance which includes: - An implementation action plan - Macro-financial projections for the next 10 years - Material to be presented in the dissemination workshop(s).
III	at the end of the consultancy:	1.	A final report on the consultancy service (in English with Arabic translation)

The contract was signed on 17th June 2005. The consultancy started 17th July 2005. The interim report was given to MoPH&P in four hardcopies and one softcopy in English by 14th September 2005. The above mentioned "before-the-end-of-the-consultancy" report was handed over in English by 10th October 2005. After a few modifications this report was translated and handed over as final report four months after starting the study. The final report has the title "Towards a national health insurance system in Yemen" and consists of four volumes:

- Part 1: Background and assessments - translated into Arabic
- Part 2: Options and recommendations - translated into Arabic
- Part 3: Materials and documents
- CD with electronic files of parts 1, 2 and 3, PowerPoint presentations and various background documents.

We take the opportunity to thank our partners in Yemen, especially His Excellency Prof. Dr. Mohammed Yahya Al Noami in the name of all partners and stakeholders who shared with us their insights, knowledge and wisdom.

Sana'a,
17th November 2005

Detlef Schwefel
GTZ GmbH International Services

Towards a national health insurance system in Yemen

Executive summaries[1]

Part 1: Background and assessments

Introduction: Health insurance tries to convert out-of-pocket spending in case of illness into regular small prepayments of many citizens. This allows to provide health care according to the need and not only according to the ability to pay, especially in case of catastrophic illnesses. Based on a Decree of the Cabinet of the Republic of Yemen, a team from German Development Cooperation (GTZ), World Health Organization (WHO) and International Labour Office (ILO) was contracted to conduct a study towards assessing the feasibility of a national health insurance system in Yemen. The methodology included documentation review, field visits, questionnaires, interviews with stakeholders, and workshops. This summary presents the essentials of the baseline assessment, sketches three alternative options and recommends a roadmap to drive towards a social and national health insurance system.

Background: Mass poverty, high population growth and insufficient public services in the context of an oil dependant economy characterises Yemen. Many avoidable diseases and deaths call for prevention and improved primary health care. Increasing numbers of chronic and modern diseases are treated in doubtful quality in public and private hospitals. Cost-sharing in public facilities, cost-recovery of drugs and cost exempted treatments in public facilities are not well organised and unfair. Out-of-pocket payments in times of illness are very high, and the better-off look for treatment abroad.

Social security: In case of shocks of life, people in Yemen are widely left alone. A social safety network is in place, but it is restricted to some population groups, and coverage is often limited. Pension insurance of the public and organised private sector provides social protection for about one million employees. Quite a number of public and private companies set up health benefit schemes providing reasonable health care at a cost of approximately 45,000 YR per year per employee and family. Law proposals have been presented to the cabinet to introduce social health insurance schemes for the public and private employment sectors. Opinion leaders support this drive and ask for immediate implementation, starting with the public sector. A national health insurance system would also have to involve the better-off self employed, and especially the 50% of the population living in poverty, underemployment and unemployment. Community health insurances might be helpful for the poor, if they are backed up by government paid public services targeted to the most vulnerable groups.

Part 2: Options and recommendations

Full speed towards national health insurance: Health insurance for the entire (public and private) formal sector would cover 1.5 million employees plus 200.000 pensioners. Including their families it would benefit nearly half of the Yemeni population. The expected yearly revenue from wage-related contributions would arise to about 58 billion Yemeni Rial. This money would be insufficient for buying a good health benefit scheme like the one provided by the Telecommunications Corporation, and health insurance would produce a high deficit. Cost containment could be done for instance by excluding treatment abroad, or by reducing the benefit package drastically. Such a “small for all” scenario would avoid deficits. Improving the efficiency of service delivery is an always needed

[1] A political summary of members of Al-Shura Council, Parliament, Political Parties and Ministry of Health is included as Annex 2 in part 2 of our study report. Part 2 deals with "Options and Recommendations".

element of cost-containment. Additional funding would have to be looked for, too, either through increased public funds or via earmarked taxes (e.g. on cigarettes, qat, petrol, big equipment). Campaigning for welfare funds and endowments for paying the contributions for the poor (as well as for unemployed), is advisable and could reduce deficits. A "full speed" towards social health insurance would be an excellent opportunity for initiating the overdue radical or even revolutionary change of the health care system. An independent and trustful health insurance organisation would contract only the best providers and enforce quality health care. However, the many prerequisites for such an organisation are not to be achieved in a short time. A "full-speed" approach towards social health insurance is reasonable but not feasible.

Incremental approach towards national health insurance: An incremental approach would support a three-fold strategy. (1) Networking and strengthening of existing company health benefit schemes, mainly setting-up re-insurance, broadening risk-pools and building associations of company schemes, has the potential to improve their scope and quality. (2) The intentions of the military, police and security-police to engage in a joint venture towards health insurance for their about half a million employees should be supported, if their facilities will open their doors for handling catastrophic cases of the poor and if they would share their experiences with a national steering committee on social health insurance. (3) In the civil government administration it might be good to start with staged demonstration projects for the teachers employed by the Ministry of Education. All steps of an incremental approach will need professional back-up, guidance and international technical support. (4) Concurrently, government must achieve a full cost-effective coverage of health services for all poor.

A think tank for a national and social health insurance system: A Centre for Health Insurance Competence (CHIC) shall be built up to support a drive towards a good management culture and to foster the incremental introduction of a national health insurance system. Such a centre should discover, analyse and replicate best practices of solidarity and company based health benefit schemes. It should help emerging community based health insurances. Permanent advocacy and lobbying towards a social and national health insurance system should be a preferential task for the CHIC. Last, not least, it has to invest heavily in capacity building and human resources development. Starting as a think tank for social health insurance, the Centre will be converted, step by step, into a national health insurance authority geared towards transparency, credibility, accountability, and based on a passionate professionalism. International technical support is needed to build up such a Centre for Health Insurance Competence. Committed local funding, nevertheless, should demonstrate first and firmly the political willingness to engage in a social and national health insurance system in Yemen.

Immediate steps: Immediately, the Prime Minister should nominate an advisory council or steering committee for social and national health insurance composed mainly of experienced and committed representatives of

- ministries, especially those responsible for finances, health, social affairs, civil services, endowment, and those that might adopt health insurance soon, e.g. defence, interior, education,
- solidarity schemes, health insurance projects, employers' and employees' associations or unions, civil society organisations, universities, women organisations and other outstanding experts, partners and stakeholders, including Al-Shura Council, parliament and parties.

WHO promised to give technical support to a secretariat for social health insurance to be put in place concurrently. Based thereon an independent and autonomous centre for health insurance competence should be build up with (a) a presidential or cabinet decree for instituting it, (b) a yearly budget of 400 million YR given by the Republic of Yemen, and (c) with additional international support, e.g. from World Bank funds. This Centre shall be converted step by step into a national health insurance authority that replicates the good experiences of the Social Development Fund and adapts them to an independent, credible, accountable and transparent public non-profit institution for social health insurance. This authority will guide the incremental approach towards social and national health insurance in Yemen.

Outlook: In Yemen, it must not take decades until a social and national health insurance system is in place. People deserve a health system that gives them high quality and cost-effective health care in case of need, independent from their ability to pay.

Towards a national health insurance system in Yemen

Part 1: Background and assessments

1. Background

1.1 Introduction

Since the unification and the economic crises of the early 1990s, health spending had declined dramatically with consequent deterioration of the state guaranteed services. Widespread poverty is exacerbated by the side effects of the structural adjustment programmes adopted by the government. Today, Yemen's health situation is one of the least favourable in the world, and more than half of the Yemenite population lacks access to health care. This is partly due to the lack of reachable provider facilities, mainly in rural areas where more than two out of three citizens are excluded from health care. The other relevant factor that affects accessibility is the inability of the poor population to pay for health care. Only a minority has access to any type of pre-payment scheme for covering personal expenditure in case of illness. The cost of treatment, the main determinant for having access to health care services, makes poor people drop out of the health system, which entraps them in a poverty-illness cycle and has significant public health implications.

Against this background, the Government of Yemen has decided to merge the Five Year Plan and the Poverty Reduction Strategy (PRSP) in one plan oriented to achieve the Millennium Development Goals. Both policy documents mention explicitly the need to create affordable health care financing mechanisms for the population, and the Government has started an ambitious and promising initiative for implementing a national health insurance system. Some political attempts have been raised in the past in order to create health insurance schemes for special population groups. However, due to political, social and economic reasons none of the projects had the chance to be put in practice. Decision-makers have to be aware that the implementation of a national health insurance scheme is a complex, difficult and long-term task. Positive effects tend to show up only after many years, and in the meanwhile, it might even cause social problems and negative impacts on some population groups.

In order to prevent these difficulties as far as possible, the implementation of a national health insurance system has to take in account the real and unvarnished situation in Yemen. On the high political level, repeated initiatives to implement health insurance in Yemen have been started for instance by the Prime Minister and other cabinet members. The country's need to offer social protection for citizens has induced several attempts to create a health insurance system, for instance the law proposals presented to the cabinet by the Army and the Ministry of Public Health and Population (MoPH&P). However, important political decision-makers are not yet convinced that Yemen has already met at least the most essential prerequisites and conditions for implementing a nationwide health insurance system. Thus, the cabinet has mandated the MoPH&P to commission a comprehensive study on the given infrastructural, socio-economic and financial conditions in the country. The objective of this investigation is to collect and analyse all information relevant for planning a comprehensive National Health Insurance System and for developing alternative options for health care financing in Yemen. The consultancy will help the ministry in exploring the most suitable methods of financing a future Yemeni health care system based on a National Health Insurance System (NHIS) in order to face its epidemiologic needs and priority challenges.

The lack of social protection against health risks in Yemen has lead many citizens to organise themselves in self-help groups and solidarity schemes. However, public understanding of health insurance seems to be generally low among the citizenship, and also expectations of many stakeholders and decision-makers interviewed during the study period turned out to be quite

heterogeneous. Protection of the own society group appears to be an important motivation for health insurance in the country, while the concept of universal coverage seems to be weak. Health insurance faces a series of specific cultural and religious particularities in Yemen, but widespread mistrust and corruption seem to be the most relevant constraints for health insurance. The parliamentary opposition has become increasingly out-spoken over the lifting of subsidies, alleged government corruption and a deteriorating economy (EIU 2005, p. 2).

This study develops and discusses various options for creating a National Health Insurance System in Yemen. It gives an overview of the existing situation, expectations amongst stake-holders, legal conditions, political interests and commitment, economic and social preconditions, the health care system, and issues related to payer-provider relations. The document concludes giving four different options implementing a NHIS in Yemen, and discussing their respective advantages and disadvantages.

1.2 Health insurance

Insurance refers to any form of collective fund where individuals or groups can dedicate an acceptable amount of money in order to receive financial support whenever an insured risk occurs. Paying regular contributions the insured person acquires the right to get help in case of need related to specific risks. Thus, the typical elements of the insurance concept are:

- pooling, i.e. everybody pays and not just those who suffer from loss or other insured risks. Thus, not only those who have an accident pay for car insurance, but all other drivers in order to prevent high individual losses in case of future accidents.
- prepayment, i.e. everybody pays before an accident or another misfortune occurs. Thus, payment is independent from the insured risk, and beneficiaries pay small amounts in advance in order to prevent high expenditure in case of need.

Health insurance, however, has some specific characteristics that distinguish it from other types of insurance. The risk of bad health is rather independent from individual behaviour and priorities, and the absence of health affects a core quality of human being. Different from material losses due to accidents, fire or other damages, diseases and bad health affect essential features of human beings. Health is generally considered a human right, a social good, and precondition for well-being, work and income. Indeed, while for car, fire or liability insurance plans risk-related contributions or coverage limits are generally accepted, the exclusion of certain diseases or the “punishment” of carriers of chronic diseases by higher contributions have low acceptance.

This is why health insurance combines the typical elements of any insurance with specific tasks:

- risk-pooling: Cases of serious illness are very costly, but they do not happen very often. If a health insurance fund manages to pool enough people of different health risk, it will be able to cover even very high costs for very few cases.
- prepayment: Health insurance means to pay before falling ill and not only when we need medical care, as most people in Yemen have to do now through very high cost-sharing.
- fairness: While people find it justified to make those who drive a very risky way or love to play with candle to pay more for a car or fire insurance plan, this is not the case for those who become ill. Diseases are unpredictable and a matter of destiny.
- unpredictability: Different from other types of insurance, people neither can predict what diseases they will suffer from during lifetime, nor have they an idea of what kind of treatment will be needed for the various diseases.

Broad social protection from the risks of bad health and illness can be provided by a nationwide health system and by social health insurance. We can talk about national health insurance, when almost all citizens are obliged to join health insurance, especially the wealthy and the healthy, and when all citizens can benefit from the insured services. This might be organised either by one single insurance institution, or by a combination of different health financing forms. The core task of a national system is to guarantee health care provision in case of need, and to make it independent from the ability to

pay. If everybody in a country pays regularly a small amount of money for getting health care in case of need, funds will be available to give good health care to all citizens, including the poor and needy. We talk about a national health insurance system, when various endeavours of a fair financing for health and health care are brought into a network. This might be the case of Yemen, where there are a few interesting initiatives, that in the future might be coordinated: community health insurance schemes like in Taiz, fair and regulated cost-sharing schemes for government health facilities, health insurance schemes for employees of private and public companies, revolving drug funds.

Table 1 Core components of a health insurance scheme

المميزات الأساسية لخطط الضمان الصحي Main Characteristics of Health Insurance Schemes			
1	Setting up the scheme	وضع المخطط أو النظام	1
2	Membership	العضوية	2
3	Financing	التمويل	3
4	Benefits provided by the insurance scheme	الفوائد المرجوة من النظام التاميني	4
5	Risk management	ادارة المخاطر	5
6	Services	الخدمات	6
7	Legal issues, constitution	مسائل قانونية_الدستور	7
8	Administration	الادارة	8
9	Healthcare provision	شرط الرعاية الصحية	9
10	Provider payment	مساهمات المزود	10
11	Financial profile	الملف المالي	11
12	Statistical profile	الملف الاحصائي	12
13	Implications	تضمينات	13
14	Health authorities – role of the state	الجهات الصحية المسؤولة_دور الدولة	14
15	Plans for the coming years	الخطط للسنوات القادمة	15

Source: Hohmann 2001

We talk about social health insurance, when – for example – the regular contributions of the members are according to salaries or income, if small and larger families pay the same contributions, and if the ill do not have to pay more than the healthy members. Social health insurance makes the protection of each single citizen from health risks a concern of the whole society. Society is much more than the ensemble of its members or a great organised market on population level, and the individual's true interests are best achieved in and through society. If implemented carefully and adapted to the specific conditions in Yemen, social health insurance can safeguard solidarity and universal coverage.

Nevertheless, it is a long way to get a national and social health insurance system working. In Germany it took close to 100 years, and it is important to mention that therefore the classical concept of social health insurance had to be extended in order to allow for the inclusion of self-employed farmers: Usually, contributions are shared between employers and employees, but in the case of self-employed that does not work. And South Korea can be considered as a kind of world champion because it took only 12 years to cover the whole population, including the poor, the unemployed and the self-employed. Everybody has to understand that it will take time, too, in Yemen. But the country should start as soon as possible.

In Yemen, health insurance is often seen as a synonym of building up hospitals, and the countries experience with cost-sharing leads many stakeholders to perceive health insurance as an additional source of income mainly for secondary and tertiary health care. Another systemic problem for implementing health insurance in Yemen derives from the strong impact of user fees introduced in the early 1990s under the name of cost-sharing. Direct co-payments amount two thirds of total health

spending, and signify a heavy burden on household budget of families. Meanwhile, all providers have become used to generate a relevant income share by official as well as unofficial user charges. Direct payment in the moment of need is just the opposite of what health insurance should be, but to achieve changes in expectation and behaviour of providers will be a major challenge for a National Health Insurance System. Contribution to health insurance will have to be accompanied by a palpable decrease and a strict control of direct user charges.

1.3 Policy options

The political system of Republic of Yemen created after the unification in 1990 was a complete departure from the systems in what was previously North and South Yemen. While the northern Yemen Arab Republic (YAR) had developed into a republican government with strong traditional and religious influences, the southern People's Democratic Republic of Yemen (PDRY) had become a socialist state characterised by anti-capitalism, secular ideology, and gender equity. During the 30-month transition period, a multiparty prevailing representative democracy developed (UNDP n.y., p. 3). More than 30 political parties were created, representing every shade of the political spectrum. However, after two parliamentary elections in 1993 and 1997 judged as reasonably free and fair by international observers, most parties lack political influence and power; and only four of them are represented in parliament.

Both parliamentary polls and the more recent presidential election represent important steps in the path of consolidating democracy in Yemen. During the general elections held on April 27 1993, the General People's Congress (GPC), the former ruling party in North Yemen, won 121 seats in parliament; the Yemen Socialist party (YSP), the former ruling party of South Yemen, 56 seats; a new Islamic coalition party, Islah, 62 seats; and the remaining 62 seats went to minor parties and independents. The president and prime minister remained in office after the election, and the three major parties formed a legislative coalition (YCA 2005). After its landslide victory in the April 1997 legislative election the General People's Congress (GPC) of President Saleh did no longer depend on building a coalition with the Islamic Reform Grouping (Islah) of Sheikh Abdullah bin Husayn Al-Ahmars and started to govern alone.[2]

In the April 2003 parliamentary elections, the GPC maintained the absolute majority. In spite of some problems with underage voting, confiscation of ballot boxes, intimidation of voters, and election-related violence, international observers judged elections as generally fair and free (BDHRL 2005, p. 10). Election results gave the ruling GPC an even more comfortable majority of 228 seats, while all opposition parties together could not mobilise more than 73 votes in the Parliament (Islah 47, YSP 7, Nasserite Unionist Party 3, National Arab Socialist Ba'th Party 2, and independents 14 seats) (CIA, p5f).

The Parliament does not present a powerful counterweight to executive authority, but it demonstrated increasing independence from the Government. The head of the leading opposition party, Islah, led the elected House of Representatives to block effectively some legislation proposals of the Executive. However, political power rests with the executive branch, particularly the President who is commander-in-chief of the army, chief judicial officer and head of the ruling party. The Constitution provides for an "autonomous" judiciary and independent judges; however, the judiciary was weak, and corruption and executive branch interference severely hampered its independence. The executive branch appoints judges, removable at the executive's discretion. There were reports that some judges were harassed, reassigned, or removed from office following rulings against the Government. Many litigants maintained, and the Government acknowledged, that a judge's social ties and occasional bribery influenced the verdict more than the law or the facts (ibid., p. 1f)

[2] There are more than 12 political parties active in Yemen, some of the more prominent are: General People's Congress or GPC [President Ali Abdallah SALIH]; Islamic Reform Grouping or Islah [Shaykh Abdallah bin Husayn al-Ahmar]; National Arab Socialist Ba'th Party [Dr. Qassim Salaam]; Nasserite Unionist Party [Abdel Malik Al-Makhlafi]; Yemeni Socialist Party or YSP [Ali Salih Muqbil] (CIA 2005, p. 6).

However, the political development on the national level stands in contrast to strong tribal affiliations, since tribal identifications are still socially and politically relevant today (World Bank 2002a). Tribes have been a basic element of the social structure of Yemen for thousands of years, and remain important even today. Many regions, mainly the North East and the surroundings of Sana'a have a strong presence of tribal hierarchies and are characterised by tribal settings. The southern part of the country has a long welfare history, and the region of the former British colony and capital of socialistic South Yemen, Aden, is the most modern part of country. And the West shows the widest openness towards different socio-political options.[3]

Tribes are political units based on a particular region, with fixed borders, and a known number of members. Tribal affiliation is especially important for those in former North Yemen, which comprises nearly two-thirds of the population. The tribes have often been in conflict with one another, but more recently have begun to band together for mutual support against the central government. Tribal organisations have a certain amount of political autonomy with which it interacts with other tribes and with the central government. Some of them see the government as threatening tribal autonomy as well as traditional life and values. Great regional differences exist even within the tribal community, and many urban Yemenis regard tribes and tribalism as backwards and primitive (State Department 2005).

For many centuries, Yemen was widely isolated, and in many regions traditional economic activities and social structure remained nearly unchanged until the 1960ies. Modernisation in the last half century has brought new technologies and gradual opening of the society, but the social structure has survived with little changes, and is reflected in the shape and scope of social services. Today, Yemen is considered one of the least developed countries in the world. About 70 % of the population live in rural areas, most of them in poverty and lacking access to the most elementary social services. The health care system is relatively recent and has developed only during the last decades. Confidence in local providers is still low, and the better-off tend to search care outside the country. This attitude is still deeply rooted although meanwhile a considerable network of health care providers has emerged. Nowadays, Yemen disposes of a heterogeneous mix of public and private physicians, pharmacies, health posts, health centres, clinics, hospitals, etc.

However, reasonable and effective health insurance schemes are still very scarce, and experience with regard to health care financing is lacking. The ministry is currently introducing a pilot scheme of community-based health insurance and is willing to introduce a comprehensive national system of health insurance. International experience suggests that it is highly recommendable to adapt social policy measures as far as possible to the given situation in a country. It depends on a series of factors whether a nationwide health insurance system as such offers a realistic option, and sometimes decentralised, community-based or workplace-linked schemes have better chances to be implemented successfully and then extended to other population groups. One of the most important factors with regard to the implementation or extension of any health insurance scheme is the operative and financial feasibility. And creating exaggerated expectations with regard to the benefits or population share covered can be suicidal for a new health insurance scheme.

After recent WHO consultation made in October 2003, a Social Health Insurance Law proposal was presented to the government in February 2004, but postponed for further reflection. Part of the government, mainly in the Ministry of Finance and the Minister of Social Affairs and Labour, fear Yemen and the health sector in general is not yet ready for implementing a national health insurance system. The draft law seemed premature and incomplete for providing a viable and applicable framework for the development of social security, including health insurance for civil servants and employees in the formal sector, based on contributions or other methods of financing.

[3] Oral communication by Thabet Bagash, Programme Development Officer of Oxfam.

1.4 Terms of reference

The study analyses and describes preconditions, options, constraints and challenges for implementing a National Health Insurance System in Yemen. Based on former investigations and publications that seem to be accessible for a small minority of opinion-makers only, the goal is to collect and synthesise all information relevant for planning such a comprehensive system. The international expert team responsible for this study has pursued the objective to develop at least three alternative, Yemen-specific proposals for health care financing through a nationwide and potentially national scheme. The expertise identified in the country will help the ministry in exploring the most suitable method of financing its health care system. At the same time it identifies major weaknesses and necessities with regard to the technical and professional preparation. Therefore, the study has covered the following tasks and issues:

1. Collect, summarize, and synthesize all relevant documents and data bases prepared for Yemen and provide an overview for a comparative analysis of the situation in Yemen with selected countries in the region and the World.
2. Identify important existing solidarity schemes in Yemen and analyze their structure, impact, and performance.
3. Review existing health insurance schemes in Yemen, including public sector programmes, private health insurance, community-based health insurance and company-based health insurance schemes.
4. Conduct and analyze a health financing opinion survey of politicians, Islamic leaders, citizens, development partners, local governments, ministerial officials, insurance companies, public and private health care providers, NGOs, workers' syndicates and the medical association.
5. Visit and interview the ministries and other central institutions, public and private health care providers, district local councils and health offices on governorate and district levels.
6. Compare the present situation in Yemen with experiences in similar countries in the region and worldwide in order to determine which preconditions are required to start a National Health Insurance System.
7. Analyze and discuss in a workshop(s) all findings and suggested alternative health care financing options with major stakeholders and draw conclusions against background of the realities in Yemen.
8. Develop at least 3 alternative health financing proposals which assure the equity of health care provision. Each proposal should cover issues related to revenue collection, provider payment, choice and unit of enrolment, benefit package, pooling arrangements, contribution schedule & method and purchasing.
9. Propose an implementation plan with stages of regional, social and organizational expansion according to priorities, management capabilities, quality of existing health services, and preparedness of population groups
10. Prepare the National Health Insurance financing framework for each proposal as well as preliminary macro-financial projections for the first 10 years.
11. Identify areas of demand for future technical assistance for the establishment of a National Health Insurance system in Yemen.

1.5 Résumé

A social and national health insurance system promises to address some of the reform needs of the health system in Yemen. And it has the potential to lower the access barriers to health care and to prevent impoverishment caused by illness. However, the successful implementation of a NHIS is not an easy task. It may mean a revolution of a pattern of approaches and a host of interests inbuilt in the existing system. Health insurance is not only addressing a specialised field of health financing. It is a new approach towards networking and interaction of government, providers and patients and it may have important impacts of health production, health seeking behaviour, health status and the interaction with the rest of society and economy.

2. Methodology

The study was done in close cooperation with the contractor and counterparts. After a first briefing by the representative of the Ministry of Public Health and Population (MoPH&P) a team of Yemeni partners was attached to the international study team. This "twinning" approach for each of the international experts was intended to

- help understanding the social and cultural context in Yemen
- translate, if necessary, the interviews from English to Arabic and back
- provide a permanent reinforcement and discussion on lessons learned
- give a full immersion of the Yemeni counterparts in international reasoning on health insurance.

The chosen approach had an "eye-opening" impact for both parties involved.

2.1 Literature review

The contractor and counterpart provided at the beginning of the consultancy softcopies of many important documents on health sector reform, district health systems, health care financing, cooperation projects, etc. More documents were retrieved from cooperating international experts and agencies. Furthermore, an intensive internet search on relevant documents had been done beforehand. Altogether there are close to 300 documents that were reviewed and excerpted. Chapter 8 shows the list of documents consulted. Chapter 2 of part 3 of our study report presents the content of a CD handed over to the contractor. A number of important documents had to be translated from Arabic to English

- The health insurance law proposal by the MoPH&P
- The health insurance authority law proposal
- The health insurance law proposal for the armed forces
- A letter exchange on the health insurance law proposal
- Comments of the Al Shura Council on the health insurance law proposal
- Comments by the workers union on the health insurance law proposal
- The regulations for treatment abroad
- Medical care regulations of the Cement Corporation
- Occupational health in Yemen

These documents are included in part 3 of our study report.

2.2 Interviews

A main source of data, information and knowledge was the meeting and interviewing of various partners and stakeholders in the centre or in the context of health insurance. Based on requests of the consultants and stimulated by their partners various institutions were contacted and granted time for interviews. A listing of the institutions contacted is given in chapter 30 of part 3 of our study report, especially:

- all relevant ministries
- health committees of parliament and Al-Shura council
- political parties
- employers and workers organizations
- non-governmental organizations
- public and private health care providers
- local and regional governments
- local and regional health authorities
- private health insurances
- health insurances of private and public companies
- most of the pension funds
- opinion makers

- bilateral and multilateral agencies and donors
- research and training institutions.

The interviews were done together with the Yemeni study partners.

The most important knowledge gained during interviews and document reviews was condensed into so-called knowledge items and circulated among the consultants. Chapter 29 of part 3 of our study report presents nine of altogether 1.297 short descriptions of such knowledge items. All knowledge items were and screened according to their value for inclusion in decision making and report writing.

2.3 Questionnaires

Some issues deserved a more intensive collection of data and information. In the terms of reference an opinion survey was asked for on health insurance. Originally it was foreseen to conduct such a survey based on a guideline interview form, that had been prepared beforehand and that was based on some experiences of the consultants in gathering information on perceived needs on health insurance advise by programme managers in Asia, Latin America and Africa. This form was used implicitly in many of the interviews conducted. It is given in chapter 11 of part 3 of our study report. During the first discussions the opportunity was mentioned to get a more comprehensive opinion survey financially supported by a programme co-financed by the European Union. This was happily accepted and a survey form was drafted and discussed with the counterparts. After some pilot-testing the form was translated into Arabic. It should be applied to at least 5 representatives of 24 groups of opinion leaders in Yemen. Table 2 shows the listing of groups of opinion leaders interviewed by a team of interviewers recruited from the most knowledgeable staff of the Ministry of Health. The survey form is given in chapter 12 of part 3 of our study report.

Table 2 Opinion leaders' groups for survey on health insurance preferences

1.	Ministry of Health officials
2.	Ministry of Social Affairs officials
3.	Ministry of Finance officials
4.	Ministry of Civil Service officials
5.	Health politicians
6.	General politicians
7.	Islamic leaders
8.	Local council members
9.	Other local government representatives
10.	Mullahs
11.	Nurses
12.	Private physicians
13.	Public health specialists
14.	Employers of large private companies
15.	Employers of larger mixed companies
16.	Syndicate and worker leaders
17.	Medical association
18.	Dentists association
19.	Pharmacists association
20.	Tribal leaders
21.	Public health specialists of donor agencies
22.	International donors / agencies
23.	Insurance companies
24.	Non-governmental organization
25.	Other persons interviewed

The opinion survey was started in the last week of August and done until end of September 2005. The opinions of 110 leaders will be quoted throughout this report. Table 3 shows the basic issues dealt with in the survey.

Table 3 Main topics of opinion leaders' opinion survey on health insurance

1:	Basic data	18:	Benefit package
2:	Knowledge on solidarity schemes	19:	Government responsibility
3:	Knowledge on health insurances	19:	Health insurance responsibility
4:	Should people pay for health care?	20:	Exempted diseases
5:	People too poor to pay?	21:	Pension fund as model?
6:	Good cost-sharing organization?	22:	Health insurance agent
7:	Is cost-sharing fair?	23:	Trust in HI fund
8:	Frequency of informal payments	24:	Specifics of social HI
9:	Amount of informal payments	25:	Good services in HI
10:	Postponement of treatments	26:	Levels of health insurance funds
11:	Needed exemption shares	27:	Number of health insurances
12:	Mandatory health insurance?	28:	Best avoidance of misuse
13:	End of interview in case of lack of understanding	29:	Gov health care better?
		30:	Which providers?
14:	Groups to be covered first	31:	Real need for HI?
15:	Groups not to be covered	32:	Start of implementation
16:	Family members to be covered	33:	Justification for health insurance
17:	Groups without contributions	34:	HI for your family?

During the interviews the variety and richness of company health benefit or insurance schemes was discovered. Public companies like

- public productive companies, e.g. Telecommunication Corporation
- public service companies, e.g. Al-Thawra Hospital and Al-Saba'in-Hospital
- mixed companies, e.g. Yemenia Airlines and Central Bank

were therefore asked about the benefit packages of their schemes and the costs or expenditures for these benefit schemes. A questionnaire was prepared and interviews were conducted until end of September 2005. The questionnaire is given in chapter 13 of part 3 of our study report. The main topics are shown in Table 4.

Table 4 Main topics of survey of health benefit schemes of public companies

1. Setting up the scheme. Set-up period. History and motivation
2. Membership. How is membership constituted? How many members? Exclusivity of membership.
3. Definition of family members benefiting from scheme.
4. Financing. Sources of finance: company, contributions or donations?
5. Benefits provided by the insurance scheme. Definition of benefits. Access to benefits
6. Benefit package: Primary care
7. Preventive services
8. Specialist outpatient care
9. Laboratory services
10. Diagnostic services
11. Hospital care (boarding & lodging)
12. Hospital care (medical treatment)
13. Minor operations

Table 4 Main topics of survey of health benefit schemes of public companies

14. Major operations
15. Treatment abroad
16. Maternity
17. Drugs for acute conditions
18. Drugs for chronic diseases
19. Transport
20. Other benefits
21. Excluded benefits
22. Financial arrangements. How are the benefits paid? Reimbursement rules. Practical problems
23. How much did the company spent last year for the whole medical benefit package?
24. Services. Other products offered by the insurance scheme
25. Legal issues, constitution
26. Administration. Administrative tasks. Administrative methods
27. Healthcare provision. General situation. Availability of healthcare provision
28. Provider payment. Method
29. Health authorities – role of the state. Which authority is responsible for supervision of the insurance scheme. Regulation of the activity of the health insurance scheme
30. Plans for the coming years
31. Further comments of interviewee

Results are included in part 3 of our study report. Further analysis is recommendable, since some of these schemes are best practices which might deserve replication and expansion.

A fast and easy survey finally was done in the MoPH&P. It was based on the knowledge that in view of the small salaries in the government sector many employees try to have a second or even third job in the afternoons, especially among the professional cadre. This situation may rise the question if health insurance should be based on pay-roll deductions from the salaries or if it should be based on income. Questionnaire and results are given in chapter 14 of part 3 of our study report. Table 5 gives just two results of the survey that was also addressing the question if employees of the ministry were willing to join a public health insurance.

Table 5 Salaries versus income of Ministry of Health employees and willingness to join health insurance

Average monthly salary in Ministry in YR	22.417	
Average monthly income of employees in YR	30.281	
Average monthly income of professionals in YR	66.656	
Interested in joining health insurance	58	95 %
Not interested in joining health insurance	3	5 %

Source: Own rapid survey

This survey is not representative but it was intended to give first hints at two important issues. It might be replicated on a larger scale.

2.4 Workshops

Several workshops were conducted for sharing information and knowledge. Various smaller workshops dealt with planning, briefing, reviewing, debriefing. Two larger workshops were realised

- A two-days technical workshop on alternative health insurance options with more than 70 participants on September 11 and 12, 2005, and with participation of international consultants from GTZ, WHO and ILO

- A political workshop for Al-Shura Council, Parliamentarians and political parties on October 3, 2005
- A high ranking meeting with the most important members of the Cabinet (planned).

The workshops were intended mainly to achieve gradually a consensus of the team and all relevant stakeholders and partners on possible futures of health insurance in Yemen.

2.5 Other methods

Many visits of public and private health care providers and field trips to the Governorates of Aden, Amran, Dhamar and Taiz were done together with Yemeni professionals and partners.

2.6 Comparative assessment

All these sources of information were important to shape the understanding of international and national study partners. Yet, even with all these sources of information main uncertainties remain as well as many doubts regarding the value of the evidences gathered. It seems to be very difficult to get reliable and valid and updated statistical data. It was tremendously difficult to find such simple data as a listing of all diagnoses in one hospital that matches with the total number of cases in a given period of time. Furthermore, many statistics show an excessively high proportion of round numbers, indicating that the figures were not taken seriously or were invented.[4] It was nearly impossible to find updated data on the employment situation in Yemen as well as on the number of employees in government service. Therefore educated guesses had to be used where data were missing or seemed to be wrong or invented. Uncertainties prevail. Health systems research needs strengthening and empowerment in Yemen.

3. Baseline assessment of context

3.1 Society and economy

3.1.1 Basic features

After the unification of two Yemeni states in 1990, after a civil war in 1994 and after difficult economic adjustment policies Yemen is now enjoying peace, democracy and a free market economy. Even before, Yemen experienced noticeable improvements, as shown in the following table.

Table 6 Achievements in health status in Yemen since the 1980s

Year	1980es	2003	Change (%)
Health status			
Access to basic health care	30 % (1986)	42 %	40
Life expectancy at birth in years	46 years (1986)	59	28
Infant mortality rate per 1000 live births	130 (1989/90)	82	37
Births attended by trained personnel	12% (1984)	27 %	125
Maternal mortality ratio (per 100000)	1000 (1987)	570	43

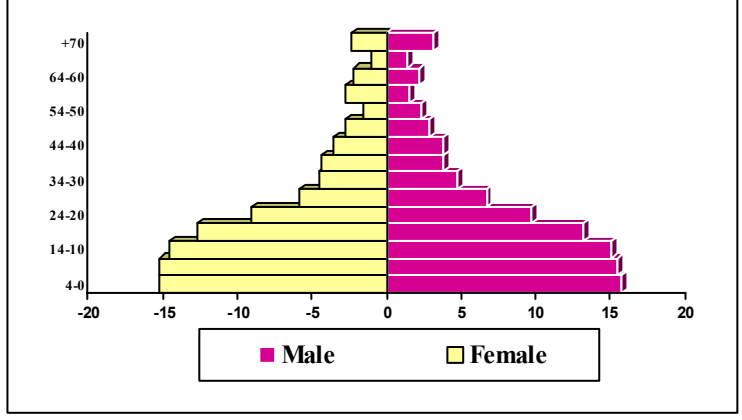
Sources: World Bank 1990, WHO 2005a, World Bank 2005a, World Bank 2005b, Fairbank 2005, MoPH&P 2005a

[4] For instance, in the statistical data about outpatient treatment in Al-Thawra Hospital in 2004, almost half of the monthly production numbers (46,57 %) are multiples of 10, more than one third (35,29 %) end with round 50es or 100s, and a quarter (24,75 %) of all statistical numbers end with even hundreds (RoY 2005, p. 14). See chapter 18 of Part 3 of our study reports.

Still, there are at least three basic features that characterize the current living conditions of close to 20 million Yemeni people:

- Most of the population lives in scattered settlements with fewer than 500 people far away from the coverage of public services. (RoY 2004b)
- Two thirds of Yemeni population can not afford buying sufficient food to meet their basic nutritional requirements. (UNDP 2005)
- The population growth is proceeding with more than 3% per year and enriches the country with a very young population as can be seen in the next figure.

Figure 1 Population pyramid in Yemen, 2004



Source: RoY 2004c

The discovery of oil resources and currently rising oil prices seem to be a good opportunity to solve these problems. Nevertheless, oil production is already falling and oil reserves are dwindling. A sustainable solution of the most pressing development problems needs more than oil and remittances from Yemeni workers abroad.

3.1.2 Cultural issues

Islam has a long tradition in Yemen where 98% of the population are Moslems and religion plays an important role in the society. While religious differences are not openly acknowledged as divisive, they exist between regions and population groups without having major impact on social and political life. In various parts of the country, where cultural and religious traditions are still more alive than in the big cities, people are different in how they emphasise social protection. In some areas more than in others, the concept of insurance is still linked to "*haram*" what means something forbidden according to the Koran. Thus, the idea of prepayment and insurance should be applied in a different way, for instance in the sense that people put some money in the paradise through a current account dedicated to finance medical aid for the poor and indigenous. This might help to make Yemeni aware about the conceptual relationship of health insurance to traditional, religion-based mutual-aid and self-help initiatives.

On the one hand, circumcision of male children is prescribed by the Koran and very common in Yemen, and on the other hand, female genital mutilation is also still present in various parts of the country.[5] This is relevant for the health care sector because it represents an additional source of income

[5] Nearly two out of every five Yemeni women declare to have been undergone female circumcision; this proportion decreases according to the level of education of the women (41,7% of illiterate and 24,2% of women with higher education) PAPFAM 2004, p. 150).

for health care providers, and some providers seem to generate relevant income by offering this service in a health unit or centre. Altogether, most Yemenis tend to perceive health care as a market product they have to pay for. This attitude has been fostered by the implementation of cost-sharing in the early 1990ies. The idea of risk sharing and pre-payment, two core elements of health insurance, is widely unknown or hardly understood by the majority. Even for a series of stakeholders in the country, health insurance means first of all building health care facilities and mainly hospitals, and not a financing mechanism for the costs of medical care.

Historically, communities have participated in financing health care in Yemen, with the participation based on Islamic tradition in the form of the religious tax called *Zakat*. This tradition derived from Koranic teachings, obliges Moslems to make charitable donations once a year for the benefit of the poor. *Zakat* is re-distributional, since resources are transferred from the wealthy to the poor, and when linked to health financing has the potential to have positive equity impacts; health care that is subsidised by Zakat becomes more affordable and therefore more accessible for the poor. People take *zakat* seriously, but they are reluctant to pay to public, Government-run organisations because they doubt if the donated money really assures them a place in heaven when it is misused. According to the Minister of Social Affairs and Labour, the 2,5 % of income Muslims have to give for *zakat* would amount easily to 70 – 100 billion YR per year if they were collected by a trustable institution.[6]

Beside *zakat*, the Islamic tradition in Yemen has created and fostered a series of additional solidarity practices and experiences that are worth to be taken into account in the design and performance of a national health insurance system. The following table gives an overview of indigenous solidarity practices and terms that can be identified in Yemen:[7]

Table 7 Solidarity practices in Yemen

• *(Mubadara)* community development initiative	مبادرة
• *(Gharrama)* Community Sharing during conflicts	غرامة
• *(Kafalah)* Long-term or short-term guarantee or security (paying charges of poor families, students, prisoners, orphans,[8] etc. by an individual, a welfare institution, etc.	كفالة
• (*Sadaka Gariah*) Philanthropy - specially for community facilities	صدقة جارية
• *(Awkaf)* Endowments	أوقاف
• (*Zakah*) Alms especially the one that does not go through Government's channels	الزكاة
• *(Dain/ Salaf)* Credit with no interest	(التي ليست عبر الحكومة)
• *(Ifa'a)* Exemption	الدين (سلف بدون %)
• *(Muqayadhah)* Accepting alternatives such as goods, crops, etc.	إعفاء
• *(Sandouq)* Community Welfare Fund, Taxi drivers partial insurance,etc	مقايضة
• *(Tasgeel)* Assisting linking the poor, disabled, specific patients, etc to the Government programs	صندوق خيري
• *(Pharmacy, Ma'aradh, or Dukan Kheiry)* (Welfare grocery, welfare ceremony,etc) Cost Sharing from a welfare point of view	تسجيل المحتاجين مع برامج دكان ، المساعدة الحكومية
• *(Musahama)* Contribution in cash, materials or kind for a community service	صيدلية او معرض خيري مساهمة
• *(Hamla Khairiah)* Welfare fundraising campaigns	حملة
• etc.	إلخ

Source: Oxfam

[6] Oral communication of the Minister during a meeting on August 3rd 2005.

[7] According to information and data raised by Oxfam in the course of the preparation of the implementation of Community Health Insurances Systems in Yemen (Bagash 2005).

[8] The social neediness of orphans reflected in several welfare programs in Yemen is not surprising because the proportion of children under 5 with one or both natural parents dead is 4.8% (range 2.3% - 8.1%), and additionally 0.9% are not living with a natural parent (range (0.5% - 1.8%) (UNICEF 2003, p. 12).

With regard to specific health-related tasks, the following local solidarity schemes exist in Yemen:

Table 8 Solidarity schemes in Yemen

• Philanthropy Pharmacy • Community Health Centre / Welfare Hospitals or Cooperative Units (Combination of resources) • Credit • Active cost-sharing or private work in the same public health centre *(very deficient exemption system)*	**صيدلية الصدقة الجارية** **مركز صحي مجتمعي/ مشتشفى خيري أو وحدات تعاونية** **(تتعدد فيها طرق الدفع و المصادر)** **الدفع الآجل** **تفعيل لنظام المشاركة في الكلفة مع إضافة خدمات بنظام القطاع الخاص في نفس المرفق العام (الإعفاء**

Source: Oxfam

In spite of the long tradition and culture of solidarity schemes in Yemen, knowledge about their existence, performance and scope is scarce. The detection of such systems where certain persons or groups practice mutual aid and support turned out to be a slow and step by step process. That shows that on the political and decision-maker level, very little is known about how people in the country tackle with an insufficient social protection. During the study, a considerable number of solidarity schemes could be revealed all over the country. The survey with opinion leaders discovered quite a number of schemes that were not known before. Most of them lack sufficient resources as well as basic administration and management capacities. However, many national social security systems started to develop from small-scale informal self-help organisations (Bärnighausen 2002, p. 1560f). This might also be one viable approach in Yemen where trust in government-run initiatives is severely damaged and where people have confidence in small and well-known social groups.

According to statements from citizens, however, the current social and economic development affects the social cohesion and confidence in Yemen. People feel that businessmen and local merchants are less supportive and betraying traditional solidarity. This makes it difficult to create local committees or to raise money for operation and maintenance of community projects. Rapid urbanisation has put traditional sources of support and stability under a great deal of stress. In recent years, NGOs have been growing rapidly in number, reaching more than 2.400 by 1999. The NGOs, which are mainly charitable, have been established in the major cities.

Illiteracy is still a major facet of Yemen although recently a strong expansion of school facilities increased the supply side. (Habtoor 2002a) But on the demand side, cultural attitudes and the geographical dispersion of the population hinder a better enrolment and education. This is a very negative production factor for health, since a healthy lifestyle – in spite of all problems of poverty – depends very much on the level of awareness and literacy of mothers and girls, especially. Education is one of the most essential production factors for health.

Polygamy is a persisting condition in Yemen where 6.3 percent of wives are married to polygamous husbands, with a higher share in urban settings. However, it seems to disappear slowly as younger women are less likely to share their husbands with other women (age 20-24: 5 %; 45-49: 8 %). These percentages decrease according to women's educational level from 6.6 percent among the illiterate to 4 percent among the holders of secondary certificate and above. However, in practice most health benefit schemes in Yemen include the option of polygamous husbands, while they do not even cover one husband of female employees. As long as polygamy is socially accepted, a health insurance system has to take it in account; on the other hand the definition of membership offers an option to influence the number of polygamist family settings.

Child marriage is frequent in Yemen and affects mainly girls as soon as they reach the age of puberty. Poor families tend to consider daughters as a big burden on income and try to resolve their difficult economic conditions by “selling” female children and by getting rid of the need to sustain them as

early as possible. A recent field study supported by Oxfam revealed that child marriage is mostly present in the Governorates of Hadramaut and Hudeida. It confirmed that girls who marry at young age leads to far too early pregnancy, and lose opportunities of education and acquisition of skills that would allow them to get a suitable income (Yemen Times, 22nd Sept. 2005).

Another characteristic element of the Yemeni society is the low participation of women on society level. This becomes evident for instance comparing the accident statistics of the country's largest specialised hospital Al-Thawra in Sana'a: Only 3 out of 100 victims of traffic accidents in 2004 were female, while more than 13 % were children. Regarding formal sector employment, national female staff occupies less than one out of 26 work places owned by Yemeni citizens in private companies.[9] On the other hand, mainly in rural areas women are often exposed to the double burden of family management and income generation through work in the field. Although the Constitution of the Republic of Yemen declares equal rights between men and women, the latter do not have the equal chances to participate in public life. In general, women are not taken a serious as men, and in public meetings male representatives tend to laugh about female speakers. With regard to health care and health insurance it will be important to stress social constraints in traditional areas. In many cases, access to needed care for women is restricted because they need male escorts for applying to health facilities, and they have to be seen by female health workers, who are not readily available at health facilities in most of the country.

Another important asset of the socio-cultural setting in Yemen seems to be relevant for the implementation and perspective of a national health insurance system. As mentioned above, tribal structures and hierarchies are still in place all over the country, mainly in the highlands and in Eastern governorates. Nation-building is an ongoing process, and social identity refers rather to community and tribal settings than to the Yemeni state. This is reflected in the existence of numerous small scale solidarity schemes while a perspective of overall society solidarity is still missing or underdeveloped in most citizens. In addition, the persisting impact of tribal structures on society can explain the relevance of paternalistic patterns in social groups and individuals. For instance, company-driven health benefit schemes rely to a certain extent on case-to-case decisions of the leading personnel. And the population shows a high expectation to receive support from others, let it be a charitable organisation, the Ministry of Health who is expected to grant a series of services for free, or an international donor or development agency. When it comes to start initiatives and to assume responsibility, many interviewees hesitate or withdraw and express the expectation that the Government or any other "leader" makes the first steps.

3.1.3 Socio-economics[10]

Population growth is still high in Yemen. The most recent official figures hint at 3.02% (RoY-MoPIC 2005), close to what in an independent health survey was measured with 3.1%. (Soeters 2004) Urbanisation in Yemen is estimated at about 5% and is growing at almost double the population growth rate. (NN 2005) Close to 9% of the population live in the largest city, Sana'a. About three quarters of the population lives outside urbanised areas and 80% of the rural population live in scattered settlements with less than 500 people (RoY 2004b). The average household size is estimated at 8.14 household members (UNICEF 2003, p. 12). Surveys show that the poorest households average 9.8 people (Soeters 2004, p. 13). According to another survey, the average family size in Yemen is 7.0; while 40 % of households have more than 7 members, 26.5 % have 1-4 and the remaining 32.9 of Yemeni households 5-7 individuals (PAPFAM 2004, p. 12).[11]

[9] 26,089 women amongst 685,402 salaried persons. Source: Results of Labour Force Demand Survey in Private Establishments 2003

[10] In the following only those basic features will be mentioned that have an impact on health seeking behaviour and on health services delivery and financing.

[11] All demographic figures appear to be doubtful in the Yemeni country context; please note that not more than 10.8% of children under 5 have a birth certificate (range 0.7 - 46.4%), and in the capital of Sana'a this proportion is only 6.9 %! (UNICEF 2003, p. 12).

People live in an increasingly deteriorating environment. This is due to an economic development that is nearly unregulated. There is no effective control on the use of fertilizers and pesticides. The most important aspect is the water situation: Yemen consumes water above its renewable water resources.

Agriculture and fishery is the most important economic sector for the population. But there is no food security for many people. Indicators on nutritional deficiencies hint at this: stunting 39%, wasting 13%, underweight 39%, low birth weight 19%, total goitre rate 32%. (Aoyama 1999) Child malnutrition is at 46% (RoY 2004b). "In terms of food security, Yemen is classified as a low-income and food deficit (LIFDC) country and imports over 75% of its main staple, wheat. While food availability seems to be well secured from imports, access is constrained by low purchasing power. Extremely high rates of malnutrition, low birth weight, and infant mortality in many areas of Yemen hint at serious chronic food access shortfalls. Although food availability at the national level appears to be adequate, a substantial section of the population cannot meet its food consumption requirements due to lack of resources. The food security status of households is also threatened by other natural factors such as droughts, disease outbreak, and floods, which have an impact on incomes of poor households." (UNDP ny) Inadequate and wrong feeding practices even in better educated socio-economic population groups intensify the problem. (Assabri 2001, p. 16f)

Some social indicators like the illiteracy rate and access to health care emphasise Yemen's situation as one of the poorest and less developed countries in the world. Amongst the population of 10 years and above, about two thirds of the male and less than one out of three women are able to read and write, with some differences between urban and rural settings. School attendance of girls is just below 50%, whereas 75% of the boys attend schools. (Yemen family health survey 2003)

Table 9 Percent distribution of the population (10 years and older) by educational level, sex and place of residence

Educational level	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Illiterate	15.2	40.5	27.7	31.1	57.7	53.2	27.3	69.1	47.0
Read & write	29.1	24.5	26.8	31.8	15.0	23.4	31.1	17.3	24.3
Primary	13.2	9.9	11.6	12.8	4.7	8.8	12.9	6.0	9.4
Preparatory	17.2	11.4	14.4	12.1	2.8	7.5	13.4	4.9	9.2
Secondary	18.2	10.6	14.4	9.7	1.2	5.5	11.8	3.5	7.7
University	6.6	2.6	4.6	1.9	1.0	1.0	3.0	0.7	1.0
Not stated	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5
Number	7602	7428	15030	23492	23076	46568	31094	30504	61598

Source: Yemen Family Health Survey 2003, p. 15

Lack of literacy and basic schooling are reflected in obvious skill shortages and skill gaps on various societal levels. Skill is the ability to perform a task to a predefined level of competence, and skilled workers should get returns from the improved productivity in terms of higher remuneration. Skill shortages have potential impact not only on employment, but also on a range of other economic measures such as productivity, earnings, and economic growth (Mehran 2004, p. 21ff). A relatively low level of professional qualification affects the internal development of the Yemeni society on different levels.

Unemployment is dramatic in Yemen, especially for the young generation, which is estimated at close to 50% (Yousef 2004). It is officially stated as 11.5% (RoY-MoPIC 2004) but other estimates hint at 35% (Al-Serouri 2001, CIA 2005). This has a strong impact on health insurance. This impact is further aggravated by the fact that most employment is in the informal sectors of agriculture and fisheries. The following table shows the employment structure in 2002.

Table 10 Employment and income structure in 2002

Sector	Workers	Income
Agriculture and fisheries	2163	56078
Mining	18	36830
Small industries	144	15509
Electricity, gas, water	12	2359
Buildings	262	4986
Commerce and hotels	484	18250
Transportation	134	3771
Banks	32	15705
Personal and social services	245	2499
Government	432	56888
Total	3926	212875

Source: Ministry of Planning and International Cooperation in Workers Union brochure. No explication of units mentioned

It is remarkable that the income of more than 2 million workers in agriculture and fisheries equals the income of 432.000 government employees. Updated data were not available. This data does not match with a measured labour force of 4.091.000 in 1999 and a projected one for 2005 of 5.116.000 workers and employees (Mehran 2004). Labour productivity is considered to be low. Chapter 15 of part 3 of our study report gives some data of a recent labour survey 2003, which contradicts the above presented data, since it labels agriculture, hunting and forestry at 1.29% of the surveyed workers and 0.09 in fishing. (RoY-MoPIC 2005) In this survey the sector "wholesale and retail trade and maintenance" ranges with 49.97% at the top of the listing.[12] Uncertainties regarding the employment structure prevail. This refers to estimates of the formal employment sectors, too. It was not possible to get an updated figure on the employees and workers in government administration, i.e. especially in the ministries.[13]

Inequalities are rampant, regarding all aspects: living conditions, housing conditions, access to public services. "Income inequalities are pervasive in the country. Inequality in Yemen mirrors a typical low income economy where the richest 10% get 34% of the national income and spend 25.5% of all expenditures while the poorest 10% of households spend a mere 3.5%. Increased poverty and unemployment and worsened income distribution are reflected in the Gini coefficient of 0.426." (UNDP ny) Most neglected are several especially marginalized groups, like the al-Akhdam, refugees and returnees.

3.1.4 Poverty

"In recent years poverty has increased dramatically in Yemen. The poor have become poorer, and the livelihood of many has become less and less sustainable. Depending on the definition applied, 30-40% of Yemeni households are impoverished and the majority of these are located in rural areas. A growing number of people lack access to adequate housing, safe drinking water, health care services, education, income and sufficient nutrition. Most natural resources, which could be used to build sustainable livelihoods, have been overexploited, depleted or polluted." (UNDP ny)

Extreme poverty ranges at 42% of the population availing of less than 1 US$ per day per person. To satisfy the basic nutritional needs 1.50 US$ are needed. "The majority of the population, 69.6 per cent in rural areas, and 57.8 per cent in urban areas (adding up to 66.9 per cent at the national level), could

[12] This might be explained by the sampling of this survey.
[13] The Ministry of Civil Services and Insurances is updating the data and had promised to provide them to the study team.

only afford a consumption level which catered for minimum food requirements plus what is deemed as normal for non-food expenditures at that level of food consumption. Once we add to this the not insignificant share of the population who live marginally above the poverty line and hence live on the edge of poverty and vulnerable to minor economic fluctuations, the phenomenon of mass poverty in Yemen becomes more pronounced." (UNDP 2005) All data stem from 1998 and 1999. A new household budget survey is underway and results will be available by 2006.

In one of the most remarkable books sponsored by the World Bank, the situation of the poor in Yemen was addressed through focus group discussions and interviews trying to evoke "the voices of the poor" (Narayan 1999)

Table 11 Poverty in Yemen

Yemen: Trying to Find Help for Disabled Daughter

Since her daughter's disability, Sharifa went back and forth many times to the Ministry of Social Affairs in order to register her daughter with the Social Welfare Fund because of her handicap. She spent large sums on transportation, and was finally registered and received 1200 YR. She thought that this sum would continue as a monthly stipend, but she was told it was only a one time payment. She suspected that she was registered and then the government officials stole her money during the subsequent months, but she is not certain of this, and is not certain of her rights regarding the Social Welfare Fund. Not succeeding with the government social safety net program, Sharifa tried to get help from one of the powerful shaikhs. To do this, she had to prove that she had a legitimate need by gaining an official paper, or "waraqa." The process to get the waraqa is long and tedious. First, someone must write up her story, then she must get neighbours to testify to the truth of her story, and finally, the aqil must testify. She finally completed the process, and armed with her waraqa, she went to the office of the Sheikh. She was made to come back several times before finally being brought before him. He put the paper behind his jambiya (Yemeni sword) and told her to come back. When she came back, he told her that he couldn't find the paper. She then appealed to the women in the Shaikh's household, but couldn't get them to listen to her. In a final attempt, she found someone from her village working at the office of the Shaikh as a soldier and sought his help getting her another audience with the Shaikh. But when she went back to follow-up, they continued to say they had lost the paper. At this point she gave up.

Source: Narayan 1999, p 83

Poverty is not only nutritional and income poverty, that nevertheless is very severe in Yemen. Some experts estimate these levels in the meantime at above 50% of the population, which can not be verified by data. Poverty is especially and additionally the lack of voice and participation in social and national affairs, the lack of empowerment.

3.1.5 Macroeconomics

„Yemen, one of the poorest countries in the Arab world, reported strong growth in the mid-1990s with the onset of oil production. It has been harmed by periodic declines in oil prices, but now benefits from current high prices. Yemen has embarked on a structural adjustment program supported by the International Monetary Fund (IMF) designed to modernise and streamline the economy, which has led to substantial foreign debt relief and restructuring. International donors, meeting in Paris in October 2002, agreed on a further $2.3 billion economic support package. Yemen has worked to maintain tight control over spending and to implement additional components of the IMF program. A markedly high

population growth rate and internal political dissension complicate the government's task. Plans include a diversification of the economy, encouragement of tourism, and more efficient use of scarce water resources." (CIA 2005)

Table 12 Macroeconomic indicators for Yemen

GDP purchasing power parity per capita	800 US$ per head (2003 est.)
Household income by percentage share	*lowest 10%:* 3% *highest 10%:* 25.9% (2003)
GDP real growth rate	2.8% (2003 est.)
GDP structure in %	Agriculture 15 % Industry 45 % Services 40 %
Agricultural products	grain, fruits, vegetables, pulses, qat (mildly narcotic shrub), coffee, cotton; dairy products, livestock (sheep, goats, cattle, camels), poultry; fish
Industries	crude oil production and petroleum refining; small-scale production of cotton textiles and leather goods; food processing; handicrafts; small aluminium products factory; cement
Industrial production growth rate	3% (2003 est.)
Exports	crude oil, coffee, dried and salted fish
Export partners	China 31.7%, Thailand 20.3%, India 15.6%, South Korea 4.9%, Malaysia 4.3% (2003)
Imports	food and live animals, machinery and equipment, chemicals
Import partners	UAE 12.9%, Saudi Arabia 10.2%, China 8.9%, US 4.9%, Kuwait 4.4%, France 4.1% (2003)
Budget	*revenues:* $3.729 billion *expenditures:* $4.107 billion, including capital expenditures of NA (2003 est.)
Military expenditures - percent of GDP	7.9% (2003)
Public debt	39.5% of GDP (2003)
Debt external	$6.044 billion (2003)
Inflation rate (consumer prices)	10.8% (2003 est.)
Exchange rates	Yemeni rials per US dollar - NA (2003), 175.625 (2002), 168.672 (2001), 161.718 (2000), 155.718 (1999)
Economic aid – recipient	$2.3 billion (2003-07 disbursements)

Source: CIA 2005

The dominant sector of Yemeni economy is the oil sector. It contributes to about one third of GDP but employs less than 1% of the work force. Oil exports comprise close to 90% of the exports and oil revenues finance about three quarters of government expenditures. Fluctuations in the oil prices affect Yemen considerably. Export diversification is lowest in MENA.

In 1995 a stabilisation and structural adjustment programme was initiated in cooperation with the IMF and the World Bank (WB). Its basic intention was to restructure and to transform a planned and state controlled economy into a free market economy. Reforms were initiated towards deregulating and liberalizing foreign trade, modernizing the banking system, privatising state owned companies, etc. A noticeable macroeconomic stabilization, a freely convertible currency exchange and a reduction of the inflation rate were achieved. Fiscal reforms aimed at reducing high government subsidies. Reducing the huge wage bill in the civil services was another aim that did not materialise, yet. The shifting from a deficit budget to a surplus budget affected sector budgets, e.g. the health and education budgets. A tight control over spending is still being done. It obliges all sectors to fight for bringing effectively into

practice their justifiable spending demands. Spending is not always in the public interest and according to rational reasoning: Vested interests intervene, and corruption is wide-spread. Tax revenue as percentage of GDP decreased to 7.1 percent of GDP in 2003. (UNDP 2005) It is much too low to be considered a fair financing. Progressive taxes have to be scrutinized, e.g. on qat, land, petroleum and many customs exemptions.

Real GDP growth projected by the Economists Intelligence Unit at 2.3% for 2006 is significantly below the population growth. A projected 17.5% inflation rate will affect especially food prices and is adding to a rather grim outlook. (EIU 2005)

3.1.6 Development policies

Adjustment policies and readjustment policies are necessary, but not sufficient to solve the problems of Yemen. Macroeconomic growth would have to be at a two-digit level to reduce poverty significantly. Population policies need powerful and far-reaching institutions that still have to be build up or strengthened. The treasury of Yemen is its population, its potential human capital. Human capital is build up best by investing in education and health, in "brains and bodies". Human and social capital should not be overlooked in its potential for social and economic development. A "new" philosophical dimension of development policies is needed. The time of old receipts is over.

The "macroeconomics and health" debate (Sachs 2001) demonstrates and underlines that health is a strong productive factor for attaining and strengthening social and economic opportunities and development; health is a driver of economic development, and health and education are the most powerful tools for alleviating poverty. This is the conclusion of a high-ranking group of health advisers like Jeffrey Sachs, including Nobel laureates in economics, e.g. Amartya Sen and Robert Fogel. Health creates economic and social opportunities for attacking poverty and this is the main development issue after the turn of the millennium. Within this context, the conceptual framework for sustainable development in Yemen puts the three pillars of the World Bank report on "Attacking poverty" (World Bank 2001) into the following equation: empowerment in security creates opportunities, or in other words: subsidiarity and solidarity generate sustainability.

- Empowerment is related to the principle of "subsidiarity", meaning that governments should be active only if regions, communities, families and individuals could not do it better themselves. Health production is very much based on the empowerment of individuals, families and community based organizations to prevent diseases, to protect and promote health and to use informed self-help, as well as on the empowerment of local governments and health care institutions to perform effectively, efficiently and at a very good quality.
- Security stands for the old principle of "solidarity". Empowerment would be endangered without safety nets and a risk pooling that caters especially for the indigent, the poor and for vulnerable populations.
- A sustainable social and economic development is very much based on the empowerment of a civil society with all its layers – individuals, families, communities, local and national governments. Empowerment, nevertheless, needs safety nets and social protection measures, e.g. to overcome risk aversion. Empowerment in security creates opportunities for political, social and economic development. Health is wealth.

Human capital and social capital are the often neglected drivers of development. They need a revival in Yemen. Brains and bodies are sufficiently available. They need empowerment, guidance and stewardship.

Table 13 Empowerment in security creates opportunities

What	For whom	Why?	Topic	Agent
Empowerment subsidiarity)	of individuals and families	to prevent avoidable diseases	Health education and promotion	Health
		to apply informed self-help, e.g. with drugs	Drug accessibility, affordability	Health
		to fight for good governance, wherever	Capacity building	Education
	of civil groups	to support families and neighbourhoods	Discovery and inclusion	Education
	of local governments	to work in the public interest	Effectiveness, efficiency mgt	Education
		to do what families /groups can not do	Public health, out and inpatient care	Health
		to support those who can not support themselves	Social protection	Health
	of national government	to regulate in the public interest	Regulation, supervision	Civil society
		to do what other levels can not do	Tertiary care, reassurance funds	Health
in security (solidarity)	with quality health care	to deliver services of high quality	Good service delivery, wherever	Health
	with social protection	to help the helpless	Social protection measures	Health
	with insurances	to pool high risks	Social health insurance	Health
	with policies	to avoid man-made catastrophes, e.g. wars	Wider health policy	Health
	with disaster preparedness	to mitigate other catastrophes	Wider health policy	Health
	and other measures	to sustain peace	Wider health policy	Civil society
creates opportunities (sustainability)	economic growth	through “macroeconomics / health link”	At the micro-economic level, too	Development
	social development	through increased participation	Bottom-up capacity building	Development
	political commitment	through reinforcement of democracy and accountability	Empowering a civil society	Development

3.2 Health Sector

3.2.1. Health status

Yemen faces major challenges in improving the health status of its population. The basic social and economic determinants of health are in a dire state: poverty is widespread, participation in primary education is low, in particular for girls, illiteracy rates are high, and access to safe drinking water and proper sanitation is very limited. With 42% of the population living under the absolute poverty line of US$1 per capita per day, Yemen is the country with the highest national poverty rate in the MENA region, where the average of people living in absolute poverty lies at 2.8% (World Bank 2004). Only 28.5% of women and 69.5% of men can read (World Bank 2005b), and only 48% of girls and 66% of boys complete primary school. Only 9.6% of the rural population has access to safe drinking water compared to 52.4% of the urban population (MoPH&P 2005a).

In addition, more than half of the population faces high geographic and financial barriers to access even basic health services, an issue dealt with in more detail in Section 3.2.2. As a result Yemen's health indicators remain among the lowest in the region.

Table 14 Basic health status indicators in Yemen and the Middle East and North Africa (MENA) region

	Year	Yemen	MENA average
Health status			
Life expectancy at birth in years (male)	2003	57	67
Life expectancy at birth in years (female)	2003	61	70
Infant mortality rate per 1000 live births	2003	82	n.a.
Maternal mortality ratio (per 100000)	2000	570	162
Probability of dying (per 1000)			
▪ under age 5 years (male)	2003	119	n.a.
▪ under age 5 years (female)	2001	106	n.a.
▪ between ages 15 and 59 years (male)	2001	298	n.a.
▪ between ages 15 and 59 years (female)	2001	227	n.a.

Source: WHO 2005a, World Bank 2005a, World Bank 2005b. Note: n.a.: reliable data not available neonatal mortality alone was 37 per 1000 live births, early neonatal mortality 27 per 1000 live births.

In 2003, life expectancy at birth for men was 10 years lower than the average of countries in the Middle East and North Africa (MENA) Region, for women it was 9 years lower. The maternal mortality ratio is more than three times higher than the MENA average, which highlights the inequalities facing women when seeking health care in Yemen as the MENA region has already one of the worst inequalities in health and health care between men and women compared to other world regions. This is also evident from the catastrophically high levels of illiteracy among young women in Yemen compared to men. Currently, primary school enrolment in the year 1998/99 was 44.8% for girls and 75.8% for boys which is low compared to other Arab countries, e.g. Egypt (89.6% for girls and 95% for boys) or Syria (88.9% for girls and 95.9% for boys), and to other low-income countries such as China (94.7% for girls and 91.8% for boys) (UNDP/Arab Fund 2003). In addition, in Yemen only 4.2% of girls complete primary school compared to 14.8% of boys (MoPH&P 2004). These data are particularly worrying as female literacy and education are known to be major determinants of population health. Yemen is also one of the few countries in the region where malnutrition is a major problem, particularly among children. In 1997, 52% of children under 5 were stunted, 46 % were underweight (World Bank 2005).

Population growth, at 3.02 percent per year (RoY-CSO 2004), is among the highest in the world. Family planning programs in place have contributed to reduce the fertility rate to 6.5 in 2003 (RoY-CSO 2004), but in several parts of the country the reach and impact are still limited and could be enhanced. Avoidable infectious diseases are still prevailing, and cause a relevant number of life years lost (MoPH&P 2005a, p. 105). At the same time, the incidence of injuries and chronic diseases such as cancer and heart diseases seems to be on the rise, although general conclusions have to be made with caution because the sample size the diagnosis was based on is very small (Soeters 2004, p.37). In 2003, 13.1% of male and 17.2 % of female patients treated in public health services presented chronic diseases (PAPFAM 2004, p. 30). Thus, Yemen is facing the typical pattern of a developing country exposed to the double challenge of a high rate of persisting infectious diseases and a clear increase of chronic and degenerative health problems. The available indicators demonstrate an urgent need to improve the basic living conditions of the population including access to the most basic health services, while at the same time preparing for a rising demand for more costly specialised health services.

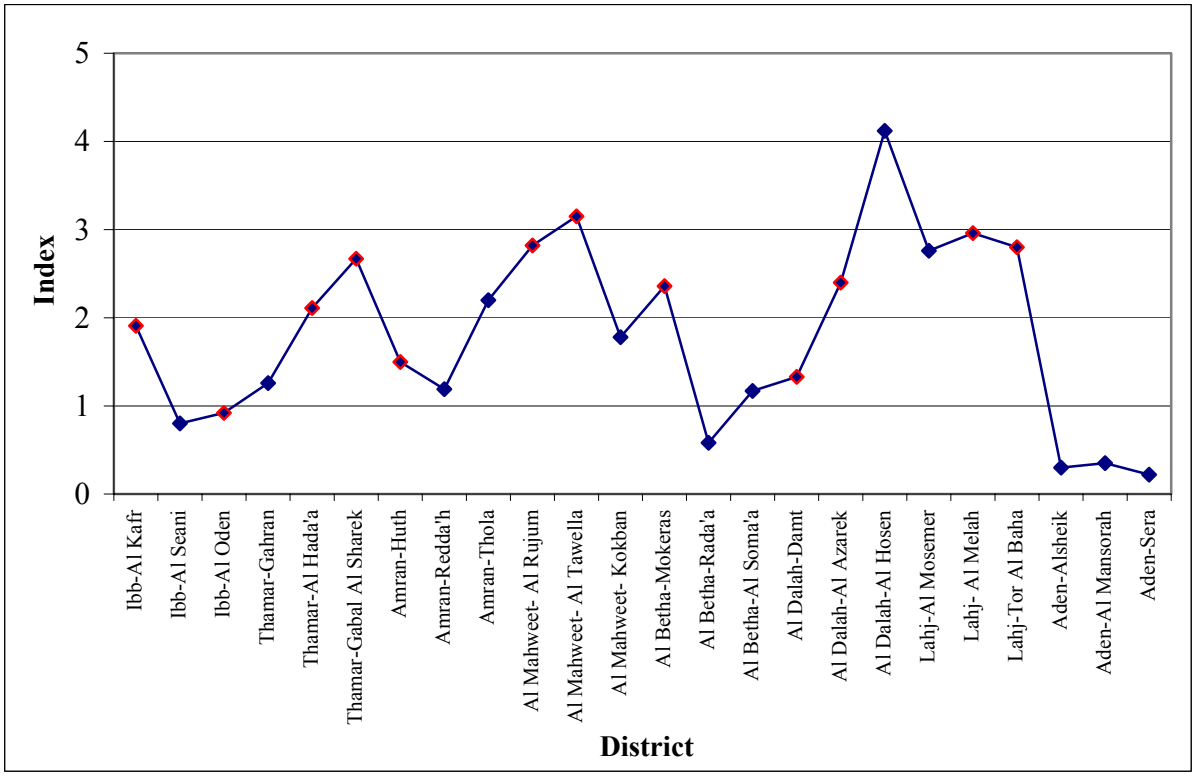
A major part of the case-load of curative services, in particular hospitals, would be avoidable by simple preventive and basic primary care. For example, during our mission we visited the emergency department of Saba'in Hospital in Sana'a City. About 80% of the children (most of them under one year of age) present in the department at the time of the visit suffered from diarrhoea which in the majority of cases is due to wrong feeding practices according to staff. This is also a good example how basic literacy in mothers and the most basic health education and information activities can help to prevent morbidity, mortality (some of the children were severely dehydrated) and costs to the health care system. According to the disease reports by health centres and hospitals from 2003, which are far from being complete and reliable, by far the most common conditions involve the respiratory system (307428 cases) followed by burns and wounds (92503 cases), urinary infections (85279 cases), skin disease (84254 cases), gynaecologic and obstetric cases (45314 cases) not counting complicated deliveries (4947 cases), diarrhoea (33748 cases), tooth decay (33233 cases) and typhoid (22395 cases) (MoPH&P 2004). Although it is difficult to estimate the exact proportion of avoidable cases due to lack of more detailed information, it is clear that a majority
by appropriate preventive and primary care services.

3.2.2 Health care utilisation and access

It is estimated, that only about 42% of the total population have access to public health facilities. Health care is far more accessible in urban settings, but in rural areas, only 24% of the people have access to government facilities. And, in remote areas, such as the North East of the Country, there are basically no health care facilities available within geographic reach.

In a survey carried out in 24 districts by the MoPH&P with support from the EU Health Sector Reform Support Program, a variation in the density of health facilities between 0.2 and 4.1 per 10,000 population was observed (see Figure 2).

Figure 2 Number of health facilities per 10000 population in 24 districts



Source: MoPH&P/HPTSU/EU 2005, p.3

The problem of inadequate access to care is compounded by a low quality of care that is provided. There is a pervasive inadequacy of needed supplies and equipment, even where adequate staffing is given (MoPH&P/HPTSU/EU 2005). Standards of care, treatment protocols, basic regulations (and their enforcement), and poor maintenance of facilities and equipment are usually lacking. These factors are compounded by insufficient supervision, poor management practices, lack of planning, and low morale among health personnel. All of these factors lead to under-utilisation of existing staffed facilities, and to poor health outcomes among the population intended to be served by those facilities.

Lack of access due to limited geographic coverage is compounded to some extent by exclusion due to need for cash payments required to receive care: the direct costs of paying the fees required for consultations and/or prescription drugs are already high, and additional costs of transportation to facilities increase the financial barriers especially for the poor. Access to needed care for women is also limited by social constraints in traditional areas — the need for male escorts to facilities and the need to be seen by female health workers, who are not readily available at health facilities in most of the country.

The geographic and financial barriers to care are reflected in low utilisation rates, even for the most basic health services. For example, only 27% of births are attended by skilled personnel, only 50.6% of pregnant women in the cities and 26.1% in rural settings receive a prenatal tetanus vaccination (MoPH&P 2005a). While nearly half of the children under 5 hold a vaccination card (46,8%), coverage of childhood vaccination programmes varies between 15,9% for complete Hepatitis B (3 doses), 26% for poliomyelitis to 64% for measles, 68% for DPT3 and 73% for BCG (UNICEF 2003, p. 13; MoPH&P 2005a).

In obvious contrast to the exclusion of a relevant population group from access to adequate health care, the Yemeni society is characterised by a surprisingly high degree of medicalisation. While preventable and curable disease still prevail and basic health needs are not met for most Yemeni, the focus of any debate of health care and health insurance is put clearly on secondary and tertiary care. This is certainly due to the great influence of health professionals on sector policy decisions, where clinical experience seems to have a higher value than public and community health knowledge. But citizens also tend to perceive health care and health insurance directly related to hospital treatment, while prevention and primary care are usually underestimated and neglected.

However, focussing health care on specialised treatments is far away from meeting the major challenges of Yemen. International research regarding the role of health for overall economic development and poverty reduction stresses that improvements in health have the potential to produce a high return (Sachs 2001). The positive impact on economic growth of health interventions are highest for preventive measures and primary care, while investments in specialised health care provision have only a minor effect on population health. These findings have recently been confirmed for Yemen. Although the average contribution of education appears to be most relevant for economic growth (35,4 %), it is still high for health (23,4 %) and far more relevant than the impact of capital investment (8,8 %). But the same study points out that expanded immunisation programs are not only very cost-effective, but also produce the highest return for every Rial invested (El-Zaemey 2005, p. 19).

The gap between objective and felt health needs in Yemen has produced a series of facts that are difficult to turn back and that have to be taken in account when planning and implementing a national health insurance system in Yemen. On the one hand, the ambitious goal to create a national system obliges politicians and decision-makers to face the unmet needs of the poor and rural population improving mainly prevention, promotion and primary care. On the other hand, lacking access and low quality of government services have resulted in a rapid growth of the private sector in the urban and semi-urban parts of the country. As prices for health services in the private sector are double to 10 fold those in the public sector and basically unaffordable to the majority of the population, the growing private supply is unable to cover basic needs of most citizens, and less of the poor. However, the private sector is an important stake-holder when it comes to implement a health insurance system in

Yemen. Thus, population needs and interests of influential groups have to be carefully equilibrated in order to find the best ways towards sustainability and universal coverage.

3.2.3 Health care delivery and payment

The MoPH&P operates a four-tiered system of health care facilities, delivering primary health care in health units and centres at the village and district levels, secondary care at rural (district) and governorate hospitals, and tertiary care at referral hospitals in Sana'a and Aden. In addition to the public healthcare system, which despite being public requires high cost-sharing by patients, two parallel systems operate. The second sub-system consists in private hospitals, health centres, pharmacies and medical practices which are basically unregulated and only offer services on a fee-for-service basis and to company employees covered entitled to health care benefits via their employers who have contracts with these providers, which in turn are mainly limited to the hospital sector. The third sub-system is the informal private provision of care by doctors and other health personnel such as midwifes and nurses, who are officially employed in the public sector but who practice outside of their workplace in the afternoon against fee-for-service payments, which create perverse incentives to self-refer patients from public to "private" informal care settings to achieve higher incomes well known from many health systems which operate informal parallel healthcare systems, e.g. many countries in Central and Eastern Europe. In general terms, the current health care system faces a series of different constraints: limited health service coverage, inadequate health facilities, low quality of services, shortages of quantity and quality of human resources, low remuneration and lack of incentives, lack of coordinated management, monitoring and information system, limited financial resources, inadequate community involvement, inadequate management, monitoring, data availability and quality assurance. These conditions pose big challenges in the development of human resource and, thus, in social and economic development (UNDP/RoY 2005, p. 13).

3.2.3.1 Public health

Yemen faces serious economic and social challenges affecting the public health sector and its efforts to improve the general health situation nationwide. This country with its vast ancient history of civilization is reviving and its modern history has been a story of struggle towards prosperity (MoPH&P 2005b, p. 5). Although a series of public health activities are in place in Yemen, a consequent and clearly defined public health policy is lacking. This is certainly due to the recent development of a health system in a country where only 30 years ago a vast majority of citizens were lacking any kind of reliable health care supply. Facing such a complex and huge demand, the Government focussed on those activities that seemed to be of utmost importance in the very moment, building up health care facilities in some remote areas, improving infrastructure of existing centres, and organising basic preventive activities.

A key public health activity in Yemen is the Expanded Program on Immunization (EPI) which started 25 years ago. Currently immunisation services are covering seven preventable diseases: tuberculosis, poliomyelitis, diphtheria, pertussis, neonatal tetanus, measles, and since 1998 hepatitis B. The program offers its services through the public health sector network via fixed, mobile and outreach services. The goal of the public vaccination strategy is to increase coverage rates and ultimately achieve universal coverage, introducing pentavalent vaccine from 2005 onwards. The program aims also at a 60% coverage of tetanus and tuberculosis for pregnant women by 2007, interruption of the indigenous measles virus and eliminating neonatal tetanus by the year 2006.

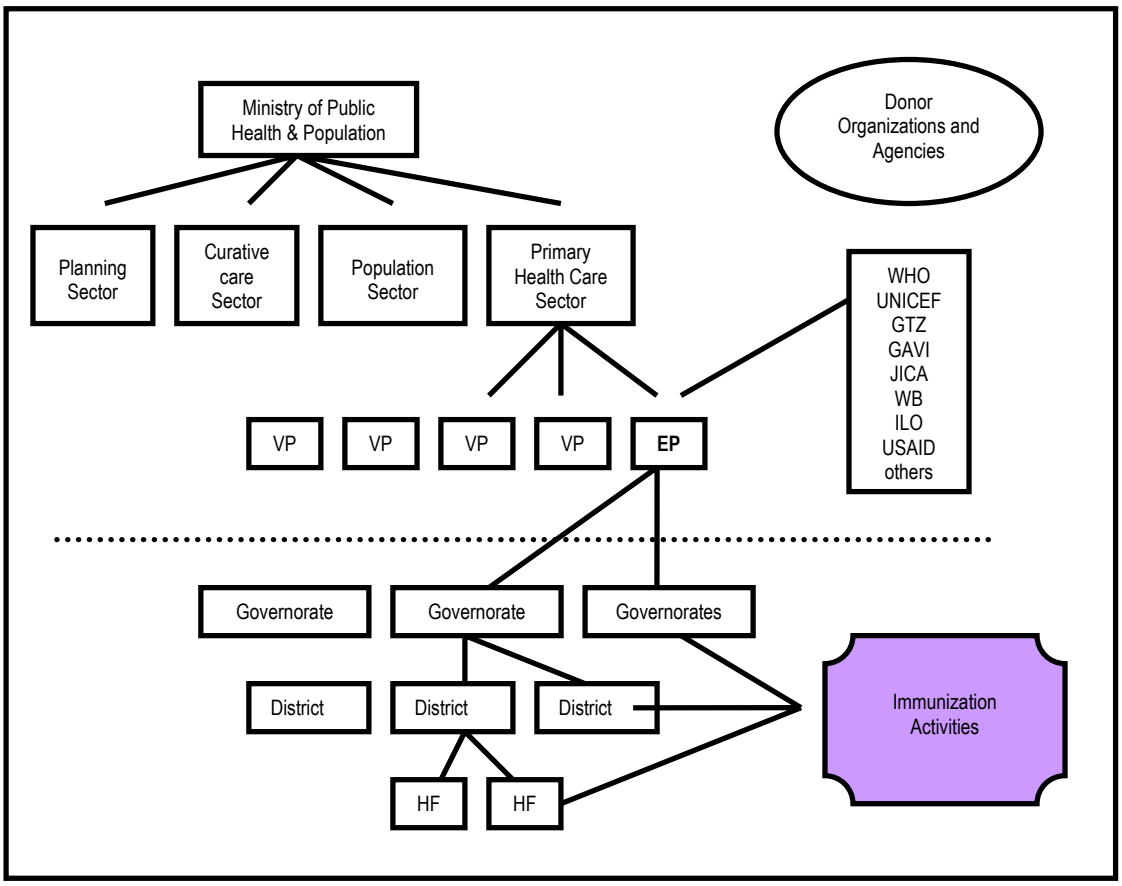
However, immunisation rates are still unsatisfactory (see above), and the recent outbreak of poliomyelitis that was considered an eradicated diseases underlines dramatically the need of further and more effective vaccination campaigns. The World Health Organisation (WHO) gives financial and technical support to the Yemeni Government as long as the national program turns out to be insufficient, but further efforts to channel resources and to provide adequate strategies are needed. In 2003, total expenditure for immunisation was not more than 14.1 million US-$. That equals a per

capita cost of 70 Cents or less than 2 % of per capita health spending. Thus, doubling the expenses for vaccination programs in Yemen would have a negligible effect on total health expenditure and could be easily compensated by reducing non cost-effective services and irrational drug use.

By mid 2004 the MoPH&P was restructured aiming at effective management of its various activities and ensuring synergy. A new sector for Primary Health Care translates the focus of the Ministry towards providing a basic package of essential services to the vast population and ensuring integrity of services in the field. The forth following diagram illustrates the new organigram.

On the central level, the national health priorities to enhance the PHC system have been accompanied by introducing a sector for PHC in the new structure of the MoPH&P and increasing central and governorates budget to PHC related activities. The role of the MoPH&P is being defined in a new way, and the Ministry will focus increasingly on planning and regulation, as well as the provision of public health and preventive services. At the same time, it will gradually phase out of a direct role in the operational management of curative health services. The governorate health office will also cease taking direct responsibility for the operational management of health services and play rather a managerial role. Besides the above mentioned preventive programs, public health policy will be focussing on the provision of a limited scope of basic curative health benefits on a cost-sharing basis, especially targeting the poor (MoPH&P 2005b, p. 17). In addition, communicable disease control programs for the entire population are considered a public health task, especially for those diseases with relevant externalities like infectious diarrhoeal diseases, malaria, schistosomiasis, tuberculosis, hepatitis, AIDS/STDs, leprosy, and rabies (ibid, p. 18).

Figure 3 The organigram of the Ministry of Public Health and Population



Source: MoPH&P 2005b, p. 12, modified slightly by authors; VP = vaccination program; HF = health facility.

In spite of the large number of public health facilities in the country, however, the current lack of services and of confidence at the level of the village and district force the people to by-pass the public first level providers and to look for care in governorate and national level government facilities, or in

the private sector. This creates high health care expenditures for consumers and huge inefficiencies in the system, with government health manpower and health facilities in the periphery standing idle. Cost and efficiency considerations, as well as the analysis of health care needs and potentials led to the design of a four-pronged public sector service delivery mechanism, with firmly established limits that allow for achieving essential public sector goals regarding affordable health care provision. The system is expected to be efficient for both the government and for the health care consumers (MoPH&P 2005b, p. 18).

One major step will be the implementation of a district health system (DHS) that provides a minimum standard of one staffed and functioning district level health facility per district. Under the roof of a district health system, community based health services (CBHS) will be provided for the public. Governorate and national hospitals will be supported to provide good quality services, guided by an autonomous board of directors under a new system of hospital management called hospital autonomy. However, the described strategy and project developed by the Ministry of Health reveals a far-going lack of adequate public health care in the field and an insufficient and ineffective linkage of health care provision on the various levels. Further attempts are needed for improving the adequacy, accessibility and affordability of publicly provided health care services.

3.2.3.2 Outpatient care

In the public sector, outpatient care is provided in health units and health centres, which are most of the time staffed with nurses, midwifes and auxiliary health workers, such as vaccination officers, with support from local administrative officers and technical support from the Governorate health office. About one in ten health centres has 2-5 beds. These are often manned with a general practitioner. Most doctors working in outpatient care see their patients in hospital outpatient departments or in their private clinics. Most doctors working in the public sector in the morning provide private consultations in the afternoon – either in private hospitals or in their own clinics.

In 2004, there were 65 health centres with beds, 535 health centres without beds, 2.075 health units and 333 mother and child health centres in the public sector (MoPH&P 2005d). These numbers have to be interpreted with caution, as on numerous occasions the information provided by health centre and governorate officials to the MoPH&P are exaggerated in order to obtain more funds from the central budget. For this reason, the MoPH&P has started to conduct a survey of health facilities; although this study can only refer to the data from six Governorates that had been included until the end of September 2005. The ongoing MoPH&P-survey will bring up more detailed information about the scope of health care in Yemen. In the small sample available until now, however, it has already become apparent that there is a wide discrepancy between the officially provided data and reality. The GTZ consultancy team has itself visited a rural hospital in Dhamar Governorate, which had no beds and would have had to be reclassified as a health centre without beds, i.e. two levels below its official level. Another vivid example for obvious lacks of available primary health care is the Centre in Massiab located in a spacious building with traces of reasonable, but unused equipment. The health centre lies fallow, and the staff is not present. This is certainly due to missing supervision, control and also demand from the people, but misuse on the local level seems to hamper the situation at the expense of the population (compare Al-Shura Council 2005).

Table 15 Density of primary care facilities in relation to the population size in Governorates. Numbers of health facilities are for 2004, population size for 2003

Governorate	Population (2003)	MCH Centres	MCH Ctrs/ 10000	Health Units	Health Units/ 10000	Health Ctrs w/o beds	Health Ctrs w/o beds/ 10000
Sana'a City	1834293	29	0.16	4	0.02	1	0.01

Table 15 Density of primary care facilities in relation to the population size in Governorates. Numbers of health facilities are for 2004, population size for 2003

Governorate	Population (2003)	MCH Centres	MCH Ctrs/ 10000	Health Units	Health Units/ 10000	Health Ctrs w/o beds	Health Ctrs w/o beds/ 10000
Sana'a	1115547	54	0.48	163	1.46	101	0.91
Aden	559572	8	0.14	1	0.02	16	0.29
Taiz	2532594	6	0.02	122	0.48	78	0.31
Al-Hodeidah	2157293	0	0.00	137	0.64	41	0.19
Lahej	701086	0	0.00	134	1.91	18	0.26
Ibb	2214030	4	0.02	135	0.61	74	0.33
Abyan	463333	36	0.78	109	2.35	10	0.22
Dhamar	1320971	105	0.79	141	1.07	44	0.33
Shabwa	505139	0	0.00	80	1.58	17	0.34
Hajjah	1512309	20	0.13	155	1.02	22	0.15
Al-Bayda	622598	2	0.03	76	1.22	28	0.45
Hadramawt	936355	35	0.37	234	2.50	6	0.06
S'ada	660374	7	0.11	75	1.14	8	0.12
Al-Mahweet	495823	3	0.06	117	2.36	5	0.10
Al-Mahra	78104	6	0.77	66	8.45	4	0.51
Marib	251565	0	0.00	53	2.11	17	0.68
Al-Gouf	481202	1	0.02	121	2.51	27	0.56
Umran	1085259	6	0.06	86	0.79	7	0.06
Al-Dhal'a	444175	11	0.25	66	1.49	11	0.25
Total	**19971622**	**333**	0.17	**2075**	1.04	**535**	0.27

Source: Own calculations based on data from the MoPH&P (2004). The newly created Governorate of Reima with a population of 385000 inhabitants is not included in the population figures, as its inclusion/exclusion in the MoPH&P statistics is inconsistent in the annual MoPH&P report. Notes: MCH: Mother and Child Health, Ctrs: Centres, w/o: without

The density of primary care services per population varies considerably between Governorates, as depicted in table 15. The density of Mother and Child Centres ranges from 0 to 0.79 centres per 10.000 population with an average of 0.17; the density of primary care health units ranges from 0.02 to 2.51 per 10.000 population with an average of 1.04; and the density of health centres without beds ranges from 0.01 to 0.91 per 10.000 population with an average of 0.27. This variance also persists if Sana'a City is not taken into consideration. The density of primary care services thus varies by factor 80 to 100 between regions. This reflects a complete lack of a rational algorithm for governmental resource allocation according to the health needs of the population.

The voice of the people

"We need staff to be honest"
"They should care for all patients not only rich and elite"
"They should be taught that we are integrity on their neck"

Source: Al-Serouri 2004

The MoPH&P provides some elementary data on the private sector. In 2003, they accounted for 115 private health centres, 545 physician clinics, 709 specialist clinics, 260 dental clinics, and 41 midwifery clinics in the country predominantly located in the cities of Sana'a, Aden and Dhamar (MoPH&P 2005a). However, as with the data on public health facilities, these data have to be

interpreted with great caution. Many private clinics that have been licensed have never been opened. The number, size or quality of private providers is currently not monitored by the MoPH&P, which accounts for private provider licenses using a handwritten list in chronological order of licensing.

Outpatient care utilisation data are only available for services provided by hospitals and health centres with beds and thus not very representative (MoPH&P 2005a). In a study for the World Bank, Beatty et alii (1998) conducted a survey in 1996 among 884 households in four geographic areas of Yemen on health care utilisation and out-of-pocket expenditures on health. They elicited annual outpatient utilisation rates are 0.99 for rural Sana'a, 1.34 for Sana'a City, 1.74 for Taiz, and 2.73 for Lahej. They also found a high variation of utilisation rates by age group, with lower than expected rates for the under 5 year olds in rural areas, despite the fact that the mortality rates and the burden of disease in this age group is particularly high in Yemen. Another noteworthy finding were higher utilisation rates for boys aged 6 to 15 years compared to girls of the same age. As there is no biological reason for this difference, these rates may denote gender related discrimination of girls. This was also reflected in differences in health expenditures for outpatient care between boys and girls (Beatty 1998).

3.2.3.3 Inpatient care

In rural areas, some inpatient care is provided by health centres with beds, but most care is provided in rural hospitals and Governorate hospitals. In 2004, there were an estimated 65 health centres with a total of 270 beds in the country. 124 rural hospitals stated to run 3903 beds and 44 Governorate hospitals provided 8.769 beds (MoPH&P/EU 2004). The validity of these official numbers underlies the same systemic limitations as outlined in the section on outpatient care. The density of inpatient beds ranges between 1.19 beds per 10.000 population in Hajja to 33.8 beds per 10.000 population in Al Mahra Governorate, with an average of 6.48 beds per 10.000 (Table 16).

Table 16 Density of inpatient beds per population. Data on health facilities from 2004, data on population from 2003

Governorate	Population (2003)	Beds in health ctrs	Beds in health ctrs/ 10000	Beds in rural hospitals	Beds in rural hospitals/ 10000	Beds in governorate hospitals	Beds in governorate hospitals/ 10000	Total beds/ 10000
Sana'a City	1834293	0	0	60	0.33	1680	9.16	9.49
Sana'a	1115547	0	0	191	1.71	50	0.45	2.16
Aden	559572	7	0.13	0	0.00	1330	23.77	23.89
Taiz	2532594	0	0	203	0.80	1396	5.51	6.31
Al-Hodeidah	2157293	0	0	90	0.42	513	2.38	2.80
Lahej	701086	12	0.17	838	11.95	238	3.39	15.52
Ibb	2214030	0	0	345	1.56	480	2.17	3.73
Abyan	463333	0	0	330	7.12	240	5.18	12.30
Dhamar	1320971	0	0	101	0.76	184	1.39	2.16
Shabwa	505139	0	0	250	4.95	150	2.97	7.92
Hajjah	1512309	0	0	30	0.20	150	0.99	1.19
Al-Bayda	622598	0	0	120	1.93	1000	16.06	17.99
Hadramawt	936355	217	2.32	647	6.91	574	6.13	15.36
S'ada	660374	34	0.51	93	1.41	50	0.76	2.68
Al-Mahweet	495823	0	0	90	1.82	100	2.02	3.83
Al-Mahra	78104	0	0	120	15.36	144	18.44	33.80
Marib	251565	0	0	5	0.20	90	3.58	3.78
Al-Gouf	481202	0	0	210	4.36	100	2.08	6.44

Table 16 Density of inpatient beds per population. Data on health facilities from 2004, data on population from 2003

Governorate	Population (2003)	Beds in health ctrs	Beds in health ctrs/ 10000	Beds in rural hospitals	Beds in rural hospitals/ 10000	Beds in governorate hospitals	Beds in governorate hospitals/ 10000	Total beds/ 10000
Umran	1085259	0	0	0	0.00	210	1.94	1.94
Al-Dhal'a	444175	0	0	180	4.05	90	2.03	6.08
Total	**19971622**	**270**	0.14	**3903**	1.95	**8769**	4.39	6.48

Source: Own calculations based on data from MoPH&P (2004). Notes: #: number, Ctrs: Centres

The four tertiary hospitals in Sana'a City provide between 241 and 500 beds each. In Aden, there are two tertiary hospitals with 199 and 405 beds, respectively. A number of other Governorates, for example Hadramaut and Taiz have one or even two tertiary hospital of similar size. Otherwise, most hospitals have between 30 and 100 beds (MoPH&P 2005a).

The opinion of the leaders

6 % of opinion leaders say: Health insurance should contract public providers only	8 % of opinion leaders say: Health insurance should contract private providers only

Source: GTZ&EC survey 2005

Concerning utilisation data it is noteworthy that most hospitals do not provide data on admissions or discharges to the MoPH&P. For example out of 11 hospitals in rural Sana'a Governorate only one (Bani Matar Hospital) provided the required data (MoPH&P 2005a+e). The World Bank survey from 1996 (Beatty 1998) thus provides the only representative data on inpatient utilisation in Yemen. They found that utilisation of inpatient services varied dramatically by location. In rural Sana'a and Taiz, utilisation was under 1 hospitalisation per 100 population per year, whereas for Sana'a City and Lahej utilisation rates were 2 and 2.5 per 100 population per year, respectively (Beatty 1998). Like in most countries, average hospitalisation rates were higher for females (1.7/100/year) than for males (1.2/100/year), except in the Governorate of Taiz, where they were equally low for both sexes (0.9/100/year). Both the inpatient and outpatient utilisation rates are low in international comparison. For example, in Egypt 3.3 per 100 inhabitants per year were admitted to hospital in 1994 (Beatty 1998).

3.2.3.4 Long-term care

Long-term care in Yemen is provided by families, nearly exclusively. There are no public facilities for the elderly or chronically ill requiring long-term nursing care. We have not come across private facilities catering for this need neither. Al Gumhuri Teaching Hospital in Sana'a City incorporates a centre for the rehabilitation of handicapped people which is run by the Mother Theresa charity. A National Centre for Rehabilitation works in Sana'a with 112 staff in outpatient care. Per month it applies on average 10.000 rehabilitative applications like hotpack, Galvan, hydro therapy, and exercises. Its cost-sharing share of the total revenue of 64 million YR per year is only 6%, which indicates a pro-poor approach.

3.2.4 Health care financing

National health account data of 2003 were updated by WHO by end of September 2005 (Driss 2005). The following table summarises the most relevant updated data on health care financing in Yemen.

Table 17 Health care financing in Yemen

Total Health Expenditure	115,102,000,000 YR 627,000,000 US-$
Estimated per capita household expenditure in 2003 (1998 prices)	64.543 YR
Total Health Expenditure per capita	33 US-$
Total Health Expenditure as % of the GDP	5.6%
Total household expenditure on health in 2003, current prices	39,292,240,138 YR 214,038,284 US-$
Total per capita households expenditures on health in 2003 (current prices)	11,3 US-$
Household out-of-pocket payments as % of Total Health Expenditure	57%
Public expenditures	32%
Private expenditures	59%
International donors	9%

Source: Driss 2005

The most recent update of the national health accounts for Yemen reveals the following purposes households in Yemen are spending their money for health care on.

Table 18 Household health spending in Yemen

Spending / Uses	YR (millions)	US-$ (millions)	% of total
Medicines and drugs	24,086	131	37,1%
Treatment abroad	31,253	170	48,1%
Doctors' fees	3,851	21	5,9%
Surgery	2,082	11	3,2%
Medical supplies	1,572	9	2,4%
Hospital stays	864	5	1,3%
Other	1,297	7	2,0%
Total households expenditures	65,005	354	100%
Treatment abroad paid by MoF	1,108		
Treatment abroad paid by employers	1,400		
Treatment abroad by MoF and employers	2,508		

Source: Driss 2005

The figures are different according to different sources. This is quite understandable since all such data is based on very rough estimations and educated guesses. There is no way of accounting for national health as accounting for a small company. The total amount spent for health ranges between about 26 US$ and 69 US$ according to different sources. (Constable 2002, Soeters 2004, Rhodes 2004)

The highest share in the national health accounts has the household when paying for health at the time of use. This is exactly what health insurance tries to revert into pre-payment. WHO calculates 66% as the private share of total spending for health, the health accounts arrive at 62%, the World Bank estimated 75% for 1998. The most recent estimate arrives at 59%. Private spending is especially high for catastrophic diseases. This is indicated by the fact, that 40% - according to the most recent

estimate: 48% - of it goes for treatment abroad. What holds true for the rich, applies to the poor, too. The following table gives an idea of the private spending for hospital admissions of mainly rural households; however it has to be mentioned that the survey is based on a relatively small sample and might not be representative. But even with this small number there is one treatment abroad mentioned and measured.

Table 19 Private spending for hospital care in rural Yemen

	Number of admissions	Average cost for admissions, including one special case – needing referral to Syria
Government health facilities	8	$ 184.55
Private health facilities	8	$ 328.60
TOTAL	16	$ 245.04

Source: Soeters 2004

Private spending for health increased after the government introduced cost-sharing since 1997 for public facilities. A flat entry or ticket rate is for example 50 Rial per visit plus payments according to a fee schedule, e.g. ultrasound 800 YR and gynaecological examination 100 YR. Such fees are determined by local councils and vary accordingly. Cost-sharing income is given

- 40% for staff
- 40% for covering current costs
- 10% for education and promotion
- 10% for stationary and other office expenses.

The voice of the people

"You have to buy everything from the market (private pharmacies) even operation's requirements"
"If you who have money you would be treated. If you don't have money you would not"
"If you have Rials all workers will serve you … If not they will not care about you"

Source: Al-Serouri 2004

Advantages were seen in increased resources, increased quality and supply, patients value paid services, incentives for staff. (Oxfam 2001) Disadvantages were studied by Oxfam: wide variations and large deficiencies, rare written guidelines, ad hoc exemptions, community representatives do not play a role in it, financial management and record keeping were weak, and costs-sharing was seen to have no effect on quality. Staff morale was not improved but cost-sharing increased a profit orientation of them. Quite some waste of revenues was discovered (Al-Serouri 2001). User charges generate nowadays quite some revenues for public health facilities. Estimates range from 1 billon YR per year (MoPH&P cost-sharing department), via 4 billion a year (Rhodes 2004) to more than 10 billion a year, considering for example that Al-Thawra hospital with 863 beds has yearly revenues of 1.7 billion YR (Tarmoom 2004) and Al-Jumhuri Hospital in Sana'a with 450 beds generates 15 million YR per month[14] as compared to a total of 12,672 beds in the country. A small country hospital run mainly by Chinese specialists generates a yearly 10.35 mio YR revenue in a 104 bed hospital with a 30% occupancy rate. (Tarmoom 2003).

Exemptions for cost-sharing in public facilities are given to about 10% of the patients. The share varies between the different visited hospitals, ranging from 1 to 40%. Rules and regulations have been established, but they are usually or at least very often not followed. Some facilities have committees to decide. Most often it is the discretion of the staff to decide. In many cases soldiers, policemen "and VIP" are exempted, even from paying for drugs from the drug fund, where exemptions were not foreseen.

[14] Telephone interview result of a team member with administrator of hospital.

The opinion of the leaders	
78 % of opinion leaders say: Cost-sharing is bad and unfair	84 % of opinion leaders say: Cost-sharing is not well organized
	Source: GTZ&EC survey 2005

To lower the private costs for health care a revolving fund for drugs was set up country-wide with quite some beneficial impacts in reducing drastically the prices for essential drugs for the users. These drugs are sold in the public facilities with a mark-up of 10% and with a clear allocation algorithm, i.e.

- 2% for physicians
- 1% for the director
- 2% to the pharmacist
- 5% for transportation of drugs

An evaluation study shows: "The costs of drugs (where available) in public facilities are still high (though much lower than in private pharmacies[15]), exemptions policies (for the poor) are inconsistent and not well-administered,[16] the distribution system remains extremely inefficient,[17] and the "revolving" nature of the Drug Fund is not functioning.[18]" ... Earlier this year, the MoF completely cut off financing for the Drug Fund, noting that it had accumulated debts said to be over YR 2 billion for drugs it had distributed and was supposed to have been paid for.[19]" (Fairbank 2005) In the meantime the drug fund is not any longer continued due to additional problems of graft and corruption. Politically it is seen as a hint that the funding of funds is full of risks. The Cabinet is said to have decided recently, not to allow new funds.

On the basis of available price lists and additional information, the study team has developed a rapid estimation of health care costs for hospital treatment of a series of frequent health problems. The data calculated try to give an idea of the official cost-sharing expenses. The assessed treatment pattern were selected according to practical criteria (well-defined benefits and prices, reasonable treatment standards, etc.) and do not proclaim to be complete. However, they give an idea of what people have to spend on health care, although they do not take in account additional under-the-table payments. The following table gives an overview of estimations of total official prices for some treatments in selected hospitals.

Table 20 Estimated total official cost-sharing for selected common medical treatments

[15] The above-cited YemDAP Evaluation found that "median prices in the private pharmacies were, on average, 665% of prices in public pharmacies" (p. 5), "the lowest prices in private facilities were still 3.5 times higher than those in public pharmacies" (p. 14), and government facilities often offered "other drugs at a variety of prices, sometimes significantly more expensive than the stipulated cost price plus 10%" (p. 14).

[16] A Household Survey conducted by the above-cited Final Evaluation found that the "very poor" (17% of the sample) spent on average US$19.8 per health care visit on drugs—"which was more than the average for all socio-economic groups in the sample" (p. 6).

[17] Although the Drug Fund can only sell drugs to government facilities, it is commonplace for those facilities to purchase and sell (at hefty mark-ups) additional (even competing, branded) drugs from the private sector. Moreover, the Drug Fund delivers up to its four regional stores only, and the inefficient distribution system from those stores to the facilities "remains unchanged and very inefficient" (p. 17).

[18] Facilities were supposed to deposit revenues from sales of drugs into a central bank account, and local proprietary accounts were not allowed. But not all facilities opened central bank accounts, and yet most of them continued to get drugs from the Fund. Without a bank account, however, facilities had an incentive to stock and sell drugs purchased from the private pharmacies, undercutting the purpose of the Drug Fund.

[19] The MoF does not finance the Drug Fund directly, but does provide funds through a budget line item for "drugs and medical supplies" that provides funds to facilities to purchase drugs from the Drug Fund. This line item, however, was being used to pay for only a fraction of the drugs actually supplied to the facilities, which either relied on donated drugs or on the willingness of the Drug Fund to provide replacement drugs in return for promises to pay later. The Drug Fund supply and financing facility was never supported by all donors. As noted in the above-cited Final Evaluation, "most donors (UNICEF, UNFPA, World Bank) still have their own procurement and distribution chains" p. 12).

Health problem/treatment benefits	No.	Al-Thawra Sana'a	Al Jumhuri Sana'a
Cholelithiasis			
Cholecystectomy with cholangiography	1	35,000	30,000
Hospital daily allowance surgery public / *private*	5	7,500 / *40,000*	5,000 / *15,000*
Total		42,500 / *75,000*	35,000 / *45,000*
Cholecystectomy by laparoscopy/MIS	1	20,000	30,000
Hospital daily allowance surgery public / *private*	2	3,000 / *16,000*	3,000 / *6,000*
Total		23,000 / *36,000*	33,000 / *36,000*
Acute Appendicitis			
Simple Appendectomy	1	10,000	8,000
Hospital daily allowance in surgery public / *private*	3	4,500 / *24,000*	3,000 / *9,000*
Total		14,500 / *34,000*	11,000 / *17,000*
Uncomplicated delivery			
Birth cephalic presentation, episiotomy and joint	1	5,000	0
Ultrasound	1	900	750
Immediate attention of the newborn	1	0	2,000
Hospital daily allowance obstetrics public	3	4,500	3,000
Total		10,400	5,750
Coronary heart disease			
Coronary artery bypass grafts	1	3,800,000[20]	Ø
Hospital daily allowance coronary unit (CU)	4	8,000	
Hospital daily allowance medicine	10	15,000	
Rx thorax ap and lateral (2 exp.)	1	600	
Sessions of integral physiological treatment (CU)	4	0*	
Sessions of cardio-respiratory training	10	0*	
Transfusion in operating theatre	2	0[21]	
Total			
Diaphysiarian o metaphysiarian osteosynthesis	1	40,000	30,000
Hospital daily allowance surgery public / *private*	10	15,000 / *80,000*	10,000 / *30,000*
Sessions of ergometric training	15	0*	0*
Sessions of motoric re-education	20	0*	0*
Removal of osteo-synthesis material	1	20,000	8,000
Hospital daily allowance surgery public / *private*	2	3,000 / *16,000*	2,000 / *6,000*
Total		78,000 / *156,000*	50,000 / *74,000*
Health problem/services	No.	Al Saeed Taiz	Private hospital level
Cholelithiasis			
Cholecystectomy with cholangiography	1	60,000	60,000[22]
Hospital daily allowance surgery public / *private*	5	20,000	40,000
Total		80,000	
Cholecystectomy by laparoscopy/MIS	1	80,000	70,000[23]
Hospital daily allowance surgery public / *private*	2	8,000	16,000

[20] The pricelist of the heart centre in Al-Thawra Hospital specifies services in US-$, for instance open heart surgery for 20,000 $.
[21] Covered through blood donation by relatives.
[22] Al-Hureibi, Al-Motoakl, German Yemeni
[23] German-Yemen Sana'a and Al-Hureibi Hospital Sana'a

Table 20 Estimated total official cost-sharing for selected common medical treatments

Health problem/treatment benefits	No.	Al-Thawra Sana'a	Al Jumhuri Sana'a
Total		88,000	
Acute Appendicitis			
Simple Appendectomy	1	40,000	25,000/30,000[24]
Hospital daily allowance in surgery public / *private*	3	12,000	24,000
Total		52,000	
Uncomplicated delivery			
Birth cephalic presentation, episiotomy and joint	1	15,000	5,000[25]
Ultrasound	1	1,000	1,200
Immediate attention of the newborn	1	1,000	2,000
Hospital daily allowance obstetrics public	3	12,000	24,000
Total		29,000	32,200
Coronary heart disease			
Coronary artery bypass grafts	1	Ø	Ø
Hospital daily allowance coronary unit (CU)	4		
Hospital daily allowance medicine	10		
Rx thorax ap and lateral (2 exp.)	1		
Sessions of integral physiological treatment (CU)	4		
Sessions of cardio-respiratory training	10		
Transfusion in operating theatre	2		
Total			
Diaphysiarian o metaphysiarian osteosynthesis	1	140,000[26]	100,000
Hospital daily allowance surgery public / *private*	10	40,000	80,000
Sessions of ergometric training	15	15,000[27]	30,000
Sessions of motoric re-education	20	20,000	40,000
Removal of osteo-synthesis material	1	20,000	40,000
Hospital daily allowance surgery public / *private*	2	4,000	16,000
Total		239,000	306,000

Sources: Own calculations on the basis of available pricelists (Al-Thawra Hospital 2005, Al-Jumhuri Hospital 2005, Al Saeed Specialised Hospital Taiz 2005) and additional information from providers

With regard to cost-sharing, it is not even clear if all such revenues are declared properly and not considered to be informal and under-the-table payments for the private use of the staff in public facilities. This is extremely difficult to investigate because official user fees are regularly topped up by unofficial extra money claimed by health workers for a big array of services and treatments. The implementation of cost-sharing in public health care facilities has pushed wide open the door of commercialisation of health care and induced a generalised culture of cash in. For instance, physicians use to demand one third or even half of the official user fee as extra payment in order to deliver a certain medical service, nurses and midwives are a little bit more modest but also ask for extra payment.

[24] Al-Hureiba: 25, 000; German-Yemeni Hospital: 30,000 YR
[25] Fee applied in Al-Saba'in Hospital.
[26] Operation fee 120,000 plus 20,000 for osteosynthetic material (plate).
[27] Physiotherapy not included, has to be hired outside the hospital; estimation 1,000 YR per treatment

The opinion of the leaders

90 % of opinion leaders say:
Informal payments are often given
(about 200 YR for PHC and 2000 YR in hospitals)

Source: GTZ&EC survey 2005

Health care workers justify their demand for extra-money with the very low salaries paid in the public sector, and also with the need to buy their own equipment for having adequate working conditions. Indeed, chronic under-equipment of public health care facilities reduces quality and efficiency and delivers another justification for under-the-table payments and corruption. In an equal way, under-payment of the staff is a major issue that has to be stressed also facing the challenges of a national health insurance system. Physicians earn between 20,000 and 30,000 YR monthly in a public hospital, and nurses and midwives do not get more than 15,000 YR, that is clearly less than the private sector pays and produces corruption and arbitrarily high charges for patients.

For the patients there is a high private spending at time of use

- a high spending for catastrophic cases
- a high spending for treatment abroad
- a high spending for avoidable diseases
- a high spending for drugs
- a high spending for informal, under-the-table payments.

The voice of the people

"One sold his land when his wife needed operation…
Unfortunately she died at the hospital…He lost both, his land and his spouse"

"A head of household died after he had snake bite…
simply because his family has no money to take him to the hospital…
so his family lost the earner and becomes dependent on others' help"

"One has a shop but he sold it to cover for his treatment abroad …
he has a heart disease …now he went back to scratch"

Source: Al-Serouri 2004

About 28% of health care financing originates in government sources, only. The most recent update of the national health accounts calculates with 32,228,560,000 YR from government (Driss 2005), while other sources had hint at only 19 billion YR for the year 2004. (Rhodes 2004) There is a bewildering variety of funds of various ministries to be used for health. The Ministry of Finance and many other ministries use funds, especially for supporting treatment abroad in case of need. Ministry of Finance keeps a strict control by means of direct allocations to recipients administered by their own employees in the Ministry of Health and other intermediaries. Professional resource allocation dialogues between the ministries seem to be rare. Some argue that a big gap exists between budgets and expenditures. The most recent public health expenditure review was not so clear on this issue. There is a very imbalanced allocation of government funds with an excessive spending for investment and highly insufficient budgets and expenditures for recurrent costs. New hospital investments aggravate the need for recurrent and operation costs (Fairbank 2005). Altogether, health sector allocations were shrinking in relative terms during the period 1998 to 2003 (Driss 2005):

- Index for total government expenditure (1998-2003) 260.3
- Index for GDP growth (1998-2003) 244.9
- Index for government health expenditure (1998-2003) 239.1

"There is very little coordination, at all levels of government, of plans with budgets. Actual spending differs, often considerably, from approved budgets, and there is no accountability for budgets or spending levels. The representatives of the Ministry of Finance seem to exercise a disproportionate degree of control over spending at all levels of the government health system, and the budgeting and disbursement practices do not seem to support implementation needs of government programs. The timing of the release of investment funds is counterproductive to smooth execution of planned projects, and the release of funds for current operations, requiring invoices in advance of disbursement, makes it very difficult for health managers to have the resources they need when they need them." (Fairbank 2005, p. 25) From the point of view of health professionals recurrent funds are provided at levels far below requests and needs. From the point of view of the officials in the Ministry of Finance many of the requests are unfounded in terms of an effective and efficient expenditure pattern. The result is a severe under-funding of public health care. (Constable 2002) Main victims are the cost-sharing patients who have to compensate for this.

The opinion of the leaders	
91 % of opinion leaders say: Cost-sharing leads to postponement of treatments	63 % of opinion leaders say: Exempted diseases are not exempted from cost-sharing
	Source: GTZ&EC survey 2005

3.2.5 Health care benefits

Currently, the Ministry of Public Health and Population does not define a benefit package that has to be provided to the general population by public hospitals, health centres or health units. The management of each institution is thus free to offer a range of benefits as they like - the preferences of the population were not evaluated, the catalogues are not based on evident needs. In the best case, the benefit packages might be based on the expertise of the health professionals and the available equipment. In the worst case, the benefits offered are tailored to maximise cost-sharing revenues and revenues from informal payments in a health facility. Because of rudimentary and unreliable statistics on the health services actually provided at all levels of the health care system it is virtually impossible for the Ministry or for an external reviewer to get a picture of the benefits currently provided to the population without recurring to major audits. Likewise, utilisation data from the private sector is not available. Therefore, some proxy measures have to be taken into account to get a rough picture of benefits and prices of health services currently offered to patients in Yemen.

The opinion of the leaders
77 % of opinion leaders say: Drugs should be included in benefit package of health insurance
Source: GTZ&EC survey 2005

One proxy measure used here is utilisation data based on health surveys. Others include MoPH&P and hospital statistics as well as official price lists of hospitals and financial statistics from company health benefit schemes.

Survey data: According to the Beatty et alii (1998) survey, the majority of health care visits in the survey population were for curative care. In rural areas only 0.6 to 2.4% of outpatient visits were for preventive care. In urban areas, the preventive care was sought in 6% of visits. The reasons for seeking care elicited in this survey give a rough idea of the demand for health services in Yemen (Table 21).

Table 21 Hospital prices in Sana'a City - July 2005

	Public Hospitals			Private Hospitals		
	Al-Thawra Hospital	Al Gumhuri Hospital	Saba'in Hospital	Yemen German Hospital	University Sc.&Tech. Hospital	Dr Al Hureibi Hospital
Outpatient clinic -daytime	200	200	100	770	800	500
Emergency clinic - night	200		150		1200	500
Consultant called from outside	500				2500	2000
Consultant in hospital	na			1350	1200	500
Specialist doctor	500	200			800	
Consultant foreign doctor				3850		
Investigations						
ECG	500	500		1350	1500	850
24h-ECG	4000			8850	9000	
Echocardiography	2000	2000		4400	5000	
Cranial CT	8000	8000	6000	9400	30000	10000
EEG	3000			6350	6000	6000
Operations	**			***	****	
Appendectomy	10000	15000		50000		30000
Herniotomy	20000	25000		50000	50000	45000
Hemorrhoidectomy	7500	12000		37500	40000	20000
Thyroidectomy (subtotal)	20000	20000		62500	110000	65000
D&C	5000	9000	5700	19000	20000	3000
Caesarean section	10000	25000	10200	65000	70000	40000
Normal delivery	5000	7000	2200	25000	25000	20000
Circumsicion		1500	500	5800	5000	2500

* 3200 on admission, independent of length of stay , ** companies are charged the double of public prices - for late payment , *** = plus anesthesia, **** plus operating theatre fee

Ministry of Health and Population statistics: The most up to date utilisation statistics are made available by the MoPH&P in its annual report. The latest is from 2003/2004. As the MoPH&P records some basic indicators such as numbers of outpatient visits, number of surgical operations, immunization coverage, and laboratory diagnostics (routine blood, biochemistry, urine analysis, stool analysis) and statistics on radiological and other investigative exams (organ-specific e.g. digestive system, number of electrocardiograms).

Hospital statistics: Hospital statistics provide a much clearer picture of services offered at secondary or tertiary level. A detailed list is available for services offered at Al-Thawra and Al Gumhuri Teaching Hospital in Sana'a. Service statistics for 2004 for each department in both hospitals show a wide spectrum of surgical interventions carried out which could be from any tertiary hospital.

Hospital price lists: Table 21 gives an overview of prices of selected interventions in a number of major hospitals in the capital city, comprising both public and private hospitals. As was apparent from interviews with a number of hospital directors, hospitals do not know the costs of individual services or interventions provided. Hence, the erratic prices both within hospitals and between hospitals. Prices in Yemen do seem to reflect willingness to pay more than actual costs. This applies both to public and to private hospitals. The only example of a cost-revenue calculation encountered was open heart surgery at the Yemen German Hospital, where costs of providing an operation team were known to cost US$ 42,000 per month. This by far exceeded the revenues from an average of 10 operations provided per month. Therefore the service had to be stopped recently.

3.2.6 Quality management

Public Sector: The MoPH&P is responsible for quality assurance in the curative care sector of public hospitals and has a division for quality assurance in its Cost Sharing Directorate. In theory, the division is supposed to carry out regular audits of all hospitals in Yemen. However, the number of audits planned for 2005 is 11 hospitals, 4 of which are in Sana'a City, 1 in Aden, and 2 in each of 3 other governorates (Ibb, Lahaj, Haja) (MoPH&P 2005i) Audits are done with a number of checklists, specific for outpatient departments, emergency rooms, wards, and laboratories. However, only basic structural components are thus assessed (MoPH&P 2005f). Neither processes nor outcomes are monitored. On top, according to informal information from the MoPH&P, not even these basic audits are carried out.

In theory, in case of non-fulfilment of quality criteria, the MoPH&P makes a recommendation to the hospital director with an agreed deadline for the improvements to occur. Then another audit is to be carried out after 2-3 months. If quality criteria are still not fulfilled, budget implications via the Deputy Minister for Curative Care would ensue.

Concepts of clinical quality management were unknown to the interviewed ministry officials. In health facilities, no training in quality management takes place, nor are quality management systems anywhere in place in institutions. Officially, coordinators of quality assurance in Governorates have been appointed, but their role is not defined and the MoPH&P officials do not see any activities emanating from them concerning quality assurance or improvement. Currently a pilot project for quality assurance is conducted in Khalifa Hospital (Al Serouri and Al Sofeani 2005), and a National Quality Plan for Yemen has been developed, which is however still very much at the conceptual phase (Ovretveit 2002). Quality education comprises workshops since 2 years for health officers of Governorates: The introduction of a quality assurance syllabus in the curricula of Health Institutes, which are responsible for the training of paramedical staff, is planned. A booklet has been developed for this but has not yet been implemented.

The opinion of the leaders
89 % of opinion leaders say: I expect good services with health insurance
Source: GTZ&EC survey 2005

Private Sector: Quality assurance in the private sector is also the responsibility of the MoPH&P. However, this is separate from the quality assurance programme for public hospitals. The Division for Private Medical Services is responsible for the licensing of private facilities. A handwritten list of all private facilities to whom a license has been granted is kept there, which comprises e.g. 542 second level hospitals and 168 private health centres (August 2005). However, the list is virtual as many facilities are either not yet or no longer operational and the MoPH&P has no knowledge about current activities of private providers. More recently, a licensing checklist similar to the audit checklists for public hospitals has been introduced. Again, only structural aspects of quality are assessed. Another problem is that many licenses have been granted before this new mechanism was introduced and audits of private facilities are currently not carried out. As was evident from interviews with hospital directors from private hospitals, quality management in hospitals is currently limited to basic sanitary activities that would fall under the label of hospital hygiene in developed countries. Again, modern clinical quality management systems are not in place. This is also demonstrated by some of the hospital statistics and price lists, which show that procedures that are now considered inappropriate practice in most cases are still widely practised in Yemen, such as tonsillectomies and adenoidectomies or grummets for ear infections.

The voice of the people
"The government spoke about Health For All but it is a fake… in reality they should call it Sickness For All" *"We are not too impetuous … although we are approaching 2005 we will be satisfied if you receive services similar to what we used to have in 1995"*
Source: Al-Serouri 2004

3.2.7 Satisfaction of clients

Only few studies on the satisfaction of clients with health services in Yemen have been carried out. In a survey on community participation conducted by Al-Serouri (2004), a question on whether people in al Shamayatayn (Taiz) could understand and accept pre-payment schemes for health prompted a stormy emotional response about the poor quality of health services at the district hospital as well as at other health facilities. All expressed their dissatisfaction with the currently provided services. Although they realize that the cost of the services already lay on the citizens they stressed that people are not willing to accept pre-payment unless they can see a sensible improvement in service quality (Al-Serouri 2004). Citations from interviews included the following:

In an evaluation of a quality management system in Khalifa Hospital (Shamayatayn, Taiz) some questions on client satisfaction with services provided by the hospital were asked. Fifty-six percent of interviewed patients mentioned that the staff attitude was good compared to 29% who say it was fair and 16% who mentioned that the staff attitude was poor. Overall, 15% of patients were very satisfied with their visit compared to 48% who were satisfied and 37% who were not satisfied. The main reasons behind satisfaction were: nearby services, good staff attitude, cleanness and others e.g. effective treatment. The main reasons for dissatisfaction were: late doctor, poor organization in entry to consultation room, others e.g. lack of drugs, poor attitude and poor lab results (Al Serouri/Al Soufeani 2005).

Soeters et al (2004) conducted another survey in four Governorates. They found that the *perceived quality* of respondents is better in private health facilities than in government facilities. In particular there was a large difference concerning the perceived respect of health workers whereby only 41% of the respondents thought that government health workers were respectful compared to 85% in the private sector. The perception of the availability of drugs in both public and private health facilities was below 50%, but particularly low in government health facilities with only 16%. Another quality problem seemed to be the long waiting times with only 16% of respondents thinking that the waiting time in government health facilities was reasonable (Soeters 2004).

3.2.8 Reform agenda

A good health sector reform has to address the main issues of health sector performance. World Health Organization tried to measure performance of all countries (WHO 2000), admittedly with some flaws as problems but in a straightforward and relevant way. This could serve as a stimulus for health sector reforms. The comparative findings of WHO are shown in the next table.

Table 22 Yemen's comparative health system performance

WHO Health system attainment and performance ranking *	Attainment of goals						Health expend. per cap. in inter-national dollars	Performance	
	Health		Responsiveness		Fairness in financial contribu-tion	Over-all goal attain-ment		On level of health	Overall health system perfor-mance
	Level DALE	Distri-bution	Level	Distri-bution					
Saudi Arabia	58	70	67	50-52	37	61	63	10	26
UAE	50	62	30	1	20-22	44	35	16	27
Morocco	110	111	151-153	67-68	125-127	94	99	17	29
Qatar	66	55	26-27	3-38	70	47	27	53	44
Egypt	115	141	102	59	125-127	110	115	43	63
Libya	107	102	57-58	76	12-15	97	84	94	87
Lebanon	95	88	55	79-81	101-102	93	46	97	91
Iran	96	113	100	93-94	112-113	114	94	58	93
Iraq	126	130	103-104	114	56-57	124	117	75	103
Syria	114	107	69-72	79-81	142-143	112	119	91	108
Yemen	141	165	180	189	135	146	182	82	120

* all figures refer to the ranking of countries between 1 and 191. Source: World Health Organization (2000): The world health report 2000. Health systems: improving performance. Geneva (WHO) 2000

The health sector reform initiated in 1998 and formulated finally in 2000 addressed especially the following goals (MoPH&P 2000a)

- adequate/universal access to health care services
- equity in both the delivery and eventually the financing of health care
- improved allocative and technical efficiency of the service delivery system
- improved quality of health services
- system's long run financial sustainability.

The main health sector reform components were

- Decentralization.
- Redefinition the role of the public sector.
- District health system.
- Community involvement
- Cost sharing.
- Essential drug policy and Drug Fund.
- Outcome based management focusing on gender.
- Hospital autonomy.
- Intersectoral cooperation.
- Encouragement of private sector & NGOs.
- Encouragement of innovation.
- Sector Wide Approach.

This long list of components demonstrates quite clearly what a Herculean job had to be initiated. It started with a very good assessment of problems, opportunities and threats. Some good achievements could be accomplished but in view of the overwhelming problems and obstacles, especially in the areas of financing, not all could be done according to the plans and expectations. Many problems still have to be solved and we name just those that affect specifically the areas covered by our health insurance study.

- Related to the strained relationship between Ministry of Finance and Ministry of Health there should be intensified and professional dialogues between them. Integrating public health experts in the Ministry of Finance and health economists and financing specialists in the

Ministry of Health would be helpful. This might lead to a better understanding and to increased transparency of transactions and allocations. This should overcome also the rather inefficient use of public funds in the health system and the very unsystematic allocations of funds for priority issues, assessed according to the best knowledge of public health experts. A forum on health insurance could be a mediator between public health and financial professionals.

- Extension of coverage of health services for the rural population could eventually be fostered by contracting of providers – either linked to a non-governmental organization, or public or private – for health care provision in remote areas, as e.g. experience in Guatemala with good success. This can include also the hiring of Yemeni or foreign physicians to build a small team with about two midwifes to be operated mobile, using the physicians house or any other site as headquarters. The introduction of a performance oriented payment system would be important. Improving drastically the provision of health care in rural areas is one of the basic requirements for a social and national health insurance system. As long as this could not be contracted by a national health insurance authority to the best local resident providers, government health care provision has to be improved drastically in this area of highest priority.

- Reforming the regulatory and policy making responsibilities of the MoPH&P through clearly expanding its Health Policy Department and assigning it supervisory power over issues like quality assurance, accreditation, licensing, health care financing and the like. A step by step separation of regulatory, financial and provider functions of the Ministry of Health should be followed. The discussion on a new division of labour between a future health insurance authority and the Ministry of Health should not be retarded but started immediately, even before decisions are made on the implementation of health insurance.

- Establishment of a clearing house for new and innovative ideas of health care delivery and financing and of a forum – assisted by the international expert community – for regular policy presentations, discussions and dialogues, including study tours for committed key actors to observe replicable innovations elsewhere. International donors will be helpful in this domain. This includes also the discovery of best health care management practices in respect to all the various health programmes and health delivery modes in Yemen, awarding the best and replicating their lessons and messages first in demonstration sites and then nationally. Among the best discovered health care management projects in the Philippines, for example, were many local health care financing projects, solidarity schemes and micro-insurances. (Schwefel 1995) They could bring in a new and fresh focus for policy debates at the national level and for improving a national health insurance law proposal.

- Policy dialogues on advantages and disadvantages of decentralization should be strengthened. It should not be the goal to follow fashionable international policy trends but effectiveness and efficiency of the best division of labour of the various stakeholders involved should be the main criterion. This might result in regaining a centralistic policy for some tasks and strengthening community participation for other tasks. This question has its implications for health insurance and some interview partners warned no to oversee the chances of decentralization but also not the risks that were experienced, e.g. by the corrupted drug fund, which was a brilliant idea but fell into the trap of corruption. This issue, too, has to be addressed time and again in policy dialogues.

- Strengthening of a health and management information system that gives transparency on workload and production of health facilities, the pattern of diagnoses and treatments and other essential components of a meaningful and pragmatic quality assurance and efficiency increase programme. Reliable and valid data is missing in all sectors of the Yemeni society. This hinders transparency and makes it difficult to design evidence-based policies. For health insurance it is a real bottleneck.

- The gender bias of the health system has to be overcome, especially by incorporating many more women in decision making processes and at the implementation level close to the clients.

The opinion of the leaders	
47 % of opinion leaders say: Health insurance should contract just the best providers	46 % of opinion leaders say: Health insurance should contract a mix of providers
	Source: GTZ&EC survey 2005

3.2.9 Remaining problems and summary

"It is important to stress however that it is not envisaged to address issues such as accreditation, certification, licensing, health insurance, privatization, or private sector development during the life span of this reform program." (WB 2000, p. 28) Health care financing and health insurance are most important remaining problems to be solved in the health system of Yemen.

The impact of private out-of-pocket payments for health care is already extremely high with regard to official cost-sharing charges. However, the situation is aggravated by largely introduced unofficial payments to the health care staff that uses to charge well-defined amounts of money as precondition for health services, at least from those whom they consider able to pay. Health care workers explain there demand for extra-money with the very low salaries paid in the public sector and the need to buy their own equipment they use for work. Thus, underpaid staff and under-equipment of health care facilities have to be faced in order to defeat under-the-table payment and widespread corruption. This situation hints at another facet of the above mentioned remaining key problem.

Within the figures for Yemen it is clear that the share between primary care and hospital care is skewed towards inpatient services and that the distribution of hospital services around the country is heavily biased in favour of the major cities (Constable 2002). All reform endeavours could not solve yet this problem and the over-arching problem of a very low efficiency and effectiveness of health services. Poor man's diseases like diarrhoea, acute respiratory diseases and a large prevalence of infectious diseases prevail. Most of deaths, diseases and suffering are avoidable. But it is not avoided properly by prevention, promotion and primary health care. The health services sector is divided into three sub-sectors, a public one, a private one and one in-between, where public servants informally do private jobs. Most part of the services is privatised, de facto. Public health services are sold on the market and compete with the other sectors. A few public domains and enclaves survived: most of the too few preventive services and the free provision of services for selected diseases and chronic conditions. The recent outbreak of polio has clearly shown that all undertaken measures so far have not yet been sufficient for tackling with the difficult socio-cultural and geographic conditions in Yemen and that further efforts will be necessary. In spite of clear legal dispositions and even a presidential decree, evidences regarding the lack of enforcing free care for catastrophic and chronic conditions hint at remaining problems, too. The decision to provide priority services for free depends rather on casual and arbitrary decision of the personnel involved than on transparent and reclaimable rights.

The persistently high share of private health expenditure at time of using health services relates to another essential problem that derives precisely from the reasons why this study was commissioned: mainly the lack of pre-payment, solidarity or insurance schemes offering effective social protection from the financial risks of bad health. But the extremely high ratio of out-of-pocket payments has also to do with the cost-sharing policy introduced since more or less one decade. In Yemen, the typical and unavoidable undesired effects of user fees in health care are intensified by a large problem regarding the application of waivers and exemptions. And the financial burden of health care expenditure on households is even higher because the health care market is lacking regulation, suffering from an advanced privatisation of service delivery, and from the inefficiency of potentially cheaper public providers. In this context, the contracting out of services to just the best providers all over the country and for all its population by the future national health insurance authority should be considered as a

revolutionary measure for restructuring health care. Government would then retreat to its basic functions of regulation and stewardship, providing policies, ensure full legal status, monitor and regulate schemes, and enforce accountability and quality of health care delivery.

3.3 Social security and protection

3.3.1 Private risk management

In case of catastrophic health conditions the citizen in Yemen is mostly left alone. He has to pay or play the role of a bargaining beggar at public service points. He is usually not getting free health care. The same applies to all structural or random shocks that may hurt a family in cases of flooding, fire, robbery, crop failure, inflation, currency adjustments, unemployment, accidents, famines, i.e. all the 'small' catastrophes that can destroy the existence of individuals, families and even extended families. Strategies to deal with such shocks include:

- *"Risk reduction:* actions, taken in advance of a shock, which reduce the probability that the risk event will occur. In terms of government policy, this would include (for example) economic policy measures to minimise the risk of inflation or currency crisis.
- *Risk mitigation:* actions taken in advance of a shock which reduce the magnitude of the potential risk event. Examples from the household level include diversification of livelihood strategies (so that if the return to one activity declines dramatically subsistence or income can still be obtained from other activities); taking out insurance (formal or informal); and cultivating social ties which might be of assistance in the event of a crisis.
- *Risk coping:* actions taken once the risk has occurred which reduce – or distribute – the effects. Examples include selling assets, reducing consumption, or undertaking more physically risky or socially unapproved activities to earn a livelihood." (Norton 2001)

None of these strategies can be found in Yemen at an extended level.

For women, especially, risk management is difficult as can be seen from the following excerpt from the "voices of the poor" elicited by the World Bank.

Table 23 Risks of women's' risk management

"In many societies, women have little access to police stations and going to police stations may be a dangerous act in itself. In Yemen, for example, women stated that they cannot access police stations because the police will laugh at them and their families will not allow it.

"A woman cannot go alone, but only with her husband or brother or neighbor. Even if a crime was very serious, and even if the police station were very close, socially it is not accepted for a woman to go to a police station. If there were a police station staffed by women on the other hand, women stated that they could go there, either alone or with male relatives"

Source: Narayan et al. 1999, p. 77 (World Bank: Voices of the Poor)

At the private level "saving" can be such a strategy. But negative savings in terms of almost permanent indebtedness of many poor to local money lenders is as widespread as are real savings in kind and assets, be it dried food, ornaments or cattle. When poverty and under-consumption prevail, saving is not only a further postponement of consumption but a reasonable way of life reducing conspicuous consumption and using scarce resources even more efficiently, an important example of which is investment in health and education for the own children. Such kind of rational adjustment policies of families to the persistence of random shocks are certainly existing in Yemen, but they still have to be discovered, described, analysed and replicated. An educational empowerment programme

for adults and the inclusion of such topics in the curriculum at schools is still missing. Private risk management is not yet supported by public programmes. People are left alone with their shocks of life.

Table 24 How poor communities in Yemen cope

To assess the coping mechanisms of poor communities in Yemen, a 1998 social protection field study targeted communities identified as very poor by their level of household income — in this case less than 5,000 riyals per month. The 1998 food poverty line, as defined by Yemen's statistical office, was about 2,500 riyals per person per month, or 20,000 riyals for a household of three adults and five children. The study asked the participants to prioritize how they would spend an additional 5,000 riyals per month. More than 85 percent said they would spend the entire amount on food. Four percent would spend some on clothing, four percent on repaying loans, and fewer than 1 percent on medicine or medical treatment.

How do these families survive? Informal lines of credit helped in the short term. Some 47 percent of those questioned owed money to relatives or neighbors and 42 percent owed money to local retailers or traders. Some 60 of the participants owed up to 20,000 riyals, 15 percent up to 40,000 riyals and 9 percent up to 100,000 riyals. In such poor communities, the capacity to repay is extremely low: around 65 percent of those who had borrowed had not paid back their debts, 15 percent had partially repaid them and only 20 percent had fully repaid them.

The study revealed that the unpaid or partly paid debt, especially to retailers or traders, was essentially a running line of credit, with the debtors paying off what they could when they were able. Debts to family and neighbors were usually much smaller and tended to be repaid quickly. The participants did not mention public assistance programs as a possible source of income in times of crisis. Indeed, very few public assistance programs had reached into these communities.

Source: World Bank 2001 quoted in Economic Research Forum 2002, p. 105

“Most of the poor communities in Yemen rely on some sort of informal risk mitigation mechanisms. The mitigation mechanisms include borrowing and reliance on charitable and voluntary organizations.” (Al-Arhabi 2000)

3.3.2 Public risk management

In Yemen, public risk management strategies are widely unknown, and according to the information gathered no publicly run systematic and continuous harm prevention program is in place. The study-group did not reveal any kind of state-run disaster control or relief plan in the country, however experience shows that in specific situations (for instance during the second war on Iraq) ad-hoc evacuation plans as well as disaster relief strategies were designed. However, according to available information, none of the well-staffed armed forces is permanently prepared to prevent or mitigate national emergencies or disasters.

Various factors might explain the lack of public risk management in Yemen. The country has not been affected by severe natural catastrophes during the last decades, and it is not very likely to suffer from earthquakes, very large floods and inundations. The relatively recent nation-building and the complicated socio-political situation in the country are to be considered important reasons for inexistent public emergency prevention and mitigation programs. The traditional socio-cultural structure of the Yemeni society was based mainly on smaller and relatively isolated social groups, and risk management was rather a challenge for tribal organisations and other sub-groups, and not perceived as a task to be taken by the State. However, a Human Assistance Project for Confronting Torrents and Catastrophes has been created recently with financial support from the European Community. Meanwhile, the 37,000 Euro project has initiated a campaign giving training courses and

workshops in order to equip Yemen with qualified people and technical expertise to handle natural disasters (Yemen Times, 12th Sept. 2005).

With regard to the strategies mentioned above (3.3.1), a series of public risk reduction strategies are in place in Yemen, namely the applied labour market policies, schooling, education, and other state-run training programs. Risk mitigation comprises public sector pension systems, mandated insurance for certain risks like labour accidents and occupational diseases, death and disability, and health care (Art. 118, Labour Law). And the existing risk coping strategies cover public works and investments in infrastructure and services; public transfers to the needy like orphans and widows; social assistance for the poor through the Welfare Fund, the Workers Fund, the Social Fund for Development, and others (Al-Arhabi n.y., p. 6). Undoubtedly, the different public funds are performing in very heterogeneous ways. The Welfare Fund has obvious lacks of efficiency and pays ridiculous amounts of money to the beneficiaries that have not been adapted to inflation since many years. On the other hand, the Public Works Fund and mainly the Social Fund for Development have an excellent reputation in Yemen, have achieved an unusual level of transparency and trust in the country context and contribute effectively to poverty alleviation and development.

3.3.3 Pension/disability/death schemes

Pension funds and risk coverage in case of disability and death schemes are important parts of the social security system. Regarding the goal of building up a national health insurance in Yemen pension funds might be interesting in at least two ways:

- First in the perspective of being part of the benefit package of the national health insurance system (some health insurance schemes e.g. cover funeral costs).
- Second as to the question whether existing schemes could be used technically for supporting or even building up a national health insurance authority, at least in the sense of being country-based „models of good practice“.

In any case, their experiences should not stay unused, e.g. with regard to collecting contributions and managing the membership of a large number of people.

Yemen has already quite a diverse practice with existing pension schemes. There are five funds: secret police, police, military, public and private. The responsibility of the authorities changed often. Up to 1999 public and private pension authorities were under one roof. The Public Pension Authority was under the Ministry of Social Affairs and Labour until 2000, then it was shifted to the Ministry of Civil Service and Insurance. The General Authorities for Insurances & Pensions have a formal and financial autonomy according to special laws. They are supervised by a board chaired by the Minister of Civil Services and Insurances and composed by a representative of the Central Bank, the Ministry of Finance, the Ministry of Trade and Industry, the Ministry of Planning and Development, and the Chief of the General Authority. Their global tasks are registration of members, contribution collection, dispensing of pensions and the investment of reserves.

The public pension fund at present has about 450,000 enrolees and gives pensions to 61,000 retired beneficiaries. The members of the public pension fund come essentially from three sectors: ministries, public companies and mixed companies.

Table 25 Receivers of pensions and compensations paid by the Public Corporation for Insurance and Pension for 2002-2004 in YR

Year	Total retired	Retirement pensions	End of service compensation	Undertaking expenses	Work injury expenses	Other insurance expenses	Total
2002	54.721	6.040.542.000	30.631.000	12.267.000	2.304.000	28.237.000	6.113.981.000
2003	57.411	7.228.989.000	23.909.000	20.544.000	1.817.000	29.388.000	7.304.647.000

Table 25 Receivers of pensions and compensations paid by the Public Corporation for Insurance and Pension for 2002-2004 in YR

Year	Total retired	Retirement pensions	End of service compensation	Undertaking expenses	Work injury expenses	Other insurance expenses	Total
2004	59.932	8.792.499.030	22.373.486	26.175.883	21.600.725	37.410.293	8.900.059.417

Sources: Public Corporation for Insurance and Pension, Statistical Yearbook 2004

The contributions are collected as proportional deductions from total salaries. The employer pays monthly 6% (plus 1 % for work-injuries); the employee pays 6 %. Before the year 2000 pension contributions were levied from the basic salary, thereafter from salary plus allowances. Allowances are nearly 100% of salary. Current salaries in the public sector are estimated at about 25.000 YR before deductions. The volume of the pension contributions is around 20 billion YR per year, on the other side there are pension expenditures of about 9 billion per year. A huge profit is accumulating, currently. The accumulated reserve is around 140 billion YR. A 16.5 billions YR income from investments was generated in 2004.

The contributions are deposited at the bank account of the public pension authority at the central bank. Because of the decentralised structure (according to the Local Authority Law) the money firstly goes in form of wages / salaries from the Ministry of Finance to the districts, they calculate the contributions and give them back to the central level and then it goes to the central bank. The staff who manages the pension scheme comprises around 1,000 persons in 22 branches all over the country.

There is a certain equivalence between the total amount of contributions and the pension. In addition there is a systematic adjustment of the pensions: the pensions are increased automatically by half of the growth of the average employees' income (50% dynamic adjustment). For public employees the full entitlement to pension benefits arises at the age of 60 years and after 35 years of service. In case of work injury or professional disease they get up to 100% of the entitlement. In the case of a lethal accident / injury the widow or (young) children receive also the full pension. Partial entitlements are given after 30 years of service, for males after 25 years of service at the age of 50, for females after 20 years of service and 46 years of age, or after 25 years of service for prisoners. Theoretically there could be double pension entitlements for those public servants who worked also in the private sector. In reality it is very seldom because people so far are obviously reluctant to pay a second contribution. Further benefits refer to work injuries / disability / death:

- lump sums (up to 200 US$) used e.g. for medical treatment.
- pensions according to limb taxing,
- full pensions if disabled,
- and if applicable death benefits.

There is no medical benefit package for work injuries treatment and rehabilitation.

How do the beneficiaries get their money? The benefits are paid either to an individual bank account of the pensioners or - for those who have none - to a special account at the post office.

Table 26
Transfer for pension payments by post office 2004 in Million YR

Military	15.866,2
Civilian	8.581,8
Min of Interior	2.781,6
Total	27.229,6

Source: RoY/CSO 2005

The army's pension fund actually receives contributions from 350,000 members and pays for 104,710 pensioners. Financial basis is a 6% contribution of the members' salary and an additional 6% government's contribution. The basic salary of soldiers is around 13,000 YR; with additional bonuses it arises to around 20,000 YR. After 20 years of service the average salary is at about 30,000 YR. The average pension therefore is around 20,000 Rials per month. In June 2005 the scheme realised around 1.3 billion YR income and 1.6 billion YR expenditures. The investment return last year was at about 18 billion YR. A pensioner of the army receives a full pension after 20 years of service. The military pension fund's administration includes four departments: monitoring/evaluation, budget, salaries and information. It has a staff of 137 employees in July 2005. The data department has got actual information about pensioners and their families (in the average a member has five relatives); computer-based data collection and identification via photo are parts of the system.

The pension fund of the police insured in July 2005 115,000 policemen and paid 18,630 pensioners. The average salary at the police is at about 20,000 YR. Contributions and the benefit package are similar to the army's pension fund. In this case there is a monthly contribution of the Ministry of Finance of 220 million YR plus 120 million YR subsidies from the government. On the other hand there are expenditures of 275 million YR. The police pension fund itself invested 6.5 million US$ in the Saudi-German hospital, in driving schools and in buildings. A merging of the police and the security policy pensions funds was proposed some time ago. Since the fund of the security police is said to produce deficits, a merger is understandably controversial from the police fund's point of view. The administration has got 160 employees, working in six departments: salaries, finances, investment, legal affairs, management affairs and planning. They plan to build up a new department for a computer-based data-collection. Actually there is no identification of pensioners and paying members via PC-based photo practised as in the Army, but it is planned for the police pension fund, too.

Beside the public schemes there is a private pension fund. According to the law the private pension insurance is mandatory for companies with 5 and more employees. Pay-roll deduction rates are set at 6% for the employees and 9% for the employers. At the moment there are only 6,543 companies registered and 5,530 companies continue to pay pension contributions. Up to now 180,000 members were first registered at the private pension authority but less than 80,000 are continuing. Most of the private companies in Yemen do not pay appropriately to the pension fund and many are said to not declare properly the wages. It is estimated that not even 15% of the private companies that should join the pension fund are doing so.

Table 27
Members of the private pension fund in May 2005

Sana'a City	29500
Taiz	17634
Al Hadeida	11875
Aden	9457
Hadramaut	7813
Ibb	1845
Dharmar	350
Total	74382

Source: Private Pension Fund

To the many non-continuing former members, the private pension authority has repaid them lump sums contributions in the value of 760,906,934 YR since the start of this institution. Lump sum repayment is done if there are not more than 109 months of contribution payments. Pensions are given only after a minimum of 180 months of contribution payment. In principle the pension fund contributions can be paid back to the members, if they change the company.

Table 28 Private pension benefits received by end of 2004	
Deaths	6316875
Disability	2662610
Old age	9505616
Total	18485101
Source: Private Pension Fund	

The Chairman of the Private Pension Authority is nominated by the government, although employers and employees are paying all the contributions. The private pension fund, too, has to deposit its funds at the Central Bank.

What does the current practise of pension funds in Yemen mean for a national health insurance system? Yemen has got pay-roll insurance schemes that are working. Though their productivity might get improved the management experience and the data-infrastructure could be used for supporting directly or indirectly a social health insurance scheme. One option is to build up health insurance schemes for the army and the police. It is principally possible to manage the health fund and the pension fund under "one roof". This option has got theoretically the advantages of realising synergies and building up the system rapidly with employees that have got already partly a suitable qualification. The data-warehouse could also be used for the data-administration of the health insurance scheme. Of course it is also possible to run two independent schemes under "one roof" in the same sector. In this case it is necessary to ensure the data-transfer because the pensioners might also be contributing members to the health insurance fund. Interviews with the heads of both public pension funds in August 2005 indicated that there is a basic readiness for such cooperation. Nevertheless, a pension fund and a health insurance fund are quite different to manage. Just one example is the contracting of medical providers, what needs very special qualifications.

3.3.4 Accidents and work injuries protection

Many laws and ministerial resolutions deal with occupational health and work injuries. The Ministry of Social Affairs and Labour as well as the Ministry of Civil Services and Insurance are entrusted active roles for supervising the responsibilities of the public and private employers according to the labour law. According to the law, work accident insurance should be paid by the employer in the amount of 4% of the salary. 1% of the employee's salary is deducted for work injuries, too. It could not be established beyond doubts what is done with these contributions, if they are paid at all. Most sources indicated that there are no specific relevant benefits provided. There is no unit or department of occupational health in the MoPH&P.[28]

An work injuries or accident insurance scheme usually pays a specific amount for a specific injury, for example for the loss of a limb. Policies might also include a certain cash benefit for the family in case of a death caused by a work accident. Many countries have created a social insurance system in which medical costs of accidents (or illnesses) are paid by a health insurance scheme and a disability scheme (integrated in the health insurance or pension scheme) pays for income losses due to disability resulting from either accident or illness. In Yemen the Labour Law[29] includes already different stipulations for the private sector for occupational health and safety (see ninth section of Labour Law), e.g. employers have to provide health care for employees, and in case of illness or accident employees are entitled to continuous or intermittent sick leaves according to defined rates (see Articles 79-82 of Labour Law). Interviews indicated that these regulations and benefits are observed in private

[28] Chapter 27 of part 3 of our study report presents a documentation on occupational health from the point of view of workers unions in Yemen.
[29] Relevant chapters of the Labour Law are reproduced in chapter 25 of part 3 of our study report.

companies but with a different range as to the concrete benefit packages. There is a similar practise in the public sector which operates in general on a more comprehensive level than in the private sector. This practise covers mainly larger and medium scale companies on an acceptable level.

The law proposal on health and work insurance covers actually both: general health insurance and work-insurance. Nonetheless, a discussion is recommendable for deciding whether the country wants to combine labour-related health care with a national health insurance system. Many countries are running a separate system paid by employers only for covering work accidents and occupational diseases. In most Western countries, coverage of work accidents and labour diseases relies exclusively on the employers. The idea is based on the fact that there is an evident relation between work and accidents / illnesses and that the labour conditions have an enormously influence on the health status of the employed. Therefore it is opportune that the employer has an incentive to create (relatively) healthy work conditions by paying the costs or, if there exists a scheme, by paying 100% of the contributions. Yemen's Labour Law follows this view and even expands the duties of employers, for example by the stipulations as to continued pay of income in case of disability because of illness or injury. In practice, however, this has lead many companies to link their health benefit schemes directly to the legal obligations to cover work-related health costs. Interviews with company representatives in charge of administering health benefit schemes showed that no clear distinction is made between health and work insurance with regard to legal obligations.

We recommend thinking about those stipulations also regarding future competitiveness of Yemen's economy on the world market. Building up a modern health insurance system even might enforce private investment in Yemen. Legal dispositions like the exclusive responsibility of employers for paying sick leaves surely will also be discussed under that focus. Compared to other countries, Yemen's labour law benefits employees with relatively high and long-term payments in case of disease. This might be a disincentive for foreign investments in Yemen.

3.3.5 Unemployment protection

Social protection of the unemployed is given mainly by the extended family. One worker has to feed five dependents. There is one special and one general unemployment related public policy in Yemen. Temporary employment is given through public work projects and the social development fund. Low paid overstaffing of public administration is a more generally applied policy. A civil service reform supported by the European Community was intended to master this problem. In view of the mass unemployment and the mass poverty in Yemen, there is one especially reasonable policy: human capital formation in the spirit of empowering people to create and to find and to fill jobs appropriately. A human resource development strategy is a key element of the development strategy of Yemen.

3.3.6 Long-term care protection

The Social Welfare Fund of Yemen provides a

- permanent safety net for "orphans, women without supporter, permanent and complete disabled, permanent and partial disabled and poor and needful parties" (RoY 1999) and a
- temporary safety net for short- or middle-term disabled, left-alone-families, prisoner families.

Support is given in kind or in cash. Eligibility is based on findings of the national poverty survey of 1999 and the household budget survey of 1998. Updates of these surveys are expected to be available in 2006. Since 1996 until the end of 2004, the social welfare fund supported 647.333 cases with 2.8 million individuals. 43% of the beneficiaries are left-alone-women (i.e. widows, divorcees, spinsters), 18% senile persons, 16% handicapped. They receive currently 1.000 – 2.000 YR (5-10US$) per quarter of the year. The yearly budget of the social welfare fund is about 15 million YR (78.000US$) and this is very low in view of mass poverty. Furthermore there are reports on corruption and faked beneficiaries of the fund and on its high overheads. Non-governmental and charitable organizations can not fill the gap between supply and need. Long-term disabled have to rely on families, neighbours and traders. Often they end up in permanent indebtedness without escape.

3.3.7 Further insurance markets[30]

Twelve companies share the insurance market in Yemen. United Insurance has a market share of 32% in terms of the market premiums ratio, Trust is following with 13%, Mareb with 12% and Yemen General Insurance with 11%. Other suppliers are relatively small. The growth ratio of United is quite considerable with 33%, even if it is surpassed by Islamic Insurances with 46% and Watania with 59%. They offer the following products.

Table 29 Insurances' portfolios in Yemen
Direct premiums in YR

Motor and workmen's compensation insurance*	1.983.078.000
Marine cargo insurance	1.610.316.000
Miscellaneous accidents	1.184.168.000
Fire insurance	1.097.187.000
Life insurance	611.147.000
Engineering insurance	309.760.000
Total insurance premiums	6.795.656.000

* These two different products could not be separated appropriately.
Numbers of insured clients or companies were not provided.
Source. Mr. Adel Y.M. Al-Qubi

Insurance markets are dominated by risks. Aman Insurance for example, in 2004, had a loss ratio of 1.419 % on fire and Trust had a loss ratio of 81% in 2003, when all other companies had loss ratios ranging from 0% to 31%. Loss ratios were higher for fire in 2004. This demonstrates clearly the need for re-insurances in all insurance markets. It is replicated in marine cargo loss ratios exceeding 144% for United in 2003 and of 362% in Saba. Nearly all other insurance companies were lucky to be below 50%. Regarding miscellaneous accidents in 2003 and 2004 all loss ratios were below 100%. The highest loss ratio was experienced at YI&RE insurance in the engineering sector with 3.876%.

Altogether, only 40 YR or 0.20 US$ are spend yearly for insurance per head of the population. This is very low in international comparison. It reflects a not so positive connotation of insurances in the Moslem World, especially related to products like life insurance. When the University of Sana'a offered it to its professors and instructors, many rejected it because of being "haram", i.e. not according to the prevailing values.

3.3.8 Main policies

Mass poverty and mass unemployment render difficult redistribution and social protection strategies. The mass of the population is left alone with coping and mitigating shocks. Family bonds and kinship-based networks and remittances from family members abroad are the most successful escapes. Entire families can continue to stay or can fall back into extreme poverty if risks and shocks are beyond the limited capabilities of poverty plagued families. Safety nets and social protection measures are urgently needed, because *and* in spite of high poverty prevalence. The main policies in this regard have to be reassessed

- Micro-finance
- Public work programmes
- Social funds
- Consumer food subsidies
- Cash assistance
- Pension schemes

[30] Data collection was done by Mr. Adel Y.M. Al-Qubi, specifically hired for this purpose.

Except for the pension schemes, this is beyond the scope and purpose of this report. It is within the scope and purpose of this report to reiterate that investment in human and social capital is very important in this context. Education and health are not only drivers of development they are also very effective measures of social protection. Nevertheless, the government has to give back-up and stewardship. This is missing to a large extend, still, in Yemen.

The Poverty Reduction Strategy Paper of 2002 (RoY 2002) addressed three overall basic goals: "

(i) Achievement of economic growth, creation of job opportunities and expansion of the economic opportunities for the poor by remedying the structural causes of poverty, focusing on the prevention of poverty and providing sustainable means of livelihood.

(ii) Enhancement of the capacities of the poor, increasing their assets and the returns derived from such assets, towards more equity by improving the social, productive and economic conditions of the poor and those who are close to the poverty line.

(iii) Reduction of the suffering and vulnerability of the poor by supporting the SSN (social safety net)."

Its four axes or pillars were defined as

- Achieving economic growth
- Human resources development
- Improving infrastructure
- Granting social protection

In its fourth pillar "social protection" two areas are mentioned specifically: social safety nets and social security. Social security intends to achieve a "vertical expansion in the security system to include health insurance and horizontal to cover a larger percentage of employees in private enterprises and self employed". The second was not achieved, so far, but it has to be mentioned clearly that the existence of pension funds in the public sectors is a very important achievement, even if they could be improved and strengthened, still. To the first one, this study on a national health insurance system for Yemen tries to contribute.

4. Existing health benefit / insurance schemes

4.1 Solidarity schemes

Nobody plans to be sick or disabled, but illness and accidents happen. With the high cost of health care and the fact that it is increasing according to the inflation-rate, the average Yemenite family will not be able to manage health care costs without some assistance. Compared with Yemen's 75-%- out–of–pocket financing of health costs – some of the interviewed Yemenite experts estimated the amount even higher – most industrialised countries have established hybrid systems in which the public sector, which has the greater share of responsibility, works alongside the private sector, both in the funding of health care. Even with insurance, out-of-pocket expenses can be quite high, making it necessary to include funds for health care in the family budget. A good health insurance program protects against economic disaster in two ways. First, health insurance that covers medical treatment in hospital, surgical and other medical expenses will greatly reduce personal expenses. Second, disability income insurance will replace at least a portion of income lost due to illness or accident. The latter was a central motivation in many European countries in the 19th century to build up both community-based and company-based sickness funds. In the early 20th century the national German statistics for example had counted round about 70.000 of them. Most of them were community-based, others were company-based or for special groups of employees or professionals. The most important risk package in the very beginning was the continued pay of wages in case of sick leave, later the package covered also medical treatments and drugs, the treatment for family members (wife/partner, children) was included according the principles of solidarity. Nowadays the number of sickness funds in Germany is strongly reduced (round about 260), they are required by public statute to balance income and spending and they are not allowed to make a profit. Later on a Health Care Structure Act gave almost every insured person the right to choose a sickness fund freely. To provide all sickness funds with a level field for

competition – that is to avoid having all insured people choose schemes with a low contribution rate because of a historically good risk profile – a risk structure compensation scheme was introduced.

4.1.1 Discovery and identification

Active participation in decision making and the setting of policy as well as political priorities is an important determinant of the scope and pace of changes on the societal level and with regard to human development. In spite of the overall democratic context created during the unification process, civil society in general appears to be rather weak and uncertain in Yemen. In spite of the existing democratic framework, a relatively restrictive legal and administrative environment tends to constrain people's participation and emancipation. However, the new NGO law adopted in February 2001 is expected to have a positive impact on informal social networks, especially those based on tribal affiliation, and there is a strong traditional social safety net of charitable support for the very poor (UNDP ny). In general, Yemen has a rich history of solidarity and local self-help initiatives, and mutual aid is evident in the tradition of collective payments for costs of projects for the common good at village or tribal level (Beatty 2002, p. 14).

The most famous and successful local self-help initiative in Yemen has been the cooperative movement initiated in 1962. However, since the 1980s, it was co-opted by the government, and subsequently lost its vitality and effectiveness. Since then, other civil society organisations began to take their place, but none have had the dynamism and reach of these cooperatives (ibid.). Nonetheless, traditional informal co-operation modalities at the community level seem to be still important mainly in rural areas. Most community development occurs using such traditional or informal structures. There is a growing trend by government, international development organizations, and to some extent, local NGOs, to adopt community participation approaches, with a large number of projects in existence that include most of the service sectors, and implemented in most geographic regions in Yemen. Many of these projects are quite large both budget-wise, and in geographic scope (Beatty 2002, p. 3).

A series of informal and small scale solidarities can also be found in urban settings; most of them are organised amongst professional and labour groups, such as teachers, taxi-drivers, hospital staff, port workers, and other. In several Governorates, teachers associations have managed to implement solidarity schemes of the education personnel, but sustainability has been different according to local groups and areas. According to information gathered during interviews and through the opinion survey (see 2.3 and part 3 of our study report), at least in Sana'a and Aden teachers organised in the Regional Offices of the Ministry of Education maintain solidarity schemes financed by regular contributions. Comparable schemes have been established amongst hospital staff, i.e. in the Al-Saba'in Hospital in Sana'a where all staff contributes monthly 100 YR to a solidarity fund nourished additionally by the revenue of a telephone shop in the hospital.

4.1.2 Structure

One of the most characteristic features of solidarity schemes in Yemen seems to be the low knowledge about their existence and performance. Experiences with mutual support, co-operative structures and solidarity are scattered and often to be found in remote areas. In spite of the richness of approaches towards mutual help and alleviation of disasters, systematic collection of experiences and lessons learned is lacking, and only recently some experts started to focus on solidarity in the Yemeni society.

The two solidarity schemes that could be assessed during the study period emerged from bottom-up initiatives started by the employees in order to help the colleagues to face the financial burden of disease. Both schemes involve formal sector employees, however, employer participation is not given and essentially unwanted. Being informal, employee-driven initiatives, affiliation is voluntary, and coverage limited to a relatively low financial allowance in case of need. However, it is remarkable that

both schemes apply automatic payroll-deductions for contribution collection. One of the schemes creates additional income through the delivery of an extra service.

Organisation and performance are relatively weak and rely on highly committed staff that does not receive relevant extra payment for administration and other related tasks. As benefits are delivered directly to enrolees, independent from the health care providers they apply to, neither contracting nor payment of providers are in place. Risk management, fraud detection and other typical tasks of health insurance schemes are not perceived as necessary, and the relationship between the employees and their schemes rely on confidentiality and good faith.

4.1.3 Performance

In Yemen, social protection against health risks is even lacking in the formal economic sector. Many public health care providers often give priority access to affordable or even cost-free care for public employees and especially for members of the security forces. For personnel in private companies, however, health care is only available as market product they have to pay for every single item. Thus, severe and chronic illness can induce impoverishment even for those citizens who receive a regular salary and belong to the better off in Yemen.

4.1.4 Impact

In which way are solidarity schemes or community health insurance systems of interest for building up a National Health Insurance in Yemen? What are the strengths? What are the weaknesses? And what is the basis for implementing such a system in Yemen? This might not be completely clear in the context of a strategy towards a national health insurance system. In fact, mutual help organisations, support among specific groups and solidarity schemes are usually very small-scale and far away from including a relevant number of people. However, they might become starting points for broader schemes with more comprehensive benefits, especially if there is a considerable number of these schemes in place.

Besides the old European experiences with community based health schemes there are meanwhile some years experience with locally developed self-governing Mutual Health Organisations for example in West-Africa (see Huber 2003). Locally developed, self-governed health insurance schemes are seen to have great potential to enhance access to quality health care and contribute to the social and institutional development of society. Some of those experiences might be interesting for the Yemen Project. This is on the background that Yemen has got several trials to build up and strengthen some decentralised elements of its health care system:

- Since 1999: Building up of a district based health system in all 21 governorates with 229 districts of which the majority is rural
- Try to transform pretty different projects and activities into a sustainable and comprehensive strategy since 2000
- Try to implement a motivating system, giving incentive for those units that are more efficient and have better results
- Limited decentralisation of budgets at least to governorates level.

In general there are at least two strengths of community and district based health insurance systems: One is the higher degree of outreach penetration achieved through direct participation of insured people or at least their representatives. The other is the better acceptance and compliance especially in rural districts. On the other hand there are evidently weaknesses that explain the fact that the building up of such a system needs a lot of time and covers in the beginning often only a small minority of the population:

- Low level of revenues that can be mobilised from poor districts
- Frequent exclusion of the poorest of the poor from participation
- Small size of the risk pool is a problem in the case of high expenditure and catastrophic diseases

- Limited management capacity.

Following the results of the interviews with Yemenite experts there seems actually not to be a broad basis for implementing a community based health insurance system. Impact and compliance of the current district based health care system are evidently far away from being satisfying, especially taking Yemen's national health goals into account. Nevertheless it will be necessary to refer to existing decentralised administrative units to build up a nation-wide health insurance. Existing schemes and organisations might play at least a complementary role building up a nation-wide insurance system on a longer run.

4.1.5 Constraints and opportunities

One major constraint for extending the scope and coverage of solidarity schemes and establishing a national health insurance scheme derives from the impact of cost-sharing established more than ten years ago. Although a relevant number of experts argue that cost sharing and out-of-pocket payments produces cost consciousness on the user side and may thus prepare the citizens to accept an insurance scheme (Shaw/Griffin 1995), theoretical considerations rather imply that user charges tend to thwart the logic and assets of broader health insurance schemes. Direct cost sharing of patients is rather an antagonism to prepayment for risk prevention and tends to undermine the citizen's expectations and confidence in existing social protection systems. With regard to fairness and accessibility, prepayment is preferable to out-of-pocket-payment even in the case of small risk pools or for a small benefit package in order to mitigate the worst effects and to prevent impoverishment due to of illness (WHO 2000, p. 38; 97-99).

4.2 Community based health insurance schemes

Yemen's low economic capacity and inadequate institutional setting makes it difficult to implement comprehensive social health insurance in a short and even medium term, and sustainability will remain uncertain for a long time. Thus, supplementary community based health insurance (CBHI) schemes for the non formal sector and rural population might accompany a national compulsory scheme for the formal sector. CBHI schemes can contribute to improve financial access to health care as well as quality of health service delivery, enhance community participation, and strengthen administrative and financial management capacities in health centres and district hospitals.

Community- or co-operative based initiatives promise to protect against the adverse welfare implications of out-of-pocket payments. Thus, international technical co-operation is increasingly promoting informal health insurance schemes as a precursor to the more sustainable development of social insurance in low-income countries. It has had mixed success but does offer a way for the rural population to have some third-party protection (Arhin-Tenkorang 2001, p. 10; Mills/Bennett 2002, p. 213f). The review of community financing schemes allows for the conclusion that governments can contribute to the effectiveness and sustainability of community health financing schemes by well-targeted subsidies, publicly financed protection against fluctuations in expenditure, reinsurance for catastrophic events, and case management (Preker et al 2002, p. 149). The use of reinsurance - where community insurance schemes buy insurance to protect against random fluctuations in claims - has been recommended as a means of improving the viability of community insurance schemes in the informal sector (Dror 2001, p. 675f). By spreading the risk over larger population groups reinsurance reduces the probability of insolvency in the community insurance scheme (Dror/Preker 2002, p. 111-116). This approach remains largely untested in practice. The expectation is that such a mechanism has the potential to reach population groups that government and private health services do not, including socially excluded groups (such as those with mental health problems) (compare Dixon et al. 2002, p. 12). In the long term, it is hoped that these schemes can be knit together into a system of universal protection (Mills/Bennett 2002, S. 208).

Currently, one project to implement a community-based scheme exists in Al-Shamayatayn in the Governorate of Taiz. The concept was developed on the basis of experiences in Laos and will still have to be adapted to the conditions in Yemen. Thus, the insurance scheme is still in preparation and has not yet started in the field. Affiliation will be voluntary, and was expected to be even above 50 % of the target population of approximately 40,000 persons. The subscription unit will be the extended family. The monthly contribution will vary between 3,2 and 5,2 US-$ according to the household size. The benefit package will include all services available in the Governorate hospital of Al-Shamayatayn: general and specialised outpatient care as well as inpatient care for the four basic specialties. The hospital will be paid according to a capitation system, and no health centre will be included in the provider network.

However, a visit of the study team in Shamayatayn revealed that the project to implement a community-based scheme still has to overcome a series of constraints and difficulties before it can start. Obviously, community participation seems to be surprisingly weak for a scheme that ought to be based on the citizens and offer options to satisfy their most relevant and felt health needs. The Health Council of Shamayatayn is only partly informed and hardly involved in the project. At the same time, relatively high expectations have been created in citizens with regard to the scope of covered health benefits. Theses expectations will be difficult to fulfil for any kind of community-based scheme; thus, disappointment is relatively likely to come up if the scheme will not be able to start providing services within a couple of months. On the other hand, the only provider foreseen for the community-based scheme, Al-Khalifa-Hospital in Shamayatayn, has not yet agreed to co-operate. After several months of preparation, and the elaboration of very detailed procedures and forms, provider contracting is still lacking. Taking in account that trust in the Al-Khalifa-Hospital is low, and that a series of irregularities at the central level were reported, the options of the Shamayatayn community-based health insurance scheme to see the light of the day seem to be badly affected.

Many experts advocate essentially three different models of CBHI, namely district CBHI schemes, hospital-based or provider schemes, and CBHI through NGO or a Mutual Health Organisation on a local level. A major conceptual input came from similar experiences in Armenia, but the adaptation to the specific conditions in Yemen turned out to be more difficult than expected. In spite of some relatively detailed and concrete considerations with regard to the implementation of CBHI, the proposals of Oxfam are still waiting to be translated into reality.

The success and viability of CBHI schemes can be promoted by different strategies. The benefit package should be affordable and include basic services tailored to health care needs and preferences of the population. The actual costs of the benefit package should be taken into account when the premium is calculated. Through attaining organisational and financial efficiency, the scheme can find effective ways of dealing with adverse selection and moral hazard. Achieving a high membership rate and provide the option to have the whole households as subscription unit improves sustainability. Additionally, international donor and NGO support can contribute through technical and financial support.

A short long-term approach and period of learning will be necessary in order to adopt the concept of community based health insurance to the socio-cultural context in Yemen. Several steps like the formulation of a framework, implementation of small pilot schemes in an early stage, evaluation and reformulation of the framework, second generation of larger pilot schemes, re-evaluation, implementation on a wider scale, etc. have to be envisaged from the beginning. Strong government commitment will be an indispensable prerequisite for the whole idea to succeed. Government plays a critical role in promoting good design and implementation of CBHI schemes. It is responsible of the policy, legal and regulatory framework, and it has to ensure that the implementation of CBHI schemes does not interfere with other legislation, that members' necessities and interests are protected, and that technical support is available for creating new schemes.

4.3 Company based health benefit schemes

Company-based health insurance schemes offer similar advantages as community-based health insurances. They are close to beneficiaries' interests and include often forms of direct participation of insured employees what strengthens the acceptance and compliance of the schemes. There is also the additional advantage of employer's engagement that might have a positive impact on efficiency and goal-orientation of the scheme. However, some weaknesses and constraints are also evident: Company health benefit schemes reflect often a paternalistic relationship between employer and employees, and they rely partly on individual case-to-case decisions rather than on vested rights. Even more important is the fact that the size of the schemes is in many cases too small for an effective coverage of risks especially when it comes to high expenses and catastrophic diseases. Another disadvantage is the problem that this is not a way to get the poorest of the poor involved into the Insurance System. Nonetheless employers' and employees' contributions are a basic element for building up and financing a National Health Insurance System.

The opinion of the leaders
58 % of opinion leaders say: Employee, wife, children and parents should get health insurance benefits
Source: GTZ&EC survey 2005

In contrast to community-based schemes there is evidence that company-based health insurances do work already in Yemen. The general lack of social protection in health affects also the employers and has lead many companies to offer support for medical expenses and to cover medical treatment costs. The company-based health benefit schemes obey partly the legal obligation to assure protection against work accidents and professional diseases. However, in many cases the scope of these schemes goes beyond the coverage of labour-associated health problems and includes other than the working persons as well as general health problems. The legal basis for the private sector is the above-mentioned Labour Law, complementary and referring to the stipulations of the Social Insurance Law (mainly Articles 118 and 119 of the Labour Law, see chapter 26 of part 3 of our study report).

Certainly it makes sense to integrate the practical experience of Yemen's existing schemes into the building up of a National Health Insurance. On the background of the special Yemenite situation and the experience in industrialised countries with company based health insurances it is recommended to consider the following ways and measures of integrating the good practise of existing company based funds in Yemen:

To define a basic benefit package referring to the good Yemenite practise of company-based schemes and to codify it in a National Health Insurance Act. To allow a free choice among non-for-profit sickness funds and to permit additional benefit packages (for example for medical treatment abroad) that have to be financed by additional contributions of employers and employees. For this and for developing an implementation plan it is absolutely necessary to have a profounder overview including concrete dates as to existing company-based funds (size of the fund, insured people, benefit packages, contributions, contracts, quantity and quality of administrations' staff etc.) Data collection was initiated by our study group,[31] but further assessment and analysis has to be done by the health insurance directorate in the Ministry of Health. In any case it is necessary to detect and to hold on good practise and to create a win-win-situation also for existing schemes.

- To provide all health schemes with a level field for competition a risk structure compensation could be introduced as part of the National Health Insurance system. The goal of such risk structure compensation would be to equalise differences in contribution rates (referring to the defined basic benefit package) that are attributable to variations among insurance funds in income

[31] Chapters 12 and 30 of part 3 of our study report.

levels and risk structure. According to Yemen's national health goals and regarding the planned contribution rates of the Final Draft of the Social Health Insurance Law the pooling system will need a strong additional financing from tax revenues. Public transfer payments legitimate at the same time an obligation for company-based health insurances to insure not company's people including unemployed ones.

The regulations of the Labour Law give generous protection and access to high sick-leaves to those employees and workers that are temporarily disabled to work due to health problems. During the first two months, the employee is entitled to a full-wage sick leave, during the third and fourth month he receives 85 %, during the fifth and sixth month 75% and still 50 % of his regular wage until the end of the eighth month. The high expenses for ill staff should produce a high motivation for company owners to support or implement a national or social health insurance system that covers also sick leaves.

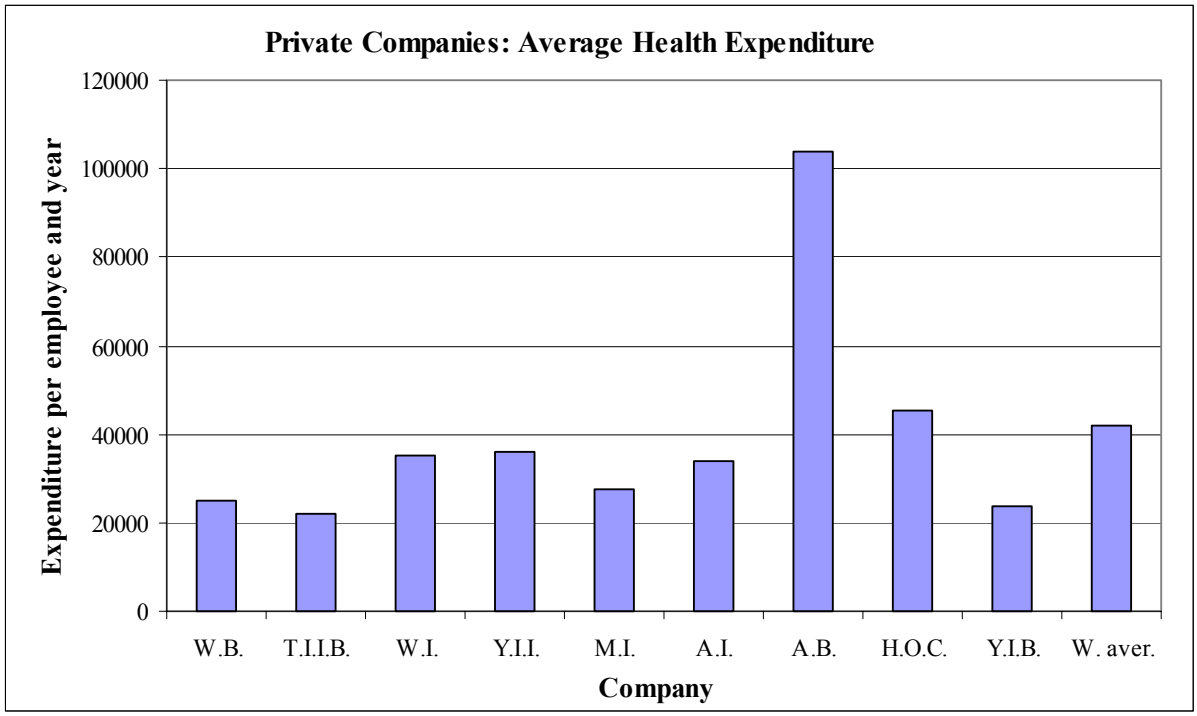
During this study, the team achieved to detect, contact and analyse briefly a total number of 20 company health benefit or insurance schemes in Yemen (9 private, 9 public, and 1 mixed companies). The existing schemes in Yemen show a broad set of benefit packages and regulations with regard to financial protection against health care costs. However, a greater variety is to be observed in the private sector companies where coverage might be restricted to regular allowances meant for health expenditures or be rather comprehensive for all employees. Public companies seem to offer a more homogeneous and relatively comprehensive benefit package although total and especially per capita expenditure varies between ca. 30,000 and more than 100,000 YR per employee and year.

Several company scheme managers referred either to recent changes of benefit coverage or access conditions or to emerging plans to introduce new and additional benefits. Obviously, the situation of private as well as public company schemes underlies a continuous development and adaptation process. This becomes also clear in a statement of a recent consultancy: "With the exception of YHOC (Yemen Hunt Oil Company) the schemes all depend either on an appointed company doctor(s) or reimbursing employees for receipts obtained from medical practitioners and pharmacies for goods and services provided. None of these schemes makes any attempt to collect the necessary data that would allow the managers to assess the extent of abuse, overuse or fraud. All the care provided is on a fee-for-service basis and it is unlikely that any of the companies are getting full value for the amounts they pay without that type of managerial assessment." (Constable 2002, p. 10) Different from this valuation based on the assessment of only five schemes, this study concludes that company based benefit schemes offer a broad range of interesting experiences with regard to the organisation and control of health care provision.

After assessing a total number of 19 company health benefit schemes, a series of conclusions can be deducted from the organisation as well as from continuous adaptations of the various schemes in place. During the study period, the team has been able to approach 9 private enterprises (3 small size with 30, 40 and 50 employees; 4 middle-size enterprises with 140-400 employees; one large company with >1,000, and one company-group with almost 9,000 employees), one mixed (nearly 4,000 employees), and 9 public companies (three middle size with 200 to almost 700 employees; and 6 large companies employing between 1,100 and 10,000 people).

Company benefit schemes represent the most prevalent source of third party coverage of health services in Yemen. Concerning the pricing of benefit schemes, these are particularly interesting as they provide a rough but real-data estimate of the costs of health services currently provided in Yemen. The following figures resuming our main findings with regard to company schemes in Yemen provide an overview of per capita spending on health care. In general terms, private company schemes show a broader range of scope and coverage with regard to benefits as well as to membership compared to public enterprises that tend to grant a relatively comprehensive benefit package and to spend more money on health care.

Figure 4 Average health expenditure in private companies



Source: This figure shows only those private company schemes that do not restrict health benefits to employees and cover the whole family; thus the per capita spending is supposed to cover the health needs of the employee and his/her dependents. The data rely on own calculations according to information provided by personnel responsible for the health benefit schemes (for abbreviations see list of abbreviations or table below).

While most private enterprises are spending between 20,000 and 40,000 YR per year and employee covering the whole and sometimes extended family, one internationally operating bank pays more than 100,000 YR, mainly for treatment abroad. In all private company schemes shown in the figure above, the employee and his whole family, sometimes even including the parents, are entitled to benefits. For this group of private enterprises, the average of per-capita payment is 39,125 (range 21,875 – 103,680 YR, standard deviation 23,853); and the weighed average taking in account the total number of employees according to company and benefit schemes is even 41,960 YR. This might be an indicator that larger companies tend to spend higher per capita amounts for health care of employees.

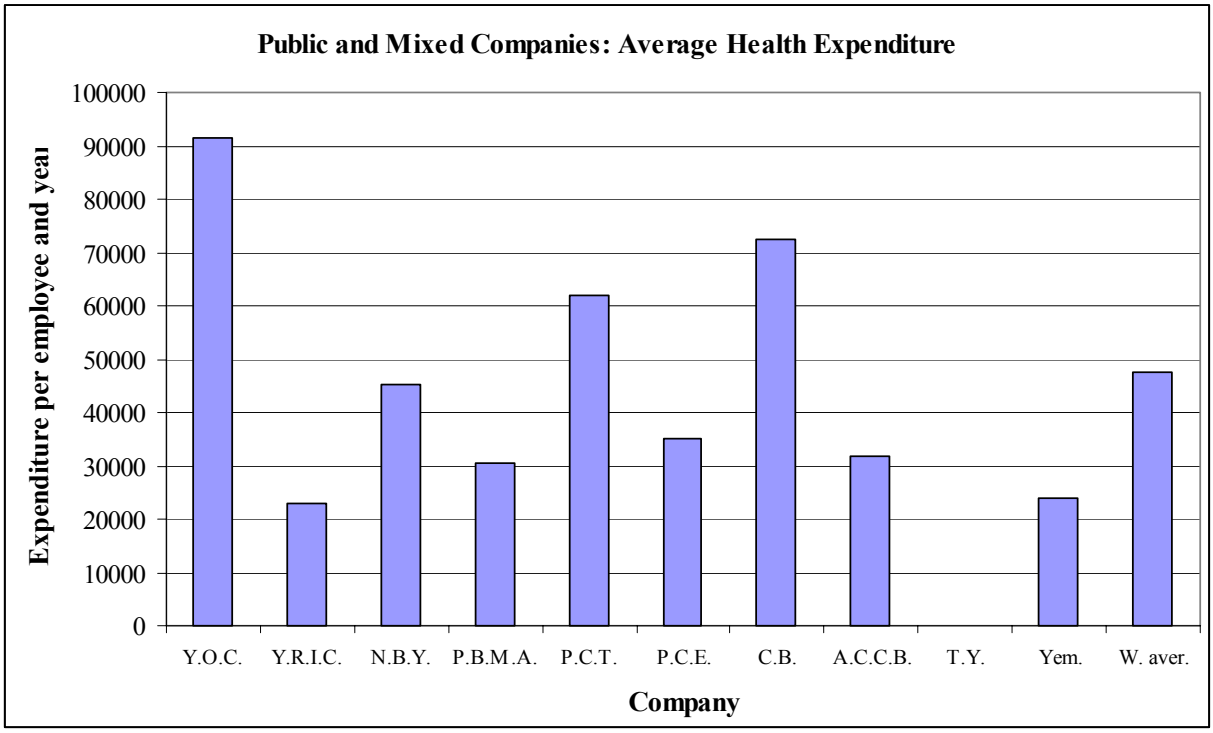
With regard to the design of administrative and managerial modalities as well as the scope of coverage, the assessed health benefit schemes show a broad variety. While some companies restrict support for health care to fixed allowances – either as general topping up of the salaries or according to medical or pharmaceutical bills presented by the employees – others reimburse their staff a part or all health care expenditures, and some even provide comprehensive coverage including out-of-country treatment. Administration relies mainly on human resources personnel, sometimes on contracted company doctors, and the budget uses to be allocated according to regular expenditure or adapted continuously to the upcoming need. In general, control and fraud detection are not performed in a systematic way, and confidence to often personally known people plays an important role in the selection and payment of providers. Thus, steering mechanisms, risk management and cost-containment strategies are applied randomly and are mostly underdeveloped.

The largest company group employing almost 9,000 people, however, is to be considered an exceptional case. In the mid 1990ies, the largest company group in Yemen started to implement its own health insurance scheme financed by income-related contributions shared between employer (2 %) and employee (1 %). Including the company's contribution to the health insurance, the company medical personnel costs and expenditures for treatment outside Yemen, Hayel Saeed's yearly health care expenditure per employee is 7,250 YR, while employees' average contribute is approximately

3,900 YR per year. Thus, the per capita amount spent for health care is slightly above 11,000 per year. Starting from the basis of 8 household members and 7 dependents per employee, and assuming similar health care need of all potential beneficiaries, the extension of coverage to family members would imply an estimated average company expenditure of 58,000 YR per employee and year. A series of risk management and cost-containment strategies are in place in order to reduce moral hazard and to prevent financial shortfalls. The Hayel Saeed Insurance Fund restricts coverage to employees only; family members of persons working in one of the group companies in Taiz are not entitled to benefits. Coverage of their health care expenditures relies on the family's breadwinner or on voluntary financial support from the company's charity organisation. A series of exclusions, e.g. treatment of chronic and expensive diseases, limited access to benefits, and a 5% co-payment have been implemented for reducing misuse and expenditure.

In general, public company schemes assessed during the Study on a National Health Insurance system in Yemen spend more money for health care of their employees. One out of 9 public sector enterprises invests only 23,000 YR in health, two are slightly above 30,000 YR, but most of the larger companies dedicate 60,000 YR and more for health care of employees. In the public company sector, the average of per-capita payment is 43,471 YR (range 23,000 – 91,385 YR, standard deviation 27,768 YR); and the weighed average taking in account the relative impact of different company and benefit schemes is even 47,565 YR. The next figure illustrates the per capita amounts spent for health care provision for employees working in public enterprises, including the average spending on health care provision.

Figure 5 Average health expenditure in public and mixed companies



Source: Public company schemes cover the whole and sometimes the extended family; thus the per capita spending is supposed to cover the health needs of the employee and his/her dependents. The data rely on own calculations according to information provided by personnel responsible for the health benefit schemes (for abbreviations see list of abbreviations or table below).

Detailed information was also available from one mixed company, Yemenia – Yemen Airways (51 % Yemeni, 49 % Saudi-Arabian). In the first half of the year 2005, Yemenia provided health care for its 3.897 employees and dependents (spouses and children) for YR 43,520,614. This corresponds to spending YR 22,335 per year per employee. Assuming a lower than average family size of six, this

would correspond to a health expenditure of YR 3,722 per capita per year for a rather generous health benefit scheme for Yemeni standards.

To a large extent, the observation regarding administration, management and performance of private sector company schemes is also valid for public enterprises. However, in all cases coverage includes the whole core family and often also the employee's parents living in the same household. Mainly larger companies are applying a series of mechanisms to contain health care expenditure and to reduce misuse, and most of them have introduced ID with photos of all beneficiaries. Only a minority of assessed schemes limits support for health care to fixed allowances paid for drugs. While some schemes reimburse their staff a variable percentage of health care expenditure, various public schemes provide comprehensive coverage including out-of-country treatment. Larger companies have specialised administrative and medical personnel for health care. A majority has contracted preferred provider(s), and in most cases beneficiaries do not have to make any payment as far as they receive services after prior approval by the company. Very few schemes have implemented a partly effective mechanism for controlling and fraud detection, and various modalities of claim processing and provider payment are in place. However, risk management, cost-containment, and other insurance strategies demand for further development. Obviously, most schemes are undergoing repeated reforms and adaptations according to observed problems and upcoming challenges. Sometimes, the innovations in one company are given up in another enterprise. Thus, a more detailed evaluation of existing schemes and mainly of ongoing reform processes is needed in order to make use of the accumulated experience.

Altogether, public and private company schemes underlie methodological constraints regarding health insurance related managerial capacity, and apply a limited array of purchasing and provider payment methods. Nearly all companies pay providers according to a fee-for-service mechanism, and financial negotiations are seldom. In addition, financial transparency and administration seem to be weak, and paternalism drives many of the benefit schemes. A major problem the study team was confronted with during assessment was the fact that the staff responsible for health benefit schemes was aware only in exceptional cases of what the company was spending on medical care of employees. Itemised data of expenses for drugs, out- and inpatient treatment, hospitalisation and out-of-country treatment was difficult to get so that a differentiated analysis of expenditure according to the various levels of health care was close to impossible. In addition, a series of health-related costs were not mentioned by the personnel and appeared only if the study group asked explicitly for items like company health professionals, extra allowances, and additional funding in special cases. Thus, company health care costs presented here will be generally underestimating the real expenditure that will be higher if all types of health-related support given to employees were reported and taken in account.

The general lack of financial transparency is also attributable to the fact that only a part of the benefits covered by the schemes imply the right of an employee to get them in case of need. Accessibility and mainly the scope of a series of health benefits rely on a case-by-case decision of company directors. Several companies have defined a margin of decision and condition the volume of financial support to work performance, using health benefits as an additional incentive for employees. This reflects the generalised paternalistic pattern of labour (and other social) relationships in Yemen and opens space for arbitrariness with regard to health insurance benefits.

Last not least a fundamental gender difference with regard to the coverage of dependents should be mentioned. All evaluated schemes except Hayel Saeed Insurance that restricts entitlement to employees only, declared to cover family members including several wives and many children. However, this is only true for male employees, while none of the schemes provides health care to the husband of female employees, and coverage of children remained unclear. The concept might reflect the prevailing conditions in Yemen where a male breadwinner sustains usually a family. However, the high unemployment rate (that affects also male workers), and the stepwise changes of traditional social patterns question seriously the discrimination of female employees with regard to health care coverage. To overcome gender inequalities should become a central concern of any approach towards a national health insurance system in Yemen.

The following table resumes the findings about existing company schemes in Yemen. It includes also the complete company name and the number of employees, and thus it allows for drawing some conclusions with regard to the absolute coverage and impact of each benefit schemes on the population level. Assuming the average household size, the assessed schemes that are covering all family members stand for more than 200,000 people or 1 % of the Yemeni population. For further details, please see chapter 16 of part 3 of our study report.

Table 30 Some health benefit schemes

Company	**Staff**	**Total expenditure for health (YR)**	**Expenditure per employee and year**
Private company schemes			
Arab Bank (A.B.)	310	32,140,850	103,680
Arab Insurance (A.I.)	40	1,350,000	33,750
Hayel Saeed Group (H.S.G.)	8676	62,918,234	7,252
Hunt Oil Company (H.O.C.)	1083	49,000,000	45,245
Mareb Insurance (M.I.)	138	3,825,200	27,719
Tadhamon International Islamic Bank (T.I.I.B.)	400	8,750,000	21,875
Watania Bank (W.B.)	300	7,500,000	25,000
Watania Insurance (W.I.)	50	1,750,000	35,000
Yemen Islamic Insurance (Y.I.I.)	30	1,080,000	36,000
Yemeni Islamic Bank (Y.I.B.)	373	8,900,000	23,861
7			
Yemen Oil Company Aden Branch	5,400 1,300	118,800,000	91,385
Yemen Re-Insurance Company (Y.R.I.C.)	200	4,600,000	23,000
National Bank of Yemen (N.B.Y.)	683	30,855,000	45176
Public Corporation for Telecommunication (P.C.T.)	5700	353,000,000	61,930
Public Electricity Corporation (P.E.C.)	10,000	340,000,000	34,000
Public Board for Meteorology & Aviation (P.B.M.A,)	2,300	70,000,000	30435
Central Bank (C.B.) Sana'a Headquarter only	2,100 1,100	145,000,000 115,000,000	69,048 104,545
Agriculture Co-op Credit Bank (A.C.C.B.)	1,100	38,000,000	34,545
TeleYemen (T.Y.)			
Mixed company schemes			
Yemenia (Yem.)	3,897	93,000,000	23,865

4.4 Private health insurance companies

A review was also undertaken of private health insurance companies operating in Yemen. Obviously, private health insurance has a very short history in Yemen. A recent study had stated that there was no healthcare insurance policy marketed within Yemen (Constable 2002, p. 6). In the meanwhile, at least two out of the 12 private insurance companies that are working in Yemen - three more will start in the near future - offer health plans in Yemen. All of them started business providing third-party insurance by international companies, mainly by BUPA (British United Provident Association), IDI (International Danish Insurance), Munich-Re and some others. For instance, Watania Insurance offers health insurance according to various portfolios for Arab-Re (Lebanon) and Egypt-Re (Egypt). Individuals in Yemen or expatriates employees of major companies may purchase, or have purchased

on their behalf by their employer, healthcare insurance cover with international re-insurers at an average cost of 800 US$, including 350 US$ which is paid to the world wide rescue organisation SOS International. All third-party contracts entitle the policyholders to benefits in Yemen, Jordan, Egypt or European facilities.

On a national level, only private health insurance is sold to individuals, but the major purchasers are employers for their employees as part of the employment benefit package. Arab insurance started to implement private health insurance plans in 2002, and Watania insurance followed in 2004 offering two own health insurance packages re-insured by the British United Provident Association in London. Thus, private insurance market is very recent, and experiences are preliminary so far. Nonetheless, it is clear that the market share for private heath insurers is very limited in a country like Yemen where household income per capita was YR 3,367 (=21 US-$) in 1999 (World Bank 2002a (I), p. 25). The total premium volume of the whole insurance market in Yemen is estimated in less than 30 million Euro; and medical insurance promises not more than 300,000 US-$.[32]

Although private health insurance companies cover the wealthiest and thus healthiest population share, they face the typical problems of very small risk pools. Until now, a Yemeni re-insurance scheme is lacking, but risk pooling on a national level is planned and negotiated between various stakeholders around the Medical Insurance Specialised Company (MIS). Private insurance companies feel recently encouraged by the MIS that acts as third-party agent and supports private insurance companies. Furthermore, managers of private companies perceive generally major problems for (private) health insurance in Yemen, mainly the lack of experienced manpower and information technology, bad quality and qualification of providers, inexistence of quality and price control of drugs, unregulated health sector prices and absence of professional federations.[33]

In Yemen, the Ministry of Trade and Industry is responsible for the supervision and control of all insurance companies including private health insurers. The Insurance and Re-Insurance Law regulates the private insurance market. The Ministry of Public Health and Population cannot and does not interfere in the activities of the private health insurance market, and no sector-specific supervision and controlling is in place, until now. So, the Ministry of Health is not entitled to revise the epidemiologic appropriateness nor enforce certain benefit packages in order to guarantee rational coverage of enrolees.

With regard to the implementation of a NHIS, some private insurers propose that public and private employees should be covered by private health insurance companies.[34] Recently, the Ministry of Interior was interested in contracting the Yemen Islamic Insurance for granting health benefit coverage to the 100,000 – 120,000 policemen and civil employees; however, the premium to cover the employee only (without family) would have been around 200 US-$ per year. This was unacceptable for the Ministry that had calculated a contribution of approximately 20 US-$ per year and enrolee. This example shows clear differences between public sector estimations and actuarial calculation by private insurance companies. Another problem mentioned by representatives of the Public Electricity Corporation refers to the concentration of private health insurance in bigger cities and the lack of branches and contracted providers in a series of governorates and in rural areas. Thus, private health insurance is not attractive for any company that is working nationwide and in remote areas.

In some countries, private health insurers have developed essential services packages, which give access and treatment for the most commonly presenting health problems. And, various stake-holders propose that a national health insurance system should rely on private insurance companies and on market driven competitiveness.[35] In Yemen, however, health insurance coverage is focussing strongly on hospital care, and all existing private companies look for competitive advantages by offering out-

[32] Communication by Mujib Abduljabar Radman, General Manager of Watania Insurance
[33] Oral communication of Mr. Saleh Baddar, General Manager Yemen Islamic Insurance Company.
[34] Oral communication of Mr. Saleh Baddar, General Manager Yemen Islamic Insurance Company.
[35] Dr. Ahmed A. Al-Hamdani, Chairman Watani Bank; Yahya Mohammed Al-Khalani, President of the General Federation of Workers' Trade Unions Yemen.

of-country treatment. Contributions are very high compared to the purchasing power in the country, and palpable deductibles increase out-of-pocket expenditure in health.

None of the for-profit private insurance companies plans to develop or to offer any product that would be affordable for a broader population share. Such a benefit package is not to be expected on a national level because even in the private sector managerial capacity is relatively low, and co-operation with the public sector does not appear to be a viable option. Moreover, managers of private insurance companies say that they cannot cover the poor, and the Government should care for them. The few private insurance packages available within Yemen are focussing mainly on high quality care and out-of-country treatment. Thus, they are far away from meeting the most relevant epidemiologic patterns and health care needs of the country.

A special role plays the company initiated Hayel Saeed insurance fund located in Taiz that can be considered as a non-for-profit, private health insurance company. The largest company group in Yemen created its own insurance scheme in the mid 1990ies in order to cover health care expenditure of the staff. Enrolment is mandatory for all employees working in one of the companies involved, and financing is shared between employer and employees and relies on automatic payroll deductions. A series of risk-management and cost-containment mechanisms are in place, and the fund is co-operating with a closely linked, company-owned preferred provider for almost all kinds of services. Recently, the Hayel Saeed insurance fund has started to extend its restricted market segment establishing contracts with other companies and institutions, so far with a colour producing company and the University of Taiz. By this, the insurance fund located in the Al-Saeed Hospital in Taiz has achieved a 15% increase of beneficiaries, and further contracts with other companies in the Taiz area are planned. The fund appears to be flexible with regard to financing modalities, e.g. contributions of the university staff are per capita flat-rates and, thus, not wage-related. As the Hayel Saeed insurance fund is linked to the formal economy and to the most successful private company group in Yemen, lessons learned for a national health insurance system underlie the same limitations as mentioned generally for company based schemes. However, this kind of non-for-profit health benefit schemes deserves further observation and assessment in order to evaluate the potential to contribute to universal coverage. This is especially true because in the case of Hayel Saeed Group, overlapping efforts can be observed with company-run charitable organisations. The consortium has acquired experience with scaling up health insurance with additional funding through donations, religious taxes and welfare benefits, and has proved that contribution-based schemes can be complemented with other earmarked resources.

4.5 Public sector programmes

Public sector attempts to implement health insurance have a relatively long history that started practically since the unification of both Yemeni states. In fact, government interest in health insurance appeared latest since 1992. However, sustainability of the various initiatives and proposals was difficult to achieve because they were highly depending on persons and discontinued always when the responsible personalities disappeared from the political scene. The following list gives an overview of the various initiatives and law proposals started since 1990.

Table 31 Public sector initiatives on health insurance

Year	Initiative
1990	1990 first endeavours for HI. A delegation went to Tunisia. Dr. Ahmed Mhd DG of Al Thawra and former Minister Luqman were promoters of health insurance ideas during that time, backing was given by socialist Prime Minister. Study of C. Ross Anthony (USAID) recommending social insurance to start with government employees; contribution according to per capita flat rate.
1990/91	Initial health insurance project for the public sector only: proposed contribution rate 3 % (employee) plus 4 % (Government = employer), financing via payroll deduction, relative comprehensive benefit package, but limited to the employer, no family membership.

Table 31 Public sector initiatives on health insurance

Year	Initiative
1991	Introduction of a 2% salary deduction for health insurance.
1994	Health insurance proposal for a pilot test in Al Thawra Hospital: Comprehensive coverage (in the first 3 years treatment abroad not included), inpatient treatment in Al-Thawra free of charge, 20 % co-payment for out-patient care. Coverage of dependents for additional flat-rate contribution (75 YR per woman, 50 YR per child) thought as incentive for family planning.
1995	Recovery of the discussion about Health Insurance in Yemen on the political agenda was coincident with the implementation of cost-sharing. Development and first presentation of an Army health insurance project to the parliament and the cabinet: Proposed contribution rate for soldiers 2 % and for officers 3 % of the salary.
2000	Visit of Health Director from Sudan (Fadaak 2005); second presentation of the military health insurance law proposal to the cabinet.
2001	Preliminary assessment of the feasibility for establishing a health care system based on social health insurance with support from WHO (Farzin 2001); conclusions and recommendations were refused since they dealt mainly with income generation and not with parallel improvements in quality and quantity of care. Third presentation of Army law proposal to the cabinet
2002	On the 1st of March, the Deputy Prime Minister asked the MoPH&P in the name of the Cabinet to establish a social insurance fund and requesting a time table by the end of the same month. A survey of the existing health insurance schemes was conducted with assistance of Support to Health Sector Reform, European Commission (Constable 2002). It included a survey of private health insurance companies, public sector insurance schemes, hospital-based health insurance, pre-paid schemes, company health insurance, and other schemes. Background notes on development of National Health Care Financing Strategy were suggested and a training workshop for health care financing and associated healthcare reforms was recommended. In April, MoPH&P backstopped by Support to Health Sector Reform, European Commission organised a four days training workshop titled *"Concept and Operation of Health Care Financing and Health Insurance in Developing Countries"*.
2003	WHO consultation carried out in October concluded in a Social Health Insurance Law proposal. The draft law overall provides a good framework for the development of Social Security, including health insurance for civil servants and employees in the formal sector. The health insurance law was drafted in a committee composed of MoCSI, MoF, MoSAL represented by pension authorities, and MoPH&P. Labour unions and other partners were consulted as well as Al-Shura council. Recommendation was given to the president and by the prime minister to start implanting the law. A National Commission of Health Insurance was created with the participation of the MoPH&P, MoF, MoSAL, MoCSI, the Workers Union, the Chamber of Commerce, and others.
2004	Proposal of a Health and Work Insurance Law is presented to the cabinet, but the cabinet refused to agree, postponed it for further reflection, and conditioned approval to a prior study; especially the MoF and the MoSAL feared that Yemen is not yet ready for health insurance. Part of the government, mainly in the Ministry of Finance, shared this view. Fourth presentation of an adapted version of the Military Health Insurance Law to the cabinet, now with contribution rates of 3 % for soldiers and 5 % for officers. Ministry of Interior was interested in contracting the Yemen Islamic Insurance for granting health benefit coverage to the 100,000 – 120,000 police and civil employees. However, the premium to cover the employee only (without family) would have been around 200 US-$ per year - too high for the Ministry that had expected a contribution of

Table 31 Public sector initiatives on health insurance

Year	Initiative
	≈ 20 US-$ per year and enrolee.
2005	Study "Towards a national health insurance system" decreed by the Cabinet and commissioned by MoPH&P. A law proposal for a Police Health Insurance Scheme is planned and currently discussed in the Ministry of Interior, but not yet available even as a draft.

Political discontinuity is a major problem and aggravates the other existing obstacles for decisive social policy in Yemen. Several proposals have not overcome the status of paper written documents disappeared in the many drawers of underused offices. For instance, the demonstration project with the fund purchasing services from Al Thawra Hospital on a capitation basis contained very detailed aspects and was submitted to the Ministry of Public Health and Population by the current Vice Dean of the Faculty of Medicine at Sana'a University, amongst others. However, every time the administration or the minister changes, all former attempts and ideas seem to be buried, and institutional memory is not developed in a form that would allow the maintenance and further development of concepts and proposals.

Obviously Yemen can look back to an impressing richness of public initiatives and proposals to implement a national or social health insurance system. It may well be that the proposals will bear re-examination in the current situation while the country is still looking for suitable approaches to implement health insurance in Yemen. The general legal framework does not represent a major obstacle, and in deed, the Labour Law that became effective in the mid 1990ies foresees health protection for dependent staff. However, it is not applied systematically and benefits granted depend mainly on the criteria of employers.

4.6 Other initiatives

Public sector companies have developed a broad array of benefit packages oriented towards social protection in health, but all of them are small-scale schemes implemented on company level. However, they are still far away from building a public program and have to be considered rather as public enterprise initiatives. In the same way, many private enterprises have implemented the Labour Law offering health care benefits to their employees (see 4.3). Undoubtedly, company-driven health benefit schemes have the potential to become important elements and focal points of a national health insurance system. During the last years, private insurance companies are slowly discovering the national market for health insurance offered traditionally only by third-party representatives of international companies. The cautious attempts to develop a national health insurance market in Yemen have been backed recently by the Medical Insurance Specialists (MIS) offering expertise and potentially re-insurance for private insurers in Yemen.

It seems to be still premature to talk about community-based health insurance as a public program However, planning and design of community schemes is on the way, and the concepts are waiting to be accepted by local stakeholders and to be implemented in the field. In addition, a broad array of solidarity schemes or practices exists in the country, mainly in rural and remote areas, but also in urban settings, e.g. in a neighbourhood, workplace context and societies. In this context, the investigation initiated by Oxfam in 2001 in the field of informal social protection is a highly valuable attempt to analyse the features and pattern of deep-rooted solidarity and mutual support in Yemen. The NGO-team was able to reveal and assess a series of community based solidarity concepts and practices that should be taken into account for the planning and implementation of health insurance in the country (see 4.1). However, further initiatives might appear and should be investigated in order to enrich the national experience of mutual support and solidarity for the benefit of a national health insurance system.

5. Objectives and expectations

A national health insurance system will be judged with regard to the achievements of promised improvements, and success as well as sustainability will depend on the support of the society as a whole. Achieving objectives and realising broad societal support requires on the one hand professionalism in technical design, e.g. regarding economic and administrative feasibility. On the other hand, it is crucial to match new institutions with values and historical processes that have led to current characteristics of politics, labour movements, communal patterns, distribution of wealth and poverty, religion, and culture.

The impact of the existing socio-political environment and related constraints in achieving overall objectives is often underestimated when developing new health protection schemes. However, international experience with implementing nationwide health insurance schemes shows that a lack of support of key stakeholders and even failure might be a consequence of mismatching a new system with existing structures and behavioural patterns in a society. Therefore, it is necessary to develop policy features addressing challenges beyond technical feasibility, and thereby ensure that overall objectives are likely to be achieved.

5.1 Objectives and guiding principles aiming at establishing a fair and sustainable national health insurance scheme

The existing overall legal and policy framework in Yemen emphasises improving living conditions, socio-economic environment and health of the population. These overall objectives are reflected in the past health sector reforms, the final draft of the social health insurance law and major programmes and activities carried out by the Government of Yemen and other institutions in cooperation with international and bilateral organizations such as WHO, ILO and GTZ.

International activities included technical cooperation projects supported by the International Labour Organization (ILO) such as a comparative analysis of national legislation and practice in the light of ILO Core Conventions, implementing components related to labour market information systems and human resources development. In addition, workers' and employers' organizations in Yemen benefited from technical and financial contributions of ILO. This led to the ratification of many ILO Conventions including all eight Core Conventions namely,

- Convention No 29: Forced Labour, 1930
- Convention No 87: Freedom of Association and Protection the Right to Organise, 1948
- Convention No 98: Right to Organise and Collective Bargaining, 1949j
- Convention No 100: Equal Remuneration Convention, 1951
- Convention No 105: Abolition of Forced Labour, 1957
- Convention No 111: Discrimination (Employment and Occupation), 1958
- Convention No 138: Minimum Age Convention, 1973
- Convention No 182: Worst Forms of Child Labour, 1999
- Convention No 144: Tripartite Consultation (International Labour Standards), 1976

Currently, the Consortium of GTZ, WHO and ILO on Social Health Insurance is supporting the Government's efforts to introduce the national health insurance system in Yemen.

The overall political framework of the national health insurance in Yemen aims at contributing to better health particularly for the poor through improving financing mechanisms. Thus the national health insurance system should strive for an inclusive access to health services and link with the programmes and activities related to the achievement of the Millennium Development Goals (MDG) and poverty reduction strategies (PRSP). Particularly relevant in this context are efforts to eradicate extreme poverty, promote gender equality, particularly remove barriers to women's access to health

care, reduce child mortality, improve maternal health, and combat HIV/AIDS, tuberculosis, malaria and other diseases.

Consequently, the design of the national health insurance needs to emphasise on the following core objectives:

- *Achieving universal access through introducing national health insurance coverage and protecting from health-related poverty*. This includes ensuring that coverage reaches out to the poor, women, migrants, elderly, pensioners and other vulnerable groups. In addition, the inclusion of the excluded should focus on responding to needs, improving accessibility and utilisation of health services while taking into account the households' capacity to pay.

- *Striving for sustainability and solidarity in financing based on good governance and efficient use of resources*. This should lead to a significant lowering or removal of user fees for vulnerable groups, such as the poor, women and children, particularly for primary care. Further features to be taken into account include effective control and auditing of funds, monitoring of implementation of the law and regulations.

- *Supporting an active role of the state in facilitation, promotion and extension of national health insurance*. This includes supporting the development of innovative mechanisms such as community-based micro-insurance schemes, in particular in areas with low administrative and financial capacities, where coverage cannot be immediately provided through statutory schemes. Linkages between the national health insurance and the innovative schemes should be built in order to sustain small-scale schemes and support the provision of comprehensive benefit packages.

There are various options to detail these core objectives according to financial means, economic and socio-economic context and there is considerable flexibility as to how to achieve them. Strategic goals include maximization of membership, income and benefits e.g. through improving efficiency of management, decentralization, and need-oriented decision-making on benefit packages.

Some generally agreed guiding principles help to identify appropriate ways to meet the objectives mentioned:

- Equality of treatment and equal access to health services
- Solidarity in financing through risk pooling
- Inclusiveness in framing rights
- Overall responsibility of the State
- Transparent and democratic management including a participatory approach of management and governance based on social dialogue with workers, employers and other stakeholders.

When implementing the national health insurance system it should be taken into account that the political process of collective decision-making and active involvement of all stakeholders in national health insurance will take time and resources. Key stakeholders in the national health insurance system include besides representatives of members, potential members such as the excluded, workers' and employers' organisations, Government, community-based schemes and other innovative schemes providing health services, the poor, women, medical professions, providers and donors. Further, obtaining agreement from various external parties such as the Women National Committee for increased cooperation will be key issues.

5.2 Meeting overall objectives through addressing socio-political challenges in design and implementation of national health insurance

In order to meet these objectives, Yemen's health system, its institutions and the behaviour of individuals, families and the population as a whole need to comply with and adjust to change. An

enabling policy framework for a fair and sustainable national health insurance scheme in Yemen requires particularly removing barriers and developing country specific solutions. This holds especially true for health-related aspects of poverty and empowerment of the poor, gender inequality and impact on access to health services, and accountability and corruption related to health services.

The most recent UNDP report stated that Yemen is "infested with corruption" throughout all sectors including those agencies who are in charge of accountability and preventing corruption. The lack of political accountability is closely related to the missing separation of powers and the concentration of forces.[36] Thus, mutual control of the State's pillars is limited, and Yemen's participation in the "War on Terror" is certainly the only reason why United States refrains from commenting the lack of transparency and political accountability. Journalists who bring irregular incidents to the public and write about possible fraud where representatives of the Government might be involved, are running the risk of becoming victims of kidnapping and physical violations. Politicians of opposition parties go to the public for criticizing the practise of personal enrichment, arbitrariness and immunity of powerful and privileged groups. With regard to the health system in Yemen, the MoPH&P faces strong accusations of being a stronghold of misuse and mislead of resources. Due to the blacklisting, the Minister had to proceed to shut down 107 health institutions in the country after public health violations (Yemen Times, 12th Sept. 2005).

These factors have profound effects on future beneficiaries' access to health services and thus on equity and equality. They will directly impact on the scheme's effectiveness. Accordingly, design and implementation of national health insurance need to deal with relevant evidence of the country's socio-political environment. And it has to take measures in order to prevent as far as possible corruptive behaviour of health insurance personnel, to minimise fraud and to tackle with deficiencies with regard to social trust and reliability.

5.2.1 Health-related aspects of poverty and empowerment of the poor

Large parts of the population in Yemen are living in extreme poverty. Limited access to health services impacts on ill health, income security and poverty; on the other hand, health system development can contribute significantly to poverty alleviation and is an integral part of sustainable development.

In developing countries, every year 178 million people are exposed to catastrophic health expenditure, and more than 100 million are forced into poverty by health care cost (WHO 2005c). Given the high share of out-of-pocket payments on health expenditure in Yemen it can be assumed that health care costs play an important role in impoverishment and deepened poverty of the population. The poor often bear the financial burden of ill health and the related loss of income and savings. In many cases, ill health leads to a medical poverty trap. In order to cope with the financial burden of ill health households often use welfare threatening strategies for example selling assets such as land.

Even those who have some kind of health protection might experience that the benefit packages do not protect against catastrophic costs. That means that they are exceeding the households capacity to pay and people have to use up their savings or even to sell assets which are important for income generation. Consequently, negative impacts on poverty, malnutrition, child mortality, maternal health and diseases such as HIV/AIDS are experienced. Mostly concerned is the rural population, women, workers in the informal economy, the self-employed, unemployed and elderly. As a result, inequalities in access and exclusion of certain groups occur. This situation is worsened by low enforcement of the law and institutional failings.

From an economic point of view, untreated diseases and lack of access to health services impact on productivity and per capita income, years of income due to reduced life expectancy and health status.

[36] The president is the commander-in-chief of the army, the chief judicial officer and the head of the ruling party that has a broad majority in the Parliament.

Further, fragmentation of health financing might result in increased national health expenses. Finally, lack of access to health services affects the competitive capacity of economies in international markets. From a social point of view, improved access to services and related improved equity are leading to social development and help to promote social peace and stability.

Against this background, it will be necessary to cover the most vulnerable groups from the very beginning of the implementation of the health insurance law. Coverage of those who are better off need to be combined with increasing coverage of the poor in order to share risk pools on a basis of solidarity. Exclusive coverage of closed groups such as the police or military does not correspond to key objectives of the law and cannot be seen as a viable option.

Further, it is imperative to integrate all stakeholders of the national health insurance as outlined above in the decision-making process and governance of the new system. It will be important to involve particularly those who are most in need. Only a broad participation of these groups will ensure that the new system is adequately guided and adjusted to needs, gain trust of the population, and receive national and international support in funding.

Empowerment of the poor and their solidarity-based health institutions as well as women is key for the success of the national health insurance system. Despite high levels of illiteracy and lack of awareness of political processes, improvements in access to health services of these groups will shape the public opinion on the new system and impact on evasion of contribution payments. Therefore, it will be necessary to seek feed-back and empower these groups, e.g. through providing technical and management training and developing manuals and other relevant material on the national health system.

Given the high percentage of poor people living and working in the informal economy in Yemen, it will be necessary to also involve communities and non-governmental organizations in seeking solutions to address health-related poverty in schemes to be linked to the national health insurance system. Communities and their schemes can be very efficient in reaching out to the poor, collecting contributions of informal sector workers and reduce expenditure for the most vulnerable. Support to implement and develop these schemes should be provided through enhancing skills in accountancy and administration, allocation of health budgets, creation of transparency with regard to health budgets, allocation and expenditure, and continuous monitoring of the implementation process.

In order to support sustainability of the often small-scale risk-pools it will be useful to search for adequate financial and administrative linkages with the national health insurance and provide financial and technical support, e.g. regarding management, administration and governance. In order to better reach workers in the informal economy and their families it is advisable that the national health insurance system is efficiently decentralised and consists not just of one authority but networks all schemes and institutions providing services to the population. External funding such as grants and loans should offset shortfalls in revenue. However, it should be taken into account that external funding is not sustainable and over-dependence might thwart implementation of the national health system.

5.2.2 Gender equality and access to health services

Yemen's female population is highly marginalised and excluded from a large number of socio-economic activities. The status of women is characterised by a high rate of female illiteracy (74 % in rural Yemen; ILO Labour Force Survey, 1999) which often leads to a lack of information related to their rights, e.g. free treatments in public health services. Consequently, these rights are not used and health services might not be accessed due to high out-of-pocket payments.

Further, women's participation in the formal labour market is with 21.8 % low compared to 69.9 % of male participation. De facto, only 13.8 % of female employment is in paid employment. (ILO 1999) Female labour market participation is mostly (92.7 %) in the private sector and here particularly in the

agriculture (87.2 %). (ILO 1999). When designing a national health insurance scheme it needs to be taken into account that the majority even of working women will not benefit from improved access to health services if coverage does not include family members.

Another relevant feature of the labour market includes the fact that most married employees in Yemen are living on their own in major cities while their wives and families are living in rural areas. This applies particularly to persons working in the police and military, but also to other groups particularly to the poor and low-income families. This pattern needs to be taken into account when deciding about coverage of national health insurance: Given the lack of medical infrastructure in rural areas a de facto exclusion of women and children from access to health services might be the result. Options which limit coverage to these groups even if only foreseen at an initial state of the implementation counter the overall objective of equal access and equality.

Despite the fact that Yemen's laws respect that men and women enjoy equal rights and obligations there are many socio-cultural norms that undermine significantly equality. They include the husband's permission to work in the public sector, restrictions on women's mobility outside their homes, sharshaf restrictions and lacking access to and control over resources.

These socio-cultural norms have a significant impact on women's access to health services and need to be taken into account when designing the national health insurance system. The following examples illustrate the degree of discrimination challenging women in Yemen:

- Even business women are living under mobility restrictions and cannot leave their home without being accompanied or "secured" by their husband, father or son. This is a significant barrier e.g. for midwives.
- If sick, women and their children have to get the agreement and need to be accompanied/ guarded e.g. by their husbands, fathers, brothers or sons if they wish to access health services. Due to time and cost impacts of out-of-pocket payments this is often refused until severe stages of diseases. Further, transportation costs to health services are doubled.
- Female doctor's and nurses need to cover their head – sometimes even the whole face except their eyes, with sharsharfs even when carrying out their profession.
- The same rule applies to female patients who are only allowed to remove the sharsharf if treatments in the face have to be carried out.

The situation is worsened by the fact that in many cases male health is given priority in health budget allocations in case of scarce resources. A current example can be seen in the lack of budgets allocated to blood banks used to 45 % by women giving birth. These patterns and poor medical infrastructure, particularly in rural areas, have far ranging implications on women's and children's access to health services and their health status. Women in poor households are most often victims of these norms. Women's life expectancy, child mortality, the high rate of breast and cervix cancer reflect this lifestyle and related circumstances described.

Against this background, it is not surprising that poverty often has a female face in Yemen. Therefore, the new national health insurance scheme needs to address women' issues as outlined above. The overall objective in this respect should be to improve women's access to health services through features such as

- Equal representation of women and men in new advisory and executing institutions such as the stakeholders' task force, the board of directors of the health insurance authority and controlling institutions.
- Equal representation of female and male advisors on the design of benefit packages and other advisory groups
- Inclusion of families in the coverage of the national health insurance
- Extended coverage to the rural population, the poor, workers and their families in the informal sector from the initial stages of implementation
- Specific provisions to improve women's access to health services e.g. financial incentives for regular check-ups of women and children.

- Improved access to health services through mobile doctors visiting women and children at their homes, e.g. in rural areas
- Coverage of transportation costs of escorts for poor women
- Awareness campaigns for women regarding rights related to national health insurance
  - Institutional mechanisms aiming at ensuring participation of women on all levels of the decision-making process
  - Formulation of policies for budgetary allocation for women's health

5.2.3 Accountability and corruption in the context of health

Evidence drawn from local newspapers and public opinion suggests that in many cases funds allocated to the health sector are challenged by a lack of accountability and corruption. Currently, this translates often into inadequate funding of health facilities and hospitals, lack of infrastructure, low quality of services, shortages in drugs, limited operation and maintenance budget of facilities. Further, often a legal promise is de facto not applied, such as free treatments for the poor or for women giving birth and out-of-pocket expenditure is not uniformly applied.

Against this background key threats of members and potential members in the national health insurance include increased poverty due to contribution payment without improved access to and quality of health services. These fears are even shared by the better off since contribution rates to existing social security schemes already amount to 20 % of salaries. They are topped by some 15-25% of taxation. Contributions for the national health insurance system will add to these salary deductions. Further, in case of sickness, the draft legislation of the national health insurance system foresees co-payments amounting to one third of the price of drugs and services for the insured.

This leads to a high degree of mistrust in public institutions and provokes already at this very early stage of the national health insurance systems discussions on the misuse of funds to be collected. Such perceptions might lead to a lack of support of key stakeholders in health insurance ranging from the Minister of Finance and the international donor community to evasion of contributions and thus failure of the reform.

The manifold reasons behind the observed lack of accountability include low remunerations of staff in all institutions involved in the health sector and the lack of control and independence of institutions including providers and other stake-holders. Auditing and control is missing in nearly every institution, and immunity of illegal personal enrichment as well as the far going public acceptance of misuse and corruption. In order to avoid any further damage of the good intentions of the reform and the Government's commitment, it is suggested addressing already in very early stages of internal and public discussions measures against misuse and corruption within the national health insurance system.

Pro-active measures addressing issues of accountability and corruption should be already foreseen in the design of the new system. They include a series of measures such as a strict enforcement of rights and obligations foreseen in the law, transparency in allocation and use of funds, democratic governance, and independent control and auditing involving international auditors. A adequate follow up and punishment of fraud detected e.g. exclusion of providers from reimbursement should be in place, and public relation campaigns upon corruption have to play an important role. Further useful instruments to prevent misuse of funds might be addressed by creating new oversight mechanisms such as local control boards, introducing incentives e.g. publication of positive results of auditing, and disseminating information on good practices.

5.3 The pattern of expectations of interview partners in Yemen

Most Yemenis and many interview partners do not know what a social and national health insurance system is. The word "insurance" has certain ambivalence in the Moslem World and not at all a very positive connotation. This was unluckily reinforced by two circumstances.

- Private and public pension insurances do not have a very high reputation. Contributions are deducted regularly from salaries but benefits are given only far in the future for some and for others the pensions seem to be very small, in case they can be obtained after a long time of services in government or in the private sector. Many people – it does not matter if right or wrong – complain about the pension insurance funds and one third of interviewees mentioned that such funds should not be taken as an example for health insurance.

- Since the early nineties deductions were taken from salaries in the name of health services or health insurances, that were virtually not existing. The deducted contributions flew back into the national treasury and disappeared somehow. The same happened with deductions in the name of work injuries which never saw a visible return in services to the worker or employee. There are several of such deductions as for example in the case of the teachers whose syndicate started with a solidarity scheme based on voluntary deductions which was then converted into a mandatory deduction asked for by the Ministry of Education without returning benefits.

Even high ranking interview and discussion partners were not that enthusiastic on health insurance. A very few expressed, that health insurance is a 'must', but a very enthusiastic awareness of its benefit for Yemen could not be discovered. Many of the interview partners, especially in the political parties, mentioned that there are more important priorities to deal with: "food insurance" as two partners called it, fight against poverty diseases and preventive measures to avoid avoidable diseases and suffering.

Nevertheless, there is a polite openness to discuss health insurance issues and even details, especially among politicians asked. But a clear goal-orientation and political vision is not given, neither any commitment. For two of the opposition parties health insurance is an excuse to shift away a given responsibility of the government to an unknown health insurance authority which might face problems with trust and credibility. For the other parties there were more important priorities for the political campaigns.

Worker unions presented themselves as one of the very few stakeholders demanding health insurance. Their expectations are patterned according to experiences of colleagues in public and mixed companies who receive medical benefits without paying contributions for them. In line with this they would accept a maximum contribution rate of about 2% of their salaries with a share for 5-6% from the employers. Such a contribution should provide the fullest benefit package possible, including for father and mother living in the workers' household. The workers of the public and mixed companies fear that a national health insurance scheme will harm the existing benefit schemes they fought for in long labour disputes and negotiations.

Employers of public companies are interested in health insurance. It could reduce the high costs they spend now for medical benefit packages, especially in the case of a rare and catastrophically high case of illness with several needed treatments abroad. The same holds true for private companies that started to offer fringe benefit schemes for their employees and workers, including medical benefit packages. Furthermore they hope to benefit from an inclusion of sick-leave benefits in a social health insurance, so to reduce their payments for off-duty workers in case of a prolonged illness.

Among the medical professionals there is probably the best understanding of health insurance. However, vested interests intervene strongly, and improved income conditions seem to be an important driver mainly for medical doctors, but also for nurses and other clinical staff. A rational choice of providers according to clear standards of quality and efficiency, and based on decisions of managers and economists would not be their preferred option. The medical association tried to

convince their own members to build up a solidarity or insurance scheme. The majority declined to agree to it.

5.4 The pattern of expectations of opinion leaders in Yemen

Some results of 110 interviews with opinion leaders in Yemen hint at the following pattern of preferences. The percentage figures indicate which proportion of the interviewees stand behind the following statements:

- 91 % There is a real need for health insurance
- 91 % Cost-sharing leads to postponement of treatments
- 90 % Informal payments are often given (about 200 YR for PHC and 2000 YR in hospitals)
- 89 % Expect good services with health insurance
- 87 % Would join health insurance
- 84 % Cost-sharing is not well organised
- 80 % Government employees should be covered first by health insurance
- 78 % Cost-sharing is bad and unfair
- 77 % Drugs should be included in benefit package
- 72 % Would trust in health insurance fund
- 63 % Exempted diseases are not taken care of
- 63 % Autonomous health insurance organisation as agent
- 60 % Health insurance should be organised at national level
- 58 % Employee, wife, children and parents should get benefits
- 54 % Health insurance should be mandatory
- 52 % Health insurance should start immediately
- 41 % Pension fund is a model for health insurance
- 35 % Pensioners are too poor to pay for health care
- 0 % Health insurance should benefit employees only (and not the families)

Results of the opinion survey will be quoted in various chapters of the reports.

The first question of the questionnaire tried to elicit information on existing solidarity schemes for health in Yemen. Many opinion leaders know such schemes, as shown in the following table.

Table 32
Opinion leaders' knowledge on solidarity schemes

Type of schemes	%
Support by neighbours and/or family	58
Support by charities and donations	52
Self-help or mutual support of social groups	49
Support by employers to cover health care costs	40
Support by religious groups, e.g. mosques	27
Mutual support of professions, like physicians	25
Support through Zakat contributions for health	13

Multiple answers were allowed
Source: GTZ&EC opinion survey 2005

Highest ranking and according to expectations is the support by neighbours and families. Nevertheless, the same figure hints at the fact, too, that 42% of the respondents do not mention it. Could this be interpreted as a sign of growing individualism and the loss of family ties in a modernizing society? In depths studies might study this issues. Interesting is also, that employers are mentioned more often than religious groups. Such responses have to be studied in depths by focus group interviews. They hint at intriguing issues of social relations.

Regarding the proposed division of labour between government and health insurance there is a relatively clear opinion of the leaders related to basic health care, including prevention and vaccination, MCH and PHC, which should be in the hands of government. Related to chronic and catastrophic conditions, there is a mixed feeling, whether government or health insurance should be the lead agent. The main domain of health insurance is seen in the area of curative health care.

Table 33
Opinion leaders' proposed division of labour between government and health insurance

Health programmes	Government %	Health insurance %
Mother and child health care	93	9
Vaccination programmes	92	6
Prevention of diseases	91	5
Treatment of infectious diseases	89	12
Primary health care	85	10
Promotion of healthy life styles	82	12
Life threatening emergencies	76	33
Very costly and catastrophic diseases	65	59
Treatment of chronic diseases	58	54
Secondary health care	51	51
Drugs	45	77
Diagnostics	38	73
Accidents (fractures, traumatisms etc.)	37	75
Outpatient treatment	34	75
Specialized or tertiary health care	32	75

Sorted according to government responsibilities, first
Source: GTZ&EC survey of opinion leaders, 2005

A more comprehensive review is given in part 3 of our study report. It is recommended, that such studies are undertaken with opinion leaders in rural areas, too, so to avail step by step of a more representative picture of attitudes and opinions. A full analysis of the results will be done by the partner of our study, especially regarding deviations of certain groups of opinion leaders from the mainstream of opinions.

6 International experiences

Options for health insurance can be developed theoretically as is the case with the many publications on this issue written by health economists and public health specialists. Their insights and theories are very helpful for designing health insurance options. Some relevant documents will be included in the electronic attachment to our study report. Another option for developing health financing options is to look at the historical development in specific countries or at a cross-sectional comparison of various countries. We will look first at countries in the Eastern Mediterranean and North African neighbourhood of Yemen, present then very roughly lessons from other developing countries around the world[37], and finally we will discuss some remarkable trends of the long term historical trends in Western Europe.

[37] More details will be given in various chapters of part 3 of our study report.

6.1 Experiences in neighbouring countries

The Eastern Mediterranean Region of WHO covers 22 countries with a population of 500 millions. The region has shared societal values stemming from common history and culture such as social justice, equity and solidarity. The right to health and health care is recognized in many constitutions and all countries have signed the Alma Ata declaration calling for health for all through primary health care. Social protection is secured through tax-based health financing systems, social and private health insurance and through very limited schemes of community self-help.

However the EMR is also quite diverse with respect to income, health spending, health standards and levels of health system development. The GDP per capita in the United Arabic Republic (UAE) is 100 times that of Somalia, health expenditure per capita in Afghanistan is about 10 US $ and low income countries are at early stages of epidemiological and demographic transitions. Because of these variations countries of the region are divided in three groups: high, middle and low-income.

High-income countries

They represent 8 % of the total region and are mainly represented by oil producing countries including Gulf countries and Libya. In these countries, social protection is quasi universal as access is secured almost free of charge through government budget. During the last decade and following financial constraints caused by the consequences of Gulf wars and drops in oil prices, ministries of health have initiated some form of cost sharing at time of use which are meant mainly to reduce moral hazard. Also government spending was restricted and efforts were made to exclude the expatriate population from the government system by creating health insurance schemes for them directed mainly to use private services through user fees arrangements. Such policies are to be interpreted in the political and social context which is moving towards a growing role of the private sector in both financing and delivery of health care services. Some national health account analysis reflect an increasing share of households in total health expenditure.

As the expatriate population represents in some countries between one third to two thirds of the total population, WHO has advocated maintaining it is the national scheme while developing cost sharing mechanisms through their employers in order to reduce the pressure on government spending. It seems that the pressure to develop special health insurance for the expatriates is coming for the aggressive private health sector and echoed by privatization policies. Also private health insurance is used in some gulf countries particularly for some big companies. The efforts to develop co-operative health insurance are under way for about 6 million expatriate workers in Saudi Arabia and some forms of social and private health insurance are developed in both UAE and Kuwait. Studies are carried out in Bahrain with the help of some private companies.

Middle-income countries

This group represents 42 % of the total EMR population. Health care is financed through a mix of tax-based social protection and self-paying systems. Social health insurance has started in the early sixties with the wave of independences and is evolving gradually according to the political and economic environment.

In Morocco, though social health insurance has started in late sixties, the present coverage is about 17% of the total population. Coverage includes 90% of civil servants and families, big public companies and 30 % of workers in the private sector and their families. A new compulsory insurance scheme has been developed in 2005 for both public and private workers which will bring the coverage to 34 % of the total population. A particular focus is put on providing social health insurance for the poor through a special scheme financed by taxes and charitable donations.

In Lebanon half of the population is covered by social health insurance; including civil servants, workers in private sector, military and police. Figures may eventually be revised downwards in view of perceived duplication of registered population. The reform process will also try to expand coverage

to some categories of self-employed.

In Jordan recent reform has expanded coverage by social health insurance to 60 % of the population though data is relatively scarce in this respect. The insured population includes civil servants, workers in public and private enterprises, military and the Palestinian refugees which represent approximately one third of the total population.

Egypt has started social health insurance in early sixties for workers in public and private sectors without covering their families. The health insurance organization has developed an extensive network of facilities including health centers and hospitals of various levels in big cities. Contracts were also made with private providers. In 1995 coverage was extended to students and recently it was also extended to children under one year of age considered to be a vulnerable group. At present coverage is about 51 % of total population. However private out of pocket household expenditure is about 58 % and the reform program is targeting universal coverage.

Tunisia has initiated social health insurance for civil servants and workers in the private sectors in early sixties while the poor and vulnerable group are covered by government free of charges. Health insurance services are provided through 2 schemes: Social Security Fund for workers in the private sector and their dependents, Social Protection Fund for the civil servants and their dependents. Insured patients get their services free of charge from public health facilities though some co-payment has been initiated since 1982, from some health centers belonging to the Social Security Fund and from private providers through some special arrangements. The new health insurance reform program has developed a common sickness fund which will operate for all the insured patients and which will open more to the expanding private sector. Presently 90 % of the population is covered and in most schemes supplementary insurance is provided through mutual and private health insurance.

In the Islamic Republic of Iran, coverage by social health insurance is almost 90 % of the total population. However, the recent national health account analysis and studies on catastrophic spending have showed an increasing inequity in health spending as 53 % of total spending is born by households and that 2 % of households are suffering from catastrophic spending. The reform program is focusing on reducing inequity, on increasing government spending on health and on achieving universal coverage.

Low-income countries

In low-income countries, the formal sector is very limited which explains the low coverage by social and private health insurance. Government spending in these countries is low and shrinking in many cases leading to high and unacceptable rates of out of pocket spending up to 75 %. Even essential public health functions are not well financed in government sectors. Some countries have scattered employment-based small insurance schemes covering some time the beneficiaries only.

In Djibouti, a limited scheme is covering civil servants with their families. Military and police are having special coverage for themselves and their families. The health sector reform program is planning to improve social protection through extension to formal sector employees.

In Sudan, social health insurance has started in early nineties and the present coverage is about 22 % of total population including civil servants, students, veterans and families of martyrs. Efforts are being made to assess the feasibility of developing community-based health insurances. Plans are made to initiate training on CBHI with technical support from WHO and ILO using the STEP training materials.

In Pakistan, there is no formal social health insurance scheme though workers in private and public companies are having special insurance schemes using the private sector services. Efforts are being made to develop some form of social health insurance for workers in the formal sector and studies are carried out by WHO to implement community based and micro insurance schemes.

Conclusion

The goal of universal coverage and improvement of social protection is high on all reform agendas in the various income groups. Countries are committed to improve equity in financing and to reduce catastrophic spending and to harmonize the coverage by various insurance schemes to avoid duplication and fragmentation.

However the main challenge for low-income countries remains the low level of total spending on health. As the prospects of economic growth are not very promising, that some low and middle-income countries are crippled with wars and political strives and as the debt burden is heavily straining public spending on health, efforts should be made to increase regional and global solidarity for health development. WHO, ILO and all concerned partners should support national and regional efforts aimed at improving social protection while advocating investment in health as recommended by the WHO Commission on macro economics and health.

6.2 Other international experiences

Experiences of other countries can hint at opportunities and pitfalls. In chapter 20 of part 3 of our study report health insurance examples from Asia are presented, especially those countries at a similar level of economic development as Yemen when they started introducing health insurance. Chapter 21 of part 3 of our study report presents examples from three countries of Latin America and draws conclusions for Yemen. Chapter 22 of part 3 of our study report reports on health insurances in Egypt, Algeria and Syria from a German viewpoint. Such examples might benefit the discussion on health insurances in Yemen.

Table 34 International health insurance lessons for Yemen

Country	Lessons for Yemen
Algeria	Avoid drastic decreases of GDP for health
	Social health insurance funds cross-subsidize health care for the poor
Chile	Universal coverage is possible.
	Segmented health systems – state-run, social health insurance and private health insurance – are inefficient.
	Private insurance and insurance markets need strong and effective regulation.
	The poor have to be covered without discrimination.
	Linking tax-financing for the poor with national health insurance is possible.
	Good exemption mechanisms are necessary to protect people from impoverishment.
Egypt	Avoid too low contribution rates
	Do not allow companies to opt out
	Substitutive voluntary insurance schemes to be discouraged
	Avoid health care privileges that decrease solidarity
El Salvador	It is a long way towards universal coverage.
	Closer collaboration of public and non-public institutions needed.
	Improvement in public health care provision is of utmost importance.
	Detection and assessment of all existing health financing schemes is a crucial staring point.
	Co-ordination of various funds will promote solidarity and equity.
	Linking up might improve health outcomes.

Table 34 International health insurance lessons for Yemen

Kenya	Allow for time to develop a strategy, an implementation plan and legislation - start early. Include all stakeholders in the planning process
	Address all concerns before presenting the final package for approval, especially those from the Ministry of Finance
	Start working on capacity building, efficiency gains and better management now – you do not need to pass a law first
	Do not assume that anyone will freely and readily give up any benefits that they currently enjoy
Paraguay	Government initiatives towards social health insurance can work out.
	Special professional groups can take leadership in social security.
	Teachers belong to the most active groups with regard to health insurance.
	Administration and adequate management are crucial for health insurance.
	Claim processing and provider payment are relevant for cost-containment.
Philippines	Include a programme for the poor
	Government pays contributions for the poor
	It is difficult to cover the small scale self-employed
South Korea	Start with a programme for the poor
	Do extensive health systems research
	Do it gradually in the private employment sector
	Avoid too low contributions
	Give subsidies for the self-employed
	Provide only cost-effective interventions
	Control drug prescriptions and prices
Syria	Health benefit schemes of ministries are quite different within and between MENA countries
	Teachers are often the driving forces for instituting health insurance
Thailand	Give free medical care for the vulnerable, incl. school children
	Support voluntary community schemes with re-insurance
	Add a 100 YR flat rate programme per illness episode for the uninsured
Sources: Chapters 19 to 22 of part 3 of our study report and also part 4	

These short summaries of experiences in other parts of the world show, that Yemen can learn from many countries. There is no health insurance that can be replicated 100% in another country. But there are quite a number of similarities, that have to be dealt with. The problem of covering or including the poor and the unemployed is one of the basic issues. Another issue is the difficulty to cover and include the self-employed. Division of labour or cooperation between health insurances and government services is a topic that can be studied in all countries with health insurance. It would be uneconomic and not reasonable to disregard experiences from social experiments in other countries, wherever they might be located. For health systems research and management there is no better way of learning than looking carefully into other countries and into their histories. This is a real eye-opener and can avoid reinventing the same mistakes.

6.3 Criteria for proposing and choosing options

There is never one option only. Economics is the science of options. Health economics is an art to develop, discuss and defend options and to try to find the best one for improving the health of the people. Opportunity costs are those costs that we have to pay if not choosing the best alternative or option. This is why we have to be very creative in developing, discussing and defending options and to look into all their advantages and disadvantages, direct and indirect costs, tangible and intangible

costs. It does not matter, how options are borne. They can be bastards. The fittest option shall survive. Therefore we do not need criteria for proposing options. Everybody can propose any option. The more, the better.

We need criteria for choosing options. If we have a clear vision and objective and if this vision and objective were measurable as well as the main characteristics of the options, than we could mathematically chose the best options. In real and social life, this is not the case. Therefore we have to gather all available evidences, arguments, data, opinions, estimates from the point of view of the proponents of the options as well as from those benefiting or eventually being harmed by the options. It is a social dialogue that is needed to deal with the options and a rational weighing of advantages and disadvantages for various sectors of society. In terms of health insurance a dialogue between government, workers, employers, health experts, civil society and all involved parties is needed to chose the best option. It is not the decision of the government. It is a social process. A forum for discussing the various options with representatives from all concerned parties and from the society is a must for developing a health insurance system. It will not be engineered at a desk. It has to be submitted to social processes of weighing advantages and disadvantages from the most different points of view of all proponents, partners, patients and the poor. A dialogue forum is an essential step towards a rational national health insurance system.

6.4 Preconditions to start a national health insurance system

6.4.1 Historical preconditions

Looking into the history of Europe we can try to find out, what preconditions exist to start a national health insurance scheme. Health insurance schemes were started, when many populations still were very poor. Even after wars health insurances were reinstated in various countries. Health insurance is not just a luxury good of rich countries. Almost all European countries now are covered by far reaching non-profit health insurances within a broader context of social insurances. The extension of the coverage of social insurance including health insurance in Europe followed more or less this pattern that was detected by a quantitative policy science analysis (Alber 1985):

(1) from workers to nations, i.e. it was an incremental approach starting with salaried workers
(2) from accidents to unemployment insurances, i.e. work accident insurance was followed by health insurance. Unemployment insurance came late
(3) from voluntary to compulsory insurance, i.e. it started with solidarity schemes that were harmonized step-by-step and integrated into more comprehensive networks
(4) from control to confidence and right, i.e. there were tight controls at the beginning
(5) from cash to kind, i.e. benefits were given increasingly in kind and not as cash; cash benefits during sick leave were given first to cover the basic needs of the families; health care came later
(6) from workers to the self-employed, i.e. that the self-employed entered health insurance late, as it is experienced now in many developing countries, too
(7) from poor to rich, from weak to strong, i.e. that the coverage of the poor was a main goal for social health insurances in Europe. This differs from health insurance approaches advocated by some authors from the United States of America
(8) from self-help to institutions, i.e. solidarity schemes were converted step by step into larger institutional settings
(9) the state played a rather unclear role, i.e. it was not necessarily the driving agent for change, sometimes it were the workers and the employers playing a more active role
(10) political parties played a rather undetermined role, i.e. that the political colour of the parties involved as driving forces did not matter so much for designing and implementing health insurance in Europe
(11) socio-economic factors were not decisive, i.e. that in some countries it started in poor and in others in better-off situations
(12) diffusion was not a mayor factor, i.e. that experiences from abroad were consulted but were not the decisive in patterning national and local health insurance schemes.

The main message is: a national health insurance system can start under very different conditions. What is needed most is an awareness, a political willingness and an opportunity.

6.4.2 Empirical preconditions

There are several prerequisites for the set-up of health insurance schemes, which emerged during the interviews and discussions with partners from various organizations and institutions in Yemen. The following listing, therefore, is a reflection of a set of doubts and questions of Yemeni partners, rather than an analytical and academic array of issues to be considered.

- The idea: First of all it is crucial that the idea is clear and shared that health insurance is beneficial, due to its principle of small prepayments to cover big and catastrophic risks. It is not enough that the experts are convinced. It is important that this idea is shared by certain groups of society, and that there are examples of solidarity schemes and (even small scale) health insurance projects stemming from the sharing of this idea by a number of stakeholders. Dissemination and replication of this ideas is not feasible just by marketing but by the marketing of a good product, which is acceptable in various cultural and religious settings. The principle of solidarity alone will not suffice, to convince people and partners. Enlightened egoism will accept, too, the principle that health insurance has to be mandatory for many, to save money individually in case of an unpredictable need. Motivation and mobilisation has to foster the spreading and sprouting of the simple basic idea of health insurance

- Power: If this idea is backed up by powerful and influential people, small scale endeavours can expand into a broader scheme, what is necessary for a good pooling, i.e. for involving many members so to be prepared for covering rare risks. Power alone, nevertheless, is not sufficient. It has to be combined with leadership, i.e. with a powerful personality who personally promotes and pushes the principles of a social health insurance. This leader has to be able to convince sceptical partners and stakeholders, e.g. the Ministry of Finance. She or he has to have the capacity in sharing the excitement on health insurance with others. One or more shining stars are needed. We can call it a mastermind what is needed, somebody who cares for his brainchild called social health insurance.

- Principles: The basic idea of health insurance rests on various pillars.
  - A social health insurance can not survive on its own. There has to be government aid to support the production of health by promotion and prevention and the provision of basic health care. This can be done either directly by public providers or it can be contracted out. The important thing is that it is done rationally, i.e. that efficiency of all undertakings is strictly implemented and that effectiveness concerns address for example a rational drug use campaign and a referral system by a trustful and trusted gatekeeper. There has to be government aid in the form of re-insurance for emerging or smaller health insurance schemes, too.
  - Another principle is that the poorest have to be supported by the better-off, either through the tax system or through a subsidised or even free participation in the scheme or by both. The same applies to small-scale self-employed subsistence farmers and traders with meagre returns, to the unemployed and those affected for a certain time by specific vulnerabilities or shocks. Clear and feasibly enforced exemption rules of paying for health care or health insurance are a must.
  - A third principle is that there should be no losers, if possible, when introducing health insurance into an existing set-up with already operational health benefit schemes for selected and lucky workers and employees. Acquired labour rights deserve safeguarding. The same holds true for some stakeholders who started already with health insurance project proposals, as for example the armed forces and the police.
  - A fourth principle seems to be simple: health insurance has to benefit its members in a noticeable way. This means, that pre-payment is and should be pre-payment, i.e. there

should not be a confounding with post-payments in the form of cost-sharings and co-payments, except in cases where such is needed for moral hazard handling.

- Governmental back-up: Institutional power has to back-up the dissemination and replication of the health insurance idea and has to give it sustainability.
  - First of all, assigning some priority to basic health and basic education as the drivers of economic development is a mandate to be followed by a rational national government; health insurance leadership has to convince government leaders on the intrinsic relation between macroeconomics, health and education.
  - Adjustment of existing financial, pension and labour laws is a second important back-up as well as the drafting and more-partite discussion and revision of them in periodic intervals so to learn from experiences.
  - A third and very fundamental issue is the channelling of funds earmarked for health to health uses. This was not always the case in the past in Yemen. It means that there shall be a clear division of labour between a health fund or various health funds and the government. Government should not intermingle with funds that are run according to the principles of a rational public health minded decision making.
  - Government has to exert stewardship to back it up and to strengthen it. A clear-cut division of labour in this regards has to be installed and maintained.

- Management: A state-of-the-art management is needed with a high level of passionate professionalism and experience, not allowing routine practices and bureaucracy. Management has to be backed-up by an excellent and innovative think-tank, by institutionalised and influential dialogues with the patients (e.g. self-help groups of diabetes patients, civil society organizations), partners (e.g. the labour sector), providers (public and private) and competitors (other health benefit or health insurance schemes). A goal should be to achieve step-by-step a mutual learning and a gradual harmonization of schemes and a better pooling and risk sharing. Repeated evaluations of goal achievement are needed.

- Trust: Trust in funds got lost in Yemen. Graft and corruption were mentioned again and again in all interviews. Transparency, accountability and credibility might be achieved best by independence from government and by an ongoing internal, civil and international advise and auditing. In view of transparency simple procedures and clear financing and benefit rules should be introduced with clear definitions of rights and obligations of clients and providers and a clear and true information for all partners involved, including the media. Trust can be regained only if the clients see value for their pre-payments. High quality health care is still rare in Yemen, Yet, there are examples and ways to improve it through selective contracting of the best providers and a permanent and sustainable drive towards quality assurance.

- Control: Collateral to increased transparency is the enforcement of rules and regulations by a strict and compassionate system of checks and controls. Trying to avoid corruption, parasitism, free riders, double-jobbers, ghost clients, ghost employees and ghost providers requires a lot of intelligence, intuition and imagination. A central intelligence agency will have to be built up inside a health insurance authority for increasing efficiency, so to avoid opportunity costs and to spend the scarce resources for the purposes of health insurance rather than for private profits. Clear and drastic penalties have to exist and a judicial system that can and will and is willing to enforce them. Health insurance is not an island in Yemen – it has to face the realities surrounding it and the intelligence of people trying to benefit from it. This is one of the most important challenges and threats. Potential profiteers are not just individuals but also institutions where funds might disappear and be channelled to other uses, as it is experienced widely in Yemen. It is by no means an easy task.

- Good start: It seems to be vital to have a good demonstration project at the beginning. A project that can match the best intentions of health insurance with best implementations and best practices. A similarity with the excellent but misused drug fund hast to be avoided. A modelling after the pension funds has to be done carefully, since they are not regarded by many as best

examples. A similarity with the social development fund would not be bad which relies on strong international back-up and an outstanding personality as manager, indeed. A good start is needed with an easy to administer group or segment of the population. In case of political willingness and support the start has not to be too small and slim.

6.4.3 Further preconditions

A number of further conditions need to be satisfied and some key questions answered before Yemen can embark on the establishment of a Social Health Insurance. Some of the questions relate to the political consensus and willingness, others to the economic situation and the labour market. Last but not least there are many technical and administrative questions to answer. The fact that there was already a draft of a Health Insurance Law presented to the Government in February 2004 indicates that there have been some steps taken to answer some of those questions. On the other hand the codification of the Health Insurance Law was postponed because parts of the Government thought that Yemen was not yet ready for the reform. This underlines that it is necessary to update and concrete the political goals, to analyse the situation regarding the basic preconditions, to assess concrete impacts of the planned reform and also to assess optional alternatives. First of all it needs to have a broad consensus of the stakeholders to implement such a reform. This is a "conditio sine qua non" for any further steps of implementation.

The general preconditions of starting a NHIS are the following:

- Consensus in the group of Yemen's political decision-makers and stakeholders, support from the President and the Prime-Minister
- Support from international stakeholders and donors (for example the World Bank, WHO, ILO etc.)
- Openness and comprehension for the reform among Yemen's population
- Minimum of insured people in the beginning
- Sufficient management capacities
- A basic technical infrastructure, at least a sufficient budget to build it up
- Openness for external support and implementing the system by a professional project management
- Sanction/Penalty system
- Willingness for both: codification by law (legal framework) and reviewing/updating existing laws.

Besides these preconditions (see specifications further on in part 2 of our study report) it is necessary to answer the question if there is an acceptable health care infrastructure in place that will be able to provide the health services that will be part of the health insurance benefit package.

On the background of these preconditions some important findings from our interviews and analysis of documents might be mentioned:

- Corruption in Yemen's society was a main issue in most of the interviews.
- In August 2005 there seemed only partly to be a consensus of building up a National Health Insurance that follows the criterions "transparency", "accountability" and "credibility"
- Existing laws like the Labour Law for the private sector do have some good stipulations as to company-based health care and service insurances, other regulations, for example the continued pay in the case of sick leaves don't suit to a modern National Health Insurance law and should be revised and adapted. This is also because they are not attractive for private investment in Yemen's economy.
- On the one hand many of Yemen's health indicators are pretty bad, on the other hand there are hundreds of professionals (doctors, pharmacists) unemployed and underemployed. Only building up a National Health Insurance can not solve this problem, but it needs a public investment in facilities and staff, a professional distribution of resources and the implementation of a penalty system.
- There is lot of good practice within existing health schemes, especially in the private and public company sector, but there is also an amazing variety of different benefit packages, financing and

mobilizing revenues and health care procedures. Variety is also an advantage, that's why good practice should be kept and can give an orientation for further reform steps. So it is necessary to integrate good practice into the reform by a nation-wide comprehensive strategy.

6.5 One theoretical option: Tax based health provision

In contrast to most countries with social health insurance, where the goal of universal coverage has been stated fairly recently, universal coverage has been a central feature of countries with tax-financed models (Busse et al. 2005). In New Zealand the main policy objective to provide "free care for all" dates back to 1938. The UK followed with the creation of the National Health Service (NHS) in 1948 – "universal, comprehensive, and free at the point of delivery".

In Northern European and Australasian tax-financed health care systems, entitlement to health care services is based on residence, such as in the UK, Australia, New Zealand or the Scandinavian countries - independent of citizenship. The population not covered in these countries is accordingly very small and basically limited to illegal immigrants. Compared to these countries, universal coverage is a more recent phenomenon in Southern European tax-financed countries, but by 2002 all countries with a National Health Service in Southern Europe had also achieved near-universal coverage.

In Italy, a National Health Service with the objective of universal coverage was introduced in 1978. Before 1978, 93% of the population was covered by public health insurance, although under markedly varying conditions. The 1978 reform changed the principle of health care financing: solidarity within professional categories was discarded in favour of intergenerational solidarity, which backed the introduction of universal, free coverage for all Italian citizens. Non-Italian residents were at first not included under this legislation. Only since 1998, legal immigrants have the same rights as Italian citizens. Measures were also taken to provide some care to illegal immigrants, who now have access to a limited range of health care services, in particular treatment for infectious diseases and health care schemes for babies and pregnant women (Donatini 2001).

According to the last National Health Survey in 1997, 94.8% of the Spanish population was covered under the obligatory affiliation to the National Health System; 4.6% of the Spanish population – civil servants and their dependents – took out insurance with a non-profit mutual fund. If individuals are not covered by the national scheme, this is usually on the grounds of membership in an alternative, employment-linked insurance program and not on the basis of inability to contribute. The small group of the Spanish population formally not covered by either the National Health System or a mutual fund, consists mainly of those who are not obliged to join the social security system and, simultaneously, do not qualify for access through the non-contributory scheme for the poor. This excluded group is basically made up of self-employed liberal professionals and employers (Rico 2000). Access to health services in Spain is connected to the ownership of the *Tarjeta Sanitaria Individual* (TSI), an individual electronic health card. Since 2001 the TSI is available for citizens as well as for foreign residents. There is no difference between Spanish citizens and migrants even if they are considered "illegal". A new initiative in Catalonia aims at extending the group of migrants owing a TSI irrespective of their legal status, thus being able to access the public health networks. By offering information and facilitating the access, improved knowledge about services included in the TSI and strategies for marginalized populations shall be achieved (Velasco-Garrido 2005).

In Portugal, in addition to the National Health System which covers 83.5% of the Portuguese population, 10% are covered by substitutive private insurance schemes and 6.5% by mutual funds. Generally, the benefits received under private insurance or mutual fund schemes exceed those provided within the NHS. However, in both subsystems the employer and employee contributions are often insufficient to cover the full costs of care and consequently a significant proportion of costs are shifted onto the NHS. This was caused by enrolees of these funds not declaring their membership when receiving treatment within the NHS, thus exempting the funds from responsibility for the full costs of their members' care. The relationship between the NHS and the subsystems was explicitly

addressed by legislation in late 1998. A scheme of systemic controlled "opting-out" was devised, by which the financial responsibility for personal care in the NHS could be transferred to public or private entities by means of a contribution to be established in a contract with the Ministry of Health. Three agreements have been made between the Ministry of Health and subsystems. The State transfers annually to those entities a capitated amount for each beneficiary and in turn, the corresponding subsystem pays the whole price of NHS hospital services and ceases to benefit from NHS co-payments in drug dispensing. The benefits of the improved articulation between the NHS and the subsystems are unquestionable. However, there is striking evidence of a discrepancy between the ease of financial transfers from the Ministry of Health to the subsystems and the difficulty NHS services have in invoicing and billing the services rendered to the subsystems' beneficiaries (Bentes 2004).

There are 13 countries among the 25 countries reviewed in the report by Busse (2005) which mainly derive their health care expenditure from tax payments. They derive their tax payments as direct taxes, e.g. personal and corporate income tax, or as indirect taxes, e.g. value added tax. Some of these countries, especially Iceland, Finland and Sweden, do additionally rely on social health insurance contributions, although these are minor compared to tax payments.

Spain and Iceland have moved away from social health insurance and managed the transition to tax payments as the main financing mechanism. In both countries the major reason for this change has to be seen in the perceived higher progressivity of the tax payment mechanism, although social health insurance contributions, if designed accordingly, could have possibly achieved a similar level of progressivity as actually achieved by the change in Spain (i.e. from regressive in 1980 to neither pro- nor regressive in 1990).

Table 35 The transition from social health insurance to tax-financing in Iceland and Spain

In Iceland, more than 60% of health expenditure was financed by flat rate insurance contributions to sickness funds until 1972. Since these contributions were perceived as too regressive and as health expenditure was rapidly rising at the same time it was decided to shift to tax payments. In the transition period from 1972 to 1989, sickness funds still remained but received their funding completely from tax payments, 80% from the state and 20% from local governments (Halldorsson 2003).

Spain also mainly relied on social health insurance contributions. In the mid-1970s, the social health insurance contributions contributed about two thirds to the total health care expenditure, while the remaining third was covered through tax payments. In 1986 with the introduction of a National Health Service a major shift towards tax funding was initiated. By 1989, the previous pattern was reversed for the first time, with tax payments constituting 70% and social health insurance contributions dropping to about 30% of the total. Throughout the 1990s, the role of social health insurance contributions has been steadily decreasing (Rico, Sabes 2000).

Source: Busse 2005

In contrast to Spain and Iceland, the decreased level of tax financing led to a relative (albeit minor) increase in the percentage of social security contributions in Finland. The share of tax payments decreased from 66.1% of total health expenditure in 1975 to 59.7% in 2002, while social security contributions increased from 12.6% in 1975 to 15.9% in 2002. This shift is mainly due to the economic recession Finland was faced with in the nineties (Järvelin 2002). Canada and Norway experienced even more dramatic slashes in the share of taxes as percentage of health expenditure – in favour of more private financing mechanisms. However, this development did not necessarily reflect a decrease in available taxes (as in Finland) but a massive slash in health spending from general revenue, revealing the vulnerability of tax payments to changes in political priorities.

Instead of deriving tax payments as direct or indirect taxes for general revenue, some therefore suggest an ear-marking of taxes for health expenditure. Strangely enough, such taxes do not exist in countries which are mainly tax-financed (though in the case of Sweden it could be argued that the provincial taxes are *de facto* earmarked as the vast majority of them is used for health care). Instead, ear-marked taxes have been introduced as a source of complementary financing in countries with mainly social security financing. In France, 3.3% of the total health revenue is raised as earmarked taxes on car usage, tobacco and alcohol consumption. In addition, the pharmaceutical industry is required to pay an earmarked tax on advertising accounting for 0.8% of total health revenue (Sandier 2004). Germany raised its taxes on tobacco consumption by almost €1 per pack in three steps by 2005 which is channelled into social health insurance to stabilise contribution rates.[38]

The common assumption is that tax payments mainly play a role within tax-financed health care systems and SHI countries rely predominantly on wage-related contributions to fund their health systems. However, in Austria, Belgium, Switzerland and Japan more than 10% of their total health expenditure are raised through taxes – up to 30% in the case of Austria (Busse 2005). Additionally, and more confusing, in international statistics it is often unclear whether expenditure through taxation includes tax subsidies to sickness funds or whether these are included as SHI resources. With other words, in some countries the stated share of tax payments might underestimate the actual amount of resources collected via taxes, since these possibly include a reallocation of resources.

6.6 A second theoretical option: priority coverage of catastrophic cases

A different financing mechanism which evolved during the eighties is the approach of Medical Savings Accounts (Busse 2005). Under this approach an anticipated amount of money needed is saved up ex ante by each individual in a special account set aside to cover health care expenses. In contrast to tax payments and social health insurance contributions the collected resources are not pooled, and are therefore combined with some form of health insurance against high financial risk from illness. The reimbursement of health costs in the framework of this high-risk insurance is limited either to the costs of precisely defined treatments, especially those which potentially expose the insured to high financial risk (e.g. in the case of severe or chronic diseases), or takes effect only in excess of a certain deductible, which is limited to a specific amount per year. This high-risk insurance cover can be provided by a tax- or social health insurance-based system or by private health insurance (Schreyögg 2004).

As compulsory social health insurance contributions Medical Savings Accounts require the individual each month (sometimes shared by the employer) to pay a fixed amount or a percentage share of his gross income into a Medical Savings Account on a compulsory basis. The compulsory nature of Medical Savings Accounts, in contrast to a private bank account, guarantees that the individual does, in fact, create capital reserves that he can fall back upon in case of illness.

Should the account be exhausted and services and not reimbursed by high-risk insurance, expenses incurred must be paid by overdrawing the account or by private means (Nichols 1997). If the funds in the savings account have not been exhausted by the end of a given year, the remaining funds will be saved in the individual's account to cover future health expenses subject to a defined rate of interest. Depending on the organization of the system, reserves can also be created as old age reserves for the time when the individual is no longer gainfully employed. Persons that are no longer gainfully employed are then no longer obliged to pay contributions to the Medical Savings Account. Furthermore, it is also possible for the account holder to bequeath any funds saved to his descendants.

The three main reasons for the introduction of Medical Savings Accounts as financing mechanism are, to prevent moral hazard in spending by linking health care resources to individual responsibility, to set

[38] The tax on tobacco consumption was labelled as earmarked tax by the German Government although earmarking is actually not possible in the framework of the German tax system.

aside reserves for old age and to achieve a higher affordability of voluntary health insurance premiums by providing means to cover deductibles. There are currently two different approaches to Medical Savings Accounts in high income countries used by Singapore and the USA.

Singapore formerly had a largely tax financed system with tax payments contributing 51% of total health expenditure in 1965. At the beginning of the 1980s, a distinct increase in the proportion of elderly in the population and an accompanying rise of health care expenditures due to medical advances were anticipated. It was predicted that a health care system financed mainly by taxes in an environment of rising health care expenditures and falling tax revenues as a result of a declining labour force would no longer be a suitable method of funding in the long run (Phua 1991). A reformed system was therefore intended to solve the anticipated demographic problem and, at the same time, to create incentives for acting economically, while respecting the provision of health care services as a scarce resource. By creating a new structure of financing Singapore moved towards a mixed system based on social health insurance contributions (7%), payments into Medical Savings Accounts (8.5%), tax payments (26.5%), voluntary health insurance premia (15%) and out-of-pocket payments (43%) (Schreyögg 2003).[39]

In spite of its advantages the system of Medical Savings Accounts in Singapore raises a number of equity issues due to its regressivity and is therefore not suitable for every country (Nichols 1997). In contrast to Singapore the objective of the approach in the USA is focused instead on cost containment, expansion of insurance coverage to include the 15% uninsured and thus serves primarily to finance a high deductible in order to reduce premium payments.

Table 36 Medical savings accounts in Singapore

Initially, in 1984, a system of Medical Savings Accounts, called Medisave, was introduced in Singapore. In this system, every gainfully employed citizen of the State of Singapore is obliged to pay a 6-8 % share of his income – according to his age – into an individual account managed by the state. Funds saved in the accounts are invested in the capital market by the government and interest is paid at the current market rate (Asher 1995). In case of illness, the individual can pay for his treatment and that of his dependents from the savings in his Medical Savings Account. However, only hospital costs and certain selected out-patient costs approved by the state in a catalogue of services may be financed by the Medical Savings Account. Citizens receive regular statements of account, showing the current status of their savings account. As soon as a Medisave Account shows a balance of € 30.000, all amounts paid in over and above this amount are automatically transferred to the building savings account of the respective individual, an account which every employed citizen of Singapore is obliged to maintain in order to save money either to purchase real estate or to invest into the education of their children. This system was supplemented by a high risk health insurance scheme (called Medishield), being paid from contributions depending on age, which can be financed from individuals from the respective Medical Savings Accounts and intended to finance both expensive hospital treatments as well as out-patient treatments for chronic diseases. In addition a fund (called Medifund) is used to support individuals with low incomes who do not have a Medical Savings Account at their disposal or who are unable to set aside sufficient savings. Medifund is financed by the state from general taxes.

The implementation of the system of Medical Savings Accounts in Singapore has not yet been fully completed, because the generation entering into retirement before 1984 was not able to accumulate capital stocks and is therefore financed by family members or by state assistance. For this reason, full implementation of the system will not be achieved until the

[39] Shares for voluntary health insurance premi and social health insurance contributions are estimates. All other shares are based on data of the Ministry of Health Singapore (2002) for the year 2000.

Table 36 Medical savings accounts in Singapore

year 2030. Apart from medical savings accounts the low share of health expenditure as % of GDP of 3.7% (2002) may also be attributable to the young population and an incentive scheme of hospital classes. However there exist a number of indications on the basis of different studies that they have at least made a considerable contribution to this low share (Prescott/Nichols 1998; Schreyögg 2004a). Beyond this, the accumulated assets of all Medical Savings Accounts already amount to ca. € 13.1 billion (2001), thus constituting an important source of capital for investments in Singapore's national economy (Asher 2002).

Source: Busse 2005

6.7 Third theoretical option: rather comprehensive benefit package

6.7.1 Experiences from other countries

Since the highly considered World Development Report 1993 "Investing in Health", the concept of a package of essential health care, based on services that have been shown to be cost-effective, has been adopted in principle or in practice by a large number of countries (World Bank 1993). In the meanwhile, many multi- and bilateral donors have encouraged or promoted their adoption. However, the package concept was not that new and reflects the idea that comprehensive primary health care proposed e.g. at Alma Ata in 1978 is too expensive for many developing countries (Ensor 2002, p. 247). However, much of the literature on basic and essential services packages focuses, on the one hand, on the design and implementation and, on the other hand, on methodological tools for measuring the economic benefits, achieved life years and related problems. Relatively little attention has been given to the evaluation of the strategy in the field and on the impact on health and other social indicators (ibid. p. 248).

In most countries that have decided to follow the pathway towards implementing basic health care include the following health benefits:

1. Reproductive health care - including safe motherhood (essential obstetric care, ante-natal and post-natal care), family planning, other reproductive services including sexually transmitted diseases;
2. Child health care - including acute respiratory infections, diarrhoeal diseases, vaccine preventable disease and adolescent care implemented through an integrated management of sick child approach;
3. Communicable disease control - including tuberculosis, leprosy, malaria, filarial, kala-azar and emerging diseases;
4. Limited curative care - concentrating on first aid for trauma, medical and surgical emergencies, asthma, skin diseases, eye, dental and infectious ear diseases;
5. 'Behaviour change communication' is being implemented as a way of influencing health behaviours and health-care-seeking practices across all of the ESP components (Ensor 2002, p. 249).

Recently, a series of initiatives have started in Latin America to overcome social exclusion in health and to improve coverage of social protection in health. The enforcement of social policy measures by international donors (HPIC-Initiative, MDG) was a strong motivation for governments to create targeted insurance plans with a limited benefit package dedicated mainly to maternal and infant health problems. Bolivia was one of the first countries to start the implementation of a mother child health insurance schemes on the national level.

The Bolivian Basic Health Insurance (Seguro Básico de Salud - SBS) was born in 1999 as a social policy program that was supposed to develop into an insurance scheme. Source of financing are national tax resources channelled via the municipalities according to a capitation flat rate. The SBS

focussed on the poor population in rural and suburban areas. Enrolment is free of charge, and services are granted free of co-payment. Provider payment relies on the municipalities, and health care provision mainly on public facilities. The SBS offered a well-defined package of benefits according to the most important epidemiological problems and health needs concerning maternity and early childhood diseases. In the meanwhile, the SBS has developed into the Unitarian Mother Child Insurance (SUMI) that is offering a broader benefit package including chronic infectious diseases except HIV. Membership is formalised by an insurance card delivered by the local authority, and affiliation to the SBS is higher in rural areas. However, reliable data about the number of actually affiliated beneficiaries are extremely difficult to explore.

Table 37 Some indicators for Bolivia

Total population	8,808,000
GDP per capita (Intl $, 2002)	2,568
Life expectancy at birth m/f (years)	63.0/67.0
Healthy life expectancy at birth m/f (2002)	53.6/55.2
Child mortality m/f (per 1000)	68/64
Adult mortality m/f (per 1000)	247/180
Total health expenditure per capita (Intl $, 2002)	179
Total health expenditure as % of GDP (2002)	7.0

Source: WHO 2005b; figures for 2003 unless indicated.

The SBS benefit package is designed according to the country's most important health needs. The volume of covered benefits depends basically on the financial situation of the general treasury and obeys to economic and epidemiologic reasons, following the logic of a strict cost-effectiveness-relationship. The 76 services included in the SBS-package cover 56 % of the necessities to deal with the most relevant epidemiological problems, giving priority to maternity and early childhood disorders. The benefits cover of the epidemiologically most relevant causes for morbidity and mortality in Bolivia and represent an amplification of the pre-existing Mother-Child-Insurance.

The SBS-package is limited to maternity- and childhood health problems and some epidemic infectious diseases; thus, most other diseases and their treatment are excluded. The SBS-scheme does not grant any non-obstetric or orthopaedic surgery, no treatment of chronic or acute diseases except the selected infections, and no specialised treatment. The benefit package does not offer any option of choice for providers and enrolees. Promotional activities are practically limited to family planning. Prevention appears mainly in form of different vaccinations including a triple antiviral (MMR), OPV, BCG and DPT extended to Hepatitis B and Haemophilus infuenzae B. Immunisation indicators are relatively high in most parts of the country (coverage rates between 87.01 and 94.78 %; total vaccine coverage: 80.88 % of the children until 1 year).

The SUMI scheme is currently covering the following benefits:

1. Children under 5 years
   - Health care and nutrition
   - Comprehensive child vaccination
   - Nutritional promotion and feeding
   - Treatment of the most relevant killer diseases including acute diarrhoeas and respiratory infections
2. Health care of women in fertile age
   - Periodical prenatal control, delivery and post-delivery care
   - Prevention and treatment of pregnancy complications
3. Family Planning and treatment of endemics
   - Information, education and family planning services
   - Diagnosis and treatment of tuberculosis
   - Diagnosis and treatment of diseases of sexual transmission, except AIDS treatment

- Diagnosis and treatment of malaria
- Diagnosis and treatment of cholera

Essential benefit packages are designed for improving access to affordable health care for the most vulnerable population groups. They target to increase the use of health facilities by the poor, to offer effective services for diseases endured mostly by the underprivileged and to make selected health care available in rural areas. In fact, evidence from several studies suggests that the essential benefit package approach has been successful in enhancing public financing of primary levels of care, in channelling resources into vital health service delivery and to shift attention from hospitals to health units and centres (Ensor 2002, p. 254). The last point seems to be of utmost importance in the case of Yemen where a high degree of medicalisation (compare Chapter 3.2.1) is to be observed "health insurance" often seen as equivalent to hospital. Therefore, organisational, institutional and, last not least, also political constraints and rigidities that inhibit regional and local resource flows have to be overcome in order to make an essential benefit approach viable and effective.

6.7.2 Options for Yemen

The socio-economic situation and the conditions of health and health care in Yemen have a series of similarities to Bolivia. Certainly, some indicators appear to be worse in Yemen, but the pattern of diseases and the epidemiologic challenges are roughly the same. Facing the Millennium Development Goals (MDG), the Bolivian Government decided to make a serious attempt to improve the most worrying health indicators by investing public resources. Bolivia offers a universal essential benefit package designed especially for the needy. Financing the SBS and the SUMI through general taxes, the Bolivian State has proven his willingness to pay for the poor.

According to recent estimations, Yemen could provide universal primary care according to an essential benefit package at an annual cost of between 8 – 15 billion Rials assuming a contact rate of approximately 1 visit/ capita/ per year (Rhodes 2004, p. 17). In spite of the general lack of data and information in Yemen, some rough estimations are available with regard to the potential costs of implementing an essential benefit package covering mainly maternal and child health as well as the most important infectious diseases. According to a recent study, the overall size of investment required to achieve the MDG-related targets of the health investment plan and to deliver the interventions in the priority areas amount to $ US 14,133,763,450 or $ US 53.52 per capita for the period 2006 – 2015. Most of the challenges set by the MDG are closely linked to a reasonable essential benefit package for Yemen so that the following estimations give an idea of the costs to be expected.

Table 38 Estimated expenditure for an MDG-oriented essential benefit package in Yemen

Type of intervention	Total cost of EBP (US-$)	Cost per capita and year (US-$)
Maternal health	755,890,409	2.83
Child health	1,324,589,359	4.91
Malaria	621,494,461	2.28
Tuberculosis	92,549,568	0.34
HIV/AIDS	364,453,504	1.32
Total	3,158,977,301	11.34

Source: Compernolle 2005, p. 22; it has to be taken into account that according to own investigations and comparisons to other countries in similar socio-economic conditions the prevalence of tuberculosis seems to be generally underestimated in all available statistics.

Regarding the overall epidemiologic situation in Yemen, an essential benefit package should not focus on achieving the MDGs and reducing poverty only. In addition to the persistence of typical poverty-related patterns like malnutrition and communicable diseases, the social and financing burden of "modern" diseases is increasing. Although no reliable epidemiological data for the whole population are available, a series of surveys and specific studies reveal that the prevalence of hypertension,

diabetes mellitus, cardio-vascular diseases and malignomas is relevant in Yemen.[40] In view of the scarce resources and financial restrictions, an essential benefit package has to focus on prevention, early detection and adequate treatment in order to avoid or, at least, postpone pathological consequences.

With regard to high blood pressure and cardiac diseases, for instance, theoretical considerations confirmed by clinical and epidemiological trials suggest that qat-chewing is a relevant risk factor (Hager 1996). The negative effects on health are enhanced by the increasing use of chemical pesticides and fertilizers producing chronic intoxication of long-term qat-chewers (Date 2005). Thus, preventive measures should stress the relevance of reducing the widespread use of qat-leaves mainly for younger people. As restrictions often lack effect, this appears to be a strong argument for introducing a special qat-tax earmarked for health in order to raise additional funds for a national insurance system. Early diagnosis of treatable diseases depends to a large degree on access to affordable health care, and the current practice of cost-sharing prevents many citizens from contacting providers in time and in an early stage. Thus, a national health insurance system has the potential to reduce overall costs by reducing the necessity of expensive complications of generally low cost diseases.

In order to cover also the upcoming civilisation diseases, a study demanded by the MoPH&P and performed by an expert of the European Commission parallel to the study on health insurance, proposes to extend the MDG-based scope with a series of other services that ought to be included in an essential benefit package. With regard to treatable infectious diseases, leprosy,[41] helminthiasis[42] and bilharziasis also deserve a concerted action and available drugs in case of need. The essential package should take into account the probably underestimated prevalence of hypertension, focussing on early diagnosis and treatment.[43] The problem is costing hypertension diagnosis and treatment because the prevalence is difficult to calculate be and might be highly under-estimated. In addition to the above mentioned patterns of disease, the EC-study suggests to include also primary eye care, medical and surgical emergencies (injuries, animal bites, shock, burns, acute abdomen etc.), and minor surgery (circumcision, drainage or incision of abscesses, etc.) (Neu 2005, p. 12).

Independent from the decision to be made about the most adequate essential benefit package for Yemen, it has to be said clearly that additional efforts will be unavoidable for implementing and guaranteeing the availability of such a package. Mainly Health Units and Health Centres have to be improved and adapted to the necessities of effective service delivery. Besides the scale-up of facilities and human resources, other investments will need to be made for improving the system's ability to plan, finance and deliver high-quality health services. Essentially this includes strengthened management capacity, improved monitoring, evaluation, and quality assurance, enhanced community demand and access to essential interventions, better health information systems and research as well as improved access to affordable essential drugs (compare Compernolle 2005, p. 19f).

6.8 Résumé

For health systems research and health systems management there is no better source of evidence and inspiration than international comparisons and a review of historical developments in health systems abroad. This is a principle on which international organizations dealing with health systems are being

[40] According to a study performed between 2000 and 2001, 18 % of hospital patients suffered from high blood pressure (oral information given by Prof. Mohammed Y. Al-Noami, Minister of Public Health and Population). Statistics of Al-Thawra Hospital show 665 cases of hypertension and 1774 patients treated for chronic or acute ischemic heart disease.

[41] According to data published during an international conference on leprosy held in Sana'a in early September of 2005, at the beginning of 2005 the prevalence was 286,063 cases, while in 2004, the incidence was 407,791. (Yemen Times, 12th Sept. 2005).

[42] Especially Echinococcus seems to be epidemiologically relevant, as statistics of Al-Thawra Hospital refer to 57 cases of hydatod cysts that underwent surgery in 2004.

[43] With regard to the costs of various treatment modalities, the more traditional approach based on ß-blockers and/or diuretics might be the most suitable and affordable scheme to cover the demand within a basic package; however, the first substance might raise resistance because it antagonises the effects of Qad. Anyhow, preventive measures like stopping Qad-chewing seem to be most likely to lower blood pressure and to reduce treatment costs.

build upon. A look into the neighbouring countries is quite useful. And it is understandable to prefer being compared with countries of a similar level of development. To be able to understand longer term trends it is nevertheless essential to observe historical developments in richer and more developed countries which – a certain time ago – had a less advanced development stage, too. When South Korea and Germany started with health insurance they were at comparable levels of development as Yemen is today. Learning from mistakes of others can save a lot of money and prevent frustration. Other countries did not go the way of health insurance. It is essential, to learn from them, too. All options have to be taken into consideration, to be able to decide rationally on choices for the best health financing system for Yemen.

7. Summary and preview

7.1 Introduction

More than half of the Yemenite population do not have access to health care. This is partly due to the lack of reachable provider facilities, mainly in rural areas where more than two out of three citizens are excluded from health care. The other relevant factor is the inability of the poor population share to pay for health care. Health insurance coverage is practically inexistent, and pre-payment schemes are very scarce and hardly affordable. People have to cover most expenditure from their pockets, so that many people are unable to pay for needed and adequate medical care in the time of need.

Some political initiatives have been raised in the past in order to overcome this situation by implementing social protection in health. Especially health insurance has the potential to lower the access barriers to health care, to prevent impoverishment caused by illness, and to overcome the exclusion of so many citizens from health. Collective funds are best for fair health financing, because individuals or groups can dedicate an affordable amount of money to acquire the right to receive financial support whenever the insured health risk occurs. Health insurance makes payment for health independent from the utilisation of clinics, hospitals or pharmacies, because people pay before falling ill and not only when we are sick, as most people have to do now with a very high share of out-of-pocket payment. And it pools different risks, since everybody pays and not only the sick or vulnerable. Cases of serious and costly illness that do not happen very often can be paid by a health insurance fund. We talk about national health insurance, when almost all citizens are obliged to join health insurance, especially the wealthy and the healthy, and when all citizens can enjoy the benefits of health insurance. We talk about a national health insurance system, when different health financing forms are combined to provide health care in case of need and not just according to the ability to pay.

7.2 Terms of reference

Based on a Decree of the Cabinet of the Republic of Yemen the German Development Cooperation (GTZ) was contracted to undertake a study on situation assessment and proposals for national health and insurance system. The terms of reference are:

1. Collect, summarize, and synthesize all relevant documents and data bases prepared for Yemen and provide an overview for a comparative analysis of the situation in Yemen with selected countries in the region and the World.
2. Identify important existing solidarity schemes in Yemen and analyze their structure, impact, and performance.
3. Review existing health insurance schemes in Yemen, including public sector programmes, private health insurance, community-based health insurance and company-based health insurance schemes.
4. Conduct and analyze a health financing opinion survey of politicians, Islamic leaders, citizens, development partners, local governments, ministerial officials, insurance companies, public and private health care providers, NGOs, workers' syndicates and the medical association.
5. Visit and interview the ministries and other central institutions, public and private health care providers, district local councils and health offices on governorate and district levels.

6. Compare the present situation in Yemen with experiences in similar countries in the region and worldwide in order to determine which preconditions are required to start a National Health Insurance System.
7. Analyze and discuss in a workshop(s) all findings and suggested alternative health care financing options with major stakeholders and draw conclusions against background of the realities in Yemen.
8. Develop at least 3 alternative health financing proposals which assure the equity of health care provision. Each proposal should cover issues related to revenue collection, provider payment, choice and unit of enrolment, benefit package, pooling arrangements, contribution schedule & method and purchasing.
9. Propose an implementation plan with stages of regional, social and organisational expansion according to priorities, management capabilities, quality of existing health services, and preparedness of population groups
10. Prepare the National Health Insurance financing framework for each proposal as well as preliminary macro-financial projections for the first 10 years.
11. Identify areas of demand for future technical assistance for the establishment of a National Health Insurance system in Yemen.

7.3 Methodology

The German study team was working in close cooperation with partners from the Ministry of Public Health and Population. Yemeni professionals participated in all stages of data collection and analysis as "twins" of all international experts in the spirit of mutual learning and capacity building. The team was complemented by specialist consultants from World Health Organization and from the International Labour Office. A comprehensive literature discovery and review was undertaken, and essential documents were translated into English. Interviews were conducted with more than 230 partners from national and local governments, parliament, Shura Council (second chamber), employers, unions, health insurance schemes, pension funds, civil society organisations, and donor agencies. More than 20 groups of opinion leaders shared their views on social health insurance with a multiple choice questionnaire. More than 30 public companies responded to a questionnaire on costs and benefits of their health schemes for employees and their families. Another survey shed light on afternoon jobs of civil servants and their willingness to join health insurance. Field visits in four governorates added to the knowledge gained. In a series of workshops interim findings were discussed, and a consensus of the study team and their Yemeni partners was build up for presenting assessments and options in a larger workshop on 11.-12.09.2005 with more than 80 participants. On 3rd October 2005 options and recommendations were discussed with members from Parliament, Al-Shura Council, political parties and the Ministry of Health. A presentation to the Cabinet is scheduled.

7.4 Background

Most of the 20 million Yemeni live in mass poverty and lack government services. The population growth exceeds economic development. Oil reserves will dwindle in a foreseeable future. A sustainable development policy has to be designed and started yet. Human capital formation should be one of the major concerns, with health and education as drivers of economic and social development. Health is a macroeconomic investment. Human resource development has to be complemented by a diversified production strategy and a reversal of the increasing environmental degradation.

Most diseases and deaths in Yemen are avoidable at low cost. Prevention and promotion of adequate health seeking behaviours of families, however, are not priority in decisions on resource allocation for health care. In the strongly medicalised Yemeni society, primary care has a low status although it is highly cost-effective for avoidable diseases as well as for the increasing chronic and "modern" diseases. More than half of the population has no access at all to health care. Especially women are excluded and marginalized. This situation is aggravated by a very uneven distribution of public health facilities and by a significant underfunding of the running costs of public health facilities. Hospitals in

the public sector are generally under-utilised and of doubtful quality. The private sector is not properly regulated and its quality is uncertain. There is a very high demand for treatment abroad in the case of severe diseases.

About 29% of total health expenditure in Yemen – from private pockets and public funds – is used for treatment abroad. Approximately every two out of three Rials spent for health care are paid by families and households as out-of-pocket payment in case of illness. Extremely high health care costs hit only very few people, diseases are unpredictable, and prices in the individual case widely unknown. As social protection in health is lacking, these conditions make quite a number of families impoverish by expensive treatments, catastrophic diseases and death of family members. Even for normal diseases they have to spend a lot of money. In spite of relevant presidential decrees and existing exemption rules for the poor, public health care is by no means given for free. Cost-sharing of patients finances 45% of the costs in the largest government hospital, Al Thawra. On top of this, most providers get informal payments. 84% of opinion leaders say, cost-sharing is not well organised; and 91% affirm that cost-sharing leads to postponement of treatments. Exemptions for the poor are only given to a very small extend. This is due to the underfunding of public facilities and the low moral of staff that did not increase by topping up their salaries from the cost-sharing income. In the afternoons, the same staff earns in the grey market or shadow economy of health care. An excellent programme for cost-recovery of drugs by means of a drug fund for essential drugs fell into the trap of mismanagement and corruption. The very good government cost exemption scheme for chronic and catastrophic diseases was not enforced properly. The result is a high private spending at the time of use

- high spending for avoidable diseases
- high spending for catastrophic cases
- high spending for treatment abroad
- high spending for drugs
- high spending for informal, under-the-table payments.

Health insurance intends to regulate and reduce out-of-pocket payment, and to shift the unpredictable high burden for a few persons into regular prepayment of all, so that health care can be given according to need, and not according to affordability, only.

7.5 Social security and protection

A social safety net for Yemeni is a priority of the poverty reduction strategy of the government. A remarkable social fund for development was built up to mitigate the effects of economic adjustment programs. It could address some issues like “providing access to basic services in education, health, water and microfinance, as well as creating job opportunities and building the capacity of local partners”. Nevertheless, most families are left alone in case of structural or random shocks like flooding, fire, robbery, crop failure, inflation, currency adjustments, price increases, unemployment, accidents, famines, disabilities, long-term care needs i.e. all the “small” catastrophes that can destroy the existence of individuals, families and even extended families. Public risk management is not in place, neither. The only element of social protection addressed by the government is an insurance scheme for death, disability and pensions. It covers the military, police and government administration sectors quite well, but coverage of the private formal employment sector is very low. However, the implementation of pension insurance for about one million employees was an important achievement.

7.6 Existing health insurance schemes

Yemen has a rich history of solidarity and local self-help initiatives. Most of them are small-scale and of limited coverage. Undoubtedly, this is a treasury of good ideas and best practices. They have to be further discovered, assessed, disseminated and replicated, wherever possible. This is a strong mandate for follow-up activities towards a national health insurance system in Yemen. Examples are teachers’ and hospital staff solidarity schemes reaching beyond health and health care.

Community based health insurance schemes are discussed and recommended internationally. They are mostly voluntary schemes linked to public or private health care facilities. Two of such endeavours are promoted in Yemen, in Taiz and Hadramaut governorates. Both are not yet ready to be implemented fully, and some doubts prevail regarding their replicability in other areas.

Company based health benefit schemes in the public and private sector do show very diverse and interesting features regarding benefit packages, membership, provider contracting and payment, as well as risk-management and co-financing. Financial transparency and administration seem to be weak, and there is ample room for improving and strengthening such schemes, that on average cost about 45,000 YR (equals currently 234US$) per employee (and family) per year. A national health insurance system might and should benefit from the various experiences and from the knowledge available on how to manage such funds. More in depth studies have to be realised on these and similar schemes.

7.7 Expectations regarding health insurance

National and social health insurance is being discussed in Yemen since unification in 1990. Health insurance related salary deductions were already introduced shortly thereafter but not followed by the provision of health insurance benefits. Since 1995 the Ministry of Defence proposes a health insurance scheme for the armed forces, and a similar move is now existing to cover police and security police, altogether close to half a million employees. For the civil public and the formal private employment sector a law proposal of the MoPH&P was given several times to the cabinet, which decided in 2004 to contract a study for assessing proposals and alternatives.

The international community expects a sustainable and really social health insurance for all citizens, especially benefiting the poor, the vulnerable and women that are systematically excluded from access to fair and reliable provision of needed public services. Empowerment of the poor and of women, especially, has to be strengthened in this context. In view of preventing corruption, the building of an independent, transparent, credible and accountable health insurance authority would be the most important prerequisite for a health insurance that might assure accessible and high quality provision of health care for those in need.

Most of the interview partners of the study team did not appear that enthusiastic with regard to health insurance. Most pointed at the difficulties in setting up a trustful fund after repeated bad experiences with funds in the health and other sectors. Many interviewees mentioned other priorities related to the basic needs that are still not satisfied for the majority of the population. A questionnaire given to opinion leaders in Yemen brought a slightly more positive picture. They are quite uniform in rejecting the current practices of cost-sharing for health in public facilities, and nearly all of them advocate a social health insurance system covering the whole family. Health insurance should be mandatory, organisation would be best at the national level, and management should rely on an autonomous health insurance organisation. 77% of the opinion leaders would like health insurance to start immediately or within the next two years.

7.8 Experiences in other countries

In neighbouring low-income countries, unacceptable high levels of out-of-pocket spending and shrinking government spending for health are as common as in Yemen. In Djibouti civil servants are covered and military and police have health benefit schemes. In Sudan, social health insurance covers 22% including civil servants, students, veterans and families of martyrs. In Pakistan there is no formal health insurance scheme. In the middle-income-countries of the region health care is financed through a mix of tax-based, social health insurance and self-paying schemes. In Morocco the social health insurance coverage reaches 17%, in Lebanon and in Egypt about half of the population, and in Jordan recent reforms have expanded coverage by social health insurance to 60%.

Experiences from other continents can be helpful for Yemen, too. South-east Asian experiences pinpoint to the need of special programs and government subsidies for contributions of the poor. Latin-American experiences indicate that targeted benefit packages are feasible even in precarious economic conditions and that it is essential to make sure that contributions for health insurance are channelled really to health benefits. Africa can give good examples of back-up strategies for emerging health insurance schemes in the form of centres of health insurance competence. Yemen does not stand alone attempting to introduce a national and social health insurance system. It can bank of the experiences of other countries, and should benefit from an appropriate networking with such experiences.

7.9 Preconditions for a national health insurance system in Yemen[44]

Health insurance is not an easy concept, especially in the Moslem world. Awareness and understanding is not widespread. Motivation and mobilisation campaigns are needed to spread the basic ideas of a social health insurance and to stress linkage to the idea of solidarity shared by nearly all Arab people. Powerful decision-makers have to be convinced, too, and leadership is indispensable at various levels of policy decision-making. Social health insurance can survive only in close partnership and in a clear division of labour with the government, especially with the Ministry of Finance for funding and progressively taxing the healthy and the wealthy, and with the Ministry of Health for stewardship, prevention of avoidable diseases and promotion through health education for all. In Yemen it might be difficult to regain trust of the public sector and of opinion makers. Funds for health were mismanaged and abused by corruption. Health insurance deductions from salaries did not give any return in form of health benefits. For regaining lost trust, one unrenounceable prerequisite seems to be an outstanding independent management that is entirely bound to the principles of transparency, credibility, and accountability. A strictly professional approach is as needed as a staff that is knowledgeable in all the many specialised domains of health insurance and dedicated to the basic ethics of public service in the public interest.

7.10 Towards a national health insurance system in Yemen

The table on the following page confronts the main sectors of Yemeni workforce with health financing options.

The tabled social health insurance law proposal could cover 1.5 million employees with pay-roll deducted contributions shared by employers and employees. For the better-off self-employed businessmen an appropriate scheme has to be developed, yet. For the at least 50% of the population that is poor, unemployed and underemployed, taxes and other government revenues have to be used. Community based health insurances will need re-insurance by the government, to cover more and more the poorer families, especially in rural areas. In view of this comprehensive vision three alternative options towards a national health insurance system in Yemen were designed, discussed and analysed: (a) a full speed and big-push option for the formal employment sectors, (b) incremental alternatives and (c) the building up of an essential institutional prerequisite for a rational and social national health insurance system.

[44] This and the forth following chapters are a preview of what will be presented in detail in part 2 of our study report

<table>
<tr><td colspan="6">Optional components of a national health insurance system in Yemen</td></tr>
<tr><td rowspan="2">Health financing options
by
households' main employment sector</td><td rowspan="2">Workforce
(rough and rounded estimates)</td><td colspan="4">Health financing options</td></tr>
<tr><td>Payroll tax contribution insurance</td><td>Self-employed insurance</td><td>Community participation schemes</td><td>Tax-based public services</td></tr>
<tr><td>Government</td><td>420.000</td><td rowspan="6">37.5 %</td><td rowspan="6"></td><td rowspan="6"></td><td rowspan="6"></td></tr>
<tr><td>Military</td><td>350.000</td></tr>
<tr><td>Polices</td><td>150.000</td></tr>
<tr><td>Public companies</td><td>70.000</td></tr>
<tr><td>Mixed companies</td><td>10.000</td></tr>
<tr><td>Formal private companies</td><td>500.000</td></tr>
<tr><td>Better-off self-employed</td><td>500.000</td><td rowspan="3"></td><td>12.5 %</td><td>↑↑↑↑↑↑↑↑</td><td></td></tr>
<tr><td rowspan="2">Poor self-employed</td><td rowspan="2">1.000.000</td><td rowspan="2"></td><td>10 %</td><td rowspan="2">50 %</td></tr>
<tr><td>↓↓↓↓↓↓↓↓
Expansion strategy</td></tr>
<tr><td>Unemployed and poor</td><td>1.000.000</td><td></td><td></td><td></td></tr>
<tr><td>Households in Yemen</td><td>4.000.000</td><td>37.5 %</td><td>12.5 %</td><td>(~10 %)</td><td>50 %</td></tr>
<tr><td>Population in Yemen</td><td>22.000.000</td><td>37.5 %</td><td>12.5 %</td><td>(~10 %)</td><td>50 %</td></tr>
<tr><td colspan="6">Sources: own estimates and calculations</td></tr>
</table>

7.11 Health insurance option A: Big push

The Deputy Minster of Civil Services and Insurances (MoCS&I) announced in a meeting with the study team that by July 2006 the time of health insurance will begin for all employees of the public sector. Planned salary increases for the civil sector offer a unique opportunity to start very soon with deducting health insurance contributions from the salaries. This reflects the idea of about three quarter of interviewed opinion leaders: health insurance should start immediately, and it should start in the public sector. If those private companies, which are legally obliged to contribute to pension schemes, would also be included, a total number of 1.5 million employees could be covered together with their families of approximately 7 members. This approach could benefit half of the population of Yemen.

Wage-related contributions of 6% (employers) and 5% (employees), as proposed in the social health insurance law, would generate 58 billion Yemeni Rial per year, if about 200,000 pensioners were also included. That would increase the current health spending in Yemen by 40%.

What can be bought by this money in the hands of a health insurance authority? A well appreciated health benefit package is provided by the Telecommunication Corporation to its employees and their families. If this benefit package would be provided for all 1.5 million enrolees, their families, and the pensioners, a deficit close to 50 billion YR per year would emerge. What can be done to reduce this deficit?

- Cost-sharing of patients would be difficult to maintain since health insurance wants to shift out-of-pocket spending into prepayment
- Reduced benefit packages are feasible and pay off, if treatment abroad would be excluded, especially. A "small for all" health insurance option would offer a considerably smaller benefit

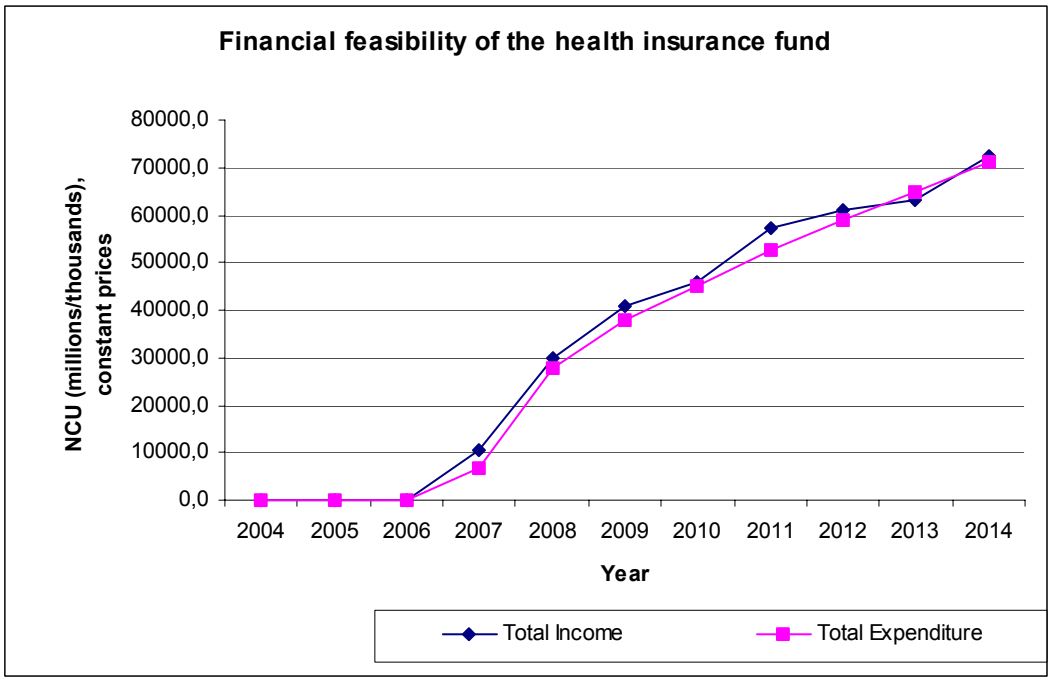
package that comes close to the current expenditure pattern in Yemen. This might be feasible in financial terms.
- Contribution rates can not be increased, since a 6%/5% share is already very high in the Arab context, and the salaries of workers and employees are really meagre.
- Employees without their families could benefit first, but this might be debatable according to Yemeni values.
- Chronic and catastrophic care could be provided by the government and not by health insurance, which would reduce drastically the deficit.
- Rational drug use has to be introduced anyway, i.e. a revolving and trustful drug fund has to be reinvented.
- Provider prices could be negotiated by the power of the economies of scale involved.
- Careful provider selection and control should accomplish the cost-containment strategy.

Furthermore, additional funds for health and health care have to be discovered and mobilised, for example
- Additional government funds for health provided to assure at least the coverage of the running costs of public facilities – a doubling of funds would be better and fair
- Earmarked "sin"-taxes and other taxes, e.g. on cigarettes, qat, big equipment, petrol
- Zakat funds and endowments for the benefit of the health of the poor and the vulnerable, to pay for health insurance contributions of those who are to be exempted from contributions
- Appropriate enforcement of existing tax laws and strengthening of progressive taxation.

In case of a clearly committed political willingness, the money-constraint of the big-push option for health insurance might be overcome. However, one of the essential prerequisites is even more difficult to implement: an autonomous and trustful health insurance authority. One option is to follow the pattern of the Social Development Fund or the Public Works Fund. In addition, the lack of sufficiently trained and experienced professionals is also a major constraint for implementing health insurance in a short term, and immediate capacity building and human resources development should accomplished by importing temporarily foreign experts. Some other obstacles remain: high quality providers to be contracted by health insurance are not available in many parts of the country, data and information on patterns of risks and demands are not available, either. Currently, most of the essential prerequisites for health insurance are not met.

Nevertheless, the big-push strategy would be an excellent opportunity for the urgently needed radical improvement or even revolutionary change of the health system. If government or charitable funds would pay contributions for the poor and if a rational and national and not-corruptible health insurance authority would take the lead, then just the best providers could be contracted for cost-effective care for anybody in need. This could lead to a more efficient and effective health care delivery that is urgently deserved by Yemeni population. However, a "big-push" strategy towards a national health insurance system is reasonable but hardly feasible under the given conditions.

One of the sub-scenarios of the big-push strategy is mentioned explicitly because this is the only scenario that would not lead to financial deficits in the long run, as shown in the figure to follow.



Although eventually covering the whole population and requiring no subsidies, there are a number of caveats to this scenario: The benefit package that can be offered at a cost equivalent to current spending levels in the country as a whole means that benefits will be lower than and different to those that some employees in the formal sector are getting today. With the inclusion of the poorer and rural population, the benefits offered must take into account the overall health needs of the population, especially primary and preventive services as well as maternal and child health. Formal sector staff not wanting to forego some of the benefits they enjoy now (such as treatment abroad) would be able to buy supplementary private insurance. With contribution rates that undercut the amount that these employees are willing to pay and the inclusion of the self-employed and poor this may be attractive. Of course, a big caveat here is that the scenario uses low utilisation rates and may therefore not be realistic.

7.12 Health insurance option B: Incremental evolution

An incremental introduction or strengthening of health insurance can be done

- bottom-up by improving, harmonising and networking existing health benefit schemes, as they exist in public and private companies or as they are initiated by international donors in the form of community based health insurance schemes and/or
- top-down by supporting those public sub-sectors that are willing and ready to embark in social health insurance, as for example the military and the educational sector.

Concurrently, government must achieve a full cost-effective coverage of health services for all poor.

Military, police and security police with about half a million employees are ready and willing to have a health insurance scheme, since years. It is a good number for starting a reasonable pooling, needed for social health insurance, if – as declared – police and security police would have a joint venture with the army. Political willingness and a management structure supportive for a health insurance fund are given. All three sub-sectors have experiences with pension insurance funds. Based on their political power, all would avail of sufficient back-up funds and re-insurance by government. As a limiting factor appears the fact that engagement in health insurance is essentially oriented to finance expansions of the military and police hospitals, e.g. for getting an oncology department and for improving cardiology and other specialties not sufficiently available. Soldiers and policemen would not get any additional benefit since they receive – in principle – free health care for themselves and their families in the health facilities of their employers. Furthermore, they are exempted generally

form cost-sharing and cost-recovery in public health facilities. Additional government subsidies for introducing health insurance for these groups would give further privileges for a privileged group. However, if military and police hospitals would fulfil the presidential order to waive cost-sharing for pregnant women and chronic ill people, and to exempt the poor from cost-sharing, that would provide many good reasons to get military health insurance started soon. Then, relevant experiences will derive from the military scheme that might enrich the discussion about a national health insurance system. The President himself could and should guarantee that this public sector would be increasingly beneficial for more and more poor people in need.

In the case of the Ministry of Education representing close to a quarter million teachers, the options are not as clear as with the public security sectors. However, backed by the stewardship of the President and the Prime Minister, the educational staff could be a good starter for social health insurance. Leadership and commitment exist at the high political level within the ministry. Undoubtedly, the scattered working places of the teachers, mainly outside the larger cities and even outside smaller towns, reduce the options to contract and control quality health care providers, for the time being. The implementation strategy must be gradual therefore: first in Sana'a, then in selected bigger cities, then in selected governorates. It would be difficult but with a good political and financial back-up it could be a good investment. A 'small-scale' national health insurance authority would have to support this social experiment. International donors are welcomed to join and to help during a decade. A centre for health insurance competence is needed for back-up and guidance. A health insurance supervisory agency and a re-insurance guarantee of the government are two essential prerequisites.

Networking, strengthening and expanding existing health benefit schemes of public and private companies is a third element of the incremental expansion strategy towards a national health insurance system. Many experiences are available, many more can be discovered and shall be analysed. There is such a rich potential available in Yemen, that it is astonishing, that it was not yet utilised before. Workers unions and employers associations are committed stakeholders. It has to be guaranteed, nevertheless, that they would not be deprived of their privileges by a national health insurance scheme. As stated above, it would produce deficits, to replicate their schemes at the national level. This is not the case with eventually emerging community based health insurances that deserve the full support of public services and public funds. International professionals and funds should be attracted to foster such schemes, including any kind of micro-insurances.

7.13 Alternative C: Work and network

There is a host of adverse circumstances against a national health insurance system in Yemen:

- A wide-spread mistrust with regard to public or publicly run funds
- No visible and strong political support and leadership in government and political parties
- Nearly insurmountable difficulties in covering the rural population in need
- The huge sector of poor, un(der)employed and self-employed at the margin of survival
- The fact that health insurance is rather a middle class topic
- The reduced scope and quality of health care offered in the country
- The absence of any quality management and control in the various sectors of health care
- The generalised commercialisation of public, private and informal health care
- The fleeing of Yemeni health care by seeking treatment abroad
- The priority needs of the health system for prevention, promotion and primary health care

It is not easy to overcome these deficiencies, bottlenecks and obstacles. It needs awareness campaigns, motivation and mobilisation measures, training, education and many promotional activities to justify a priority given for health insurance and to assure that a "new" social health insurance can be trusted in. This has to be based on facts and figures and on the selling of a good product that can be demonstrated as good or best practice. It requires reliable data and information on epidemiology, demand and supply of public, private and informal health care. It requires an effective and efficient supervision of health

care in all Yemen and systems for appropriate licensing, accreditation and re-accreditation as well as penalty systems and its enforcement. It requires improvement of managerial qualifications and a performance oriented systems of incentives and disincentives. A training and capacity building offensive is urgently needed. All the many prerequisites of good management need strengthening – not just for introducing health insurance but in view of good governance in sustainable and credible institutions: money, mastermind, mechanics, motivation, mobilisation, manpower, measurement, monitoring and the many more "Ms" of good management. Health insurance would be only one of the beneficiaries of such a drive towards a modernised management, towards a good management culture.

7.14 An assessment of alternative options

Several preconditions are needed for starting or implementing the various alternatives and sub-alternatives. In the following table they are resumed and briefly assessed.

Assessment of alternatives					
Preconditions		Big push	Small for all	Incre-mental	Wait work
Money	Sufficient financial resources?	-	+	~/+	+
Mastermind	Leadership and willingness?	-	~	~/+	+
	Clear concept and idea?	+	~	+	+
	Powerful leaders back-up?	~	~	~/+	~
Mechanics	Appropriate management?	-	~		~
	Government back-up?	-	~	~	~
	Donors back-up?	-	~	~	~
	Sufficient anti-corruption control?	-	-	-	~
Markets	Sufficient high quality providers?	-	~	-	~
Manuals	Enforcement of laws and regulations?	~	~	~	+
Manpower	Sufficient qualified cadre?	-	~	-	~
Motivation	Knowledge, awareness, excitement?	-	~	~	~
	Consensus of stakeholders?	-	-	~	~
	Solidarity support for the poor?	-	+	-	+
	Trust?	-	-	-	-
Measurement	Sufficient data and information?	-	-	-	~
Summary assessment		-	~	~/+	+

It is advisable to start with the last mentioned alternative, especially with a Centre for Health Insurance Competence and to engage step by step in supporting incremental endeavours towards a national and social health insurance system in Yemen.

7.15 A think tank for social health insurance

A Centre for Health Insurance Competence (CHIC) will be helpful to support the creation of an improved management culture and the incremental health insurance implementation. Such a centre would have a series of tasks

- Discovery and further analysis of solidarity schemes, including the awarding of the best solidarity schemes, the replication of best practices and the consultation for existing and intended solidarity schemes in the context of a massive awareness campaign, that such schemes are needed for strengthening the social capital of Yemen that is so much needed for social and economic development
- Observation and analysis of company health insurances in the public and in the private sectors, including consultations and technical advice for such health insurances and a networking of

such schemes into an association or federation of company schemes. The voluntary implementation of a re-insurance of company schemes could become an additional important task for enlarging the risk pool, reduce the individual company risk, and allow for stepwise extended benefit packages.

- Follow-up and guidance and consultancy of community based schemes, and implementation of re-insurance for community-based schemes. In this regard lobbying and awareness generation has to be done to improve the feasibility of community based schemes, especially those with indigenous roots in Yemen and "made in Yemen".
- Permanent advocacy and lobbying towards a national social health insurance system by proposal writings, research, communication and policy designs and a push for harmonisation of health insurance schemes and their integration into one national system, that safeguards a pluralistic multi-tier approach.
- Training in many forms: training of potential health insurance staff inside Yemen: information technology, English, health and health insurance related issues; training of potential leading health insurance staff outside Yemen: health financing, health policy, health insurance, etc.; repeated workshops with international specialised staff and consultants in Yemen; promotion of participation of "masterminds" in international seminaries and conferences; partnership with the Centre of Strategic Health Studies in Damascus and similar institutions elsewhere; et cetera.

GTZ has initiated and is supporting Centres for Health Insurance Competence in various countries. A networking and mutual learning of such centres would be very fruitful.

Committed local funding should demonstrate first and firmly the political willingness to engage in a social and national health insurance system in Yemen. Furthermore, the implementation of a national Centre of Health Insurance Competence could be supported by international agencies and mainly by the consortium on social protection in health built by GTZ, WHO and ILO in order to co-ordinate efforts and to join forces. For setting up a CHIC, a legal framework is needed that allows such a competence centre to open activities in the national market and to act as a franchising company. Technical support for creation and setting up a CHIC will initially require international expertise and equipment, but on the long run external consultancy is supposed to be withdrawn according to the growing capacity and autonomy of Yemenite stake-holders. If sustainability of the CHIC is guaranteed, the centre will be able to give long-term support for any emerging and performing health insurance scheme. This might be a crucial contribution to implement a national health insurance system in Yemen. Step by step, CHIC could be converted into a National Health Insurance Authority.

The CHIC could also take over the role of a think tank on the national level. Performance and scope of a competence centre are potentially unlimited, and further tasks might develop according to the implementation strategies and success. However, the study authors would like to stress the fact that a Centre for Health Insurance Competence will be a very important prerequisite for all health insurance options considered in our study. The priority activities will certainly have to be adapted to the ever chosen country strategy for implementing a national health insurance system. While the "Big push" and the incremental options will require both training and technical support, the "wait and work" strategy will focus more on capacity building. If the Yemen Government decides to make a brave step towards a national system that offers universal coverage from a very early stage, CHIC will be needed for preparing and advising the technical staff of the one national insurance fund and for supporting the existing company as well as the emerging community based schemes. In the incremental strategy, a major task for the HIC will be the assessment and harmonisation of existing and/or emerging insurance schemes. And in the most cautious option, the CHIC will have to focus firstly on capacity building and assessment.

For the implementation of a Yemenite CHIC, several options are possible. However, if the MoPH&P will be the leading agent for setting up a national health insurance system, it should also be a major partner of the competence centre. As a viable strategy appears the creation of the CHIC as a joint venture of the MoPH&P and other concerned stakeholders, i.e. the Ministry of Finance, Ministry of Civil Services and Insurance, other Ministries, the health insurance fund or funds, representatives of company and community-based schemes, health care providers, academic staff, civil society

organisations and specialised consultants. The CHIC could develop or be converted into a kind of think tank of an emerging Health Insurance Authority.

7.16 International support

International technical and financial support is needed and welcome in Yemen. Workshops, studies and consultancies, legal support, capacity building, designs of various options for social and national health insurance, national and international networking – all this deserves international cooperation. It is recommended that an advisory council or steering committee should be appointed *immediately* by the Prime Minister composed mainly of

- ministries, especially those responsible for finances, health, social affairs, civil services, endowment, and those that might adopt health insurance soon, e.g. defence, interior, education,
- solidarity schemes, health insurance projects, employers' and employees' associations or unions, civil society organisations, universities, women organisations and other outstanding experts, partners and stakeholders, including Al-Shura Council, parliament and parties.

This Council has the following objectives:

- to develop, based on the GTZ-WHO-ILO study, a policy paper on social health insurance
- to provide a policy forum on all related aspects, including on the redrafting of law proposals
- to mobilize necessary human and financial resources for implementing social health insurance
- to advise the preparation and implementation of social health insurances
- to carry out a social marketing of the social health insurance program.

This council will be converted later on into a permanent advisory board of the national health insurance authority.

A technical secretariat of the steering committee shall be put in place *immediately* by reassigning local and international professionals and it will be technically supported by WHO and GTZ offices in Yemen. As soon as possible, an independent and autonomous centre for health insurance competence should be build up with (a) a presidential or cabinet decree for instituting it, (b) a yearly budget of 400 million YR given by the Republic of Yemen, and (c) with additional international support, e.g. from World Bank funds. This Centre shall be converted step by step into a national health insurance authority that replicates the good experiences of the Social Development Fund and adapts them to an independent, credible, accountable and transparent public non-profit institution for social health insurance. This authority will guide the incremental approaches towards social and national health insurance in Yemen.

7.17 Outlook

In some countries it took a long time to cover all population with a mandatory social health insurance. Some developing countries – even poor ones – did it relatively fast. Yemen will not need decades to accommodate fairness of health financing with good health care for all. If there is a clearly increasing political willingness and commitment for a social and national health insurance system in Yemen and if international technical support could be mobilised, then Yemen could offer all its citizens in a foreseeable future good health care in case of need and not only according to their ability to pay. This is, what social health insurance intends to achieve.

8. Literature

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[45] Functions refer to those at the moment of the interview.

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Dr: Mohamed Al-Shamy	Tholla Hospital, Sana'a Governorate, Director
Colonel Mhd Ali Al-Sharafi	Ministry of Interior, Retirement and Social Security, Director General
Mr. Abdulwali Al Shargabi	Al Shura Council
Mr. A. A. Al-Shawkani	TeleYemen, Director of administration and Finance
Mr. Nabil A. Alsheik Ali	Hadda Specialist Hospital, Financial Manager
Mr. Ahmed Taher Al-Shiani	Yemen General Corporation for Radio & TV
Mr. Abdulrhman Al-Slwi	General Union of Labour Syndicates
Mr. Noman Taher Al-Sohaibi	Ministry of Finance, Tax Authority, Chairman

FULL NAME	INSTITUTION AND FUNCTION[45]
Mr. Yehia Hussain Al-Souraihi	Ministry of Defence, Retirement and Social Security
Dr. Mosleh A. Al-Toali	MoPH&P, Health Planning, General Director
Mr. IbrahimAl-Malek Al- Wazir	General Union of Labour Syndicates, Electricity Syndicate
Mr. Saleh Nagi Al-Wrafi	Ministry of Industry & Trade, Asst. General Manager of Companies
Mr. Ahmed Y.A. Al-Yadomi	University of Sana'a, Assistant to the General Secretary
Mr. Ahmed Ali Al-Yemeni	Friedrich Ebert Stiftung, Sana'a Office, Manager
Dr. Ashraf Amin	University of Science and Technology Hospital, Hepatologist and GI Consultant
Mr. Saeed Abdel Muamen Anaam	General Union of Labour Syndicates, Chief of TELEYEMEN Syndicate
Dr. Abdul Khalig Annonu	Al-Thawra Hospital, Deputy Director for Academic Affairs
Mr. Tarif Mohammed Ariki	Central Bank, Administrative Director of Health Care
Dr. Abdulrahman Ariqi	26th September Hospital Matnah, Urologist
Mr. Khan Aqa Aseel	WHO, Basic Development Needs, Technical Officer
Dr. Zayed Atef	Al-Thawra Hospital, Manager
Dr. Said Atif	Al-Thawra General Hospital, Deputy Director General for Medical Affairs
Mrs. Maha Mohammed Awad	Women National Committee
Dr. Dagmar Awad-Gladewitz	GTZ, Acting Office Director
Dr. Jamal Baathar	GTZ, local professional consultant
Mr. Mohammed N. F. Babreak	Yemeni Teachers Syndicate, Deputy Chief
Mr. Saleh Baddar	Yemen Islamic Insurance Co., General Manager
Mr. Abuhakr A. Badeeb	Socialist Party, Assistant General Secretary
Mr. Thabet Bagash	Oxfam, Programme Development Officer (Health)
Mr. Waleed Baharoon	United Nations Development Programme, Programme officer
Mr. Mahmoud B. Baled	Government Corporation for (Private) Social Security, Deputy Chairperson
Dr. Zaheer Omer Bamatraf	Hadramut Syndicate Branch, Finance Manager
Mrs. Souha Basharin	Women National Committee,
Mr.Abubaker Batheb	Yemeni Socialist Party, Asst. General Secretary
Mr. Essam Hussain S. Bawzir	General Union of Labour Syndicates, Syndicate Branch of Oil Company
Dr. Mohamed Ali Benafif	GTZ, Family Health / Family Planning Project, Technical Assistant
Zadek Ahmed Brik	Public Telecommunication Corporation, Deputy Manager for Administration and Financing
Mrs. Phil Compernolle	Koniglijk Instituut voor de Tropen, Consultant
Mr. Ameer Hussain Dahan	General Union of Labour Syndicates, TELEYEMEN Syndicate
Mr. Mohammed Dammaj	Yemen Oil Company. Health Benefit Scheme Administrator
Dr. Nabil H. Dhaba'an	Al Gumhory Teaching Hospital, Director
Dr. Abdulbari Doughaish	Member of Parliament
Mr. Mhd Ebbrahim	Chamber of Commerce and Industry, Sana'a, Officer
Dra. Elham	Policlinic Aden, Director
Dr. Hashim Elmousaad	WHO, Country Representative
Dr. Saleh Hamed Faddaq	MoPH&P, Health Insurance Unit, Director General
Mr. Abdul Rakeb Saif Fateh	Al- Naseri Party
Mr. Khalid Ahmed Ghailan	General Union of Labour Syndicates, Chief of Cement Syndicate
Mr. Ghaleb I. Ghaith	Arab Bank, Human Resources Manager
Mr. Kamal Kassem Ghaleb	Al-Saeed Spezialist Hospital – Taiz, General Manager
Mr. Mohammed Kassim Ghamdan	Public Telecommunications Corporation, Director General of Finance affairs
Dr. Nageb S. Ghanem	Yemen Parliament, President of the Health Committee and MP for Islah Party

FULL NAME	INSTITUTION AND FUNCTION[45]
Dr. Helmut Grosskreutz	GTZ, Director
Prof. Dr. Abdul-Aziz Bin Habtoor	Ministry of Education, Vice-Minister
Mr. Hani Ahmed Hamdani	Arab Insurance Company, Vice Chairman
Mrs. Anne Christine Hanser	EC, Support for Administrative Reform Programme, International Advisor
Mr. Mohammed Ibrahem Hassan	Federation of Yemen Chambers of Commerce & Industry – Sana'a Branch, Asst. General Manager
Dr. Mohammed M. Hassan	Yemeni Physicians & Pharmacists Syndicate, Deputy Chief
Mrs. Gabriele Herrmann	Chamber of Commerce and Industry, Taiz, Advisor
Dr. Fadel Hurab	Pharmacists Syndicate, Yemeni Medical Syndicate, Chief
Mr. Mohammed S. Hussein	Specialized Hadda Hospital, Member of the Council
Dr. Kazi Ismael	Dhamar Governorate, Shmsan Alhada District, Medical Centre
Dr. Ali Jahhaf	GTZ, local professional consultant
Dr. Nageb Saed Kanem	Parliament, Speaker of the Health Committee
Dr. Abdulrahman Kassim	MoPH&P, DG Cost Sharing and Community Participation, Coordinator of Quality Assurance, Representative of the Republic of Yemen in the Gulf Committee on Quality Assurance
Mr. Mohamed A. Kawkaban	Chamber of Commerce & Industry, Capital Secretariat Sana'a, General Manager
Dr. Abdul Ali Kader	Socialist Party, Member
Dr. Ahmed Ali Khaima	Aden General Hospital, Director
Mr. Amin Ahmed Khalid	Public Telecommunication Corporation, Manger Personnel Affairs
Mr. Kassem A. Khalil	Social Welfare Fund, Vice Executive Manager
Dr. Ahmed Ali Kharia	Aden Hospital, Director
Mrs. Najwa Ksaifi	International Labour Organization, Regional Office for Arab States, Gender and Employment, Chief Technical Advisor
Mrs. Lana Luqman	GTZ, Administrative Assistant
Mrs. Saeda Mahed	Al-Thawra Hospital, Nurse
Dr. Najeb Mahmud	Paediatrician, public hospital and private clinic
Mr. Taha Mahweb	MoPH&P, Health Policy and Technical Support Unit, Member
Dr. Ahmed M. Makki	Shura Council, Head of the Health Committee
Mr. IbrahemA / Maled	Ministry of Industry & Trade
Mohammed Ahmed Miklafi	Public Telecommunication Corporation, Chief of Insurance Department
Mr. Salem Omer Bin Mkashen	General Union of Labour Syndicates, General Secretary
Mr. Abdulla Ahmed Mourtada	Ministry of Interior, Retirement and Social Security Section, Finance Manager
Eng. Khaled Taha Mustafa	Federation of Yemen Chambers of Commerce and Industry, Vice Chairman Industrial Sector
Dr. Jamal Nasher	MoPH&P, Health Policy and Technical Support Unit, General Director, Counterpart of mission
Dr. Karim Nassar	Health Office, Governorate Hajjah, Director General
Mr. Mustafa Nasser	Arab Insurance Company, Marketing & Production Manager
Mr. Faisal NN	Islamic Bank of Yemen, Administrator of Medical Care
Mrs. Fauzia Noman	Yemen Women Union, General Secretary, Ministry of Education, Deputy Minister for Girls Education
Dr. Hesham A. M. Own	Mouatamar Party, Chief of Health and Population
Dr. Stefan Pahls	EC, Support to Health Sector Reform in Yemen, Former Team Leader
Mr. Mohammed M. Qaflah	Federation of Yemen Chambers of Commerce and Industry, Vice General Manager
Mr. Mujib AbdulJabar Radman	Al-Watania Insurance, General Manager
Dr. Rahman	Physicians Syndicate

FULL NAME	INSTITUTION AND FUNCTION[45]
Mr. Ali M. A. Rascheed	Mareb Yemen Insurance Co., General Manager
Mrs. Wahiba Sabraa	Yemeni Socialist Party
Mr. Mobammed Ahmed Saeed	General Union of Labour Syndicates, General Secretary of Cement Syndicate
Mr. Omar Saif	GTZ, Accountant
Mr. Nageb Salah	Dhamar Governorate, Local Council, Secretary
Mr. Nasser A. Salah	General Union of Labour Syndicates
Mr. Abdul Salam	World Bank, Technical Representative in MoPH&P
Mr. Ali Salam	Shura Council, President of the Health Committee
Mr. Sadek M. Salem	General Union of Labour Syndicates
Dr. Mohammed Saren	Socialist Party, Member of Parliament
Mr. Abdo Seif	United Nationals Development Programme, Poverty Alleviation Team, Programme Officer
Mr. AbdulKarim Saleh Sha,ef	Aden Governorate, Vice Governor, Secretary General of Local Council
Mr. Nabil A. Shamsan	Ministry of Civil Services and Insurance, Deputy Minister of the MOCSAL for Management, Personnel Affairs Sector, Director of Civil Service of Modernization Project
Dr. Saher W. Shuqaidef	WHO, Health Systems Development, Medical Officer
Dr. Ahmet Bin Sunker	National Bank of Yemen, Aden Branch, Financial and Administrative Personnel Manager
Mr Rageh Sura'im	Al-Thawra General Hospital, President of the Cost Recovery Exemption Committee
Mr. Ali Hussen Suror	Ministry of Defence, Military Medical Services
Mr. Ali Fadel Taha	Central Statistics Office, Family Budget Survey, Executive Manager
Dr. Ahmed Tellha	MoPH&P, Medical consultant and specialist in homoeopathy
Dr. Eva Tezcan	GTZ, Reproductive Health Programme, Principal Adviser
Dr. Naser Mohammed Thabet	Member of Parliament
Mrs. Gabriele Toma	GTZ, Administrative Assistant
Dr. Hans-Uwe Wendl-Richter	EC, Support to Health Sector Reform in Yemen, Team Leader
Dr. Abbas A. Zabarah	Yemeni Red Crescent Society, Reporter National Commission
Mrs. Anja Zougouari	German Embassy, Acting chancellor