Country Cooperation Strategy for WHO and the Republic of Yemen

2008–2013

Republic of Yemen

World Health Organization
Regional Office for the Eastern Mediterranean

Republic of Yemen

World Health Organization
Regional Office for the Eastern Mediterranean
Abbreviations 5

Section 1. Introduction 7

Section 2. Country Health and Development Challenges 11

2.1 Geography 13
2.2 Political and administrative overview 13
2.3 Economic, demographic and sociocultural aspects 13
2.4 Government and partner response to economic development challenges 15
2.5 Health 16
2.6 Major health development challenges for the next 5–6 years 26

Section 3. Development Cooperation and Partnerships 27

3.1 Development assistance and aid flow 29
3.2 Development partners 29
3.3 Coordination mechanism 30
3.4 Development assistance: challenges and opportunities 31

Section 4. Current WHO Cooperation 33

4.1 Introduction 35
4.2 Brief review of WHO presence in the country 35
4.3 Human resources 36
4.4 WHO programme of technical cooperation 37
4.5 Collaboration with other development partners 37
4.6 Strengths and weakness of WHO cooperation 38

Section 5. Strategic Agenda for WHO Cooperation 41

5.1 Introduction 43
5.2 Priorities for collaboration with Yemen 44
5.3 Strategic directions for WHO support 44
Section 6. Implementing the Strategic Agenda: Implications for WHO

6.1 Implications for the country office
6.2 Implications for the Regional Office and headquarters

Annexes

1. Members of the CCS team and list of persons met by the team
2. Health sector funding with donor support
3. Matrix of health programmes and projects supported by development partners in Yemen
<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDN</td>
<td>Basic development needs programme</td>
</tr>
<tr>
<td>CCA</td>
<td>Common Country Assessment</td>
</tr>
<tr>
<td>CCS</td>
<td>Country Cooperation Strategy</td>
</tr>
<tr>
<td>CMH</td>
<td>Commission on Macroeconomics and Health</td>
</tr>
<tr>
<td>DFID</td>
<td>Department for International Development (United Kingdom)</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
</tr>
<tr>
<td>GCC</td>
<td>Gulf Cooperation Council</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>GTZ</td>
<td>Deutsche Gesellschaft für Technische Zusammenarbeit</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health management information system</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human immunodeficiency virus/acquired immunodeficiency syndrome</td>
</tr>
<tr>
<td>ICC</td>
<td>Interagency Coordinating Committee</td>
</tr>
<tr>
<td>JICA</td>
<td>Japanese International Cooperation Agency</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>NPO</td>
<td>National professional officer</td>
</tr>
<tr>
<td>PAPFAM</td>
<td>Pan Arab Project for Family Health</td>
</tr>
<tr>
<td>SSA</td>
<td>Special services agreement</td>
</tr>
<tr>
<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
</tr>
<tr>
<td>UNHCR</td>
<td>Office of the United Nations High Commissioner on Refugees</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>WFP</td>
<td>World Food Programme</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>YR</td>
<td>Yemeni rials</td>
</tr>
</tbody>
</table>
Introduction
The Country Cooperation Strategy (CCS) reflects a medium-term vision of WHO for technical cooperation with a given country and defines a strategic framework for working in and with the country. The CCS aims to bring together the strength of WHO support at country, Regional Office and headquarters levels in a coherent manner to address the country’s health priorities and challenges. The CCS process examines the health situation in the country within a holistic approach that encompasses the health sector, socioeconomic status, determinants of health and national policies and strategies that have a major bearing on health. The exercise aims to identify the health priorities in the country and place WHO support within a framework of 4–6 years in order to strengthen the impact on health policy and health system development, as well as the linkages between health and cross-cutting issues at the country level. The CCS as a medium-term strategy does not preclude response to other specific technical and managerial areas in which the country may require WHO assistance.

The CCS takes into consideration the work of all other partners and stakeholders in health and health-related areas. The process is sensitive to evolutions in policy or strategic exercises that have been undertaken by the national health sector and other related partners. The overall purpose is to provide a foundation and strategic basis for planning as well as to improve WHO’s collaboration with Member States towards achieving the Millennium Development Goals (MDGs).

This strategy document for 2008–2013 follows the previous CCS for Yemen, covered the period 2002–2007. Its formulation is the result of analysis of the health and development situation and of WHO’s current programme of activities. During its preparation, key officials within the Ministry of Public Health and Population as well as officials from various other government authorities, United Nations agencies, nongovernmental organizations and private institutions were consulted (Annex 1). The critical challenges for health development were identified. Based on the health priorities of the country, a strategic agenda for WHO collaboration was developed.
Section 2

Country Health and Development Challenges
Section 2. Country Health and Development Challenges

2.1 Geography

The Republic of Yemen is located in the southern part of the Arabian Peninsula. It is a young nation-state created through the unification of the Yemen Arab Republic (North Yemen) and the People’s Democratic Republic of Yemen (South Yemen) in 1990.

The geographical topography is varied and ranges from high mountainous regions to deserts and coastal terrain. The population is around 23 million, who inhabit 110,000 settlements over an area of 527,970 square kilometres. Around 73.5% of the population lives in rural areas.

2.2 Political and administrative overview

The political system in Yemen is democratic and is based on partisan pluralism. Since the unification of the country, three rounds of parliamentary elections and two rounds of presidential elections have been held. The country has 21 administrative and geographical units called governorates, which are further divided into 334 districts. Law no. 4 of 2000 on Local Authority provides a framework for decentralization, which entails elections of local councils at governorate and district levels. These were held for the first time in February 2001. Decentralization has empowered communities, increased locally generated revenues and had a positive impact on local management of development projects.

Yemen is on course to become a member of the Gulf Cooperation Council (GCC). Currently, it participates in the GCC’s committees on health, education, labour and sports. The merger within the political and economic system would provide new scope and prospective for growth.

2.3 Economic, demographic and sociocultural aspects

2.3.1 Economic aspects

Yemen faces multi-dimensional challenges to continue sustaining economic development and political reform and achieving the Millennium Development Goals for alleviating poverty. The country’s economy is highly dependent on revenues from oil production, with increasing contributions from the fishing, tourism and agriculture sectors. Oil revenues represented 28.7% of the total GDP in 2005 although there has been a decrease in the rate of oil production by 2% every year. The GDP growth rate fell from 5.1% in 2000 to 4.2% in 2003.

The current economic and development challenges facing the country can be summarized as: high population rate of 3% annually with 74% of the population living in rural areas in highly disbursed small hamlets; low level of education; large gender disparities; high unemployment and limited job opportunities; fragile infrastructure with limited roads and services; water scarcity; and non-functional administrative and financial reforms.
2.3.2 Demographic aspects

According to the latest census estimates (2004) the country has a population of 23 646 million as of mid 2007. The growth rate of 3.1%, one of the highest in the world, is expected to double in 24 years.

Factors contributing to the high growth rate are the low use of contraceptives (23%) and a fertility rate that has slightly decreased over the past years from 6.5 in 1997 to an average of 6.2 with a dependency ratio of 1:6. The population is predominantly young, with 46% of the total population below 15 years of age. Life expectancy at birth increased from 59.2 years in 2000 to 62.9 in 2004, and it is higher among women (62.8) than men (61).

2.3.3 Gender aspects

The gender gap in Yemen, although narrowing since 1999, is among the widest in the world, with Yemen ranked at 117 among 177 countries (Human development report 2006) in terms of gender equality. Gender relations are shaped by diverse religious, cultural, social and political traditions. The gender gap in primary school enrolment, though decreasing from 37.2% in the early 1990s to 24.8% in 2002, has continued to lag. There are only 52 female teachers for every 100 male teachers in cities, and in rural areas females constitute only 8.6% of teachers. Women in urban areas have better educational opportunities and access to health care and paid jobs and lower fertility levels, as compared to rural women. 53% of working women do not have control of their income. Even though the Constitution gives women full equality for participation in public life, there are very few women in the government (2 ministers), parliament (1 elected seat out of 305) and local councils (0.1%).

2.3.4 Poverty and human development

Yemen is among the least developed countries in the world. The Human Development Report 2006 ranked Yemen as 150 out of 177 countries in terms of human development indicators. 27% of people live under the food poverty line and 42% are under the national income poverty line. In Yemen, poverty is more of a rural than urban phenomena; 45% of the rural population is poor, as compared to 31% of the urban population. The prevalence of poverty also varies among governorates, being highest (49%) in Dhamar governorate and lowest (15%) in Al Baidha. Poverty is strongly correlated with the number of children in the family. In 1998–1999, the poverty rate among families with 2 children was 29%, rising to 48% among families with 8 children (data from national household surveys). There is a strong link between poverty and poor health indicators, with a 2–7 fold differential in health indicators when the poorest quintile households are compared to the richest, whereas geographic, rural/urban and gender factors show a 1–2 fold differential in health indicators (WHO Yemen and PAPFAM 2005 based on the 2003 Family Health Survey data and Gwatkins D et al. Socioeconomic differences in health, nutrition and population in Yemen. Washington DC, World Bank, December 2000).

Food insecurity affects 22% of households with over 60% of the affected population suffering from moderate hunger,
and 46% of affected children under five years of age underweight. Unemployment rose from 13.2% in 2002 to 14.8% in 2004. The upward trend in the unemployment rate is expected to continue.

2.4 Government and partner response to economic development challenges

2.4.1 Economic development and poverty reduction plans and strategies

In 1995, the Government of Yemen adopted the economic, financial and administrative reform programme (EFARP). The EFARP has coincided with the implementation of the first and second national five-year development plans (1996–2000 and 2001–2005).

The Ministry of Planning and International Cooperation, supported by the UN country team in Yemen carried out an MDG Needs Assessment and costing exercise in 2003. This effort led to the development of an MDG-based National Development Plan and poverty reduction strategy paper for the period 2006–2010 within the context of the government’s strategic vision for 2025. The strategic vision is as follows.

- Improving the demographic and health conditions
- Eliminating illiteracy by increasing school enrolment for basic education, specifically for girls
- Raising per capita income by diversifying the economic base

At the same time, the United Nations Common Country Assessment (CCA) identified the following four underlying reasons for the poor outcome of development interventions in Yemen.

- Lack of transparency and participation
- Insufficient progress towards empowerment of women and children
- Inequitable and unsustainable use of water resources
- Rising unemployment in the face of population growth

2.4.2 Objectives of development plans and response to the Millennium Challenge

The third five-year development plan (2006–2010) aims at achieving stable and sustained economic growth and creating job opportunities as well as poverty reduction. A set of strategies have been developed in the areas of: financial and administrative reform; good governance; liberation of economy; human resource development; women’s empowerment; social protection for the needy; encouraging partnerships, private and foreign investments; and strengthening the role of the local authorities.

To achieve the targets of the MDGs, a public investment of US$ 57.6 billion is required over the period 2006 to 2015, equivalent to US$ 2500 per capita. Assuming that national resources can cover at least US$ 20 billion of the required capital and running costs, the funding gap declines to US$ 37.6 billion, or around US$ 160 per
capita on an annual basis. Given the very low current levels of official development assistance per capita received by Yemen, concerted national efforts, including painful policy reforms, are needed.

### 2.5 Health

#### 2.5.1 Health overview

Yemen faces major challenges to improving the health status of its population that go beyond the health sector. As noted previously, poverty, food insecurity and high illiteracy, especially among females, are major contributing factors to poor health as are limited access to drinking-water and sanitation. The health indicators are indeed alarming. Table 1 shows the trend of some of the indicators.

#### 2.5.2 National health policy

The health and population sector’s objectives according to the third five-year development plan are as follows.

- Strengthening the national health system
- Combating epidemics, endemic infectious diseases and reducing morbidity and mortality rates
- Improving the health care delivery system
- The areas of priority within the plan are listed below.
- Strengthening the health system in its entirety
- Reducing maternal, neonatal, infant and child mortality
- Enhancing health, demographic and environmental education
- Reducing morbidity and mortality attributed to endemic and sexually transmitted diseases including HIV/AIDS
- Improving the quality of health services and increasing their utilization

### Table 1. Trend of selected health indicators

<table>
<thead>
<tr>
<th>Core indicators</th>
<th>1992</th>
<th>1997</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence (%) of underweight children (under five years of age)</td>
<td>30</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Under-five mortality rate (per 1000 live births)</td>
<td>122</td>
<td>105</td>
<td>102</td>
</tr>
<tr>
<td>Infant mortality rate (per 1000 live births)</td>
<td>83</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Children 1 year old immunized against measles (%)</td>
<td>50</td>
<td>43</td>
<td>54</td>
</tr>
<tr>
<td>Maternal mortality ratio (per 100 000 live births)</td>
<td>800–1000*</td>
<td>351</td>
<td>365</td>
</tr>
<tr>
<td>Births attended by skilled health personnel (%)</td>
<td>16</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Contraceptive prevalence rate (modern) (%)</td>
<td>6</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Population with sustainable access to an improved water source (%)</td>
<td>35</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>Population with access to improved sanitation (%)</td>
<td>27</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

Source: 1992 and 1997 estimates are from WHO/EMRO surveys and 2003 estimates are from the Family Health Survey (PAPFAM 2004)
* Estimate from *National population policy, problems and challenges*, NPC, Sana’a, 2001
Improving the safety and reliability of blood transfusion services

Improving the access and quality of emergency services including emergency obstetric care

2.5.3 Organization of the health sector

The Ministry of Public Health and Population is the organization responsible for the health sector and is one of the largest public employers in the country. However, there are a number of other public organizations involved in financing, planning and provision of health services. These include the Ministry of Finance, Ministry of Planning and International Cooperation, Ministry of Civil Service, the two autonomous hospitals, the Health Manpower Institutes and the military and police health services.

The organizational structure of the Ministry of Public Health and Population has not been updated for some time. Core functions such as policy analysis, strategic planning, performance evaluation and monitoring and intersectoral coordination are underdeveloped. Exercises such as health expenditure review and national health accounts have been conducted in the country but have not provided quality outcomes useful to inform policy-making.

2.5.4 The public health system

Overview

The public health system in Yemen is based on the primary health care approach adopted in the late 1970s. Health care services are provided on a traditional three tier system. Health units provide the most basic curative and preventive care within a catchment area of 3000 to 5000 people. These units are supposed to be backed up by primary health care centres staffed by a physician and other para-medicals and include laboratory and X-ray facilities. According to the structure of the primary health care system, at the secondary level, the district and governorate inpatient facilities should offer more sophisticated diagnostic and curative services. The tertiary level facilities consist of major urban-based hospitals that also serve as teaching hospitals for the medical faculties in main cities.

The health system in Yemen suffers from shortcomings in structure and organization, low staff morale, low quality of health care, shortages of essential medicine, and insufficient government budget. These are compounded by irrational use of health care, lack of equity in facility distribution and human resources, as well as a lack of a formal referral system or of integration of services at the level of delivery of care.

Health services infrastructure

Health facilities have expanded significantly, from 1210 health units and health centres and 168 hospitals in 1990 to about 2700 health units and 172 hospitals in 2004. Coverage with health services, although improving, does not cover more than 30% of the rural population or more than 45% of the total population. According to the third five-year plan, there are currently about 3287 health facilities in Yemen; 66.5% are health units, 11.6% health centres and 6.4% are hospitals. Only
20% of the total health workers in the public health sector, while the remaining 80% of the health workers are concentrated in the urban areas. A study carried out by Health Systems 20/20 during the same period indicates that health services had reached only 38% of the population as a whole.

**Human resources**

There are 44,823 health personnel in Yemen (World health statistics 2006). 53% are technicians and 30% are physicians. About 8% of the workers are expatriates. Information is not available on the number of female health workers. The distribution of health personnel is not equitable (Table 2). Aden, with population of half a million, has 10.7% of the health workforce, but Taiz, with a population of 2.4 million, has only 8.3%.

Training of health staff is not based on demand or on a well deliberated vision. The output of health workforce training institutions and faculties of medicine, nursing and other health fields is not consistent with the Ministry of Public Health and Population’s plans for their deployment. There are five medical schools, three schools of laboratory, three schools of nursing, two schools of pharmacy, four schools of dentistry, one school of dental industry, two higher institutes for health sciences, 19 health institutes in the governorates and two medical councils for specialization. The total number of students studying in various courses at the Higher Institutes of Health Sciences in Aden and Sana’a are 853 and 1068, respectively. Education is free, and there is great deal of pressure on the medical schools and health institutions to admit a large number of students, leading to poorly trained graduates. The curricula of these institutions have not been updated to take into account the latest Ministry of Public Health and Population policies and strategies.

**Health information system**

During the past 10 years a number of health-related surveys have been carried out, mostly with external assistance. These include a population census in 2004, health survey in 2003, household budget surveys in 2003 and the UNICEF-supported multiple indicator cluster survey in 2001 and 2003. However, in the Ministry of Public Health and Population, there is no database available to use as a basis for decision-making related to allocation of financial and human resources, control of communicable and noncommunicable diseases, or information on donor support. Data collected in most of the various health facilities at all levels are not accurate and sending of statistical reports from the periphery to the central level is not regular. There is no budget allocated for the health information system. Many other problems also face the health information system, including lack of supervision and monitoring, lack of sufficient training in this area, and lack of computerization to date. A number of partners and supporting agencies have established data collection systems in their respective areas of work to meet the management needs of their programmes. Special care must be taken to disaggregate the data by sex when collecting, developing and utilizing health information for policy formulation.
**Health care financing**

Funding of the health sector is one of the most critical issues affecting the performance of the national health system. The issue is problematic, as often only 50% or less of the already low budget is actually released.

The different sources of funding and their contribution to the health sector are as follows:

- Households: 57%
- Ministry of Finance: 25%
- Foreign assistance: 11%
- Parastatal bodies: 4%
- Private employers: 4%

Yemen has very high out-of-pocket expenditure on health (57.6%) compared with other countries in the Region.

### Table 2. Distribution of various categories of health workforce in different governorates (2004)

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Population</th>
<th>Population below poverty (%)</th>
<th>Physicians per 1000 population</th>
<th>Nurses per 1000 population</th>
<th>Midwives per 1000 population</th>
<th>Medical assistants per 1000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sana’a City</td>
<td>1 816 389</td>
<td>23</td>
<td>0.06</td>
<td>0.07</td>
<td>0.03</td>
<td>0.01</td>
</tr>
<tr>
<td>Sana’a</td>
<td>1 485 979</td>
<td>36</td>
<td>0.11</td>
<td>0.13</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Aden</td>
<td>554 111</td>
<td>30</td>
<td>1.46</td>
<td>2.03</td>
<td>0.56</td>
<td>0.17</td>
</tr>
<tr>
<td>Taiz</td>
<td>2 507 873</td>
<td>56</td>
<td>0.19</td>
<td>0.31</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td>Al-Hodeidah</td>
<td>2 136 36</td>
<td>36</td>
<td>0.05</td>
<td>0.19</td>
<td>0.09</td>
<td>0.02</td>
</tr>
<tr>
<td>Iaheg</td>
<td>694 243</td>
<td>52</td>
<td>0.30</td>
<td>1.05</td>
<td>0.31</td>
<td>0.19</td>
</tr>
<tr>
<td>Ibb</td>
<td>2 192 419</td>
<td>55</td>
<td>0.11</td>
<td>0.15</td>
<td>0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>Abyan</td>
<td>458 810</td>
<td>53</td>
<td>0.20</td>
<td>1.32</td>
<td>0.34</td>
<td>0.27</td>
</tr>
<tr>
<td>Dhamar</td>
<td>1 308 077</td>
<td>49</td>
<td>0.05</td>
<td>0.18</td>
<td>0.09</td>
<td>0.04</td>
</tr>
<tr>
<td>Shabwah</td>
<td>500 208</td>
<td>43</td>
<td>0.29</td>
<td>1.09</td>
<td>0.14</td>
<td>0.22</td>
</tr>
<tr>
<td>Hajjah</td>
<td>1 497 547</td>
<td>36</td>
<td>0.06</td>
<td>0.14</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Al-Baidah</td>
<td>616 520</td>
<td>36</td>
<td>0.16</td>
<td>0.20</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>Hadramout</td>
<td>927 215</td>
<td>43</td>
<td>0.28</td>
<td>0.45</td>
<td>0.29</td>
<td>0.28</td>
</tr>
<tr>
<td>Saadah</td>
<td>653 928</td>
<td>27</td>
<td>0.05</td>
<td>0.14</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Al-Mahweet</td>
<td>490 983</td>
<td>36</td>
<td>0.16</td>
<td>0.24</td>
<td>0.09</td>
<td>0.06</td>
</tr>
<tr>
<td>Al-Mahrah</td>
<td>77 341</td>
<td>43</td>
<td>0.67</td>
<td>3.52</td>
<td>0.57</td>
<td>0.37</td>
</tr>
<tr>
<td>Mareb</td>
<td>249 109</td>
<td>36</td>
<td>0.15</td>
<td>0.46</td>
<td>0.16</td>
<td>0.09</td>
</tr>
<tr>
<td>Al-Jawf</td>
<td>476 505</td>
<td>36</td>
<td>0.03</td>
<td>0.04</td>
<td>0.10</td>
<td>0.04</td>
</tr>
<tr>
<td>Amran</td>
<td>1 074 666</td>
<td>36</td>
<td>0.05</td>
<td>0.13</td>
<td>0.11</td>
<td>0.03</td>
</tr>
<tr>
<td>Al-Daleh</td>
<td>439 839</td>
<td>36</td>
<td>0.17</td>
<td>0.57</td>
<td>0.14</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Source: Statistical Yearbook of the Ministry of Public Health and Population, 2005
registration of fees and accounts are not uniform, and the problems may be accentuated by different parts of the country being supported by different donors and developing at different paces.

Based on the 2003 document on health expenditure estimates, 29% of the health expenditure goes for treatment abroad; however, 95% of expenditure for treatment abroad is paid for by the citizens themselves. The estimated private expenditure on health as percent of total expenditure is around 72% (Table 3).

More than 50% of the total public spending on health is consumed by salaries of the staff. However, salaries and wages have declined in recent years resulting in low morale among staff. Because of lack of funds, facilities are ill equipped and do not have essential commodities and medicines.

With support from WHO and GTZ, feasibility studies have been undertaken on establishing a system of health insurance. However, detailed regulations, scientific standards, trained personnel, monitoring and preparation of selected health facilities are needed to make the system operational. A draft bill for establishing national health insurance has been approved by the cabinet and will be taken up for debate in parliament.

Role of the private sector in health

There are more than 9000 private health facilities in Yemen, of which nearly 1800 are concentrated in the main cities, including 56 private, general and specialized hospitals, and more than 1750 pharmacies and clinics. The growth in private health care started to accelerate after 1990, mainly driven by deteriorating quality and low coverage of public services. It is estimated that the private sector covers about 70% of all hospital care in the country. Work on legislation to cover the private health care started in 1999, but establishment and enforcement of regulations, standards, procedures and inspecting services have proven to be challenging.

2.5.5 Health sector reform

District health system and decentralization

The Ministry of Public Health and Population has embarked on a reform programme, starting in 1998. The health sector reform and decentralization of the health sector are occurring in an overall context of public sector reform based on decentralization, democratization, civil service modernization and financial restructuring. In 2002, the district health system was introduced as the core of the national health sector reform, which is based on the primary health care approach. The key element of the reform is the establishment of a district health system where other elements such decentralization, community participation and intersectoral cooperation could be realized. The reform has called for redefining the role of the public sector and encouraging the participation of the private sector and putting more focus on: donor coordination; community co-management; cost sharing; essential medicines policy and realignment of the logistics system; outcome-based management systems from central to community levels; hospital
autonomy; intersectoral cooperation; and sector-wide approaches to donor funding.

The Ministry of Public Health and Population has developed an essential service package for the district health system to improve the health services delivered by the rural hospitals, health centres and health units. Also, a publicly funded supply and logistic system has evolved to support the district health system through the national medicine programme. Increasing numbers of districts in Yemen are adopting the district health system. There are achievements in the district health system and decentralization, particularly in the donor-supported health facilities.

### Health sector review

After several years of implementation to of health sector reform, the Ministry of Public Health and Population and its development partners in the health and population sector have engaged in a review process, consisting of three phases: defining the status quo, bench-marking, and setting the policies. The review process is being carried by a national task force team assisted by local and international experts and overseen by a Steering Committee made up of Ministry of Public Health and Population leadership and representatives of the partner agencies. The first phase had just been completed through comprehensive and systematic collection of information, including a nation-wide survey and series of workshops and focus groups. The expected outcomes of the health sector review are as follows.

- A strategy that outlines prospective policy reforms in the health sector
- Political commitment and sufficient resource allocation to implement these reforms
- Consensus between stakeholders on the mechanism and approaches to implement the strategy

### Table 3. Selected indicators of health expenditure and national health accounts

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditure on health as % of gross domestic product</td>
<td>4.9</td>
<td>5.3</td>
<td>5.5</td>
<td>5.1</td>
<td>5.4</td>
</tr>
<tr>
<td>General government expenditure on health as % of total expenditure on health</td>
<td>32.7</td>
<td>28</td>
<td>29.2</td>
<td>28.1</td>
<td>27.8</td>
</tr>
<tr>
<td>Private expenditure on health as % of total expenditure on health</td>
<td>67.3</td>
<td>72</td>
<td>70.8</td>
<td>71.9</td>
<td>72.2</td>
</tr>
<tr>
<td>General government expenditure on health as % of total government expenditure</td>
<td>6.7</td>
<td>6</td>
<td>6.7</td>
<td>5.1</td>
<td>5.6</td>
</tr>
<tr>
<td>Out-of-pocket expenditure as % of private expenditure on health</td>
<td>96.3</td>
<td>96.1</td>
<td>96.6</td>
<td>96.7</td>
<td>95.5</td>
</tr>
<tr>
<td>Per capita total expenditure on health at average exchange rates (US$)</td>
<td>18</td>
<td>24</td>
<td>26</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Per capita government expenditure on health at average exchange rate (US$)</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

At the conclusion of the review process, the second national health development conference will be held and the updated reform strategy based upon consensus of national and international stakeholders will then be submitted for formal approval by the Government of Yemen.

2.5.6 Social determinants of health

Education

The growth in school enrolment in basic education has been significant, increasing from 73% in 1990 to 87% in 2004, exceeding the average among low-income countries. Similarly, there has been an increase in enrolment of girls, from 28% to 63% in the same period.

The illiteracy rate on average has declined from 47% in 2000 to 28% in 2004. However, it is much higher among females than among males; in 2004 the average illiteracy rate among women was 41.5% declining from 64.1% in 2000, compared to 14.5% among males.

Food and nutrition

Approximately one third of the population remains undernourished; this proportion rises to 46% in children under five years. Stunting among children under five reaches as high as 58%, and anaemia prevails in 37% of pregnant women.

According to the Family Health Survey 2003, 53.1% of children under five years in rural and urban areas suffer from stunting and 12.4 suffer from wasting: 31% and 3% are severely stunted and severely wasted, respectively. Nearly half (45.6%) of children under five are underweight, and 15.2% are severely underweight. These percentages are much higher in rural areas.

Water and environmental health

There is an acute scarcity of water throughout the country. The per capita water supply is 2% of the world average (198 cubic metres per person) and the consumption of water for agriculture purposes is one of the highest. Only 43% of the population has access to safe drinking-water. With the population projected to double in less than three decades, water availability per capita is expected to fall by one third.

The Ministry of Public Health and Population has no department or unit to deal with environmental health. Since the Ministry of Public Health and Population has the responsibility to monitor public health safety with respect to all factors including the environment, there is grey area in role of Ministry of Public Health and Population. Even if the responsibility for environmental health monitoring is with other ministries, there is a gap and absence of effective mechanism for coordination and collaboration between the Ministry of Public Health and Population and other concerned government bodies. In view of critical shortcomings in sanitation and control of environmental health hazards and their impact on health, it is crucial for the health sector to monitor and incorporate the environmental risk factors in health development. As well, the use of pesticides, especially on khat leaves, requires good environmental monitoring. WHO collaboration should support the responsible ministries in matters related to environmental health.
The consumption of khat, a natural stimulant resembling amphetamines, is increasing. It is estimated that 70%–90% of adult males, 30%–50% of adult females and 15%–20% of children under the age of 12 consume khat on a daily basis. Up to 50% of household income may be allocated to the daily khat needs of the head of the household.

According to the Central Bank of Yemen, in 2005 the production of khat rose 6.7% and accounted for 5.8% of Gross Domestic Product (GDP). According to the World Bank and other sources, cultivation of this plant plays a dominant role in Yemen’s agricultural economy, constituting 10% of GDP and employing an estimated 150 000 persons while consuming an estimated 30% of irrigation water and displacing land areas that could otherwise be used for exportable coffee, fruits and vegetables. (Country profile: Yemen. Washington DC, Congressional Federal Research Division, December 2006). Despite implications for health, social and economic development, the issue of khat remains largely a taboo subject in national debates.

Refugees

According to UNHCR, around 10 000 people a year are believed to cross from Somalia to Yemen. The total number of refugees is estimated to be 200 000, coming mostly from Somalia, Ethiopia and Eritrea. The majority of the refugees live in urban areas of Sana’a, Aden, Taiz, Hodeida, Dhamar and Mukalla. Registered refugees in Sana’a and Aden are provided with basic health care and education.

2.5.7 Reproductive health

Maternal health

The maternal mortality ratio of 365 per 100 000 live births (2007) is among the highest in the world. The high maternal mortality ratio is related to high fertility, limited antenatal care (31% of urban and 62% of rural pregnant women do not receive any antenatal care), poor nutrition and illiteracy. Deliveries attended by qualified health personnel are as low as 25%. The direct causes of 70% of maternal deaths were postpartum haemorrhage, difficult labour, ruptured uterus, toxaemia of pregnancy, puerperal sepsis and complications resulting from abortions; 30% of the deaths were due to malaria and severe anaemia (UNICEF, 2003). The majority of deliveries (77.2%) took place in the home, about 16.1% in general hospitals and 3.5% in private hospitals.

The prevalence of modern contraceptive use among women of childbearing age ranges between 3% and 18%. Most women (82.2%) not using these methods attribute the reason to health problems, while 4.9% attribute lack of use to inaccessibility of family planning methods/services. According to the Family Health Survey 2003, family planning services are only available to one third of married women. The use of family planning is directly correlated with the level of education of women.

The programmes for reproductive health and family planning have received considerable support from other partners in addition to WHO. A national reproductive
health strategy was developed and was endorsed at a workshop sponsored by WHO in November 2006. An important component of the efforts to reduce maternal morbidity and mortality in Yemen is the training of community midwives, who currently number 3191.

Child health

The infant mortality rate has declined considerably, reaching 74.8 per 1000 live births in 2003. The neonatal mortality rate is 37.3 per 1000 live births, and the under-five mortality rate is 101.9 deaths per 1000 live births. The infant mortality rate is higher in rural areas (86.3) than in urban areas (70.6). Similarly, the under-5 mortality rate is much higher in rural (117.6) than urban (87.3) areas. Infants with low birth weight comprise 32% of all infants, and the prevalence of underweight children under 5 years of age is 46%. Low weight among children is one of the major contributing factors to the high infant and under-5 mortality rates. Other contributing factors are: high fertility; illiteracy; young age of mother at first birth; high parity; closely spaced pregnancies and limited breastfeeding compounded with poverty; low coverage with quality health services and low access to safe water and sanitation; low immunization levels among children aged 12–23 months (56% in urban areas and 20% in rural areas); and limited availability of treatment for acute respiratory infection and diarrhoea in health facilities.

2.5.8 Communicable diseases

Among the communicable diseases contributing to the burden of disease in Yemen, malaria tops the list. About 60% of the population is at risk of malaria. The estimated figure for annual malaria cases is 3 million, with more then 30 000 malaria deaths per year, mostly among children under the age of five years and pregnant women. Starting in 2000, the government with support from WHO/Roll Back Malaria launched renewed efforts for malaria control with considerable reduction in the number of cases in pilot areas. For example, on Socotra island the rate of malaria infection fell from 36% to 1%, whereas in Tihama region it fell to 11.5% in 2003 from 46% in 1998.

According to WHO estimates (2005), the incidence of tuberculosis (all cases) was 82 per 100 000 population per year and the point prevalence (all cases) was 136 per 10 000 population per year. As at 2004, the prevalence of multidrug resistance among new tuberculosis cases was 1.8%, while among previously treated cases it was 28%. Yemen has implemented the DOTS strategy (directly observed treatment, short-course) since 1995, and coverage with the strategy in 2005 was extended to 33 districts and more than 1500 primary health care units, translating into nearly 90% coverage overall.

Following unification of the country, the reported routine immunization (DPT3/OPV3) coverage had deteriorated to around 44%. Coverage has improved considerably since then, and was around 85% in 2006, with 59% of districts reporting coverage higher than 80% in 2005. An outbreak of polio in February 2005 resulted in 479 cases. Successive rounds of supplementary immunization controlled the epidemic and
no case has been reported since February 2006. However, the situation remains fragile in view of ongoing transmission in neighbouring countries and rather weak surveillance. Measles is the fourth leading cause of death among children under five years of age, constituting 12% of total deaths. Following the implementation of national measles campaigns, the number of cases dropped dramatically. The main challenge for the immunization programme is how to sustain and increase routine coverage in the presence of financial constraints and poorly staffed and ill-equipped health facilities.

Other communicable diseases that are public health threats include schistosomiasis and hepatitis B and C. Available data indicate a low prevalence of HIV in Yemen. However, the prevalence has increased rapidly, from 0.001% in 1999 to 0.2 percent in 2006. By the end of 2006, the national AIDS programme had reported 2075 HIV/AIDS cases (passively collected from public health facilities in 18 governorates). Due to the cultural factors and the stigma attached to the HIV/AIDS, it is recognized by the Ministry of Public Health and Population that the reported prevalence rates are an underestimation.

2.5.9 Noncommunicable diseases

There is very little information on noncommunicable diseases; however, hospital data show high morbidity and mortality from cardiovascular diseases. The prevalence of rheumatic heart disease is high in Yemen and the number of cases with renal failure seems to be increasing (a study on end-stage renal disease in Sana’a showed an incidence of 385 cases per million population). The magnitude of cancer is not known; however, there is reported to be an increase in cancer occurrence especially among children.

Visual disabilities in Yemen constitute about one third of the 2.9% of the population that are disabled. With a blindness rate estimated at 1.5%, Yemen is among the seven countries in the Eastern Mediterranean Region with the highest prevalence rate for blindness.

2.5.10 Lifestyle factors

Tobacco consumption in Yemen is among the highest in the world. Studies carried out in 1999 showed that about 60% (71% male and 30% female) of the population 15 years and above were regular smokers. Chewing khat is widespread and daily khat use has significant health implications as it increases the risk of stomach ulcer, colon cancer, intestinal infections, tumours, high blood pressure, insecticide poisoning and renal implications. Injuries from road traffic accidents and from firearms are particularly high compared to other countries in the Region.

2.5.11 Mental health

The integration of mental health into primary health care has been proposed and some efforts have been made to advance the initiative; however, not much has been achieved. The primary challenge for the mental health programme is the poor quality of mental health care and approaches. Before proceeding with the integration of mental health into primary health care, there is a need for capacity building. Key prerequisites are the training and upgrading
of education and skills of mental health staff as well as the establishment of treatment protocols and procedures are. The Chain Free Initiative should also be launched, especially in the medical teaching hospitals. Special attention should be given to mental health cases that are triggered or affected by the use of khat.

### 2.6 Major health development challenges for the next 5–6 years

- Strengthening health systems through: improving governance, health information, monitoring and evaluation, quality of care, and intersectoral coordination; properly regulating the private sector; implementing comprehensive human resources development and management; improving facilities and removing imbalance in access; ensuring equity; promoting decentralization; improving management and administration, legal aspects, health care financing and health insurance; and re-organizing the Ministry of Public Health and Population to better support the goals of the health sector and health system

- Reducing infant, child and maternal mortality and high fertility through: strengthening antenatal care, emergency obstetric care and post-natal care to reduce morbidity and mortality associated with pregnancy; provision of proven interventions in an integrated fashion to neonates, infants and children under five to reduce morbidity and mortality in these age groups

- Controlling and reducing the high incidence of communicable diseases, such as malaria, tuberculosis, schistosomiasis, sexually transmitted diseases and vaccine-preventable diseases

- Preventing and controlling noncommunicable diseases, such as cardiovascular disease, cancer, eye diseases and renal problems, whose burden seems to be increasing

- Promoting healthy lifestyles to control tobacco use and khat chewing and to prevent injuries and accidents

- Supporting, advocating and coordinating the efforts of all sectors responsible for improving social determinants of health such as poverty, food security, illiteracy especially among girls, access to health care, safe drinking-water and sanitation, and consumption of khat

- Mobilizing and securing additional resources from internal and external sources for health
Section 3

Development Cooperation and Partnerships
3.1 Development assistance and aid flow

Development assistance to Yemen has been increasing steadily over the years with total official development assistance commitments moving from US$ 234 million in 2003 to US$ 336 million in 2005. The top ten contributors to development assistance in Yemen are the International Development Association (World Bank), Governments of Germany, France, United States and the Netherlands, European Commission, Governments of Japan, United Kingdom, GCC and the Government of Korea. Aid flow to the health sector from 1999 to 2003 amounted to 15 061 million Yemeni rials (US$ 76.1 million), which formed 12% of total national health expenditure during the period (Annex 2). UN agencies, namely UNICEF, UNFPA, WFP and WHO, also made significant contributions to the health sector.

In a joint meeting of Yemen and its development partners in London in November 2006, the donor community made a total pledge of US$ 5 billion (2007–2010) in financial and technical support to Yemen. This is to help Yemen meet the targets of the MDGs based on its Third Five Year Development Plan for Poverty Reduction. The grant component of the pledge was 61.7% while the soft loan component came 38.3%. About 67.9% of the total grant component was given by the GCC, with the World Bank responsible for 21.6% of the loan component.

Yemen has also received substantial funding from international health partnerships such the GAVI Alliance and Global Fund to fight AIDS, Tuberculosis and Malaria. GAVI’s support to immunization services support and injection safety for phase 1 (2002–2006) was US$ 5.58 million. Support for introduction of the new heptavalent vaccine (DPT, *Haemophilus influenzae* B and hepatitis B) was US$ 52.0 million, support for immunization was US$ 3 million, and health system support was US$ 6.5 million for 2006–2010.

The Global Fund approved a grant of US$ 11.88 million to Yemen for the national malaria control programme during round 2 in 2002 and US$ 14.6 million to scale up HIV/AIDS prevention, treatment, care and support interventions during round 4 in 2005. WHO serves as a member of the Country Coordination Mechanism and provides technical support to the Ministry of Public Health and Population for proposal development and monitoring.

3.2 Development partners

Yemen is one the eight pilot countries for the UN Millennium Project and subsequently enjoys cooperation with many bilateral, multilateral, intergovernmental and international nongovernmental development partners. Key among the active partners in the health sector is the United Nations Country Team consisting of FAO, UNDP, UNFPA, UNICEF, WB, WFP and WHO. The major bilateral partners are the European Commission and Governments of Germany,
Italy, Japan, Netherlands, Oman, Saudi Arabia and United States of America. Other significant support is received from key intergovernmental bodies such as the GCC.

Donor support for the health and population sector over the years has largely focused on strengthening management and support services with a focus on district health systems. Support has most often been given through training and provision of medical supplies, equipment and logistics. Recent efforts, led by the World Bank, European Commission and GTZ, have focused more on developing innovative approaches to health care provision and financing including the creation of locally-held community health funds. Other key programmes of donor support include child health, reproductive health, control of communicable diseases and nutrition (Annex 3).

### 3.3 Coordination mechanism

A donor consultative meeting was first convened in March 2004 by WHO to promote greater coordination between the top ten donors of their activities within the health sector, and to enhance information sharing and harmonization. This was followed closely by the signing of a joint Memorandum of Understanding between the Ministry of Public Health and Population and the development partners active in the health and population sector. The Memorandum implies that the Ministry of Public Health and Population with its development partners are to carry out a joint health sector review.

Other coordination mechanisms established for priority programmes include the following:

- **The National Reproductive Health Steering Committee and Technical group.** This was established in 2006 to ensure the development and effective implementation of national reproductive health strategy. Membership comprises ministries, agencies, nongovernmental organizations, institutions and private health providers concerned with maternal and child health. It meets every six months.

- **The Interagency Coordinating Committee (ICC) on immunization** meets quarterly to plan and monitor implementation of planned immunizations activities as well as coordinate all efforts and support. It is made up of partners supporting immunization and some national sectors. The ICC has been expanded to cope with the health system support and is now called the HICC.

- **The UN system has finalized the second United Nations Development Assistance Framework (UNDAF) for the period 2007–2011** in which the United Nations agencies identified three priority cross-cutting themes for United Nations system cooperation, congruent with national priorities and joint programming.

- **Governance**

- **Gender equity and empowerment of women**

- **Enhancing national capacity for policy analysis, monitoring and evaluation**
In addition, the United Nations runs a thematic system in which the chairmanship of each theme group is rotated among various agencies. WHO maintains active partnerships with other United Nations agencies, e.g. with UNICEF on planning and implementation of polio eradication and other immunization activities, with UNDP on human rights, and with UNFPA on safe motherhood. An outbreak of Rift Valley fever paved the way for collaboration with FAO in combating zoonotic diseases.

3.4 Development assistance: challenges and opportunities

The presence of many donors undertaking collaboration using the project approach creates its own demands on the sustainability and impact of such projects. Despite the existing opportunities for collaboration, many agencies still work on their own, thereby creating avenues for overlap and duplication. Other key challenges militating against aid effectiveness include the following.

- Absence of a common action plan with clear delineation of responsibilities, priorities for funding, milestones and benchmarks
- Lack of mechanism for sharing information and ensuring that the comparative advantages of each donor are exploited to the optimum
- Provision of assistance by some donors on specific subject matter and different geographical areas according to donor choice and not as a result of planning on the part of government
- Presentation of a range of project proposals each with its own requirements and conditions
- Presence of different project cycles and procedures for the appraisal, procurement and disbursement of aid
- Considerable time demands by numerous donor missions on the high level government officials

- Lack of enthusiasm to maintain a sustainable donor coordination mechanism
- Non-alignment of donor programmes with the national health reform strategy and lack of common approaches to health sector development
Current WHO Cooperation

Section 4
Section 4. Current WHO Cooperation

4.1 Introduction

The WHO country office in Yemen was established in November 1952 through the basic agreement concluded between WHO and Government of Yemen for the provision of technical assistance in order to fulfil the following actions.

- Improve the health status by integrating and developing coordination between health related entities
- Protect the community against diseases by immunization, promoting healthy environment and eradication of chronic and communicable diseases
- Develop and improve health care facilities
- Reinforce the health system
- Develop human resources
- Promote scientific research

4.2 Brief review of WHO presence in the country

Despite institutional and governance challenges to health development in Yemen, WHO has been able to consolidate and increase its technical capacity and credibility in the country, especially over the past decade. WHO’s leadership role in health is recognized by major partners. WHO has been responsive to emerging needs and priorities such as the health sector reform process and has played a vital role in assisting the government in mobilizing substantial resources for HIV/AIDS, tuberculosis, malaria, vaccine-preventable diseases through building partnership with the GAVI Alliance, Global Fund and others.

Since its establishment, the country office was allocated a biennial budget varying from US$ 60 000 in the early 1950s up to US$ 4–5 million in more recent years. In addition to the regular budget, the country office has also been lately received considerable amounts from extrabudgetary sources amounting to US$ 1.5–2 million during the past decade and reaching US$ 12 million in 2004–2005. The number of collaborative programmes supported by these funds has varied from biennia to biennia e.g. 52 programmes in 1998–1999, 33 programmes in 2002–2003 and 48 programmes in 2006–2007. Until about a decade ago, there was marked underutilization of the biennial budget. This has changed over the years so that by July 2007, nearly 90% of the budget in the current biennium had been utilized.

The main country office is located in Sana’a and there is a sub office in Aden. Both offices are accommodated in buildings belonging to the Ministry of Public Health and Population. WHO has a well-supplied office that strictly complies with security requirements and facilities, has adequate informatics/internet connectivity and equipment, 12 vehicles and other logistics support. However due to the expansion of WHO activities and recruitment of additional staff, additional space or a new building is required. As well, additional vehicles, informatics capacity and connectivity are needed.
4.3 Human resources

The WHO country office has recently increased its human resources through the recruitment of additional national and international staff and by converting short-term posts to fixed-term. Currently there are 82 staff members including: 8 international professional officers (3 fixed-term and 5 short-term), 2 fixed-term national professional officers (NPO), 8 fixed-term and 3 short-term General Service (GS) staff and 61 persons working under Special Services Agreements (SSAs). Their distribution is given in Table 5.

In addition to the above, the office receives more than 200 consultants each biennium.

As per the recently introduced human resources reform, the WHO country office, in close consultation with the Ministry of Public Health and Population, the Regional Office and headquarters, developed a draft human resource plan for reinforcing its presence in the country, proposing new posts for the areas of the health information system, information and communications and communicable diseases.

In order to enhance its capacity to respond efficiently to the results-based management framework, the office has been equipped with managerial tools that simplify workflow, improve communication and provide easy access to the financial and budgetary information. In due course,

<table>
<thead>
<tr>
<th>Table 5. Staffing of the WHO country office in Yemen</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO country office</td>
</tr>
<tr>
<td>One international professional staff (WR)</td>
</tr>
<tr>
<td>One temporary international professional (TIP) as Administrative officer</td>
</tr>
<tr>
<td>One NPO as Programme Officer</td>
</tr>
<tr>
<td>One NPO for the reproductive health programme</td>
</tr>
<tr>
<td>One SSA as Programme Officer in Aden</td>
</tr>
<tr>
<td>8 fixed-term GS staff</td>
</tr>
<tr>
<td>3 short-term GS staff</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
the global management system will replace the fragmented computerized information system with an integrated system for global management and administration.

4.4 **WHO programme of technical cooperation**

The Ministry of Public Health and Population is the main government entity for WHO collaborative work. There is a close and solid relationship between the WHO country office and senior management in the Ministry of Public Health and Population. This close relationship is reinforced by periodic visits of the WHO Regional Director. The major areas of collaboration with the Ministry of Public Health and Population are:

- Vaccine-preventable diseases including the polio eradication programme and measles control and elimination
- Control of communicable disease including disease surveillance, control of malaria, tuberculosis, HIV/AIDS and control and elimination of schistosomiasis
- Reproductive health, child and adolescent health
- Basic development needs programme
- Strengthening of health systems
- Strengthening of national and institutional capacities.

In addition to actively participating in the development of national health plans and strategies, WHO through its country and regional office has been instrumental and fully involved in developing national strategies and plans of actions for several of the above mentioned programmes and has assisted in formulating proposals for external financing.

From discussion with national authorities during the CCS mission, it was evident that the top priority of Ministry of Public Health and Population is health system strengthening, with goal of reaching the health-related MDGs and poverty reduction goals. The main opportunity for developing an effective and efficient health system in Yemen is the strong political commitment to health sector review and reform that was also supported by the international community represented at the Donors Conference held in London in 2006.

4.5 **Collaboration with other development partners**

In addition to technical cooperation with the Ministry of Public Health and Population, WHO also collaborates with other government ministries, national institutions, and other partners to meet the intersectoral needs of health sector development. Other government agencies and partners engaged in ongoing collaboration with WHO include the following.

1. Parliament approval and ratification of the WHO Framework Convention on Tobacco Control, safe motherhood law, public health law (under discussion), mental health law etc.
2. Ministry of Higher Education on accreditation of medical schools and unified exams, curriculum development; support to libraries including establishment of digital
libraries, dissemination of scientific articles, and publications; support to national institutes to conduct Diploma and Master courses and programmes on public health, building capacity of teaching staff through WHO fellowship programmes

3. Ministry of Education on healthy environment for schools and other school health programmes, nutrition

4. Ministry of Labour on protecting the health of working women

5. National Women Committee on prevention of violence against women

6. Local councils, women’s association, volunteers and local nongovernmental organizations on the basic development needs programme

7. Other United Nations agencies (UNFPA, UNICEF, and WFP) on maternal and neonatal health, accelerating maternal and newborn survival in Yemen, EPI, polio eradication, measles elimination, nutrition, HIV/AIDS prevention and control, emergency preparedness and response and others

8. Other development partners, United Nations agencies and nongovernmental organizations in collaboration with the Ministry of Public Health and Population on health system review: the joint health sector review

9. GAVI Alliance on vaccine-preventable diseases

10. Global Fund on HIV/AIDS, tuberculosis, malaria

As the lead United Nations agency for health WHO plays a vital role in harmonization of multilateral and bilateral assistance and its alignment with national health development priorities. WHO’s effective role in assisting the government in relation to donor-supported projects and in strengthening the capacity of the Ministry of Public Health and Population is well recognized by all concerned.

4.6 Strengths and weakness of WHO cooperation

4.6.1 Strengths

▷ Global credibility and reputation as a trustworthy organization that has gained the confidence of Ministry of Public Health and Population and other development partners

▷ Impartiality and technical objectivity when advising the government and partners and considerable influence in public health advocacy

▷ Comprehensive knowledge on a wide range of health issues

▷ Access to high quality international expertise

▷ In-country international expertise with knowledge of the local situation

▷ Ability to provide an immediate response to emerging health needs

▷ Ability for effective support to government in establishing partnerships and mobilizing resources from external donors such as the Global Fund and GAVI Alliance
4.6.2 Weaknesses

- Scattered resources throughout various small projects and programmes, limiting the impact and meaningful outcomes as well as encouraging fragmentation of delivery of health programmes.

- Limited human resources in the country office with technical expertise in some required areas of support, such as health system strengthening, donor coordination and health legislation and regulation.

- Lack of support for certain priority technical programmes such as health promotion and protection and child health.

- Need for substantial strengthening of monitoring and evaluation systems in the WHO office to be able to provide the required support for Ministry of Public Health and Population.

- Weakness in communication between different levels of WHO that limit delivery of coherent and timely technical support to the country programmes.

- Lack of adequate expertise and resources in WHO office for effective communication, promotion and health advocacy.

- Limited resources (funding) from WHO.

- Delays in obtaining responses from the Regional Office.

- Occasional lapses in the quality or timeliness of technical assistance.

- Inefficient follow-up of documentation (recommendations) of technical assistance, resulting in limited utilization and delayed or poor implementation of recommended actions.
Section 5

Strategic Agenda for WHO Cooperation
5.1 Introduction

The General Programme of Work is a requirement specified in Article 28(g) of the WHO Constitution. The General Programme of Work analyses current health challenges in light of WHO’s core functions and sets broad directions for its future work. The core functions as stated in the Eleventh General Programme of Work, covering the period 2006–2015, are as follows.

- Providing leadership on matters critical to health and engaging in partnership where joint action is needed
- Shaping the research agenda, and stimulating the generation, dissemination and application of valuable knowledge
- Setting norms and standards, and promoting and monitoring their implementation
- Articulating ethical and evidence-based policy actions
- Providing technical support, catalysing change and building sustainable institutional capacity
- Monitoring the health situation and assessing health trends

The analysis in the Eleventh General Programme of Work reveals several areas of unrealized potential for improving health, particularly the health of the poor. The gaps are identified in social justice, in responsibility, in implementation and in knowledge. WHO’s response is translated into priorities in the following areas according to its results-based management framework.

- Providing support to countries in moving to universal coverage with effective public health interventions
- Strengthening global health security
- Economic and environmental determinants of health
- Increasing institutional capacities to deliver core public health functions under the strengthened governance of ministries of health
- Strengthening WHO’s leadership at global and regional levels and by supporting the work of governments at country level

The Medium-term strategic plan 2008–2013—an integral element in WHO’s framework for results-based management—translates the Eleventh General Programme of Work’s long-term vision for health into strategic objectives, reflects country priorities (particularly those expressed in country cooperation strategies) and provides the basis for the Organization’s detailed operational planning. The strategic objectives provide clear and measurable expected results of the Organization.

The structure of WHO’s Secretariat assures involvement with countries. Headquarters focuses on issues of global concern and technical backstopping for
regions and countries. Regional offices focus on technical support and building of national capacities. WHO’s presence in countries allows it to have a close relationship with ministries of health and with its partners inside and outside government. The Organization also collaborates closely with other bodies of the United Nations system and provides channels for emergency support.

In developing strategic priorities for collaboration between WHO and the Government of Yemen during the mid-term period 2008–2013, special care has been taken by the CCS mission to ensure that these priorities are in line with the Organization-wide priorities and overall strategic directions during the same period.

5.2 Priorities for collaboration with Yemen

In view of major challenges in almost all aspects of the health development, it is expected that WHO support and partnership should be substantive and cover a wide cross section. Nonetheless, based on detailed discussions during the CCS mission, the strategic emphasis of WHO’s collaborative activities in Yemen and the coming three bienniums should focus on the following areas.

- Strengthening health systems
- Reducing high infant, child mortality and high maternal mortality
- Control and reduction of the incidence of communicable diseases
- Prevention and control of noncommunicable diseases
- Promoting healthy lifestyles
- Strong advocacy to advance the status of social determinants of health
- Enhancing aid effectiveness

The WHO collaborative programme will be guided by the integrated primary health care approach. In consideration of the challenges identified earlier in this document and based on consensus reached with the national and international partners, the CCS mission developed a number of strategic objectives and corresponding directions to guide the structure of biennial operational plans over the next 3 bienniums (2008–2013). These directions take into account the national health priorities as well as WHO’s global and regional priorities and the comparative advantage of WHO. The numbers at the end of each of the directions correspond to the Strategic Objectives (SOs) of WHO’s Medium-term strategic plan for the period 2008–2013.

5.3 Strategic directions for WHO support

5.3.1 Improving the performance of the health system (SO10 + SO11)

- Establishing adequate and fair financing of the health system and providing social protection to the poor and vulnerable segments of the population
- Developing a balanced, skilled, well distributed and motivated health workforce
Improving universal access to an essential package of quality health services (including essential medicines), as well as ensuring access to emergency health (including safe blood transfusion) services

Advancing the establishment of a well performing decentralized district health system with enhanced planning, management and monitoring capacity within governorates and districts

Improving governance, stewardship, regulatory and monitoring capacity and strengthening the management and organization of the Ministry of Public Health and Population

Facilitating partnership between the non-state sector (private for profit and not-for-profit) and the public sector in achieving public health goals

5.3.2 Integrated reproductive and child health programmes that are accessible to all women and children at the point of service, contributing to improve maternal and child health outcomes and reduced fertility patterns in the country (SO4 + SO5)

Expanding access to quality maternal health services including antenatal, natal (emergency obstetric care) and postnatal services

Improving the quality of family planning services through ensuring the availability of; commodities, trained staff and reproductive health counselling

Providing integrated maternal and child health services including nutrition based on the comprehensive primary health care approach

Assisting the Ministry of Public Health and Population to adapt and harmonize available resources in reproductive health and operationalize relevant strategies at the peripheral level

Facilitating the implementation of the national child and youth strategy and its relevant work plan

Instituting a system of confidential inquiry of maternal deaths using verbal autopsy and other appropriate tools to reduce maternal mortality

Strengthening the existing system of monitoring and evaluation and competency based assessment of staff in maternal and child health services

5.3.3 Efficient and well integrated communicable disease prevention and control programme that targets malaria, tuberculosis and HIV/AIDS and other prevalent and emerging communicable diseases responsible for the major burden of disease (SO1+SO2+SO5)

Strengthening and expanding the scope of the existing surveillance and response system for acute flaccid paralysis and other communicable diseases

Assessing the feasibility, adaptation and adoption of new interventions
into national programmes related to priority communicable disease control programmes

- Improving the efficiency of the priority communicable disease control programme through their promotion of their functional integration
- Sustaining and further improving the coverage of the priority communicable disease control programmes through facility-based and outreach approaches
- Increasing awareness among communities in order to improve the utilization of the health services (through behaviour change)

5.3.4 Establishment of comprehensive country-wide health promotion and protection programmes that cover the broad range of risk factors responsible for noncommunicable and communicable health problems (SO6 +SO3+SO9)

- Establishing a surveillance system to assess the prevalence and distribution of risk factors contributing to noncommunicable diseases
- Establishing nutrition surveillance as part of integrated disease surveillance and response
- Strengthening of advocacy and awareness for promoting healthy lifestyles
- Supporting the Ministry of Public Health and Population in strengthening the anti-tobacco programme

- Exploring the possible approaches for initiating a public health programme directed at tackling the harmful effects of khat
- Strengthening the mental health programme with focus on quality of care and integration of mental health in the primary health care
- Assisting the government in developing a comprehensive and integrated school health programme
- Supporting the government in ensuring provision of clean water and food safety

6.3.5 Strengthening the health management information and integrated surveillance system and building capacity for health systems and operational research that provides valid, reliable and timely information for decisions at all levels of the health system (SO10+ SO1+SO2+SO3)

- Developing an integrated communicable and noncommunicable disease and risk factor surveillance system
- Strengthening the health management information system at all levels with a feedback mechanism for informed decisions
- Promoting operational research as an integral part of all programmes, developing capacity, mobilizing resources and enhancing use of results for decisions at all levels
5.3.6 Tackling the social, economic and environmental determinants through strong advocacy, promotion and intersectoral action for health at the policy, programme and grassroots levels (SO7+SO8+SO6+SO9)

▷ Developing a solid evidence base

▷ Advocating strongly for advancing the status of social determinants of health, especially in national policies and programmes

▷ Developing partnerships with civil society organizations, academia and other stakeholders

▷ Revisiting intersectoral collaboration and partnership among relevant public sector organizations

▷ Strengthening the advocacy and monitoring of the environmental health

▷ Strengthening coordination and collaboration between the Ministry of Public Health and Population and other key partners to maintain concerted efforts to reach/advance the health-related targets of the MDGs

▷ Developing the capacity of health professionals in social science disciplines training and research

▷ Scaling up community-based initiatives

5.3.7 Improved donor coordination mechanisms for increased aid effectiveness in line with the national priorities in the health sector in the country (SO10+SO12)

▷ Revitalizing donor coordination committee led by the Ministry of Public Health and Population

▷ Promoting sector-wide approaches (SWAps)

▷ Increasing interagency collaboration, partnership, joint programming and financing of programmes

▷ Sharing information on a continuing and regular basis
Implementing the Strategic Agenda: Implications for WHO
Section 6. Implementing the Strategic Agenda: Implications for WHO

6.1 Implications for the country office

6.1.1 Technical

The following modest shifts in priorities for technical cooperation are envisaged for the coming years.

- The CCS has clearly delineated the importance of a strong technical support for health systems to be established in the country office and supported by technical back-stopping from the Regional Office and headquarters in specialized areas such as financing, planning for human resource development, health management information system, management and regulatory aspects etc.

- Integrated reproductive and child health was already a high priority in WHO’s collaborative programme, but additional human and financial resources will be required in the coming years

- The epidemiological transition may have already begun. However, the impact of risky lifestyles and other risk factors on status of diseases, including noncommunicable diseases, may not be clearly evident due to lack of information. Therefore, health protection and promotion is a new priority for the country office’s work with the Ministry of Public Health and Population in the coming years.

- Ensuring effective and transparent donor coordination has assumed a priority position

- Partnership has become a key feature of WHO’s work at all levels. The country office and its staff are cognizant of the importance of working in close collaboration with current and future partners in health development in Yemen. There is a strong implication for WHO to scale up its technical support to the Ministry of Public Health and Population in harmonizing international resources and aligning them in support of national health development strategies and plans, especially those that are related to social determinants of health and that are outside the Ministry of Public Health and Population.

- There is a limited number of truly national civil society or nongovernmental organizations in the country that deal with health. The country office needs special efforts to build bridges with them and to involve them in advocacy for specific health programmes

- Advocacy and communication have become prerequisite for the Organization’s technical credibility. The visibility of WHO’s work with the government in collaboration with partners and its leadership role in the field of international health needs to be highlighted at the country level on a regular basis. The WHO Representative needs to be supported
in this connection, perhaps initially through a part time national consultant on communications/media relations.

The mission members working with the country office staff developed the matrix shown below, where weaknesses and strengths of the WHO country office in Yemen were listed in relation to each of the strategic directions. In light of this analysis, the group tried to arrive at the implications in terms of the need for the country office to be strengthened through provision of technical support and/or additional financial resources.

6.1.2 Managerial and administrative aspects

The development of appropriate technical and administrative capacities in the country office is central to supporting the country to develop national capacity to implement the jointly agreed upon strategic agenda.

To assist the country in implementing the strategic agenda, some degree of re-organization of the work in the country office and staff adjustments would have to take place. A detailed study of the staffing in the country office should take place; if necessary the terms of reference for the currently serving staff could be revised.

Country office staff have long been deprived of opportunities for in-service training to upgrade their skills. It is visualized that additional responsibilities necessary for implementing the strategic directions (such as working with other health development partners, raising resources and establishing procedures for monitoring implementation of programmes in an integrated fashion) will soon be devolving on the staff in the country office. There is thus need for a plan for staff development and training with emphasis on issues such as leadership, strategic planning, management and information technology skills. Resources for this purpose should be actively sought both from the Regional Office and headquarters. Similarly, the participation of country office staff in carefully selected intercountry meeting and workshops should be given priority.

<table>
<thead>
<tr>
<th>Strategic direction</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Comments/implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improving the performance of the health system</td>
<td>Lack of expertise in health systems development&lt;br&gt;Technical credibility needs improvement&lt;br&gt;Limited funds from the regular budget and other sources allocated to health system</td>
<td>Long term support at country level&lt;br&gt;Training of country staff in health systems&lt;br&gt;Increased backstopping by the Regional Office and headquarters&lt;br&gt;Increased allocation of financial resources in biennial plans</td>
<td></td>
</tr>
<tr>
<td>Strategic direction</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Comments/implications</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 2. Integrated reproductive and child health programmes that are accessible to all | Expertise available in the area of reproductive health in the country office  
Increased inter-agency coordination in reproductive and child health  
Ready access to national policy-makers in shaping reproductive health polices and programmes with strong support from the Regional Office  
Guidelines, tools and instruments available in reproductive health  
National action plan for child and adolescent health and national strategy on reproductive health available | Lack of expertise in child health in the country office  
Weak integration among reproductive health and other priority programmes within the country office (such as immunization, community-based initiatives)  
Limited flexibility in implementing programs with partners other than the Ministry of Public Health and Population  
Inadequate focus on field based activities due to inflexibility in the biennial plan | Increased allocation to reproductive and child health programmes in the biennial plan  
Flexibility in the design of joint workplans to allow for increased field-based activities  
Increased national level expertise in child and adolescent health in the country office  
Increased technical assistance to the Ministry of Public Health and Population and relevant UN agencies in reproductive health through backup support from the Regional Office and headquarters |
<table>
<thead>
<tr>
<th>Strategic direction</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Comments/implications</th>
</tr>
</thead>
</table>
| 3. Well performing, functionally integrated and efficient communicable disease prevention and control program that target malaria, tuberculosis and HIV/AIDS and other prevalent and emerging communicable diseases responsible for the major burden of disease | Technical expertise in place in the country office  
Good partnership and inter-agency cooperation in place  
Clear policies, strategies and action plans available  
Information systems for communicable diseases well functioning  
WHO is leading the inter-agency cooperation  
Political commitment of government to co-finance communicable disease programmes  
Substantial financial support from the Global Fund, GAVI Alliance and Global Drug Facility | Absence of a national regulatory authority for vaccines  
Inadequate attention to neglected diseases, particularly Schistosomiasis  
Commitment for the HIV/AIDS programme is not at the same level as for other priority programmes | Support from global alliances and funds to support staff in the country office in the area of communicable diseases  
Advocacy by country office to allocated adequate national resources for communicable diseases |
| 4. Establishment of a comprehensive countrywide health promotion and protection programs that covers the broad range of risk factors responsible for non-communicable and communicable health problems | Available national technical capacity in country office  
Backstopping from the Regional Office  
Good cooperation with the national and international partners  
Available international guidelines for different noncommunicable and communicable diseases | Limited information on noncommunicable diseases and risk factors  
Lack of developed national programmes and plans  
Limited fund allocation in joint planning  
Limited focus on the health promotion aspect of communicable diseases | Assign a full time national staff dedicated to health promotion and protection programmes  
Increase allocated resources for the health promotion and protection programmes  
Strengthen horizontal collaboration among programmes within the country office |
<table>
<thead>
<tr>
<th>Strategic direction</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Comments/implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Strengthening the health management information and surveillance system, and building capacity for operational research that provides valid, reliable and timely information for decisions at all levels of the health system</td>
<td>Increased interest of partners in strengthening health management information systems (HMIS) and operational research (OR)</td>
<td>Absence of technical capacity in the country office in HMIS/OR Weak backstopping from the Regional Office Non functioning HMIS</td>
<td>Integrate and strengthen operational research in all programmes Strengthen the Regional Office and headquarters technical support to HMIS/OR Assign the task of HMIS to the one of the existing staff in the country office or consider recruiting a dedicated national Embark on securing continuous support from Health Metrics Network in HMIS</td>
</tr>
<tr>
<td>6. Tackling the social, economic and environmental determinants through promotion of intersectoral action for health at the policy, programme and grassroots levels</td>
<td>Long experience in tackling the various determinants of health and intersectoral action for health Available national and international expertise at the country office Growing commitment from other partners to participate in community-based initiatives</td>
<td>Inadequate information on the social determinants of health Inadequate national commitment and collaboration in intersectoral action for health at policy level Weak national ownership of and lack of institutionalization of community-based initiatives</td>
<td>Improve integration of different programmes within community-based initiatives to use them as a platform for tackling social determinants of health Promote national ownership of the community-based initiatives programme, particularly at governorate level</td>
</tr>
<tr>
<td>7. Improved donor coordination mechanisms for increased aid effectiveness in line with the national priorities in the health sector in the country</td>
<td>Good working relationship with donors Existence of consolidated joint UN effort for monitoring of MDGs</td>
<td>Lack of sufficient staff with required skills</td>
<td>Increase contacts with donors and national partners Provide additional staff</td>
</tr>
</tbody>
</table>
The forthcoming move of the country office to a separate building within the Ministry of Public Health and Population compound will relieve the congestion in the current premises and provide a more satisfactory working environment for the staff. A larger room for meetings would be a useful addition. The Regional Office should ensure that additional office furnishings and information system infrastructure is provided in the new premises as needed.

In view of the experience with the first CCS formulated for Yemen, it is imperative that the country office draw up plans for distributing the renewed CCS document as soon as it becomes available to all partners.

6.2 Implications for the Regional Office and headquarters

Adequate and appropriate coordinated technical support and backstopping from the Regional Office and headquarters is necessary to enable the country office staff to engage in policy advice and advocacy, facilitate smooth interaction with partners and improve the quality of delivery of WHO’s work at the country level. The importance of provision of timely and high quality technical support was emphasized repeatedly both by the national authorities and by the staff in the country office.

Within the Organization, efforts at ensuring coherent and timely programmatic and technical support from the Regional Office and headquarters to the country offices will continue through measures such as joint planning.

Some technical programmes have established special mechanisms for supporting country offices, in close coordination with regional focal points, to build national capacities. This approach could be considered by more programmes that appear as a priority in the country cooperative strategies, e.g. health systems, reproductive and child health. In due course serious efforts will be required (as part of the CCS process or separately) to assess the efficiency, effectiveness and impact of WHO support on the health outcomes in the country.
Annex 1

Members of the CCS team and list of persons met by the team

Members of the WHO CCS team for the Republic of Yemen

Dr Ghulam Rabbani Popal, WHO Representative in Yemen

Dr Haifa Madi, Director, Health Protection and Promotion, WHO Regional Office for the Eastern Mediterranean

Dr Sameen Siddiqi, Regional Adviser, Health Policy and Planning, WHO Regional Office for the Eastern Mediterranean

Dr Funke Bogunjoko, Public Health Officer, Department of Country Focus, WHO headquarters

Dr Javid Hashmi, Consultant, Programme Planning, Monitoring and Evaluation, WHO Regional Office for the Eastern Mediterranean

List of persons met by the CCS team

H.E. Professor Abdul Karim Yayha Rasea, Minister of Public Health and Population, Republic of Yemen

H.E. Mr Abdul Karim Ismail Al Arhabi, Minister of Planning and International Cooperation and Chairman, Social Fund for Development, Republic of Yemen

Mr Hisham Sharaf Abdalla, Deputy Minister for Planning and International Cooperation

Dr Ali M Shatter Mothana, Deputy Minister for Planning, Statistics and Followup, Ministry of Finance

Mr Jalal Omar Yaqoub, Deputy Minister for Foreign Financial Relations, Ministry of Finance

Dr Nafesa Al Jaiefi, Chair, Higher Commission for Mothers and Youth

Dr Najeeb Ghanem, Head, Health Committee in the Parliament

Members of the UN Country Team:

Ms Flavia Pansieri, UNDP Representative and Resident Coordinator

Dr Hashim Al Shami, FAO Representative

Mr Aboudou Karimou Adjbade, UNICEF Representative

Mr Hans Obdeijn, UNFPA Representative

Representatives of selected donor agencies:

Mr Kade Martin, GTZ

Ms Afrah Alawi Al Ahmadi, Operation Officer, World Bank

Dr Iman Ali Awad, Health and Population Specialist, US AID
Members of the National Committee constituted by the Minister of Public Health and Population:

Dr Mohammed Gharama Al Rae, Advisor to the Minister

Dr Faisal Al Gohali, Director General, Office of the Minister

Dr Gamal Thabet Nasher, Director General, Health Policy Unit

Dr Adel Al Jasari, Director General, Department of Human Resources

Dr Muslah Al Tawali, Director, Planning

Dr Ali Al Madwahi, Director, Family Health

Professional staff in the WHO country office:

Dr Muna Al Mudhwahi

Dr Nasreen Al Sayani

Dr Salma Anas Kolo

Dr Bothaina Attal

Mr Osama Mere

Dr Mohammad Khalifa
## Health sector funding sources 1999–2003

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount (YR million)</td>
<td>Share of total (%)</td>
<td>Amount (YR million)</td>
<td>Share of total (%)</td>
<td>Amount (YR million)</td>
<td>Share of total (%)</td>
<td>Amount (YR million)</td>
</tr>
<tr>
<td>Recurrent</td>
<td>Gov</td>
<td>13 167</td>
<td>100</td>
<td>18 688</td>
<td>100</td>
<td>22 054</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Donors</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>13 167</td>
<td>100</td>
<td>18 688</td>
<td>100</td>
<td>22 054</td>
<td>100</td>
</tr>
<tr>
<td>Investment</td>
<td>Gov</td>
<td>1 321</td>
<td>37</td>
<td>1 565</td>
<td>28</td>
<td>2 101</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Donors</td>
<td>2 279</td>
<td>63</td>
<td>3 983</td>
<td>72</td>
<td>2 985</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>3 600</td>
<td>100</td>
<td>5 548</td>
<td>100</td>
<td>5 086</td>
<td>100</td>
</tr>
<tr>
<td>Combined</td>
<td>Gov</td>
<td>14 488</td>
<td>86</td>
<td>20 253</td>
<td>84</td>
<td>24 155</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Donors</td>
<td>2 279</td>
<td>14</td>
<td>3 983</td>
<td>16</td>
<td>2 985</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16 767</td>
<td>100</td>
<td>24 236</td>
<td>100</td>
<td>27 140</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Ministry of Planning
## Annex 3

Matrix of health programmes and projects supported by development partners in Yemen

<table>
<thead>
<tr>
<th>Health programme</th>
<th>WHO</th>
<th>WFP</th>
<th>WB</th>
<th>UNICEF</th>
<th>UNFPA</th>
<th>UNDP</th>
<th>USAID</th>
<th>JICA</th>
<th>Dutch aid</th>
<th>GTZ</th>
<th>FAO</th>
<th>EC</th>
<th>DFID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health sector reform issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS and sexually transmitted infections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neglected communicable diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disease surveillance and Health information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-communicable diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance abuse including tobacco</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health and human rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency preparedness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violence and injuries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive health and family planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition and food safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Health programme categories

- Health sector reform issues
- Malaria
- Tuberculosis
- HIV/AIDS and sexually transmitted infections
- Neglected communicable diseases
- Disease surveillance and Health information
- Mental health
- Non-communicable diseases
- Substance abuse including tobacco
- Health and human rights
- Emergency preparedness
- Violence and injuries
- Reproductive health and family planning
- Women's health
- Nutrition and food safety
<table>
<thead>
<tr>
<th>Health programme</th>
<th>DFID</th>
<th>EC</th>
<th>FAO</th>
<th>GTZ</th>
<th>Dutch aid</th>
<th>JICA</th>
<th>USAID</th>
<th>UNDP</th>
<th>UNFPA</th>
<th>UNICEF</th>
<th>WB</th>
<th>WFP</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply and sanitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other environmental health issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health education and promotion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential medicines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resource development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing and midwifery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child health including IMCI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical universities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for governorates (excluding hospitals)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>