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Country Cooperation Strategy for WHO and Oman

2010–2015

Oman

World Health Organization

Regional Office for the Eastern Mediterranean

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Contents

Executive Summary 7

Section 1. Introduction 11

Section 2. Country Health and Development Challenges 15

2.1 Macroeconomic, political and social context 17
2.2 Health situation analysis: status, trend, disparities, inequities 19
2.3 Socioeconomic and environmental determinants of health status, trends, disparities, inequities and policies 28
2.4 Health system analysis 32
2.5 Main national health policy orientation and priorities 40

Section 3. Development Cooperation and Partnerships 45

Section 4. Current WHO Cooperation 49

4.1 Overview 51
4.2 WHO ways of working and structure 51
4.3 Resources 52
4.4 Challenges 53

Section 5. Strategic Agenda for WHO Cooperation 55

5.1 Strengthening leadership and building alliances for health promotion, social determinants of health and partnership 58
5.2 Providing technical input for developing public health law, setting policies, strengthening normative capacity and monitoring implementation 58
5.3 Providing technical support for development of human resources for health and sustainable institutional capacity 58
5.4 Supporting the country achievements for communicable disease prevention and control and the new focus on health promotion, noncommunicable diseases and injury prevention and control 59
5.5 Promoting health security and strengthening emergency preparedness 59

Section 6. Implementing the Strategic Agenda: Implications for WHO 61

6.1 Implications for the country office 63
6.2 Implications for the Regional Office 64
6.3 Implications for headquarters 64

Executive Summary

The Country Cooperation Strategy identifies the joint priorities for technical collaboration between WHO and country based on country priorities. The CCS was developed through a preliminary health sector review and the work of a mission. The health sector review included both a desk review as well as extensive consultations with decision-makers and programme managers within the Ministry of Health, partner institutions and UN agencies. In October 2008, a CCS mission comprising senior WHO staff from the country office, Regional Office and headquarters carried out additional consultations with key officials, as required, completed the exhaustive health sector analysis, identified the critical challenges for health development and developed the strategic agenda for 2010–2015.

Oman, under the leadership of His Majesty Sultan Qaboos bin Said, enjoys a stable political, economic and social system with good relationships with neighbouring countries. The sound health policies and strategies based on the primary health care approach have resulted in rapid and significant positive changes in health and mortality pattern over the past four decades. Mortality and morbidity data show clear signs of the onset of a health transition in Oman similar to what has already been observed in developed countries. The most important health challenges in Oman will be the control of noncommunicable diseases and other conditions related to unsafe behaviours and unhealthy lifestyles. As well, congenital disorders, mental diseases and environmental factors will increasingly impact the health status in Oman. Recently, the H1N1 influenza pandemic challenged the health care system, particularly at the secondary and tertiary care levels, once again placing emergency preparedness, safety of health care facilities and epidemic control high on the health agenda.

Recognition of the outstanding achievement of Oman in providing sustained and equitable effective health services through primary health care, as highlighted in The World Health Report 2008, set a positive yet a challenging milestone for future planning. At the onset of the mission, the CCS team benefited from the vision and guidance of the senior management in the Ministry of Health, who emphasized the need for new horizons and expansion of primary health care, the development of human resources for health with special focus on leadership and management training, community-based care, quality care and hospital performance, addressing demographic and epidemiological challenges and development of the private sector.

Based on the health priorities of the country, the following strategic agenda for WHO collaboration for the period 2010–2015 was developed.

Strengthening leadership and building alliances for health promotion, social determinants of health and partnership

- Maximizing collaboration and partnerships among health and other concerned sectors and continuing support for community-based initiatives to strengthen community participation for health development
- Strengthening the delivery of gender-sensitive health care and collaborating on the development of gender mainstreaming tools for the Gender, Women and Health Network
- Continuing support for the development of a multisectoral health promotion strategy, optimizing the healthy lifestyle initiatives, especially for diet, physical activity and controlling tobacco use
- Consolidating Ministry of Health input into safety promotion, violence and road traffic injury prevention within the context of the national programme including surveillance and services

Providing technical input for developing public health law, setting policies, strengthening normative capacity and monitoring implementation

- Providing technical support to the government to finalize a comprehensive public health law, including the mental health act and preparation of procedures and by-laws
- Strengthening the technical and normative capacity of the Ministry of Health to set health standards and guidelines to protect the health of the population from environmental hazards and promoting and monitoring effective medical waste management in both the public and private sectors
- Strengthening the technical and normative capacity of the Ministry of Health for food safety and surveillance of foodborne diseases

Providing technical support for development of human resources for health and sustainable institutional capacity

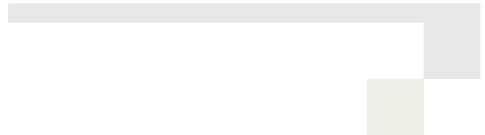
- Revisiting the human resources for health policies, strategies and plans with specific attention to qualitative aspects and ensuring the right skill mix of human resources
- Developing the needed categories of health staff with specialized skills and enhancing the management and leadership skills at various levels
- Strengthening the secondary and tertiary service delivery levels, raising technical and clinical skills of staff, in particular with regard to performance assessment, care quality, patient safety, hospital autonomy and accreditation
- Supporting Ministry of Health capacity for effective public–private partnership in health and delivery of services to expatriates
- Strengthening Ministry of Health capacity for health technology development especially, e-Health and advanced clinical procedures
- Supporting the phased development of a health research system and the use of research findings and information for developing evidence-based policies and decision-making
- Supporting the Ministry of Health to strengthen emergency and rehabilitation services at all level, including in community settings

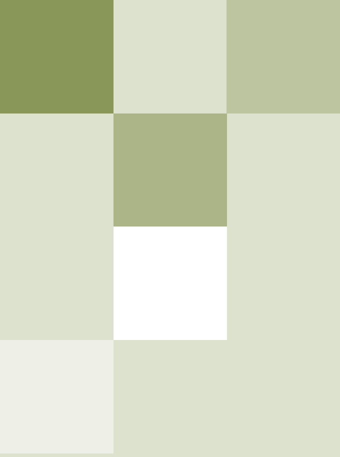
Supporting the country achievements for communicable disease prevention and control and the new focus on health promotion, noncommunicable diseases and injury prevention and control

- Providing technical input for expanding primary health care to include noncommunicable diseases especially cancer, respiratory diseases and community based care of the elderly
- Strengthening the response to mental health, substance abuse and school mental health
- Strengthening health care-associated infection control
- Scaling up HIV/AIDS and sexually transmitted infection surveillance, prevention and care, focusing on high-risk groups and HIV harm reduction strategies for injecting drug users
- Supporting the Ministry of Health in their efforts for the elimination effort of tuberculosis and measles, and continuing to support the certification process for elimination of blinding trachoma and malaria
- Supporting the Ministry of Health to continue address challenges related to hepatitis and emerging and remerging infections

Promoting health security and strengthening emergency preparedness

- Supporting the Ministry of Health in developing a health emergency preparedness and response plan within the framework of the national disaster preparedness strategy and plan including risk and vulnerability mapping
- Continuing to support the implementation of International Health Regulations (2005) including biosafety and security and emergency preparedness and response





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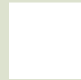
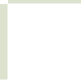
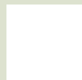
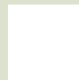
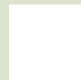
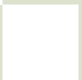
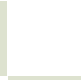
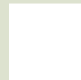






Introduction



Section 1. 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 together 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 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).

The CCS for Oman 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 Health as well as officials from various other government authorities, United Nations agencies, nongovernmental organizations and private institutions were consulted. The critical challenges for health development were identified. Based on the health priorities of the country, a strategic agenda for WHO collaboration was developed. The implications of implementation of the CCS for all three levels of the Organization (country, regional and headquarters) were also articulated.

The World Health Organization has provided technical support to Oman since the ascent to the throne of His Majesty Sultan Qaboos bin Said Al-Said in 1970. The WHO Representative's Office was established in 1974. This is the second CCS developed for Oman.

Section 2

Country Health and Development Challenges

2.1 Macroeconomic, political and social context

Oman is located in the southeastern corner of the Arabian Peninsula, with Saudi Arabia, United Arab Emirates and Yemen at its borders. Its coastline extends 3165 kilometres from the Strait of Hormuz in the north to the borders of Yemen. Due to the long coastline, fisheries and sea trade have has been an important part of Oman's history. In 2007 the total mid-year population was 2 743 499, of which 29.9% were non-Omanis.[1] A large majority (71.5%) live in urban areas, and nearly half the population live in two regions, Muscat and Al-Batinah.[2] The concentration of a large part of the population in urban centres and in these two regions makes the accessibility of services easier for a large portion of the population. Regions may also vary in traditional customs and practices, influencing health and requiring different adapted interventions. Hence, the Ministry of Health has developed regional health plans in addition to the national strategic plans.

The Omani population is young, with half of the population under the age of 20 years and only 3.7% aged 60 years and over. This young population highlights the great demand on services dedicated to young people. At the same time, the elderly population is expected to increase in the coming years, which will require a longer-term vision and adapted strategies for this age group.

Oman, under the leadership of Sultan Qaboos bin Said, enjoys a stable political, economic and social system and good relationships with neighbouring countries. Oman has progressed well towards achieving the Millennium Development Goals (MDGs), especially in reaching near universal education (including gender equity), reducing child and maternal mortality, reducing incidence of malaria and tuberculosis, ensuring access to essential medicines with universal access to antiretroviral drugs for HIV/AIDS and making available communication technologies.

The economy continues to grow rapidly; for example, the Gross Domestic Product (GDP) doubled since 2000, reaching 15 512 million Omani rials (OR) in 2007.[1] The country is a middle-income economy that is heavily dependent on depletable oil resources, but sustained high oil prices in recent years have helped build Oman's budget and trade surpluses and foreign reserves. Oman joined the World Trade Organization in November 2000 and continues to liberalize its markets. It ratified a free trade agreement with the United States in September 2006, and, through the Gulf Cooperation Council (GCC), seeks similar agreements with the European Union, China and Japan.

Oman is actively pursuing a development plan that focuses on economic diversification, industrialization, privatization, and foreign investment with the objective of reducing the

[1] Ministry of Health. Annual health report 2007

[2] Ministry of National Economy. Statistical yearbook 2007, 35th issue

economic dependency on the oil sector. In addition, Vision 2020, the current economic strategy to achieve sustainable development, focuses on human resources development while the government continues to take full responsibility for the health, education and training of Omani citizens.

It is difficult to ascertain the level of poverty even though 20% of Omani households have a monthly expenditure of less than OR 200 per month compared to the national average of OR 638 per month.[3] This is because Oman is a welfare state and substantial government social support is given, along with wide access to basic services. In addition to the provision of education and health services free of charge to citizens, the government provides direct financial support to the disadvantaged and people below subsistence levels, inclusive of persons with special needs, widowed/divorced women, families of prisoners, orphans and the elderly. More than 50 000 families benefit from this social plan. In fact, 6.2% of the Omani population in 2003 received direct government financial support in addition to other support in kind.[4] The government also provides houses, low interest housing loans and microcredit support to low-income families.

Oman continues to host a large expatriate population (nearly two-thirds of the labour force, 14% in the public sector and 82% in the private sector). Medical checks for communicable diseases are carried out by the Ministry of Health in collaboration with the Ministry of Manpower for all prospective foreign employees, based on laboratory and other investigative services. This is believed to help avoid importation of communicable diseases. However, the government policy focuses on Omanization to increase employment opportunities for Omanis and to promote self-sufficiency in the workforce.

Development has implications on environment and health. Instances of overuse of ground water, increased water salinity and contamination of agricultural product due to use of pesticides have been observed.[5] These among other reasons have led to the strategy of seawater desalination as a key source for drinking-water. A national master water supply plan has been prepared with the initial concern of ensuring a sustainable network for water supply nationwide. The Public Authority for Electricity and Water is seeking WHO support to develop its strategy on water safety.

Waste management is high on the agenda in Oman. An area has been allocated for the development of a hazardous waste disposal site. Modern solid waste facilities are now being constructed in several *wilayat*, including Muscat, Salalah and other major cities.

Pollution monitoring is undertaken by government-run laboratories. Industrial sites are inspected periodically, and fines are imposed. However, a stronger strategy for prevention of pollution is required rather than mitigation and a systematic adherence to the practice of health impact assessment for all development projects.

[3] Ministry of National Economy. Results of the income and expenditure survey 1999–2000

[4] Ministry of Social Development. First statistical analysis of the social indicators in Oman for the period 1993–2003

[5] Ministry of National Economy. Human development report 2003

Oman's contribution to global emissions of carbon dioxide are minimal due to its small population, however, the per capita carbon dioxide emissions (13.6 tonnes per year) is comparable to other high-income countries (13.2 tonnes per year)[6] and is probably a result of socioeconomic development, industrialization and motorization.

Climate change, with its implications on water, health and food security, is likely to adversely affect most countries of the Eastern Mediterranean Region. Oman is no exception. Climate change-related heatwaves could affect mortality and morbidity, especially among the elderly, and the changing temperatures and rainfall patterns can affect vector control and related diseases.[7] An intersectoral committee for mitigation and adaptation strategy for climate change has been established and a national strategy development workshop took place in early 2009 to develop the national strategy. Health vulnerability due to climate change and its impact needs to be assessed so that Oman can be prepared to cope with these new threats.

Globalization has its own impact. The market for illicit drugs has spread in the Middle East and especially in countries of the GCC with large young populations and Asian links. In 2007, Oman reported a seizure of more than two metric tonnes of non-specified amphetamines – one of the most significant seizures of amphetamines in the region. Similarly the biggest-ever heroin seizure in the Arab world was intercepted in 2008 in a neighbouring country.[8] GCC countries, being transit points for illicit drugs, are at risk of spillover into the population; but the actual level of drug use in Oman has not been studied.

2.2 Health situation analysis: status, trend, disparities, inequities

2.2.1 Overview

Oman has achieved a dramatic transformation in its health status over a remarkably short time. Mortality and morbidity data show clear signs of the onset of a health transition in Oman similar to what has already been observed in developed countries.

The most important health challenges in Oman will be the control of noncommunicable and other diseases related to unsafe behaviours and unhealthy lifestyles such as smoking, physical inactivity, unhealthy diet, risky sexual behaviour and substance abuse. Congenital disorders, mental diseases and environmental factors will increasingly impact the health status in Oman.

The sound health policies and strategies based on the primary health care approach have resulted in rapid and significant changes in the health and mortality pattern over the past four decades. The average lifespan in Oman has increased from only 49 years in 1970 to 72 years in 2007. This has been achieved despite a relatively high fertility rate and consequent large proportion of population under the age of 15 years (36.2%).[1] Oman has also moved

[6] United Nations Development Programme. *Human development report 2007*

[7] Al-Lamki L. Physicians, climate change and human health, *Sultan Qaboos University Medical Journal*, 2008, 8:125–6

[8] United Nations Organization for Drug Control. Global amphetamine-type stimulants assessment report, 2008

from a position among the countries in the Region with highest childhood mortality in 1960s, to be among those with the lowest, and has even caught up with countries with a much earlier start in development and wealth. In just 38 years, the infant mortality rate has dropped to less than one tenth of its former level, and the under-five mortality rate dropped fourteen-fold. Such patterns reflect one of the fastest declines in under-five mortality ever recorded globally.[9]

2.2.2 Communicable diseases

Oman has achieved remarkable success in controlling or eradicating major communicable diseases. The Expanded Programme on Immunization (EPI) was initiated in 1981 and the disease surveillance and control system was established in 1987. The vaccination, surveillance and control programmes have led to dramatic decline in the incidence of common childhood communicable diseases. The last case of poliomyelitis was seen in Oman in 1993, neonatal tetanus was last seen in 1991 and diphtheria in 1992.

Similarly, outstanding achievements have been made in controlling other communicable diseases such as respiratory infections, diarrhoeal diseases, malaria, tuberculosis and leprosy. Oman is now in the process of declaring malaria elimination, expected to be completed in 2011. The most common infectious diseases notified in 2007 were chicken pox, viral hepatitis, mumps and food poisoning. Further work is needed in trachoma surveillance and control to confirm elimination.

At the same time there is persistence of zoonotic diseases (brucellosis) and the risk of resurgence of schistosomiasis in the Dhofar region. The available expertise in vector-borne disease prevention and control is focused on malaria. This needs to be broadened to control all vectors, with a more harmonized multisectoral contribution. Oman now is in the process of setting up an integrated vector management strategy beginning with a national vector control needs assessment.

The Ministry of Health has established an infection control programme to help ensure patient safety. This programme also addresses the emerging threat of multiple antibiotic-resistance in common pathogens in the hospital environment. An injection safety study found that one in three health facilities in the public sector had no infectious waste segregation and engaged in other practices that pose risks to the provider of care as well as the patient, such as open sharp containers.[10] The situation in the private sector was worse. At the same time, significant work has taken place. A national policy and guidelines have already been formulated based on the GCC guidelines, infection control committees exist in many hospitals and various seminars and workshops have been conducted to build capacity in infection control for various cadres of health workers. A strategic infection control plan has been developed. Further work required includes setting up the organizational structure, establishing a national surveillance and reporting system and formulating a training curriculum.

[9] World Health Organization. *The World Health Report 2008. Primary health care: now more than ever*

[10] Ministry of Health. Survey on injection safety and the safety of phlebotomy, lancet procedures, intravenous injections and infusions in Oman: final report 2008

The government is committed to complying with the requirements of the International Health Regulations (2005) and is incorporating these requirements into national legislation. Further work required includes strengthening coordination and communication between sectors and strengthening technical capacity, particularly for “event” surveillance, identification and investigation.

2.2.3 HIV/AIDS and sexually transmitted infections

HIV/AIDS is a new challenge to the Omani community. Although the HIV prevalence in the general population is estimated to be around 0.08% in the reproductive age group, there are good reasons to believe that Oman will be moving towards a concentrated HIV epidemic situation soon if interventions focused on high risk behaviours are not set into place rapidly. Every year 80–100 Omanis, mostly men, are newly diagnosed with HIV/AIDS and come to the attention of the national AIDS programme through passive notification from clinics and hospitals.[11]

Furthermore, HIV seroprevalence among drug abusers (all types of drugs) was 5% in 2006. Prevalence is higher among injecting drug users, who largely practice injection sharing despite knowledge of HIV seroprevalence of the drug partners. Injecting drug users being sexually active without concern for safe sex is also an issue for HIV spread among this group.[12] Only limited anecdotal information is available for other groups with high risk behaviours (men who have sex with men and commercial sex workers).

The prevalence of sexually transmitted diseases from a national survey among ever-married women was 4%.[13] Setting up active surveillance for HIV and sexually transmitted infections will provide a clearer understanding of the epidemiological situation in the general population as well as in special groups. A national HIV/AIDS strategic plan is set to generate a multisectoral response and for the first time a nationwide HIV/AIDS communication campaign is being launched.

2.2.4 Substance abuse

Oman’s proximity and linkages with manufacturing sites in Asia and the corridors of transit to markets in Europe make the country vulnerable to future increases in drug abuse problems. Spillover effects into the local population by an observed increase in levels of drug abuse are already substantiated.[14] Data on drug users in the country for 2008 showed people who had 1500 ever used drugs, and 820 opiate users and 290 current injecting drug user who are predominantly men.[15] The actual figures are likely to be higher given the sensitivity of the issue and the challenges of getting more accurate estimates. Adolescents are a particularly vulnerable group. Current data show that 4.6% of young people have taken drugs (7.2% of boys and 2.2% of girls) and 4.3% have tried alcohol (6.6% and 2.0% respectively).[16]

[11] Ministry of Health. The Oman national HIV AIDS strategic framework 2006

[12] Ministry of Health. Qualitative and quantitative survey of injecting drug use and HIV 2006

[13] Al-Riyami A et al. A national study on gynaecological morbidities in Oman. *Saudi Medical Journal*, 2007, 28:477–85

[14] Al-Abri M. Current status of drug problem and the Ministry of Health response, 4 February 2008

[15] Ministry of Health. Substance abuse database, February 2008

[16] Jaffer YA et al. Knowledge, attitudes and practices of secondary-school pupils in Oman: health-compromising behaviours. *Eastern Mediterranean Health Journal*, 2006, 12:35–49

The government has shown serious concern over the issue of drug abuse. A narcotics and pscyhotropics control law was established in 1999, as was a multisectoral national committee for narcotics and psychotopic affairs chaired by the Undersecretary of Health Affairs. More recently, a unit within the Department of Noncommunicable Diseases was established as well as a national drug abuse registry. Limited addiction treatment services (10 beds) are available in the referral mental health hospital in Muscat region. Although the national plan's objectives include increasing awareness among the general public, and more particularly young people, to protect them from drug addition, there is a clear shortage in prevention strategies and activities at the community level, as well as those addressing HIV harm reduction.

2.2.5 Food safety

The rate of communicable diseases "from contaminated hands, food and water" has increased from 220 per 10 000 population in 2005 to 300 per 10 000 population in 2007. It is likely this is just the tip of the iceberg.[17] There is attention to food safety at the highest level in the country as evidenced by Royal Decree 84/2008 promulgating the law on food safety and regulating food preparation and handling, advertisement and import and export conditions. There is need to strengthen the surveillance of foodborne diseases, develop/place food inspectors and professionals, and monitor the food industry and public eating places and markets.

Little information is available regarding chemical contamination of food; however, a recent paper prepared by United Arab Emirates University and Sultan Qaboos University raises concern of possible pesticide contamination of fruits and vegetables grown in Oman.[18] In fact, the Ministry of Regional Municipalities and Water Resources has noted residual pesticides on food products, some of which exceed recommended limits set by WHO and the Food and Agricultural Organization of the United Nations (FAO).[19] Systematic monitoring of pesticide residual analysis in fruits, vegetables and other foods is needed.

2.2.6 Noncommunicable diseases

The rise in incidence of noncommunicable diseases and the changing age structure of the population have begun to show morbidity patterns similar to those of developed countries. Cardiovascular diseases are the leading cause of mortality and the 4th leading cause of morbidity.[20] There is increasing prevalence of diabetes and hypertension, which currently stand at 11.6% and 35.7% respectively.[21] 40% of Omanis are estimated to have high cholesterol levels and nearly half the adult population is overweight or obese.[22] The level of complications from

[17] Al-Asfoor D. Estimating the burden of illness from foodborne disease surveillance system in Oman, 2008

[18] Kaakeh W et al. Assessment of pesticide uses in vegetable farms in the United Arab Emirates and Sultanate of Oman. Sixth Annual United Arab Emirates University Research Conference, 2005

[19] Ministry of Regional Municipalities and Water Resources. Detecting residual pesticides in fruit and vegetables in Muscat. *Man and the Environment,* 2007, 16:12–3

[20] World Health Organization. Health system profile, Oman, 2006

[21] Al-Lawati JA, Jousilahti PJ. Prevalence and 10-year secular trend of obesity in Oman. *Saudi Medical Journal,* 2004, 25:346–51

[22] Ministry of Health. National Health Survey, 2000

diabetes is also non-negligible: 14% of diabetic patients have diabetic retinopathy; 20% show evidence of nephropathies; and 50% of all amputations in Oman are related to diabetes.[23] Cancer is the third leading cause of mortality.[20] Age-adjusted annual incidence of cancer ranges from 70 to 110 per 100 000 population,[23] which is lower than some countries in the Region as well as globally.[24] The three most common cancers in men are stomach cancer, non-Hodgkin lymphoma and leukaemia. In women they are breast, thyroid, and cervical cancers. The highest incidence rates are reported from Dhofar and Adh Dhahira.[25] The introduction of the noncommunicable diseases screening programme for all Omanis aged 40 years and over is aimed at early detection and management of hypertension and diabetes and their underlying causes and enhancing community awareness.[26] Since the establishment of the national oncology centre at the Royal Hospital in Muscat, all modalities of treatment (surgery, chemotherapy and radiotherapy) with the exception of palliative care and home-based care are available in the country, reducing the inconvenience and cost of obtaining treatment abroad. In order to revitalize the national cancer control programme, in 2008 the Ministry of Health reformulated the national cancer control committee, which includes for the first time a member from the civil association for cancer. The cancer registry provides comprehensive coverage of almost all cases of cancer among Omanis; however, survival analysis has yet to be developed. A preventive strategy for cancer has not yet been developed. The programme is currently examining the feasibility of a breast cancer screening national programme.

2.2.7 Nutrition

Nutrition issues including persistent micronutrient deficiencies are a concern in Oman especially with persistent anaemia among children (42%)[27] and women (30%)[22] despite good fortification schemes and adequate maternal and child health services. Also, protein energy malnutrition among children remains an outstanding public health issue. It is believed that these issues are related to certain behavioural aspects of the population, as well as iron deficiency, inherited haemoglobin disorders, hookworm infections and factors of sanitation and safe water supply.

2.2.8 Congenital disorders

Congenital and genetic disorders are becoming increasingly recognized in Oman as improved medical care is unveiling intractable problems that were previously hidden in a high infant and childhood mortality. The estimated birth prevalence of congenital malformations, chromosomal disorders and inherited disorders in Oman is around 23 cases per 1000 births according to the congenital anomaly notification system.[1] In

[23] Al-Lawati JA et al. Addressing the threat of chronic diseases in Oman. *Prevention of Chronic Disease,* 2008, 5(3):A99

[24] World Health Organization GLOBOCAN database 2002 Available at http://www.emro.who.int/ncd/cancer_globocan.htm (accessed 27 September 2008)

[25] Ministry of Health. Cancer incidence in Oman, 2006.

[26] Shereiqi S. Noncommunicable diseases screening starts in Oman. *Community Health and Disease Surveillance Newsletter,* 2008, 17(3):1

[27] Ministry of Health. National Food-based Dietary Guidelines 2007

the past many of these conditions led to early death, but with advanced health care services available survival rates are increasing. Pre-pregnancy folic acid supplementation/food fortification programmes, birth spacing, pre-marital screening and prenatal diagnosis are some of the key interventions to prevent congenital disorders. Currently, a proposal for neonatal screening for generic blood disorders, including thalassaemia, has been prepared; however, the proposal is still under discussion in the Ministry of Health.

2.2.9 Injuries and violence

Injuries (road traffic injuries, falls and occupational injuries) and poisoning are the sixth leading cause of hospital mortality and third leading cause of morbidity in Oman.[1] Oman is among countries reporting highest mortality rates[28] related to road traffic crashes. The mortality rate has actually increased from 25 deaths per 100 000 population in 2002[29] to 29 deaths per 100 000 population in 2007, with mostly young men affected.[30] Review of available data indicates increasing severity of crashes and significant underreporting of mild and moderate injuries. In 2007, there was a 19% increase in immediate deaths due to road traffic crashes compared to the previous year. The number of vehicles on the road has doubled in the past ten years. Speed and overtaking are the most common causes of road traffic crashes. Young people do take risks such as driving at high speed and without license.[31] In addition, there is a lack of awareness of the dangers of not wearing seatbelts, particularly towards children. Traffic regulations need to be updated and the public educated about road safe behaviour.[32] The magnitude of road traffic injuries requires a specific response from the Ministry of Health within the currently established injury prevention and safety promotion programme.

The second most common injury is falls, which mostly occur among in the young and the very old. In addition, nearly 9500 cases of poisoning due to venomous bites, organophosphorus compounds and drugs were reported to the recently established poison control centre (and toxicology laboratory) in 2007.[30] The disease burden due to poisonings and toxic exposures in Oman still remains to be assessed. Since the country is diversifying its economy to include industries, agriculture and fisheries, the risk of accidental, intentional and occupational poisonings may be expected to increase.

In the first year of surveillance of occupational injuries, 1089 injuries mainly among unskilled labourers from the manufacturing and construction sectors were reported. The inappropriate use of pesticides in agriculture is one example of occupational hazards in Oman. The Regulation of Occupational Safety and Health recently

[28] World Health Organization. *World Report on Road Traffic Injury Prevention 2004*

[29] Royal Oman Police. Wrong overtaking kills; Sultanate of Oman participates with Gulf country activities for the 24th Road Week, *Al Watan,* 8 March 2008, 4

[30] Gururaj. UNICEF consultant report on injury surveillance in Oman, 2008

[31] Ministry of Health. Towards a better understanding of youth. Knowledge, attitude and practices survey of secondary school students, 2001

[32] McIlvenny S et al. Rear seat belt use as an indicator of safe road behaviour in a rapidly developing country. *Journal of Research on Social Health,* 2004, 124:280–3

issued by the Ministry of Manpower helps set the agenda for occupational safety in Oman.[33] Establishing a monitoring framework will be paramount to its success. The Ministry of Health needs to strengthen the occupational injuries surveillance system as well as establish occupational health services to address this emerging concern.

In 2007, there were 142 hospital admissions and 6941 outpatient contacts due to assault.[1] The number of injuries due to assault could be much higher as it is an unrecognized public health problem. A student health survey showed that 41% of students were involved in a physical fight and 26% were seriously injured.[34] While more such similar events may have gone unreported, it is essential to note that children who are victims of violence can have long-term physical, emotional and social problems as a result. There is need to understand intentional injuries and their health implications in a more defined manner to develop intervention strategies. The Ministry of Health is working with UNICEF and UNFPA on peer education materials that will include a module on violence prevention. In view of the relatively high level of violence in schools, there is a need for a qualitative mental and behavioural study to explore the causes of violence and how to cope with it.

Female genital mutilation (FGM) may not be widely practised in Oman but persists in certain regions, such as Dhofar. FGM is generally done when a girl is 2–3 days old by an elderly woman of the community. Hospital statistics in Dhofar have documented complications.[35] The adolescent health survey found that a majority of students were favourable towards this practice.[31] An intersectoral approach can help not only to document information regarding FGM but also to establish a mechanism to address this issue.

2.2.10 Mental health

Mental health is an important consideration for the public health agenda in Oman. Two studies have highlighted the importance of mental illnesses. One study among school adolescents indicated that 14% having at least one category of mental disorder (including anxiety disorders 9%, mood disorders 4.3% and major depressive disorders 3%). The same study indicated that 17.8% had ever been treated for bipolar mood disorder, 13.2% for any mood disorder and 11.4% for major depressive symptoms.[1] A mental health programme in schools therefore seems relevant.

Another study indicated that people aged 60 years and above in Nizwa self-reported mild to severe depressive symptoms (16% and 3% respectively).[36] The rate of self-injurious behaviour is believed to be low in Oman, although underreporting due to various social and cultural issues is likely, as in any other country. Mental health is also important because of its co-morbidity with noncommunicable diseases, usually estimated to reach more than 30% in any given country. In addition, mental health

[33] Ministry of Manpower. Regulation of occupational safety and health for establishments governed by the labour law issued by Ministerial decision No. 286/2008

[34] Ministry of Education and Ministry of Health. Global school-based student health survey, 2005

[35] Ministry of Health, Directorate General of Health Services, Dhofar Region. Knowledge, beliefs and attitudes towards the practice of female circumcision/female genital mutilation in Dhofar Region, 2006

[36] Ministry of Health. Study of the elderly profile and needs in Ad Dakhliyah Region, Sultanate of Oman, 2005

disorders due to emergency situations emerged as an issue following cyclone Gonu.

The current mental health programme operates under the mental health policy of 1992 which emphasizes equitable services, community and primary mental care in addition to advocacy promotion and human rights protection of users. Accordingly, 26 outpatient public mental health facilities exist in the country, of which only two are dedicated to children and adolescents. Currently, there are 67 psychiatrists in Oman. Primary health care doctors are involved patient care; however, only 6% have received training in mental health, particularly on the rational use of drugs. Primary health care physicians are only allowed to prescribe amitryptyline, chlorpromazine and carbamazepine.[37] Community-based psychiatry and preventive action are not yet developed.

There are two community-based psychiatric inpatient units available and only one mental hospital in Oman. Although the number of beds has increased by 23% in the past five years,[37] it is still inadequate (65 beds) for the needs of the country as evidence by high occupancy rate and prolonged average length of stay. Plans are under way to establish a new 245-bed psychiatric facility with more comprehensive services including rehabilitation.

Psychiatrists and other participants of the first national meeting on mental health held in 2007 made numerous recommendations including developing a Mental Health Act, improving the mental health information system, facilitating referral procedures, expanding decentralization of secondary mental care, reinforcing primary mental health care through additional medicines and further staff training as well as establishing a school-based mental health programme and public advocacy to reduce the stigma sooociated with mental disorders.

2.2.11 Health of the elderly

Life expectancy is expected to rise with the success of the control of communicable diseases and immunization programmes. However, information regarding the elderly is minimal. A study in Ad Dakhliya region of people age 60 years and older found high rates of hypertension, diabetes, overweight/ obesity and osteoarthritis. One in two had limitations in one or more activities of daily living such as self feeding, one in five had self-reported symptoms of depression and one in ten was severely disabled or bed ridden. Women tended to fare worse than men in daily activity limitations and self-reported health conditions.[36] The Ministry of Health has taken the initiative to establish a programme for the elderly. The challenge is the lack of national expertise in elderly care and related programme development. Nevertheless, a national programme is being drafted with age friendly primary health care services being the cornerstone.

2.2.12 Healthy lifestyles

The Ministry of Health is aware of the burden of lifestyle diseases and is establishing a national multisectoral health promotion committee and programme as well as developing the national diet, physical activity and health strategy to address healthy lifestyles. Oman is experiencing nutrition transition, with a double burden of

[37] World Health Organization. *WHO-AIMS report on mental health in Oman 2008*

under-nutrition and specific micronutrient deficiencies as well as overweight and obesity. Low intake of iron, zinc, vitamin A and dietary fibre along with high intakes of saturated fat, sodium chloride and possibly transfat pose significant concerns to the health of the population. National food-based dietary guidelines and a related national communication campaign launched at the end of 2008 will serve as a basis for addressing the dietary habits in the country.

Physical inactivity is also a growing concern since large numbers of people are living sedentary lifestyles. Less than a quarter of students aged 13–15 years meet the WHO physical activity guidelines for adolescents; this is markedly less in girls (13.4%) compared to boys (32.5%).[38] A local survey of adults shows a similar trend, with women less active than men, 34.6% and 50.6% respectively.[39]

The Global Youth Tobacco Survey (2007) showed an alarming level of tobacco use among adolescents in Oman; 17.8% of boys and 11.3% of girls use various types of tobacco products (such as cigarettes, shisha and chewing tobacco). Use of shisha in Oman, virtually unheard of ten years ago, is increasingly popular, promoted by the misconception that it is safer than smoking cigarettes. The same survey indicated that 14% of adolescents had at least one parent who smoked; and about a quarter (27.5%) were exposed to smoke in public places. In a survey of 10 000 children under 15 years of age, nearly one-third were exposed to passive smoking at home.[40] It is noteworthy to mention here that a number of scientific communications from Oman indicate high morbidity among children related to respiratory symptoms, mainly asthma;[41] the connection to passive smoking is yet to be established. A national tobacco control committee exists with an active team and Oman has ratified the Framework Convention on Tobacco Control (FCTC). Steps have been taken to pass a tobacco control law which incorporates all the articles cited in the FCTC. An intersectoral working team to address tobacco control activities was formed in 2007 and numerous promotional materials for tobacco control have been developed. A workplace ban on smoking in the private sector as well as establishing cessation programmes in the workplace was incorporated in the recent occupational health and safety regulations issued by the Ministry of Manpower.

Considering the emerging health issues related to lifestyle, the Ministry of Health is active in promoting health in schools, previously through teaching the “facts for life” booklet and more recently the WHO-supported comprehensive multisectoral approach under the health-promoting schools initiative.

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[38] World Health Organization. Oman global school-based student health survey, 2006

[39] Ministry of Health. The healthy life style study, assessment of life style risk factor among Sur city population, 2006

[40] Ministry of Health. Survey of environmental factors affecting children’s health, 2003

[41] Al-Rawas OA et al. Regional variations in the prevalence of asthma symptoms among Omani schoolchildren. Comparisons from two nationwide cross-sectional surveys six years apart. *Sultan Qaboos University Medical Journal.* 2008, 8:157–64

2.3 Socioeconomic and environmental determinants of health – status, trends, disparities, inequities and policies

The remarkable improvement in health status in Oman over the past years can be attributed as much to improvement of non-health conditions as to those related to the health system, for example the level of income, education, transport, women's empowerment and access to information.

Oman has invested consistently in equitable primary health care and decentralization, resulting in a dense network of local, district and regional health facilities. Furthermore, the *wilayat* health level, matching with the administrative level of the local government, has a pivotal role in addressing determinants of health. It provides the ideal platform for intersectoral collaboration on a broader health agenda where the determinants of health need to be addressed by a multiplicity of agencies and the wider community. The *wilayat* health committees, chaired by the *wali* (local governor) provide, in principle, the main forum supporting the community-based initiatives programme of the Ministry of Health and inducting the community support group volunteers, whose main orientation is towards health education in the community. Several community-based initiatives such as the healthy wilayat project, healthy lifestyle project, healthy city and healthy village projects are being implemented in order to help increase the awareness of respective communities about environmental and health problems, and thus create active community involvement and ownership of health actions. Another form of integration among different sectors related to health is the child care plan or the national women and child care plan, in which other government agencies and civil associations are involved.

Despite the tangible improvement in the health status in general as well as an increase in government expenditure on the social sectors (health, education, higher education and social development) in the past few years,[2] many of the persistent health gaps can be attributed to gender, income, education and geographical differentials. There is also a need to establish and reinforce national development policies that are better aligned with the health needs, policies and strategies. For example it is important to bring into the national policy debate and legislative process issues such as the impact of trade and commercial laws and practices on public protection from the major underlying factors of diabetes, cardiovascular diseases and cancer in Oman (i.e. legislation and control on transfatty acids, sugar and salt in foods, tobacco use, etc).

Currently, gender issues are being considered, and recently master trainers were developed in the Ministry of Health to assist fully in integrating gender into the routine procedures of health services and programme development. Clear evidence points to some gender factors that affect health and health practices of women and men. The Human Development Report 2007 ranked Oman at 138 out of 156 countries in the Gender-related Development Index, a measure of gender disparity. While women are more affected by obesity, the incidences of injuries and poisonings, smoking, impaired fasting glucose, unilateral hearing impairment

and substance abuse are higher in men than women. Further work is needed to improve understanding of the influence of gender in disease patterns in Oman. Currently, the Ministry of Health has committed to scaling up activities on gender mainstreaming, and assessment of the impact of gender mainstreaming in health as well as ways to engage health providers to develop sound indicators and evaluation frameworks for gender mainstreaming. Oman could be among the pioneers of such work in the Region because of the sophistication of data management systems.

Regional variations affecting disease patterns and response are also seen in Oman. This may be due to a variety of reasons including geographical, environmental, socioeconomic and cultural factors. For example, brucellosis[1] and obesity[21] are more common in Dhofar region. Communicable diseases "from contaminated hands, food and water" are more common in Musandam, Ad Dakhliyah and Adh Dhahirah regions while the rates for injuries and poisonings are double the national average in South Ash Sharqiya, Al Wusta and North Ash Sharqiya.[1]

2.3.1 Education

Education is an important determinant of health with increasing literacy improving the health status of a population. A few published articles in Oman have identified relationships of education with health status and practices. Poor nutritional status of children under the age of 3 years was strongly associated with mother's lower education level.[42] Higher education was a significant predictor of contraceptive use among married women of reproductive age.[43] People in Oman with higher education are less likely to smoke cigarettes[44] and less likely to be obese.[45] Although the literacy rate continues to climb, now reaching a good national level of 82.2%, some segments of society may still be left behind the development in Oman due to their limited educational status. For example, only one in two adults in Al Wusta region are literate and about two in three are literate in Al Sharqiya and Musandam regions,[46] which may necessitate targeted efforts accordingly.

2.3.2 Employment

Employment and working conditions affect people's health, with mortality and morbidity being higher for people with precarious and/ or sporadic employment opportunities. The government is working to diversify the economy as well as establish supportive programmes to encourage the development of the private sector, regionalization of industries, small enterprise, and self-employment initiatives (such as the Sanad programme) which

[42] Alasfoor et al. Determinants of persistent underweight among children, aged 6–35 months, after huge economic development and improvements in health services in Oman. *Journal of Health, Population and Nutrition,* 2007, 25:359–69

[43] Al-Riyami et al. Women's autonomy, education in man and their influence on contraceptive use. *Reproductive Health Matters.* 2004, 12(23):144–54

[44] Al Riyami AA, Afifi M. Smoking in Oman: prevalence and characteristics of smokers. *Eastern Mediterranean Health Journal,* 2004, 10:600–9

[45] Al-Riyami AA, Afifi M. Prevalence and correlates of obesity and central obesity among Omani adults. *Saudi Medical Journal,* 2003, 24:641–6

[46] Ministry of National Economy. General Census for Population, Housing and Establishments (2003). Available at http://www.omancensus.net/english/index.asp (accessed 27 September 2008)

can generate numerous job opportunities. However, a non-negligible portion of the Omani labour force is still seeking employment (13%) with a majority being men (77%), young (74% between the ages of 15 and 24 years) or with limited qualifications (94% did not have more than a secondary school education).[5] The impact of unemployment on health is not well studied in Oman.

The large expatriate population (nearly two-thirds of the labour force and more than one fourth of the residents in Oman) fills employment gaps in the labour market. Labour law previews compulsory health insurance for the expatriate workers but is not yet fully enforced. Working conditions as well as adherence to health insurance are variable depending on the size and type of employer. For example, expatriates working for the public sector (14% in 2003)[2] are able to access the government health services free of charge while those working in small enterprises and at the household level are covered by their employer. The Occupational Health and Safety Regulations recently released by the Ministry of Manpower will help address some of these issues as well as general employment conditions for both nationals and non-nationals. Plans are currently under way to provide private health insurance for foreign workers.

2.3.3 Housing

Housing conditions can place some populations at greater risk of health problems. A portion of Omanis live in poor living conditions, with 2.4% living in huts, 11.1% living in households with an earth floor,[22] 25% without access to improved water source and 11% without access to improved sanitation.[47] The Ministry of Housing has a programme for housing low-income groups, either through the provision of housing or through the provision of low interest loans. Limited information is available regarding the housing conditions of the non-national population although anecdotal information raises concerns for those living in labour camps, the construction sector and the like. The Occupational Safety and Health Regulations released in 2008 set standards for employee housing.

2.3.4 Environment

Information available raises concerns regarding the safety of water resources. For example, hospital data indicate that the incidence of waterborne and foodborne diseases has remained over 200 cases per 10 000 population since 2000, with the highest rates in Musandam, Ad Dakhliyah and Adh Dhahirah regions. In 2007, the rate of diarrhoea among children under 5 years was 262 cases per 1000 children, with the highest rates in Al Wusta and Ash Sharqiya regions. Although there are no reports of diarrhoea-related deaths in recent years, rates of dehydration were highest in North Al Batinah and Al Buraimi regions. Water quality deficiencies were identified to be associated with underweight in children aged 6–35 months.[42] Health surveys conducted in some regions have shown that 50% of drinking-water resources are contaminated. Unsafe and unhealthy behaviours (such as drinking untested groundwater, using unclean and uncovered water tanks and using watercraft without the required precautions) are common.

[47] World Health Organization. *Demographic, social and health indicators for countries of the Eastern Mediterranean 2008*

A study conducted by the Ministry of Health in Muscat region and Sumail wilayat showed that a high percentage of schoolchildren had blood lead levels.[48] One survey conducted by Sultan Qaboos University indicated that 80% of water samples collected in Batinah region exceeded safe levels of lead and chromium.[49]

The depletion of water resources for both agricultural and domestic use as well as the rapid infrastructure development is likely contributing to the deterioration in water quality. The collaborative work between the Ministry of Health and Public Authority for Electricity and Water in developing a National Water Safety Plan can lead the way to improve the management and ensure the safety of the country's water resources.

Waste management is a critical issue. A large number of dumping sites across the country exist and local evidence points towards possible negative health effects.[50] The establishment of a private holding company to manage solid waste demonstrates the political commitment to establish a system of waste management.

Except for one study showing evidence of respiratory illnesses due to a local cement factory,[51] little is known of the environmental and health impact of development projects in Oman. Environmental factors pose risks to children's health: one in two children lives near noise pollution sources, one in eight children lives near waste disposal areas and one in eight children lives near factories and electrical power generators.[52] Although national environmental and health impact assessment guidelines have been drafted, a broader policy, enforcing the systematic practice of environmental health impact assessment, is required.

2.3.5 Food security

Oman is dependent on imports for food. The 2004 estimates for food self-sufficiency was 68% for vegetables, 45% for fruits, 3% for pulses and 2% for cereals.[53] The population growth rate places increasing demand on the agriculture and fishery sectors. In addition, the exploitation of arable lands and marine waters may be affected by development projects and calls for policy dialogue for sustainable development and food security in Oman. Recently, a special ministerial committee was formed and OR 33 million was dedicated to implement projects of sustainable development in fishery and agricultural areas.

48 Ministry of Health. Seventh 5-year health development plan 2006–2010

49 Yaghi B. Heavy metal levels in tap water in Batina Region, Oman. *International Journal of Environment and Pollution.* 2007, 31:219–29

50 Al Waheiby S et al. Environmental monitoring assessment of potential health risks in populations near waste dumping sites in Muscat, Oman

51 Ministry of Health. Study on the health impact of a cement factory to neighbouring villages in Oman, 2004

52 Ministry of Health. Environmental factors affecting children's health: results, 2003

53 Arab Organization for Agricultural Development. Arab agricultural statistics database http://www.aoad.org/AAS/Food_Balance.asp (accessed 27 September 2008)

2.4 Health system analysis

Oman has entrusted the Ministry of Health with the responsibility of stewardship and coordination of the health sector, apart from being the principal health care provider. The Ministry of Health develops health policies and strategies, health programmes and plans for the health sector and bears the brunt of the preventive, curative and rehabilitative care workload. The Ministry of Health also runs educational institutes to produce basic and post-basic health professionals in nursing and allied fields, and supports universities, colleges, specialty boards in the country to run the medical and allied degrees and post-graduate medical specialty training programmes. The Ministry of Health runs a central blood bank, which stores and distributes blood and related products conforming to strict quality standards. It also spearheads a nationwide blood donation campaign. A central public health laboratory and the investigative laboratory services under the Ministry of Health serve as very useful resources for the diagnostic process. The seventh 5-year health development plan clearly states the need for a nationally coordinated blood bank and transfusion services.

Health planning uses a results-based planning methodology and the formulation is evidence-based through health situation analysis, evaluation of the implementation of plan and assessment of its impact. The seventh 5-year health development plan was developed by a consultative process at various levels and is monitored by outcome and performance indicators.

The Ministry of Health emphasizes decentralization as a managerial strategy and accordingly the organizational structure of the Ministry of Health headquarters, regional headquarters and autonomous hospitals have been so modified that all these institutions can run efficiently. The decentralization process is in progress through the establishment of an integrated health system in each of the *wilayat*. Regional General Directors enjoy considerable financial and decision-making authority for health services management. Decentralization is also in effect at the *wilayat* level.

The health care system in Oman is primarily in the public sector, the Ministry of Health being the main health care provider (with 85% hospital beds, 70% doctors and 85% nurses).[20] Services provided by the Ministry of Health are supplemented by other government hospitals and clinics including those of the Armed Forces Medical Services, Medical Services for Royal Oman Police, Petroleum Development Oman Medical Services and the Sultan Qaboos University Hospital. While the Sultan Qaboos University Hospital serves mainly as a teaching hospital and provides tertiary care, the other public care providers cater mainly to their own employees and their families. Private hospitals and clinics, licensed by Ministry of Health through its Directorate of Private Health Establishments and supervised by the respective regional directorates, play an increasingly important role in providing health care in Oman.

The Ministry's health services are almost universally accessible and utilized. The Ministry of Health has established a dense network of local, district and regional health facilities with good number of qualified staff providing free health care for the Omani

population. Over 98% of births are attended by trained personnel and over 98% of infants are fully immunized.[1] As for non-nationals, the government's current policy requires that the expatriate employees of the government and their dependent families also be provided free health care. Expatriate staff of the private sector pay for government-run health services at subsidized prices, or make use of private sector facilities. Major companies provide medical insurance for their employees and dependents as a part of their compensation package.

The organization of health care delivery is based on a primary health care approach, with clearly delineated referral pathways between three levels of care: primary, secondary and tertiary. The first level of care includes primary health centres, extended (with basic specialties) health centres and local hospitals. Secondary health care is provided through regional (mostly autonomous) and sub-regional *(wilayat)* hospitals. Tertiary care is provided through four national referral hospitals each specializing in a few fields. The Ministry of Health also extends the services of mobile medical teams to about 2% of the population living in remote mountainous areas and offers opportunities for treatment abroad at government expense for certain services not available in the country. The number of patients treated outside the country has declined in recent years.[20]

The Ministry of Health pursues an e-Health strategy, according to which information technology and communication is to be used comprehensively in all health care institutions, and information is to be shared across the institutions. IT-based information management systems in hospitals and health centres are being further strengthened, eventually to be nationally linked to realize the vision of e-governance. The Ministry of Health also plans to develop a national e-Health patient records repository.

The Ministry of Health ensures that only safe and potent drugs licensed by it are sold in the country or distributed to the patients of public hospitals and health centres. It has a strict control of narcotic and other controlled drugs. It monitors medicine pricing in the private sector. The Ministry of Health pursues a proactive policy on promoting the use of a list of essential medicines, rational use of medicines and avoidance of poly-pharmacy. Medicines and medical supplies comprise 11.3% of the total Ministry of Health expenditure.[1] Oman's programme on rational medicine use is a successful, globally recognized programme, as is the drug quality control laboratory which is a GCC-accredited referral laboratory. The Ministry of Health is keen on setting up regulations for monitoring herbal medicines which are increasingly available in the country; however, the national capacity in this area remains limited.

The dependence on private pharmacies run by expatriate pharmacists with various levels of professional competency and conduct is a barrier to ensuring standard practice, and the large volume of work related to medicine registration and quality control demands additional human resources and improvement in the physical infrastructure and equipment in the Ministry of Health. Although efforts have been made by the Ministry of Health to address these concerns, further work is required to ensure that Oman can adhere to international standards.

The current hospital pharmacy dispensing practices need to be strengthened by expediting the implementation of the unit dose system in all remaining hospitals. Thre is need for establishing standard policies and procedures for compounding medications, handling hazardous drugs as well as adhering to other quality assurance practices (such as electronic adverse reaction and drug quality reporting system and high alert medications monitoring system). Increasing the number of pharmacy staff to take on the role of assistant pharmacists, who are currently providing functions higher than their qualifications, as well as establishing an advanced training competency-based programme for clinical pharmacists will be critical for ensuring medicine safety practices.

An essential medicine list and medicine dispensing policies certainly pave the way to cost-saving and rational medicine use; however, they also have adverse effects at the local level, with primary health care physicians forced to make referrals when they have the competence to manage the patient due to unavailability of certain medicines at the primary health care centre. This leads to frustration for both health care providers as well as patients. Similarly, regulations on access to sedative and tranquilizer medications within the health system appear to be far more restrictive than necessary compared with international practice. Limited access to such medicines either through inclusion in the list of controlled medicines or by limiting prescribing by general practitioners and different medical professionals, have a direct impact on patients.

Congruent to its policy to develop evidence-based practice in health, the Ministry of Health supports its Department of Research and Studies which drafts research policy, sets research priorities and promotes scientific and ethical research through developing research skills of professionals interested in research. The utilization of research results in actual health policy formulation, decision-making and planning still needs strengthening. At the same time, the Ministry of Health-managed national health information system is well developed in Oman. Using WHO Health Metrics Network framework and support, Oman was able to conduct a broad-based assessment of the national health information system's own environment and the organization, responsibilities, roles of and relationships among all stakeholders. The assessment noted that for efficient collection and dissemination of health data, national regulations regarding collection of health information needs particular attention, as well as creating focal capacity in partner institutions. The national health accounts need to be developed. In addition, the Ministry of Health death registration and the vital statistics of the Royal Oman Police should be closely synchronized so that together they capture all deaths in the country, along with critical data about each death for public health purposes.

2.4.1 Health workforce

Oman has achieved good success in health workforce development. Strategic planning for health human resources development is undertaken as an integral part of health development planning. It guides further manpower local production,

education abroad, recruitment, continuing professional education and the Omanization process. Nevertheless, the issue of human resources for health is complex in Oman, as health workforce development strategies are governed by a multiplicity of stakeholders from within the Ministry of Health itself and also from other sectors, notably the Ministry of Civil Service, the Ministry of Manpower, the Ministry of Higher Education, Sultan Qaboos University and the Oman Medical Specialty Board. Health professional associations and councils have only recently started to form, though with limited influence so far on manpower planning, management and development, such as the Oman Nursing Council, Oman Medical Association, Oman Physiotherapy and Rehabilitation Association and some other affiliated societies in the various medical and dentistry specialities. The Oman national human resources for health observatory, recently developed under the wider umbrella of the regional human resources for health observatory, provides a good forum for a concerted action to improve quality and efficiency of the health workforce through national teamwork.

Health workforce availability in Oman is largely comparable to other countries at similar per capita income level in the Eastern Mediterranean Region, but significantly lower than that of most industrialized countries. Detailed studies are periodically undertaken for human resources requirements using the Ministry of Health's own model. A key challenge is the recruitment and retention of physicians in specific specialities and other allied health staff, due to the competitive international job market. A major emphasis in the human resources for health plan is to develop and improve basic and continuing professional education in Oman. In this regard, the Ministry of Health playing a significant role, through its own Institute of Health Sciences and several regional nursing institutes and other institutes as well as through its influence on the teaching and training institutions in Sultan Qaboos University and the growing number of private sector colleges and universities. A central steering committee for continuing professional education in the Ministry of Health is spearheading the development of a sound continuing professional education policy including a continuing professional education accreditation system.

Despite the appreciable progress in human resources for health development in Oman, the changing health needs of the population and the health services expansion in both the public and the private sectors, put tremendous pressure for additional health manpower with a larger scope of specialities and different skill mix, emphasizing expertise such as counselling, health promotion and communication, community- and home-based care. Oman, with the support of WHO, is exploring further ways to reinforce its workforce in order to respond to short-term as well as longer term needs. Some examples include considering the establishment of nursing practitioners such as community nurses, diabetic nursing and short-term diploma training for various health categories, including family medicine diploma training for medical generalists and pre-employment training for dietitians.

One of the primary concerns of the Ministry of Health is to enhance, develop and improve leadership and management

skills of health staff in middle and local management levels. In order to achieve this goal, capacity-building in management and leadership needs to involve not only the individual competencies including planning and communication skills but also some institutional change involving clarity of job descriptions, extension of delegated authority, support from higher management levels and support for creating leadership mentoring networks. Participation in global online and other interactive self e-learning initiatives, such as the global health campus initiative and the WHO knowledge management for public health programme, can be of further support.

The earlier success of the decentralized health *wilayat* system relied considerably on the *wilayat* team problem-solving training and practice that was introduced during the 1990s. The primary objective of the team problem-solving exercise was strengthening managerial capacity of the staff for better service performance and team building. The positive impact of team problem-solving training in improving primary health care indicators was highlighted in many assessments. However, the training was implemented without consideration for sustainability, and there was a change in strategic directions at *wilayat* level in 1998, introducing the *wilayat* health committees to promote intersectoral collaboration on health development.

2.4.2 Primary health care

Primary health care is the backbone of health care in Oman and the entry point to all other levels of care. It is provided free of charge to all Omani nationals. The current epidemiological, demographic and environmental health challenges in Oman may require strategic adjustment in the primary health care implementation and strengthening linkages between the health centre and the community as well as the higher levels of care. It is therefore important to find a new balance of integrated package of wider preventive and curative interventions than currently provided, including stronger emphasis on injuries, mental diseases, cancer, diabetes and hypertension, as well as diseases related to lifestyle factors such as tobacco and drug use, HIV/AIDS and obesity.

The large cohort of young people combined with the growing numbers of elderly population call for a rethinking of the health services across the various stages of life of men and women. The existing skill mix of the primary health care team and the roles of health care workers at the primary health care centre and in the community will need to be explored and new ways of working considered, taking stock of curren pilot projects on community health nurses, home-based care and others. In light of the health transition, health services need to be reviewed at various levels of the primary health care system, including the community level, specifying corresponding technology, curative and preventive services, staffing levels and roles and skill mix of the primary health care team; in short, producing the *carte sanitaire.* This would not be without consequences on the basic and continuing training of the primary health care workers, especially family medicine physicians, nurses and dieticians, and may require creating a new category of training in health promotion and counselling. At the same time, the

current *wilayat* health system becomes even more important in light of the commitment and the decision of the Ministry of Health to develop further its programme on health promotion and community-based initiatives.

The issue of quality is high on the agenda of the Ministry of Health. The Omani quality assurance and improvement programme aims to institutionalize quality in primary health care with the ultimate goal of providing the highest quality standards for care and thus achieving user satisfaction. Relevant quality management plans, committees, training and guidelines as well as a monitoring system are operational.

The rapidly growing private sector aims to cater to non-Omanis, but an increasing number of Omanis also use these services. The challenge therefore is to ensure the best returns on the current and future public efforts and investment in primary health care expansion in terms of keeping up a good utilization level of the primary health care centres. The safeguards would be to continue to keep a good user satisfaction, minimal queuing, and high quality services and ensure appropriate technology and medicine availability at the primary health care centres and facilitate referrals.

2.4.3 Secondary and tertiary care

Although there are 2.1 hospital beds per 1000 population, the bed occupancy rate is only 54%. The unused inpatient bed capacity may necessitate a restructuring of the hospitals in Oman. The hospital autonomy initiative, implemented in all regional referral hospitals, is based on guidelines for hospital autonomy issued by executive order of the Minister of Health (136/2002). These hospitals are run by management boards with a reasonable degree of decision-making authority. The executive directors in each hospital have a fair amount of administrative and financial authority to allow them to manage their services efficiently. To improve the quality and effectiveness of the hospital autonomy initiative, further work is required in the areas of hospital management and organization (including having the central level take on a more regulatory and monitoring role), human resources development and quality assurance.

A continuous quality improvement programme, initiated earlier for primary health care, is now being extended to hospitals focusing on improving the patient referral systems and reducing long queues. As part of its stewardship function, the Ministry of Health has established a patient complaint management system. Two primary medical technical committees as well as a higher level intersectoral higher medical technical committee review and take decisions on more serious cases of alleged medical malpractice. A more global approach to patient safety advocated by WHO was recently launched, and the Ministry of Health needs to focus on developing the institutional structure and the necessary human resources as well as establishing a patient safety system including relevant policies, standard protocols and a reporting mechanism.

2.4.4 Rehabilitative care

No specific surveys of the burden of disability and rehabilitation needs were attempted, however the results of the Family Health Survey of 1995 estimates prevalence of major disabilities at 2.4% of the general

population. The most common disabilities in adults were sensory and physical disabilities and the prevalence increased for populations over the age of 50 years. Mental and sensory disabilities accounted for the majority of the disabilities among those under 15 years. Childhood disability is important not only because of its burden but also because of the proven effectiveness of early interventions, which highlights the need for prevention and early intervention services. Taking into consideration population growth, the increase in life expectancy, as well as the toll of road traffic and other injuries and the rising burden noncommunicable disease, it is clear that the prevalence of disability and the demand for rehabilitation will increase.

More than 100 000 visitors use outpatient physiotherapy services yearly and the trend shows a clear increase in the utilization rates. The current resources are significantly below the level of demand and do not meet at all the demands for long term rehabilitation though some advancement in the field of rehabilitation of visual impairment and speech and hearing impairment are noted through strategies incorporated in the national eye and ear health care programmes. However the same is lacking for physical disabilities, multiple disabilities and mental disabilities. The rehabilitation services in Oman do not follow a multidisciplinary team approach and an independent rehabilitation unit with allotted beds for rehabilitation care is lacking. Khoula hospital, for example, is now mainly involved in acute care and does not have resources for specialized and longer term rehabilitation care. The available services provided are of good quality, but additions to these would improve them substantially to achieve international standard. A national programme and strategic plan were recently developed for the development of rehabilitation services. The available rehabilitation services are in the tertiary level only. There is therefore need to develop community-based rehabilitation strategies to enhance the accessibility of rehabilitation services.

2.4.5 Emergency preparedness, management and recovery

Because of their emergency services and 24 hours a day operations, hospitals are the main resource for the management of casualties in the case of emergencies and disasters. Contingency plans are already in place at the national, regional and institutional levels. Experience from the 2007 cyclone shows that coordination with the civil defence was key for the provision of water, food and transfer of cases for some facilities most affected by flooding. Greater awareness is needed on disaster preparedness, including conducting a vulnerability analysis of health facilities and strengthening contingency plans of the national, regional and local levels.

Pandemic H1N1 (2009) played an important role in “testing” the preparedness of the health system particularly at the secondary and tertiary care levels, placing emergency preparedness, safety of health care facilities and epidemic control high on the health agenda. Weaknesses identified were related to emergency planning, risk communication and ensuring surge capacity. Oman is also engaged through the WHO/EU joint project to strengthen biosafety and biosecurity.

2.4.6 Health financing

The Ministry of Health is the main provider of health services in the country; currently the Ministry of Health expenditures comprise 4.6% of the total government expenditures. Health expenditure as a percentage of government expenditure has remained stable in the past few years, ranging between 4.3% and 4.9% since 2004.[1,54] Oman's per capita health spending and Oman's health expenditure-to-GDP ratio (total and public) are much lower compared to other countries worldwide that have similar income levels. In 2006, Oman spent just 2.3% of GDP on health. However, over 80% of the total health expenditure is incurred by the public sector. A recent estimate by WHO, based on a 1998 study (and the only one conducted) showed that the private sector shares about 16% of the total health expenditure in Oman, while private out-of-pocket expenditure is 10%.[55] A national health account would confirm these estimates.

Due to various factors including health transition, population growth, rising public expectations for better quality of care and the rising cost of health care technology, Oman will need to spend even more on health in the future. The government is committed to providing free health care to all citizens. The strain on the public budget has increased, thus compelling policy-makers to review existing policies and to explore alternative avenues for expanding the resource base.

The doubling of the population in 30 years, increasing prevalence of chronic diseases as well as the ageing of the population can jeopardize the quality of health care services, thus raising concerns about the sustainability of the current health financing mechanisms. Exploring cost containment mechanisms, reallocating expenditures from curative to primary health care including comprehensive prevention programmes in key areas (tobacco control, diet and physical activity, birthspacing, road safety, and the like) as well as improving the efficiency of the distribution of medicines can address some of the health financing concerns.

2.4.7 Private sector

Private medical care services and their ancillary diagnostic services have multiplied in the past decade in Oman. The available statistics are revealing: the number of private hospital beds more than tripled in the past 7 years; the number of private general, specialty and diagnostic clinics increased 67% since 1995 and the number of staff working in all private facilities increased threefold. In 2007, the number of outpatient visits in the private sector has reached more than 3 million, 55% of which were consultations by Omanis.[1] The strongest levels of private provision in Oman are in dental care and pharmaceuticals.[56] Although a large majority of the hospitals and hospital beds are in the public sector, with the large number of private clinics, one in 10 health care workers and nearly one in five of the physicians in the country are working in the private sector.

The private health care sector functions under the broad oversight of the Ministry's

54 Ministry of Health. Annual health report 2004

55 World Health Organization. National health accounts website http://www.who.int/nha/country/omn/en/

56 Ministry of Health. Oman national human resources for health observatory lead document on human resources for health in the Sultanate of Oman 2008

Directorate of Private Establishments. The Ministry of Health, which is the licensing body for private sector health care establishments as well as private sector professionals, does play a role in regulating their conduct. However, dedicated resources as well as operating procedures at the disposal of the directorate are insufficient. Many health programmes based on prevention have difficulties involving the private sector and ensuring its participation, contribution and exchange of information.

The growth of the private sector is attributed to an increased demand for services readily available to the patient, contrasting with referral queuing in the public sector, as well as the provision of various medical speciality care in the private sector.

The government encourages the development of the private care sector by providing technical support, training and soft loans. Also, the Ministry of Health permits senior medical consultants to work part time in the private sector. It is believed that greater participation of the private sector in medical care will help reduce the number of Omani patients seeking costly care outside the country, and will ensure availability of broad range of specialties, including long term rehabilitation care and advanced technology. The Ministry of Health should undertake setting a national policy and strategic directions for the future growth of the private sector and its interface with the public sector including reporting of health information.

A policy dialogue among decision-makers and various stakeholders confirming the normative role of the Ministry of Health in the future development of the private sector, and a review of some of the legislation are required to ensure that the private sector contributes synergistically to the national efforts for improving health outcomes. The Ministry of Health should be able to influence the private health care sector in more effective ways. Well-established mechanisms are needed to ensure that the private sector conforms to public health policies and Ministry of Health recommendations about regulatory standards in order to influence the private sector demand and the quality of its services.

Private insurance can play a role in financing health care in Oman and influence further development of the private care sector. However, when private health insurance is voluntary without adequate regulation, it will fail to meet societal objectives, and has major implications on equity, access to care as well as cost containment and efficiency. This is where the concept of stewardship, as defined in The World Health Report 2000, becomes even more important. For the private sector to contribute effectively to the national health policy, there will be a need to reinforce regulatory, managerial and information capacity in the Ministry of Health for that purpose.

2.5 Main national health policy orientation and priorities

The national health policy in Oman is patterned after His Majesty the Sultan's wish to accord health and education development the highest priority and to provide health care services free of charge. Health is recognized to be a fundamental right of the people.

The national health policy in Oman has the overarching aim of creating all possible

conditions to promote a state of complete wellbeing for all Omani citizens on equal terms. The most important strategic choice in this policy is the focus on primary health care as the first entry point to the health system. Community participation and decentralization to *wilayat* level are major pillars governing health programmes and delivery of quality prevention and care services. The policy notes making efficient utilization of the resources and emphasizes the development of Omani human resources for health. It states as well that the realization of the highest possible level of health is the most important social goal that requires action of many other social and economic sectors in addition to the health sector.

Recent and ongoing efforts of the Ministry of Health guided by the national health policy have achieved impressive progress in the health status of the Omani citizens, as shown by health status indicators comparable to those of long-developed countries. It is believed that sustained political commitment and national investment in the primary health care approach are the basis for this well performing and efficient health system. Furthermore, the participation of the community and various non health sectors is apparent in the experience of wilayat health committees as well as the community-based initiatives such as healthy cities and the community education support volunteer groups.

The health policy statement in Oman is comprehensive and has the advantage of paving the way for national and local measures to improve not only people's health but also the underlying social, lifestyle and environmental conditions that contribute to health. This is especially important for influencing emerging threats of changing lifestyles leading to tobacco and illicit drug consumption, overweight, physical inactivity, risky sexual behaviour, occupational injuries and diseases, road traffic injuries and many other conditions.

The policy provides solid ground for health promotion. Since the country has reached a satisfactory state of health services development, steps are being initiated to establish an institutional framework and mechanisms to address the social determinants of health underlying the changing landscape of health problems in Oman. The national multisectoral committee for heath promotion (under establishment with a vision to transform into an independent foundation in the future), as well as the multisectoral strategies such as those for diet, physical activity and health and for HIV/AIDS, are believed to ease the work of the various sectors towards better health. They would also influence a harmonized legislative process addressing the emerging social and environmental challenges linked to health. These starting steps are not without anticipated difficulties, as many non-health actors will be required to take responsibility for implementing activities from a health perspective. To achieve this, there will be a need to clarify the institutional set up and roles, improve coordination, and develop a monitoring and evaluation plan. This implies as well considerable capacity-building for interventions and health impact assessments. The Ministry of Health may need to dedicate technical support to municipalities for example, as these are regarded as the most important actors in public health.

Legislation is another important component of health promotion. The recent findings of the Leadership Project for Health Promotion (PROLEAD) legislative review show that there is no consolidated set of health promotion legislation as government agencies develop their own set of legislation independently and do not always concur on laws. The study recognizes that there is inadequate understanding of the continuum of health promotion and human development. This is of significance since government planning is guided by human development values and MDGs, and not economic development alone. There is also a lack of an overarching organizational (or legal) structure that enshrines health promotion values and principles. The PROLEAD report is now under consideration in the Majlis Al Shura for initiating legislative action in this direction. Meanwhile, incorporating health promotion values in the public health law currently being discussed within the Ministry of Health provides a good framework for health promotion legislation.

Legislation also needs to be developed on expanded nutrition labelling on all food and beverage products to include not only ingredient information, but also nutrient information and possibly also health claims such as the protective effect of dietary fibre, fruits and vegetables against certain cancers and the preventive effect of dietary fibre against cardiovascular disease.

Nonetheless, there seems to be an improved awareness among some governmental agencies regarding the health dimension of their work. The most striking example is that of the Ministry of Manpower's regulations of occupational safety and health for the establishments governed by the labour law (ministerial decision No 286/2008). Article 26 of these regulations, developed in coordination with the relevant unit in the Ministry of Health, promotes "health-friendly workplaces", prohibiting smoking in the workplace and providing special attention for mental health at the workplace.

In general, more governmental agencies need to align with the national health policy and the international health conventions signed by Oman. For example, tobacco is an increasingly important health threat and more measures are needed by various sectors to ensure appropriate implementation of the WHO Framework Convention on Tobacco Control (FCTC). There is need to limit further availability of tobacco products, including shisha, especially through enforcing youth access laws, and to enhance existing advertising law through better supervision and regulation, especially at the point of purchase and in retail stores. The reinforcement of smoke-free workplace legislation including restaurants and other public places is the only way to completely eliminate secondhand smoke exposure among non-smokers. The public needs to receive clear information on the harmful effects of tobacco and the Ministry of Information needs to take a more active role to raise awareness in this regard.

Urban planning and infrastructure development has focused on increasing accessibility to resources (jobs, health services, schools and the like) and less focused on creating active living communities where people can be physically active. Different environmental factors that influence physical activity should be considered in

the design of communities, transportation and sports and leisure facilities.[57] Future urban development should be optimized to promote walking, bicycle riding and recreational activity.

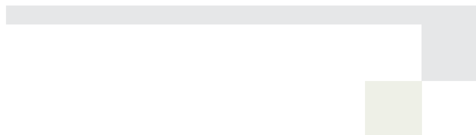
The Ministry of Health is very active in ensuring appropriate measures are in place so as to establish solid grounds for the implementation of the International Health Regulations (IHR), an important activity for Oman because of strategic geographic and population dynamics as well as the need for the preparedness against of avian and pandemic influenza. An inter-ministerial committee has already been established which will facilitate a broad implementation and preparedness plan. Conducting an assessment of risks, disease-related as well as chemical and other hazards, establishing standards and guidelines and developing a communication/social mobilization plan are some of the interventions needed to ensure national IHR core capacities for surveillance and response.

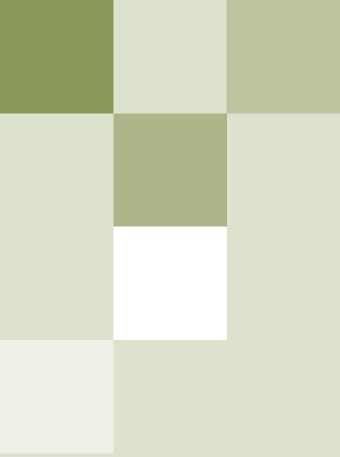
As the country continues its incremental development, the need for an effective participation by the civil society is felt in all sectors including health. Volunteerism, family and community solidarity are traditional characteristics of the Omani population and the basic law on nongovernmental societies promulgated via royal decree number 14/2000 reflects public recognition of the importance of nongovernmental societies. Nevertheless, few civil associations are active in health and its social determinants in Oman (National Association for Cancer Awareness and the Environmental Society of Oman). Work in civil society is closely monitored by the Ministry of Social Development, which supports and funds the activities of civil associations such as Oman women's associations. Licensing measures are complex and lengthy. The licensed societies' scope of work is defined by law to cover charity and social domains related to care of orphans, children and mothers, women's services, and care for the disabled and the elderly. Any other field of activities requires a special approval by the ministers' cabinet. Societies are allowed to conduct public activities such as fundraising and networking with prior ministerial approval. Civil associations do not have enough experience and lack competence in many areas such as governance, management, research and strategic planning.

The Oman women's associations have historically been active in addressing some of the needs of women throughout the country. They have been a key partner with the Ministry of Health for health education on numerous issues such as maternal and child health, birth spacing, nutrition and HIV/AIDS. Collaboration between the health sector and nongovernmental organizations, such as those addressing children and adults with special needs as well as the various professional societies (Oman Medical Association, Omani Physiotherapy and Rehabilitation Association, for example), have been in the context of ad hoc activities.

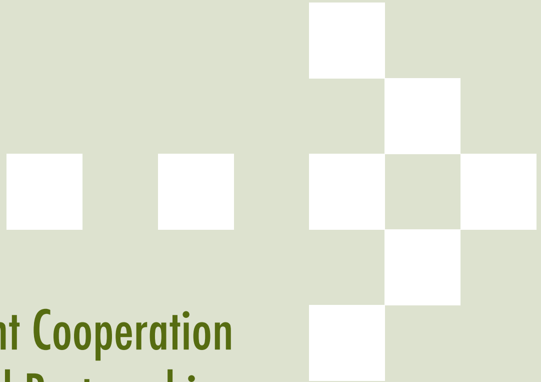
[57] Sallis JF et al. An ecological approach to creating active living communities. *Annual Review of Public Health,* 2006, 27:297–322

Except for the National Association for Cancer Awareness and the Oman Diabetes Association (whose application is in process), there are no other patient advocacy/ support groups formally recognized by the government, despite the voiced needs of people living with AIDS and those suffering from drug addiction and their families.





Section 3



Development Cooperation and Partnerships

Section 3. Development Cooperation and Partnerships

Oman receives minimal support from international aid and external partners in health due to its upper middle-income status. Nevertheless, the country has developed an excellent technical exchange relationship with UN agencies and a few bilateral partners. Oman is also a prominent member of the Gulf Cooperation Council (GCC) and maintains regular collaboration with the GCC countries. Furthermore, opportunities for expanding collaboration on health are present within the country with other relevant government and nongovernmental bodies as well as with major industrial and commercial business organizations.

WHO is the major partner in health in Oman. Therefore, WHO plays a critical role not only in extending direct technical assistance to health programmes but also in brokering health partnerships such as the joint Ministry of Health/Netherlands Memorandum of Understanding in HIV/AIDS and the WHO/EU project on biosafety and security. Furthermore, Oman is an attractive health system model to pilot global health strategies and initiatives by WHO and other agencies, and thus such initiatives are expected to continue to expand in the future.

In addition to WHO, two other UN agencies are present in Oman and work with the Ministry of Health, namely UNFPA and UNICEF. The three organizations work closely in supporting country programmes. The three agencies are working closely with the Ministry of Health in the area of HIV/AIDS through an active UN Theme Group and a standing UN technical working group. UNAIDS supports the development and implementation of a multi-year national strategy on HIV/AIDS and the related social communication campaign on HIV/AIDS which was launched in 2008. An additional mechanism to ensure harmonization of the work in the country by the three UN agencies includes participation in respective programme planning meetings such as the biennial WHO joint programme planning and review missions.

The UNFPA subregional office for the GCC, recently established in Oman, focuses on capacity-building and strategy development in the fields of reproductive health and health education mainly for youth, including strengthening the peer health education efforts with the Ministry of Health and Ministry of Education. In addition, the Ministry of Health utilizes the UNFPA procurement facilities for contraceptives and other reproductive health items.

UNICEF has a special arrangement with the Government of Oman who finances the totality of the UNICEF administrative and technical operations and provides government seconded staff. UNICEF focuses on nutrition and prevention of risky behaviours. There has also been long standing collaboration between WHO, UNICEF, and the Ministry of Health in a number of areas such as the integrated management of childhood illnesses, baby-friendly hospital initiatives (as well as infant and child feeding), HIV/AIDS programming, school health as well as road safety and injury prevention.

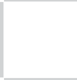
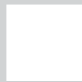
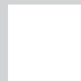
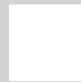
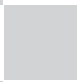
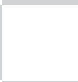
Oman is a prominent member of the GCC, which provides an excellent structured forum for interchange between the neighbouring countries. The success of the GCC health collaborative framework is apparent in the areas of vaccination, eradication and elimination of communicable diseases, pharmaceutical policies and also in launching innovative approaches and adapting newly set WHO strategies such as patient safety and traffic injury control.

In addition to UN agencies and the GCC, the Ministry of Health in Oman is active in building good collaboration with various bilateral partners and international universities. Memoranda of Understanding with numerous ministries of health from Austria, China, France, Jordan, Spain, Syrian Arabic Republic and Tunisia started as early as the 1980s. Areas of cooperation revolve around exchange of information on health care issues, continuous medical education, training and exchange of healthcare and hospital personnel, preventive and environmental health, medical equipment and maintenance, planning and hospital administration, telemedicine, and cooperation between medical health facilities.

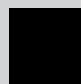
Memoranda of Understanding with universities and colleges include the University of Queensland (Australia), University of Strathclydes School of Pharmacy (United Kingdom), Royal Australian College of Physicians, McGill University (Canada) and Alexandria University (Egypt). The areas of cooperation revolve around the exchange of information in the field of health and training health care personnel.

Health status of a population is dependent on the work of various sectors outside health, thus the Ministry of Health is involved in many national multisectoral committees such as the National Committee for Narcotics and Psychotropics, Family Affairs, Tobacco Control and Road Safety. The Ministry is also an active member of the Statistical Technical Committee in partnership with other ministries including the Ministry of National Economy as well as the Civil Status Committee chaired by the Royal Oman Police. The Ministry is also a member of the National Research Council. However, the range of in-country collaboration with other bodies and sectors outside the Ministry of Health remains limited to a few partners and in a few areas of work. Besides the very well defined GCC and UN collaborative framework, institutionalized mechanisms for collaboration with other partners external to the Ministry of Health are not developed and the partnerships are ad hoc and often steered by individual efforts around specific events rather than a systematic approach.

Section 4

Current WHO Cooperation



4.1 Overview

Collaboration between WHO and the Ministry of Health started in 1971. This collaboration has since grown in substance, and there is a strong bond of mutual respect and appreciation. WHO is seen as part of the Ministry of Health team and thus provides continuous technical support in many areas, some of which may not be the part of the biennium plan. For example, WHO is a member in 17 different national health committees. The collaboration has been focused on setting strategic health policy and strategy as well as detailed planning and programming.

The close collaboration between WHO and the Ministry of Health has resulted in many accomplishments despite the limited funds from WHO. This catalytic support has allowed the launching of new programme areas such as patient safety, injury prevention and road safety, mental health in primary health care, HIV harm reduction among drug abusers and occupational health. WHO collaboration has been instrumental in fostering partnership in a number of key areas such as intersectoral action on leadership in health promotion (PROLEAD), International Health Regulations (2005), the health-promoting schools initiative, national food-based dietary guidelines and integrated management of vector control. WHO support has also lead to the establishment of a national human resources for health observatory and a regional advanced malaria microscopy training centre.

As part of the CCS process, a review of the contribution of WHO towards its six core functions was undertaken. Based on this review, the national health programme managers gave high marks for WHO efforts in supporting leadership and partnership, providing technical advice and assisting in the development of norms and standards. However, the Ministry of Health authorities feel there is room for improvement in WHO's response to research, knowledge management and health monitoring. Concerns were also raised regarding weak WHO backstopping for environmental health, infection control, biosafety and laboratories, primary health care, nutrition, noncommunicable diseases and mental health. Since Oman is one of the more developed countries of the Region, it was felt that greater links are needed to the larger WHO support network, such as the Regional Office for Europe, since the health priorities in the country are in many ways similar to western Europe.

4.2 WHO ways of working and structure

As mentioned earlier, WHO is the major partner in health in Oman providing continuous technical assistance. Its pivotal role was apparent during the H1N1 pandemic response maintaining appropriate and timely communication and transfer of guidance to nationals and other partners.

WHO has worked closely with UNICEF and UNFPA, the two other UN agencies in the country, during the past five years, especially

in the area of HIV/AIDS, injury prevention and child and adolescent health. As part of the UN Theme Group on HIV/AIDS, WHO provided technical support to the development of the national (intersectoral) strategy for HIV/AIDS and to the social communication campaign on HIV/AIDS. In addition, WHO collaboration has facilitated the exchange of technical cooperation between Oman and other GCC countries in the areas of vaccine management, patient safety, tuberculosis control, and health research strategy as set out in the CCS 2005–2009.

Between January 2005 and October 2008, more than 200 WHO staff and consultants visited Oman, 65 national training activities were supported by the WHO country budget and 29 government staff received training abroad through WHO fellowships or sponsored training workshops and orientation visits. These activities only represent a portion of the work carried out by the country office. WHO also participates in various national health committees and provides technical support in areas beyond the operational plans to both the Ministry of Health as well other sectors such as the ministries of education, environment and water resources. Providing the technical support required and meeting the six core functions of WHO at the country level is limited by the technical capacity of the country office.

At the same time, WHO headquarters and the Regional Office need to improve the communication links with the country office in order to avoid initiating work directly with nationals without the involvement of the country office. As well, it was noted by nationals that at times global initiatives launched by WHO have lacked follow-up and continuity.

4.3 Resources

There has been a continuous decline in funds allocated to the regular budget for Oman from the previous years. However, the country office has been able to generate additional support from the Regional Office and headquarters. Thus, although the budget is limited, WHO has continued to provide catalytic support to many public health programmes.

Although the country office has been able to generate some funds from other sources, Oman is generally seen as a high middle-income country not requiring financial support. However, due to the advanced nature of health development in the country, the kind of technical expertise required is considerably more costly. The Ministry of Health has helped to cover the cost of several consultancies and WHO fellowships recently to ensure that they take place. Brokering a fund-in-trust would facilitate technical support. For future planning cycles, financial commitment will be needed from the Ministry of Health to support planned activities in the JPRM. At the same time, due to the extensive and increasing technical support expected from WHO by the Ministry of Health, more technical staff are needed to meet the basic functions of a WHO country office.

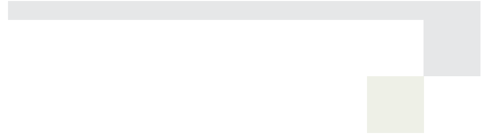
New office premises offered by the Ministry of Health meet the security requirements and are nearly completed. The new site is significantly larger than the previous space, allowing for the development of a WHO Information Centre. The VSAT system, which has greatly facilitated inter-

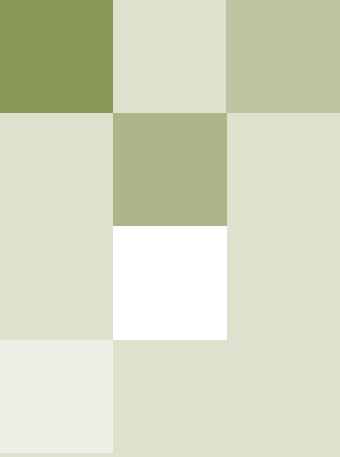
office communication within WHO since its installation in June 2006, will be transferred to the new facilities.

4.4 Challenges

The main challenges for WHO cooperation are as follows.

- Strengthening support from the Regional Office and headquarters, especially for the environmental health programme, infection control, nutrition, noncommunicable diseases and mental health.
- Streamlining communication links between the country office, Regional Office and headquarters for speedy response to country's needs.
- Maintaining the continuity of technical support for global WHO initiatives in the country.
- Strengthening the technical and public information capacity of the country office to meet increasing expectations from the Ministry of Health, and foster partnership with other relevant sectors to advance advancing the attention given to social determinants of health.





Section 5

Strategic Agenda for WHO Cooperation

Section 5. Strategic Agenda for WHO Cooperation

The CCS for Oman was prepared through a wide consultative process with various health and development stakeholders. The CCS team undertook a systematic review of literature in Oman, giving high priority to aligning the CCS strategic priorities with the seventh 5-year health development plan. A series of meetings with health programme managers identified main achievements, challenges, future strategies and the needs for WHO technical support. A rigorous evidence-based approach was adopted for the situation analysis and response. Accordingly, the CCS team agreed on a set of strategic priorities for WHO cooperation with the Government of Oman for the period 2010–2015. This time span will allow aligning the next CCS cycle with that of the next 5-year health and development plan.

At the onset of the mission, senior management in the Ministry of Health emphasized the need for new horizons and expansion of primary health care, the development of human resources for health with special focus on leadership and management training, community-based care, quality care and hospital performance, addressing demographic and epidemiological challenges and development of the private sector. They emphasized the role that the WHO Regional Office could play in building up regionally supported education programmes for specialized competencies in needed managerial and technical aspects of health.

Building on the exemplary collaboration between WHO and Oman and recognizing the contribution of Oman to the regional and global health agenda, the CCS team formulated strategic priorities inclusive of innovative approaches such as implementing social determinants of health and gender mainstreaming and further reduction of infant mortality. These take into consideration WHO's global and regional priorities as endorsed by Member States.

In Oman, WHO strategic support will focus on strategic priorities under the following six areas.

- Strengthening leadership and building alliances for health promotion, social determinants of health and partnership
- Providing technical input for developing public health law, setting policies, strengthening normative capacity and monitoring implementation
- Providing technical support for development of human resources for health and sustainable institutional capacity
- Supporting country achievements for communicable disease prevention and control and the new focus on health promotion and noncommunicable diseases and injury prevention and control
- Promoting health security and strengthening emergency preparedness

5.1 Strengthening leadership and building alliances for health promotion, social determinants of health and partnership

- Maximizing collaboration and partnerships among health and other concerned sectors and continuing support for community-based initiatives to strengthen community participation for health development
- Strengthening the delivery of gender-sensitive health care and collaborating on the development of gender mainstreaming tools for the Gender, Women and Health Network
- Continuing support for the development of a multisectoral health promotion strategy, optimizing the healthy lifestyle initiatives, especially for diet, physical activity and controlling tobacco use
- Consolidating Ministry of Health input into safety promotion, violence and road traffic injury prevention within the context of the national programme including surveillance and services

5.2 Providing technical input for developing public health law, setting policies, strengthening normative capacity and monitoring implementation

- Providing technical support to the government to finalize a comprehensive public health law, including the mental health act and preparation of procedures and by-laws
- Strengthening the technical and normative capacity of the Ministry of Health to set health standards and guidelines to protect the health of the population from environmental hazards and promoting and monitoring effective medical waste management in both the public and private sectors
- Strengthening the technical and normative capacity of the Ministry of Health for food safety and surveillance of foodborne diseases

5.3 Providing technical support for development of human resources for health and sustainable institutional capacity

- Revisiting the human resources for health policies, strategies and plans with specific attention to qualitative aspects and ensuring the right skill mix of human resources
- Developing the needed categories of health staff with specialized skills and enhancing the management and leadership skills at various levels
- Strengthening the secondary and tertiary service delivery levels, raising technical and clinical skills of staff, in particular with regard to performance assessment, care quality, patient safety, hospital autonomy and accreditation
- Supporting Ministry of Health capacity for effective public–private partnership in health and delivery of services to expatriates
- Strengthening Ministry of Health capacity for health technology development especially, e-Health and advanced clinical procedures
- Supporting the phased development of a health research system and the use of research findings and information for developing evidence-based policies and decision-making

- Supporting the Ministry of Health to strengthen emergency and rehabilitation services at all level, including in community settings

5.4 Supporting the country achievements for communicable disease prevention and control and the new focus on health promotion, noncommunicable diseases and injury prevention and control

- Providing technical input for expanding primary health care to include noncommunicable diseases especially cancer, respiratory diseases and community based care of the elderly
- Strengthening the response to mental health, substance abuse and school mental health
- Strengthening health care-associated infection control
- Scaling up HIV/AIDS and sexually transmitted infection surveillance, prevention and care, focusing on high-risk groups and HIV harm reduction strategies for injecting drug users
- Supporting the Ministry of Health in their efforts for the elimination effort of tuberculosis and measles, and continuing to support the certification process for elimination of blinding trachoma and malaria
- Supporting the Ministry of Health to continue address challenges related to hepatitis and emerging and remerging infections

5.5 Promoting health security and strengthening emergency preparedness

- Supporting the Ministry of Health in developing a health emergency preparedness and response plan within the framework of the national disaster preparedness strategy and plan including risk and vulnerability mapping
- Continuing to support the implementation of International Health Regulations (2005) including biosafety and security and emergency preparedness and response

Section 6

Implementing the Strategic Agenda: Implications for WHO

Section 6. Implementing the Strategic Agenda: Implications for WHO

The strategic priorities identified for the period 2010–2015 will require well planned and properly coordinated support from WHO country office, Regional Office and headquarters. To assess the implication of CCS in terms of what type and modes of support are required from WHO, it is necessary to look at certain basic principles that guide the planning and delivery of WHO collaboration. The following basic considerations, principles and characteristics have major bearing in planning the delivery of WHO support.

- Collaboration between WHO and the Government of Oman has been exemplary, with the government providing major political and material input and diligently supporting the joint work.
- Most of the required support from WHO is technical and specialized in nature, as Oman has long passed the stage of requiring basic help associated with less developed health systems.
- In line with the country focus policy, the country office should have adequate technical expertise to be able to play its expected role.
- Oman is a relatively wealthy country with few possibilities for attracting external financial support to strengthen WHO country presence.

Based on CCS mission evaluation, the country programme needs additional technical resources to be able to implement the strategic priorities. The strategic priorities set by the CCS have additional implication in terms of staff and facilities. In addition, the priorities call for a fresh look at technical backstopping and support from the WHO Regional Office and headquarters.

6.1 Implications for the country office

The mapping of strategic priorities versus specific objectives of the WHO Medium-term strategic plan shows that the degree of focus on Strategic Objectives 3, 7, 10, 9, 6 and 11 is higher relative to the others. Currently the WHO Representative, in addition to duties related to representation and collaboration with UN and regional agencies and institutions, has to provide considerable technical inputs to various health programmes. There is an obvious need for additional long-term technical staff in the country office to support implementation and follow-up of the strategic priorities and to focus on health communication.

Support for these positions through funds-in-trust has been discussed with the government; however, this will not be an option in the near future. In the face of its budgetary constraints, WHO needs to explore alternative financing to fund such positions. As well, the expanding workload of the country office, including the shift to a new location, will require additional staff to ensure smooth flow of work. It will also be vital to ensure that the new office is compliant with WHO minimum operating security standards.

During the period of the first CCS (2005–2009), only limited training was arranged for country office staff. For the efficient

management and implementation of country activities, staff development is critical in areas identified by the WHO country office. Such development should include exchanges with Regional Office staff as well as training on managerial processes.

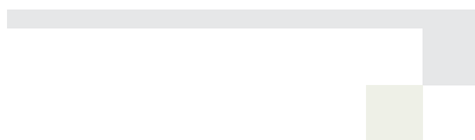
6.2 Implications for the Regional Office

It is important that a coordinated long-term approach is used for harmonization of operational plans under each strategic prioriy. A mechanism, such as a statutory joint meeting, needs to be established to ensure a coordinated approach to CCS implementation. To ensure proper linkages and harmony, a roadmap should be developed to guide the translation of the strategic priorities into a well coordinated operational plan. This is especially important given Oman's frequent role in serving as a model or piloting a new initiative.

Planning for provision of the type of expertise and specialties called for in the CCS should be conducted well in advance. In this regard, special attention should be given to health promotion, noncommunicable diseases, nutrition, human resources development, climate change and the environment.

6.3 Implications for headquarters

Headquarters should plan for potential support in different technical areas and participate in the development of the roadmap discussed above. In coordination with the Regional Office, experienced technical staff could be assigned to Oman for periods of 4–6 weeks in identified areas to support the country office. In addition to other areas, technical support will be particularly needed for congenital anomalies and hereditary diseases and their determinants, as well as for development of public health law and technologies. The country office must be kept informed when planning activities and programmes in Oman.



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