In 2006, the common causes of early neonatal morbidity were: neonatal jaundice 28.6%; intrauterine growth retardation; low birth weight; pre-term labour 12.2%; respiratory distress 6.9%; maternal factors affecting the foetus 5.6%; birth asphyxia 5.1%; haemolytic disease 3.4%; neonatal aspiration syndromes 3%; bacterial sepsis, omphalitis and other perinatal infections 2.3%. Major causes of hospital neonatal mortality were: intrauterine growth retardation, low birth weight and pre-term 36.5%; congenital anomalies 24.6%; birth asphyxia 8.9%; respiratory distress syndrome 3%; chromosomal anomalies 3%; intrauterine hypoxia 1.5%; and bacterial sepsis 1%.

Maternal morbidity has not changed since early nineties. In 2006, maternal morbidity based on the outpatient attendance per 10 000 females in the reproductive age (15–49 years) was 0.6%.

### *International donor-funded reproductive health programmes*

The three major donors of reproductive services in Oman are WHO, United Nations Population Fund (UNFPA) and UNICEF. Reproductive health research and other programme activities supported by donors are as follows:

- UNICEF: breastfeeding and Triple 'A' project;
- WHO and UNICEF: adolescent health survey 2000–2001; birth spacing campaign, including printing IEC materials;
- WHO training for master trainers in adult learning skills, interpersonal communication and gender mainstreaming; development of new adolescent health programme.

**Table 1. Demographic and reproductive health indicators, Oman, 1997–2007**

| Indicator | Parameter | Year |
|---|---|---|
| Total population | 2.58 million | 2006 |
| Population growth rate (%) | 2.2 | 2006 |
| Crude birth rate | 24.17 | 2006 |
| Crude death rate | 2.48 | 2006 |
| Urban to rural population, ratio | 202:100 | 2003 |
| Number of women of reproductive age (15–49 years) | 517983 | 2006 |
| Total fertility rate | 3.19 | 2006 |
| Percentage of pregnant women attended by skilled personnel (of all pregnant women) | 100 | 2007 |
| Number of facilities with functioning essential obstetric care per 500 000 persons | 3.3 | 2007 |
| Percentage of deliveries attended by skilled personnel (of all deliveries) | 99 | 2007 |
| Percentage of deliveries undertaken in health facilities (of all deliveries ) | 99 | 2007 |
| Percentage of caesarean sections (of all deliveries) | 14 | 2007 |
| Percentage of pregnant women with anaemia (of all pregnant women) | 30.8 | 2007 |
| Percentage of newborn infants with low birth weight (of all newborn infants) | 9 | 2007 |
| Maternal mortality per 100 000 live births | 23 | 2007 |
| Perinatal mortality per 1000 live births | 15 | 2007 |
| Neonatal mortality per 1000 live births | 7.5 | 2007 |
| Life expectancy at birth female (years) | 75.43 | 2006 |
| Life expectancy at birth male (years) | 73.18 | 2006 |
| Contraceptive prevalence rate among married women of reproductive age (15–49), all methods (%) | 31.7 | 2000 |
| *Traditional methods (all)* | n/a | |
| Withdrawal | 3.9 | 2000 |
| Rhythm | n/a | |
| Lactational amenorrhoea | 1.1 | 2000 |
| *Modern methods (all)* | 24.6 | 2000 |
| IUD | 3.3 | 2000 |
| Condom | 3.3 | 2000 |
| Pill | 4.5 | 2000 |
| Injectables | 8 | 2000 |
| Implants | n/a | |
| Female sterilization | 5.4 | 2000 |
| *Factors for not using modern methods among married women* | n/a | |
| Fear of side-effects | n/a | |
| Lack of knowledge | n/a | |
| Cost | n/a | |
| Lack of access | n/a | |
| Traditional misconceptions | n/a | |
| Partner opposes | n/a | |
| Unmet need for modern contraception (birth spacing Knowledge, Attitudes and Practices survey) (%) | 37.6 | 1997 |
| Receipt of postpartum care and family planning counselling (%) | n/a | |
| Incidence of sexually transmitted infection (per 100 000) | 67 | 2005 |
| Syphilis | 4.9 | 2006 |
| Gonorrhoea | 3.18 | 2006 |
| Chlamydia | n/a | |
| Trichomoniasis | 4.2 | 2006 |
| HIV prevalence (%) | 5.7 | 2005 |
| *Number of verified HIV cases* | 86 | 2006 |


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# Oman

# Reproductive health profile 2008

World Health Organization
Regional Office for the Eastern Mediterranean

## Health financing

The 5-year national development plans have been in place since 1976. In 2006, 4.7% of the total public expenditure was allocated for health and development. Although it is difficult to know the exact budget allocation for the national reproductive health programme, the programme has not encountered financial constraints that affect its implementation. The geographical regions have their own budget and have delegated authorities over their allocations. All essential heath services, including reproductive health care, are free of charge and easily accessible to the population.

## Health care system

### *Administration*

The Government of Oman is committed to providing its population with the best attainable health and quality of life. The health care system is well organized at both central and regional levels. At central level, the national maternal and child health committee prioritize relevant public health issues and suggests interventions and programmes to promote maternal and child health in the country. The committee coordinates its activities with other central departments, regional administration and intersectoral partners. Committees with similar functions are in charge of geographical regions.

### *Status of the infrastructure*

In 1970 there were only two hospitals and 10 clinics in the entire country. The first 5-year national development plan focused mainly on developing necessary infrastructure for health care. By the end of 2007 there were in total 209 public health care facilities (4 tertiary health care facilities, 10 regional health care facilities, 5 *willayat* health care facilities, 30 local hospitals, 68 small maternity hospitals and 72 primary health care centres).

### *Workforce*

Workforce expansion over the past 38 years has been tremendous. In 1970, there were only 13 physicians and no specialists. This figure grew to 4579 physicians in 2006 (1539 of them specialized and consultants). The physician and nurse ratios per 10 000 persons reached to 17.5 and 37.3, respectively, in 2006, compared to 9 and 26 in 1990. A system for pre-deployment and in-service training is in place. Training capacity of the regions has been institutionalized by creating a pool of master trainers tailored to reproductive health programme components.

### *Accessibility of health services*

The country has a well-organized, integrated health care system and provides decentralized primary health care services along with specialized hospital care at the secondary and tertiary health care levels. This system assures that 96% of the population has access to universal health care in the country. There are no hidden costs for availing the provision of clinical service, medicines and laboratory investigations or any other health service. Most primary health care facilities are located within reachable distance; the longest distance is about 30 minutes travelling by car. Although availability of transport is not a problem, sometimes women fail to reach health care facilities due to the unavailability of an escort, who traditionally should be her husband or other family member.

### *Organization of reproductive health care service delivery*

A three-tier system is followed for health care delivery. All women and newborn babies have to first attend their catchment health care facility for reproductive health services where they are registered, routinely followed up and only referred to a higher level when necessary. Those that need to be escorted with medical assistance are sent by ambulance with prior notification to the referral health care facility. However, in an emergency situation, there is no restriction for the clients to directly attend a higher level health care facility. Efforts are in place to make public health services acceptable to the population by removing structural, social and cultural barriers, as well as organizational flaws in the health care delivery system.

A quality assurance system is in place at all levels of the administrative hierarchy. The central and regional maternal and child health supervisors and master trainers monitor the quality of training and service provision, providers' adherence to service protocols, their knowledge, skills and practices.

Most service providers are trained in the field of reproductive health as per their area of deployment.

### *Community health education system*

Health education is an integral part of health care delivery at all levels. It is carried out on a one-to-one basis in the clinic as per clients' needs by the doctor or midwife; in the waiting area of maternal and child health clinics; in the field by the community health educators and trained medical orderlies and midwives during home visits to high-risk mothers and babies. Health education materials in the form of leaflets, posters, flip-charts and flyers are used to provide information to mothers. Other methods of awareness raising and communication, such as campaigns, radio and television talks and articles, are also used. During campaigns support is received from regional administrative and clinical staff and intersectoral partners, such as the Ministry of Social Development, Information and Communication, municipalities and nongovernmental organizations.

## Health information system

### *Registration*

All women are registered at the PHC level for reproductive health services, such as antenatal care services, birth spacing and infertility management. A client held card is issued and information on the client's history and management is retained at the PHC centre in the register and electronic database for subsequent follow up. A client held card facilitates the ability of the service users to benefit from other health care facilities in case they move out of their catchment areas or in case of emergency. It also facilitates making the information available to the attending health care facility service providers. A record on the referred cases and their management is retained at referral health care facility. Unless emergency warrants it, routine referrals are by appointments. A feedback system is in place for the outgoing and incoming referrals. Defaulters of antenatal and postnatal visits, especially high risk, are retrieved at PHC centres to monitor pregnancy progress and pregnancy outcomes.

### *Submission and reporting*

Most indicators monitored are as per WHO guidelines. The data collected and maintained at the PHC, delivery and referral facilities are transformed to monthly reports and sent to *willayat* and regional levels for compilation. The compiled monthly reports are then sent to the health information section of the MOH. National and regional reports are published and distributed annually to all health care facilities and administrative staff. Moreover, the Department of Family and Community Health at the Ministry of Health collects data on other related activities such as planned and conducted training, expanding birth spacing services, causes of caesarean sections and hysterectomy surgical operations, female sterilizations, purchased and dispensed contraceptives, cased with infertility, congenital anomalies, genetic disorders, postpartum use of modern contraceptives. Feedback reports are sent to regions for action. At present, the heath care system provides disaggregated data by sex and age only on limited issues. At the end of 2007, joint efforts were made by the Ministry of Social Development and Ministry of Economy in coordination with the MOH to gather gender disaggregated data in their management information systems.

## Reproductive health

### *National reproductive health strategy and programme services*

The national reproductive health programme receives special support from policy-makers at all levels. A taskforce was created composed of representatives from different Ministries and nongovernmental organizations in 1988. The taskforce supports advocating for reproductive health programme. Planning for programme activities is performed in accordance with identified problems and community needs. The implementation of national and regional plans and activities are monitored in order to ascertain whether targets have been achieved. The national reproductive health programme aims to: a) strengthen maternal and child preventive and curative care; b) ensure that all pregnant women are registered and receive skilled antenatal, obstetric and postpartum care; maintain 3–5 years space between pregnancies, and avoid risky pregnancies; c) sustain the quality of health care delivery and make services user-friendly.

With the exception of four specialized hospitals, all remaining 205 health care facilities in the country provide reproductive health services, thus ensuring integration of services at all levels of the health care system. Currently, the Department of Family and Community Health at the MOH is in charge of the programmes of antenatal, obstetric and postpartum care, birth spacing services and early detection and management of infertility. In addition, the Department has initiated a process for setting up national programmes on adolescent reproductive health and women's menopausal health.

In 2006, the coverage of antenatal health care reached 99.3%. 83.3% of women had at least six visits to the antenatal clinic. The proportion of births attended by skilled health personnel reached 98%. Anaemia in pregnancy continues to be a public health problem; 30.8% of pregnant women have anaemia.

Birth spacing services were initiated on 1 October 1994 with an overall goal to reduce maternal and child morbidity and mortality due to complicated pregnancies and childbirths. The programme has succeeded in attracting more than 15 000 new and re-acceptors of modern contraceptives on an annual basis. As of 2006, more than 78.6% of users were new to modern contraceptives. The crude birth rate has dropped from 34 in 1995 to 24.17 in 2006 per 1000 population and the total fertility rate has dropped from 6.9 (1993 census) to 3.19 (2006, MOH estimates). The unmet need for contraception was 17.7% for spacing and was 19.9% for limiting the number of children according to the health facility knowledge, attitude and practices survey conducted in 1997.

### *Health burden of maternal and neonatal morbidity and mortality*

Perinatal morbidity and mortality is regularly monitored through the management information system. Perinatal and neonatal mortality audits were conducted by regional perinatal mortality committees and regional and central maternal mortality committees. The major contributors to perinatal mortality are stillbirths, prematurity, and severe congenital anomalies. In 2007, perinatal mortality rate was 15 per 1000 total births and neonatal mortality rate was 7.5 per 1000 live births.