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A RIGHTS-BASED EQUITY-FOCUSED

SITUATION ANALYSIS OF CHILDREN AND WOMEN IN THE SULTANATE OF OMAN

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A Rights-based Equity-Focused

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Educational Governorates
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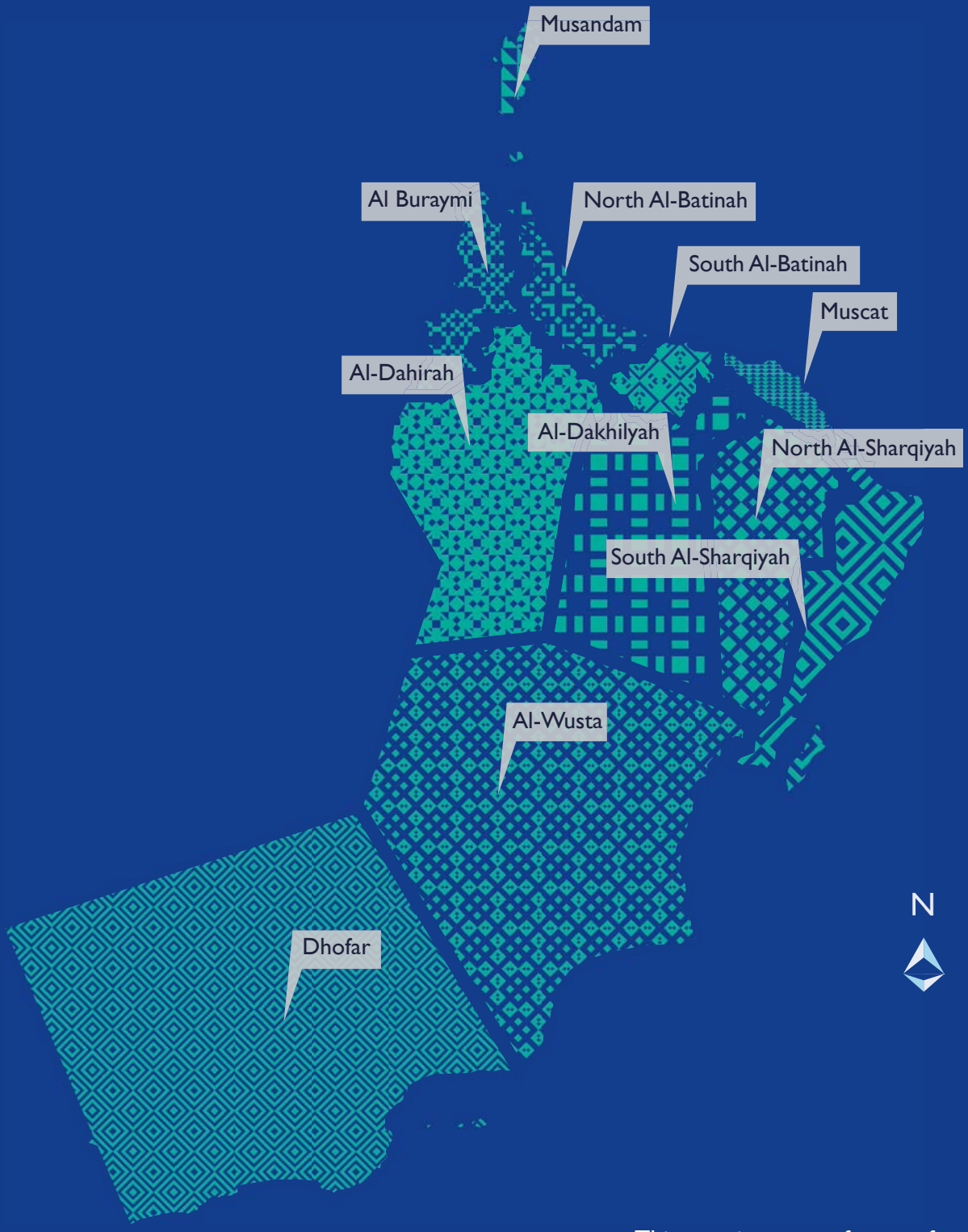


This map is not a reference for the administrative border

Source: Digital School Mapping

Executive Summary

Oman's development over the past four decades has been striking. Together with consistent economic growth, Oman has seen consumption inequality fall from 2006 to 2011, a remarkable achievement in the region. Since 1990, the country has achieved one of the world's fastest rates of reduction in under-five mortality rate. Oman has also made significant strides in education and women's empowerment. To develop further, Oman will need to enhance its human capital, ensure that the economy generates high productivity jobs that attract young educated Omanis, and address the challenges related to environmental sustainability.

Health and nutrition

Since Oman started to modernize its services, maternal and child health have received priority attention, and the outcomes today show the success that these programmes have achieved. The Sultanate received the UN Award for Public Service for the sixth time – the 2014 award was to the Ministry of Health for its Omani Nurse-Midwife Project in the category of Promoting Gender Responsive Delivery of Public Services.

Oman has already achieved Millennium Development Goal (MDG) 4 on reducing child mortality. Dramatic improvements in health services have led to a drop in infectious childhood diseases, although diarrhoea rates are still an issue in certain regions of the country. Congenital abnormalities and the events surrounding childbirth have become the main contributors to young child deaths.

In nutrition, Oman has achieved the MDG 1 target on halving the underweight prevalence rate amongst children under five years old. Stunting in young children is now at low prevalence levels, but wasting is still above the threshold defined as "acceptable" by WHO. Even at low levels, however, the impact of stunting and wasting on young children are serious and need attention. The relatively high level of wasting, for a country of Oman's high-income status, indicates that hygiene and diarrhoea may still be problems among certain vulnerable populations. Infant and young child feeding practices are suboptimal. Both stunting and wasting amongst children under five years of age show marked disparities by region, with differences up to five-fold for stunting and four-fold for wasting. Oman's wheat flour fortification programme has reduced anaemia and spina bifida rates significantly; however, anaemia still affects at least half the young children in the country, with differences up to seven times across regions. Oman still needs to achieve sustained and universal coverage by iodized salt.

In maternal health, Oman has achieved universal coverage of antenatal care and institutional delivery services, while Health Ministry statistics in 2012 showed that all women having given birth attended postnatal clinics at least once after delivery. Despite these high coverage rates, Oman's maternal mortality ratio is still higher than that of other Gulf countries, indicating issues with the quality of services and the level of health awareness amongst women. Maternal nutrition needs more attention, as highlighted by the rising trend in low birthweight rate and the still significant proportion of anaemia amongst pregnant women. There is also an unmet need for family planning amongst women – a little over half the married women in 2008 wished to use

contraceptives, but were not able to do so for cultural or other reasons.

Overall, reducing maternal mortality further and reducing the rate of disability and congenital abnormalities amongst children will require enhancing the quality of health services and improving mothers' nutritional status, health knowledge and awareness. A holistic approach is needed to tackle the remaining areas of young child undernutrition in a convergent approach with early childhood programmes (see below). Better data on disparities and on behaviour and knowledge of communities are also needed. Legislative frameworks need to be better monitored and enforced, especially with regard to universal salt iodization and the marketing of breast-milk substitutes.

Women and children are two beneficiary groups that received the most attention in the Sultanate since the beginning of reforms, which is reflected in the number of programs targeting them. It is also apparent in the positive results achieved, where the Sultanate was awarded the United Nations prize for public service six times in a row, and the 2014 first prize for eliminating gender disparities in the provision of public services.

Early childhood development (ECD)

Early childhood education (ECE) services have expanded rapidly in recent years and enrolment in pre-primary programmes has achieved gender parity. However, Oman's pre-primary enrolment figures lag behind those of some other countries in the region. Poorer children, especially in rural areas, still lack access to adequate ECE services, since most services are in cities and are operated by private sector entities. Data on the quality of existing services are limited. The coverage of integrated ECD services (which integrates ECE with nutrition and health interventions) is unknown. ECD and ECE services are all the more important since children in Oman start school relatively late.

Increased public investment in ECD will be needed, since the pace of expansion, the access for low-income families and the necessary convergence with health and nutrition interventions are beyond the scope of the private sector alone. A systematic and comprehensive analysis is needed to assess gaps in early childhood services and interventions. Following this, national standards for integrated ECD will need to be adopted and enforced. A national ECD strategy and a central coordination body are necessary to better focus and coordinate ECD work across the different ministries.

The Ministry of Social Development has also worked hard to prepare a National Strategy for Childhood in order to evaluate the services provided for children and assessing the challenges and needs in the various sectors of education, health, social services, culture and child protection. Additionally, the Ministry of Education has developed standards for Early Childhood Development that are in the final stages of review and endorsement

Education

In primary education, Oman has achieved near-universal coverage with a steady increase in enrolment over the past two decades. The progress in secondary education is also impressive, although higher grades require further improvement. Oman has achieved universal literacy rates amongst young people in the age group 15-24 years. Student-class ratios and student-teacher ratios across all regions show that Oman's school system and infrastructure have the capacity to absorb additional students, although there are still second-shift schools. Private school enrolment is growing each year. While there are still significant proportions of over-aged students, the government's efforts to enrol children at the appropriate age are showing progress. Furthermore, survival rates to grade 6 have increased significantly. Recent years have seen a decline in dropout rates, although these rates are still significant in higher grades. Analysis of regional and other disparities in education is constrained by the unavailability of sufficiently disaggregated data.

Oman as a whole has achieved gender parity for both primary and secondary education. Indeed, the gender parity index increases in favour of girls as children progress from grades 1 to 12. National assessments show better promotion rates for girls. International assessments show that female students in Oman perform consistently better than do male students in reading, science and mathematics. Literacy rates in the younger groups do not show any gender gap; however, older age groups

show a prominent gender gap, with significantly higher male literacy rates.

Overall, learning outcomes are still inadequate, as shown by both national and international assessments. To match its impressive achievements in universalizing access to education, Oman will need to emphasize education quality and improve teaching-learning outcomes through various means, such as enhancing the pedagogical capacity of teachers and increasing the pool of qualified Omani teachers. Furthermore, the education system will need to improve the employability of young Omanis in the evolving labour market and equip them with skills appropriate for the new knowledge economy. At the same time, the job market needs to have sufficient opportunities that attract well-educated young people. Studies will need to identify the root causes of the low performance of boys and the interventions required. Education management information systems will need strengthening to produce robust and disaggregated data by region, sub-region and socio-economic group.

Care and protection

The 2010 census found the prevalence of disability amongst children below the age of 15 to be around 1%, representing some 7,400 children. Oman has a range of specialized and mainstream services for children with disabilities. The majority of children with disabilities have access to health, education and care services. Most services delivered by NGOs, however, are limited to the major cities and are of variable quality. The major constraint to expansion beyond the major cities is the high cost of specialized services for children with disabilities.

The breakdown of causes show that child disability can be prevented or reduced. In addition to services for the early detection of disability amongst children, the Ministry of Health provides genetic testing and health screening services for couples, since Oman has a high rate of consanguineous marriages. However, such services are poorly utilized. Families, therefore, need to be more aware of the causes, prevention and treatment of child disability. As costs are the main barrier to expansion of specialized services into areas outside the main cities, it will be necessary to strengthen the capacity of mainstream health and education services to prevent, identify and take referral or remedial action. Longer-term human resources planning is needed to address the acute shortage of qualified teachers for inclusive programmes, which is the result of the success and rapid expansion of these programmes. A comprehensive and longitudinal data system on child disability and related services would strengthen coordination and identify gaps.

HIV prevalence in Oman is still low, but its incidence is increasing, with the share of girls and women in reported HIV cases on the rise. Children and young people constitute one-quarter of cases ever reported. The government has strong blood safety policies and effective programmes for the identification, prevention and treatment of HIV and sexually transmitted infections. The government provides free testing of HIV viral load and CD4 across Oman as well as free antiretroviral drugs.

Oman is likely to achieve the goal of every child born free of HIV, because of its highly successful programme for prevention of mother to child transmission, which offers a model for other countries. This success is based on HIV testing and counselling services for all pregnant women, the integration of HIV testing and counselling into antenatal care services that have near-universal coverage, a strong referral system from primary health facilities to the antiretroviral treatment centres, and trained obstetricians and paediatricians who manage the treatment and care of HIV-positive mother and child. The greatest challenge to controlling the spread of HIV in Oman is the low knowledge of HIV amongst the general population and the stigma associated with HIV. There also needs to be systematic data collection among the most at risk populations (MARPs). The HIV data is largely based on mass screening among blood donors, antenatal care clients, premarital and pre-employment screening, in which the MARPs are generally under-represented.

The report examines a number of lifestyle issues amongst the young. Oman has amongst the world's lowest tobacco use rate among adolescents, but has higher rates of obesity than many OECD countries. Oman has established a multi-sectoral approach to dealing with substance abuse, providing treatment and other services to registered drug users.

A significant proportion of children and young people are exposed to violence at school, or from within the community and family. The Ministry of Health has established a reporting and referral system that reaches down to community level, but this is under-utilized. The 2014 Child Law makes reporting on violence against children mandatory and facilitates the removal of children from situations of violence. Telephone hotline services facilitate reporting; cases are then investigated and dealt with by a multi-disciplinary task force. Radio and television broadcasts have tried to educate parents on the harm done by violence against children.

Overall, Oman has many of the components for a good child protection system already in place, notably legislative reform and high-level commitment, which are reflected in the 2014 Child Law, amongst others. Oman has also developed a system of care for children without primary caregivers, providing them with a family-like environment, whether through foster families or through child-care centers that apply the SOS Children's Village system. The SOS system ensures that each child belongs to a family where he/she is raised with love, respect and a feeling of safety and emotional stability. SOS families are headed by a professionally trained care-giver/mother, who creates emotionally stable relationships in a nurturing and secure home. Within SOS families, children live together as natural brothers and sisters.

Introduction

1.1 Background

1. **The Sultanate of Oman is strategically located, close to the vital sea routes for crude oil and other trade.** With a total area of 309,500 km² and a 3,165 km-long coastline,[1] the Sultanate has borders with the United Arab Emirates (UAE) on its northwest, Saudi Arabia on its west, Yemen to its southwest and overlooks the Sea of Oman to the north and the Arabian Sea to the east and south. Administratively, the country comprises 11 governorates,[a] subdivided into 61 Wilayats, which are further composed of Niyabats. There are 11 governorates in all (Table 1.1).[2] Batinah Plain on the coast is the principal agricultural area. Mountain ranges occupy about 15 percent of the country. The majority of Oman's land area comprises desert, sand and gravel plains, including the Rub' al Khali, also known as the Empty Quarter or the Great Sandy Desert.[3]

2. **Oman is performing well on key human development indicators.** Oman's Human Development Index (HDI) ranked Oman at 84 amongst 182 countries in 2012,[4] placing the Sultanate amongst the high human development countries.[5] The United Nations' 2013 estimates for the infant mortality rate (IMR) and under-five mortality rate (U5MR) for Oman in 2012 were respectively 12 and 10 per 1,000 live births,[6] a fraction of the MENA regional averages (36 and 28 per 1,000 live births respectively, 2011),[7] and of the same order as estimates for the United States and some other OECD countries. Oman has also made remarkable progress in adult literacy, from 33 percent in 1970[8] to 87 percent in 2011, ten percentage points higher than the regional average for the Middle East and North Africa (MENA) region.[9]

a. Royal Decree 2011\114

Table 1.1

Overview: administrative units, population and child survival indicators

Governorates	Educational and Health Governorates	Population density 2012	Expatriates (% of total population) 2012	Omanis (% of total population) 2012	Total population 2012	Infant mortality rate 2008 (IMR)	Under-five mortality rate 2008 (U5MR)
Muscat	Muscat	280.3	60.2%	39.8%	1,093,360	9.9	19.1
Dhofar	Dhofar	3.5	49.3%	50.7%	346,046	11.7	12.2
Ad Dakhliyah	Ad Dakhliyah	11.5	21.8%	78.2%	368,027	9.5	11.5
Ash Sharqiyah	North Ash Sharqiyah	6.7	34.1%	65.9%	220,661	10.5	15.9
	South Ash Sharqiyah		31.0%	69.0%	243,534	9.6	16.6
Al Batinah	North Batinah	25.8	30.9%	69.1%	598,206	15.9	24.9
	South Batinah		22.4%	77.6%	323,124	5.5	6.1
Adh Dhahirah *	Adh Dhahirah	3.9	25.5%	74.5%	170,584	9.9	21.9
Al Buraymi	Al Buraymi		48.6%	51.4%	89,564		
Musandam	Musandam	19	31.4%	68.6%	34,148	7.2	11.2
Al Wusta	Al Wusta	0.5	44.1%	55.9%	36,391	10.4	18.5
Not stated**			100.0%	0.0%	99,356		
National Total		11.7	42.2%	57.8%	3,623,001	8.74	14.8

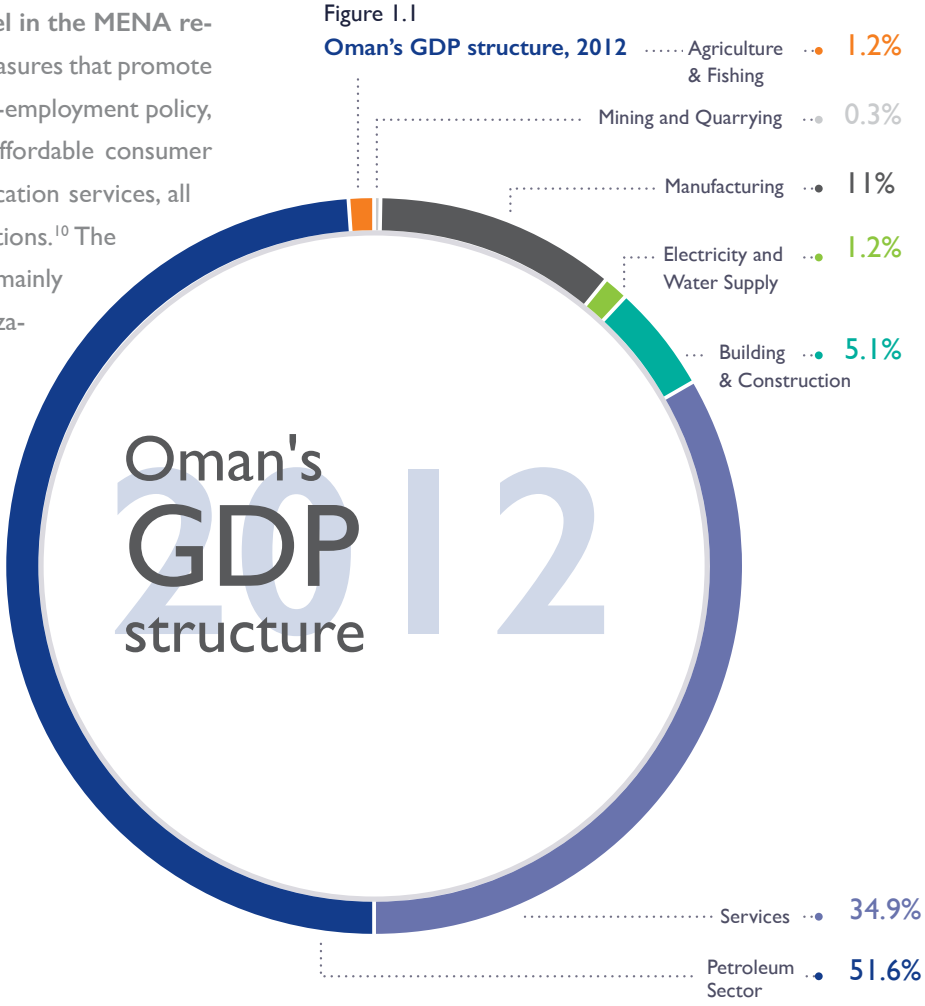
* Includes Al Buraymi Governorate.

** "Not stated" means the portion of population on which information on residence was not registered/obtained/stated.

Sources: 2012 population data are for mid-2012, from Statistical Yearbook 2013, National Centre for Statistics and Information (NCSI). IMR and U5MR are from the National Reproductive Health Survey (2008), Ministry of Health (MoH). Regional IMR and U5MR are for the ten years preceding the survey, national level IMR and U5MR are for the five years preceding the survey.

3. **Oman offers a unique policy model in the MENA region.** The country has taken bold measures that promote greater openness and dialogue, a pro-employment policy, greater access to land ownership, affordable consumer goods, and universal health and education services, all of which make for good living conditions.[10] The model has its share of challenges, mainly because the rapid pace of modernization and growth has stretched its human resource base thin. There is thus a need to improve productivity and competitiveness, and address skill shortages.

Figure 1.1
Oman's GDP structure, 2012



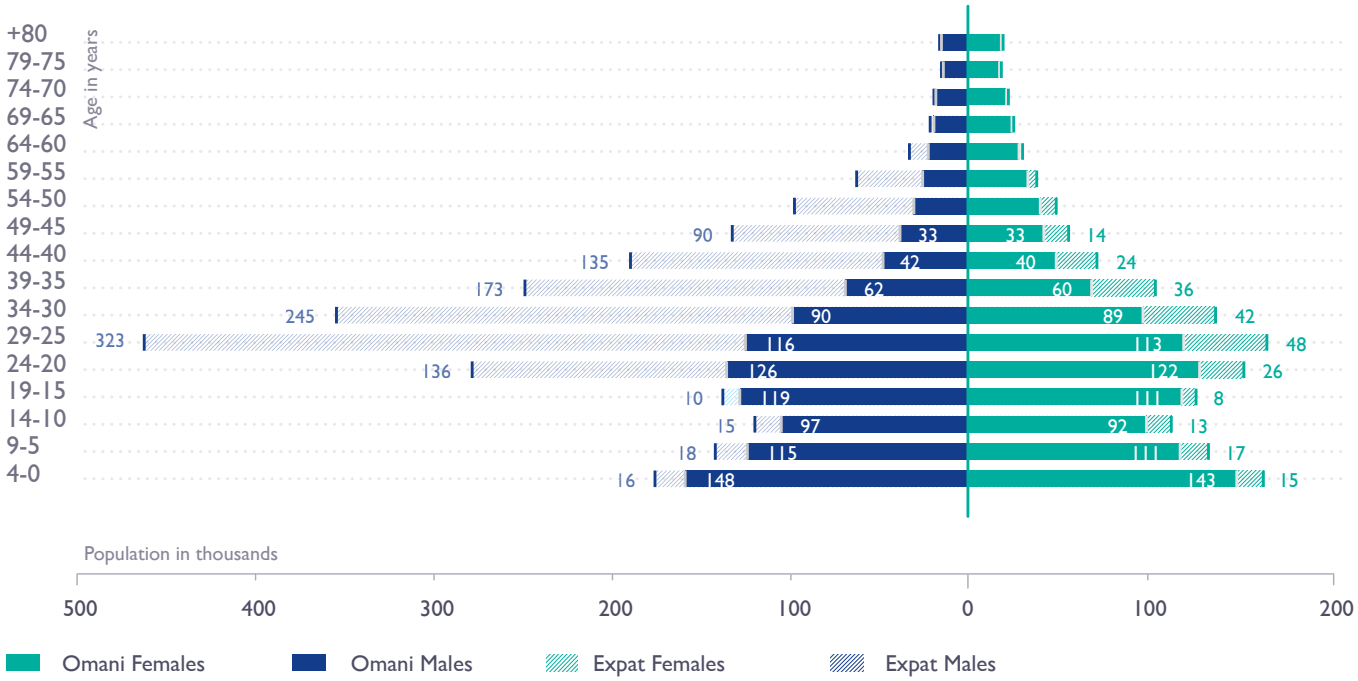
Source: National Center for Statistics and Information (NCSI), Oman, Provided from Statistical Yearbook 2013.

1.2 Demographic context

4. **Oman has a young population.** Some 14 per cent of Omani nationals in 2012 were under 5 years old, and 56 per cent were under 24 years of age.[11] Some 55 per cent of all Omani females are of reproductive age (15-49 years).[12] The total fertility rate has decreased from 6.9 in 1993 to 3.7 in 2012.[13] One factor contributing to this trend is the rise in the singulate mean age at first marriage for women from 20.7 in 1993 to 26.8 years in 2008.[14] The decreasing fertility trend is seen in the upward movement of bulge of the population pyramid for Omani nationals: the bulge between ages 20 to 34 years (Figure 1.1) has moved up from younger age groups in earlier years.

5. **The demographic profile of Omanis is markedly different from that of non-Omanis living in the country.** Around 42 per cent of the population living in Oman are non-Omanis (up from previous years). The non-Omani population consists largely of male expatriate workers in the 25–39 year age group, mostly single or with families outside of Oman. The non-Omani population has a much lower proportion of young people than the Omani population: in 2012, only 18 percent of non-Omanis were under 24 years of age, compared to 56 percent of Omanis (Figure 1.1).[15]

Figure 1.2
Population pyramid, Oman, mid-2012.



Source: Statistical Yearbook 2013, NCSI, Royal Sultanate of Oman

1.3 Economic context and employment

6. **Oman's economic transformation over the past four decades has been striking.** Under the leadership of His Majesty Sultan Qaboos bin Said, Oman's development plans, including the current eighth Five-Year Development Plan 2011–2015, have dramatically transformed the economy. With a gross national income (GNI) per capita of US$ 19,110 in 2010, Oman is classified by the World Bank as a high-income country.[16] From 2000-2010, GDP growth averaged 5 percent per year.[16,17] Although the Omani economy is still vulnerable to any downturn in domestic oil production, diversification and prudent macroeconomic management have helped to balance certain external shocks, such as the global financial crisis in 2008, and maintained fiscal space for social development. Thus, Oman's national development plans have increasingly focused on social issues.

7. **To wean the economy from oil receipts, the Government is pursuing a diversified economy through industrialization and privatization.** The plan is to reduce the current reliance on the oil sector, which was nearly half of the gross domestic product (GDP) in 2012[19] (Figure 1.2), to 10 percent of GDP by 2020.[20] The current five-year plan continues the focus on economic diversification and education, as well as on attracting national and foreign investment, upgrading the legislation to this end, and enhancing the role of the private sector. The construction sector and gas-based industries drive most of the non-oil GDP growth (3 per cent in 2009), and these are to be supported by the expansion of ports, diversification into manufacturing and the development of tourism infrastructure. Oman's rapid growth and increase in private consumption have put pressure on prices. To keep inflation low, the Government controls the prices of a range of core goods and services through an extensive subsidy system and directly influences prices

Figure 1.3

Public/government health & education expenditure as % of total government expenditure.

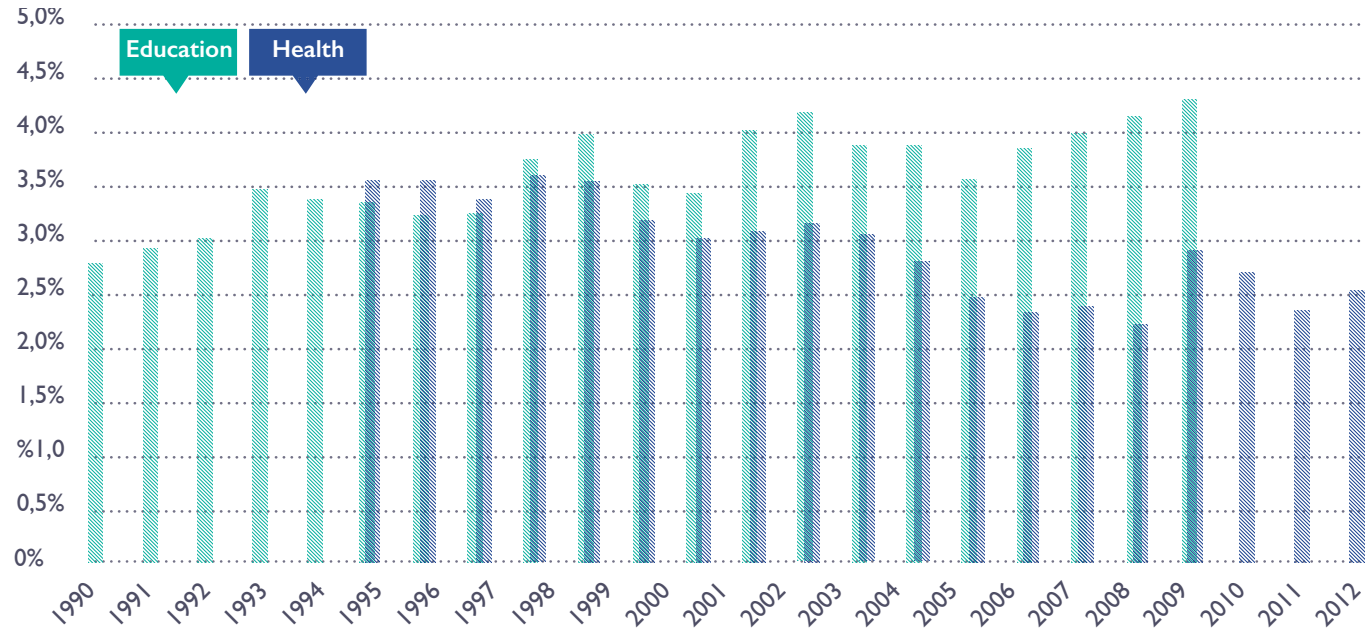
Public education expenditure as % of total Government expenditure

General government health expenditure as % of general government expenditure

Source: UNESCO Institute of Statistics (before 2006), Ministry of Education (later years) & WHO Global Health Expenditure Database

Figure 1.4

Public/government health & education expenditure as % of gross domestic product (GDP).



Public education expenditure, % of GDP

Total health expenditure as % GDP

Source: UNESCO Institute of Statistics & WHO Global Health Expenditure Database

through state-owned enterprises and utilities, including for electricity and water. The Omani riyal's peg to the dollar has helped to limit the impact of imported inflation.[21]

8. **Achieving international competitiveness will require further development of Oman's human capital, and creation of a knowledge economy.**[a 22,23], Both of these are high priorities on the country's development agenda, given that the oil reserves may decline over time. The focus on human capital development is shown by the priority for education (Figures 1.3 and 1.4). Making an effective transition to a knowledge economy will require enhancing the four pillars of the knowledge economy: (a) an economic and institutional regime with an improved business environment, (b) high quality education and training systems, (c) innovation and (d) information and communication technologies. These will require a shift towards more private sector jobs to nurture new industries, products and firms; appropriate policies and investments as part of national development plans and the transformation of Oman's outstanding social and environmental issues into pull factors for research, technical advance, innovation, and enterprise development.[24]

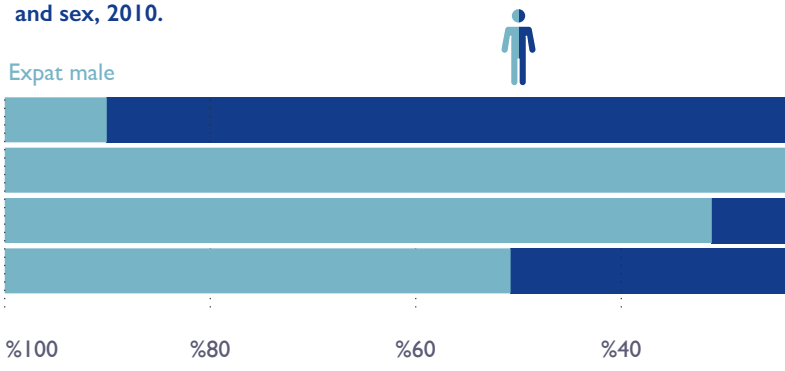
9. **The "Omanization" policy, pursued since 1988, aims to reduce unemployment amongst Omanis and limit dependence on foreign labour.** To this end, Omanization attempts to increase the proportion of Omanis in the labour market to replace expatriate labour, with emphasis on increasing female participation.[25] The policy has made progress in the public sector but less so in the private sector (Figure 1.5). Some 89 per cent of public sector employees in 2010 were Omani nationals, up from 69 percent in 1995. Public sector jobs are in high demand as they offer better working conditions and pension benefits after the end of service, which provides social security. The inability of the public sector to absorb Oman's labour supply further has led to a problem of unemployment, especially amongst young people.[26] In the private sector, Omanis held 26 per cent of jobs in 2010,[27] up from 15 percent in 2009.[28] On the other hand, Omanization in the private sector has made more progress with women: Omani women hold 70 per cent of the private sector jobs. Expatriates (mostly South Asians) still account for around 53 per cent of the labour force of 1.2 million (2010) although they constitute 42 per cent of the total population.[29]

10. **Men make up most of Oman's labour force.** Figure 1.6 shows the relative proportions of male, female, Omani and expatriates in the country's labour force (or economically active population). Expatriate men account for 45 per cent of the labour force, whilst Omani men account for 35 per cent. Omani women account for only 13 per cent of the total labour force.

11. **Labour force participation rates[30] (LFPR) are relatively low for Omani men and women** (Figure 1.7). In the age group 15-64, the LFPR in Oman was 49 per cent in 2010,[31] whereas the same indicator values for other countries in the Gulf range from 69 to 85 per cent (2009).[32] Oman's increasing secondary and tertiary enrolment rates explain in part why the LFPR is lower for the younger age groups. A low LFPR does not necessarily indicate a high level of unemployment, since the labour force counts both employed and unemployed as part of the force. Only small proportions of Omani women participate in the labour force after the age of 30, probably because of family and child-rearing duties. Chapter 3 analyzes gender in employment further.

12. **The main economic and social challenge facing Oman is the unemployment among young Omani nationals** (Figure 1.8). Whilst the total unemployment

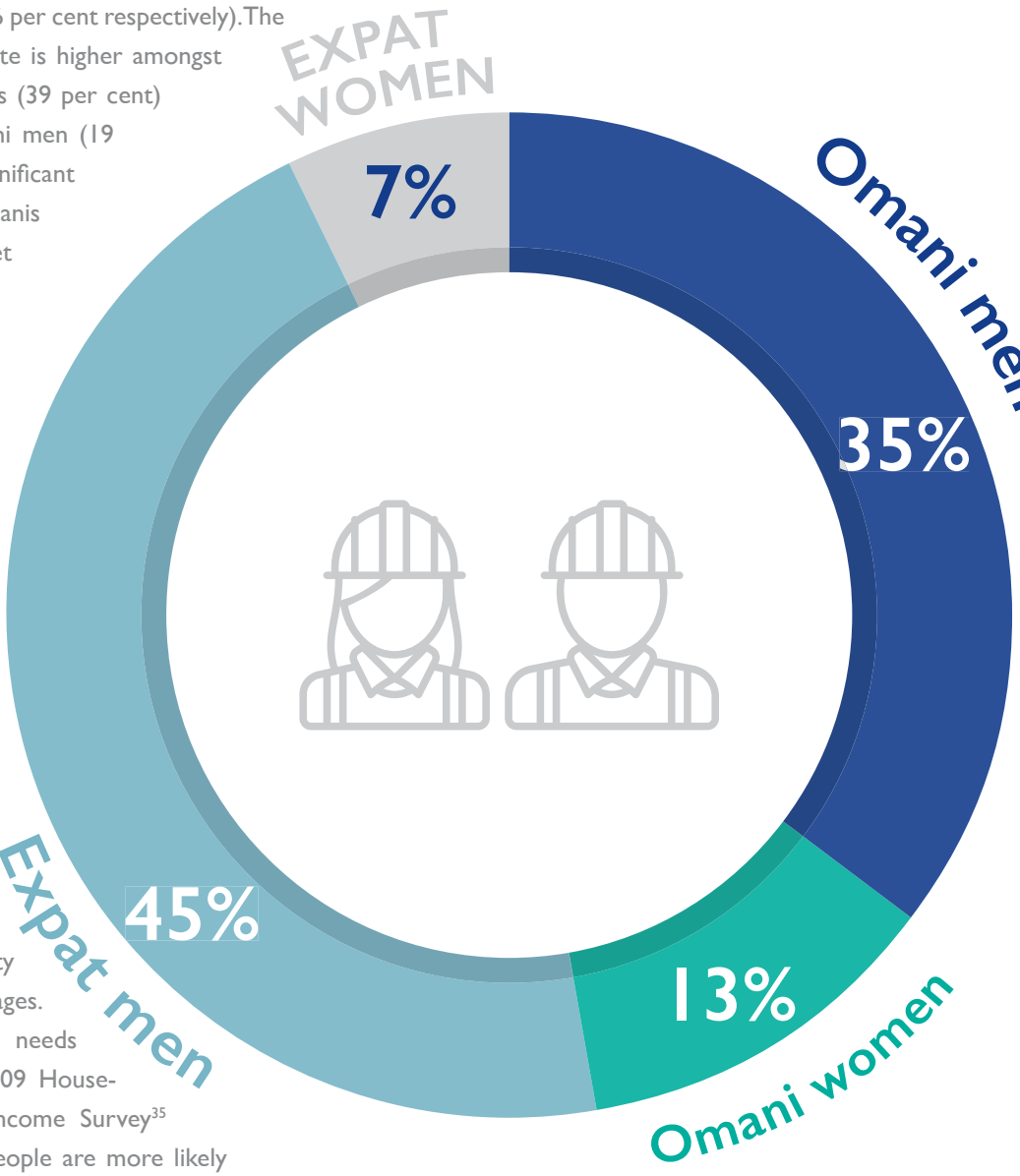
Figure 1.5
Omanization: % of Omani and expatriates employed by sector and sex, 2010.

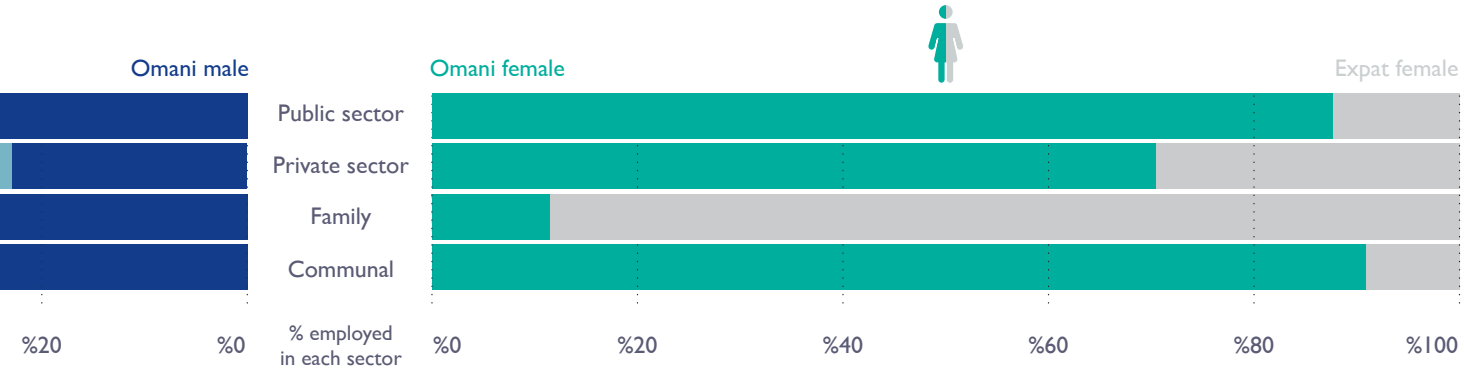


a. A Knowledge Economy is one in which knowledge is acquired, created, disseminated, and applied to enhance economic development (OECD, 1996; World Bank, 2007).

rate[33] is 24 per cent of the Omani labour force,[a] the youth unemployment rate amongst Omanis (ages 15-24 years)[34] is around 53 per cent of the youth labour force and is higher amongst young females compared to young males (69 and 46 per cent respectively). The overall unemployment rate is higher amongst Omani women of all ages (39 per cent) than that amongst Omani men (19 per cent) (Figure 1.8). Significant numbers of young Omanis enter the labour market each year: 2010 census data show that an estimated 173,000 young Omani nationals (of which 32 per cent are females) entered the labour market between the ages of 15 and 24 years; only half this number found work. Addressing high unemployment in educated individuals will require the Omani economy to generate high productivity jobs with attractive wages. Female unemployment needs special attention. The 2009 Household Expenditure and Income Survey[35] showed that educated people are more likely to be unemployed: 64 and 16 per cent of unemployed

Figure 1.6
Labor force composition, 2010





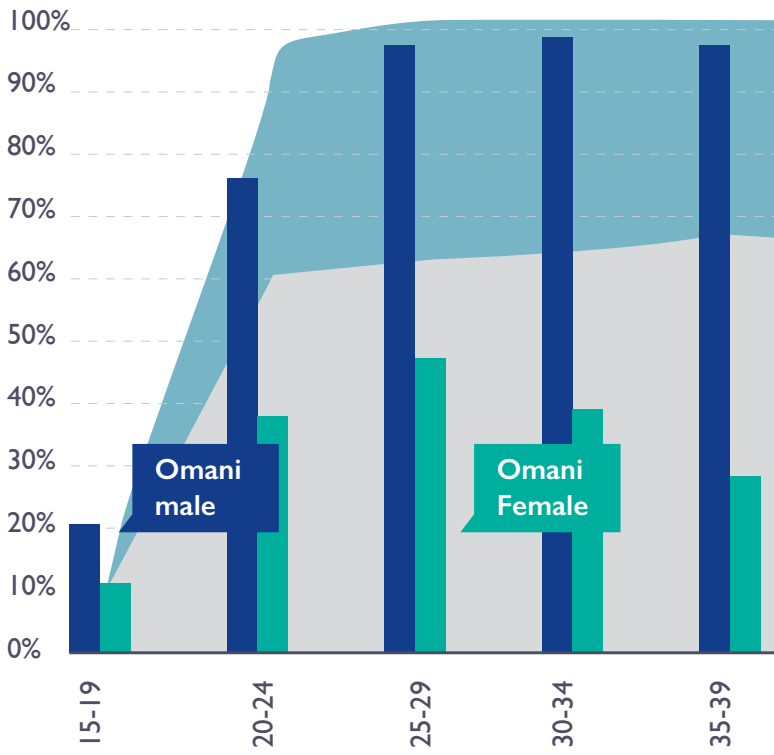
a. This translates to a low employment-to-population ratio (35 per cent) because of the low LFPR.

Source: 2010 Census, NCSI

Omanis in 2009 were educated respectively at secondary level and higher. Promoting entrepreneurship and private sector jobs amongst young Omanis will be critical to Oman's long-term economic health.[36]

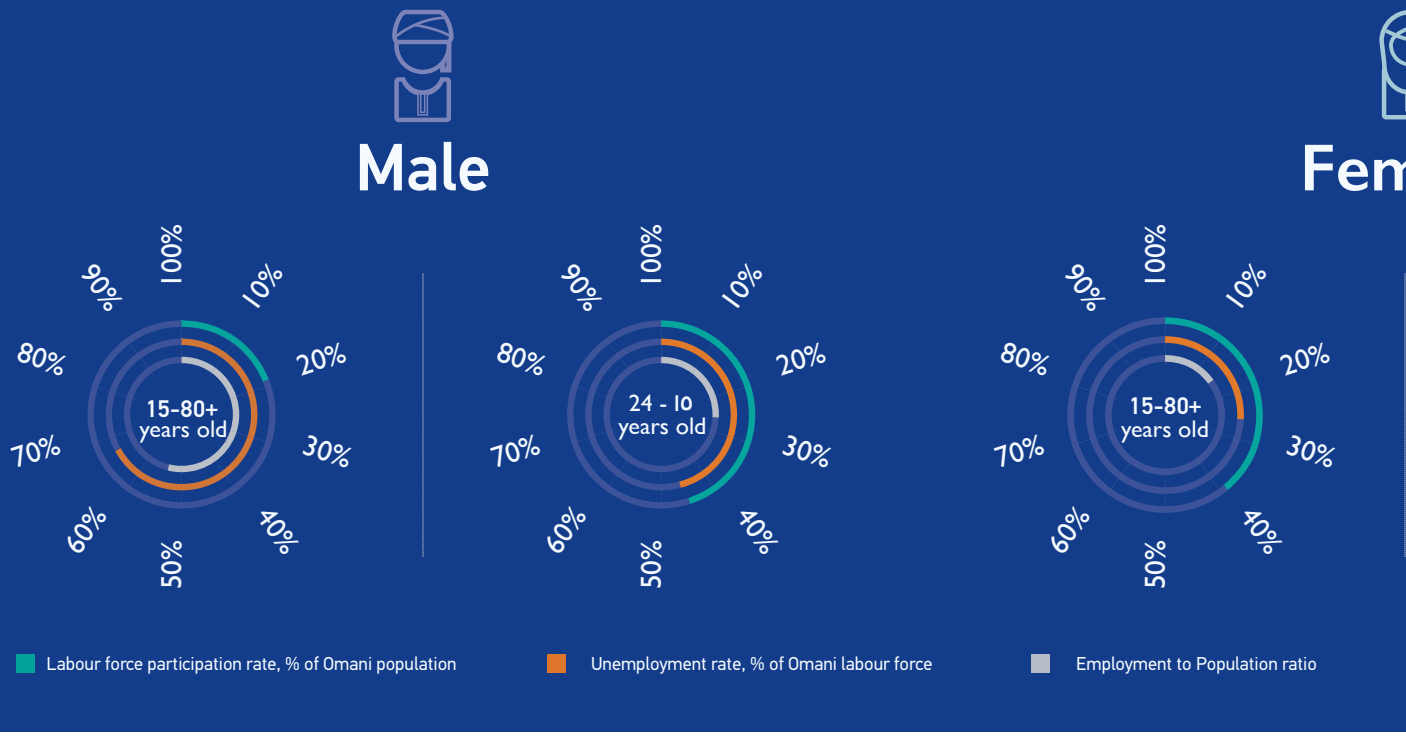
13. The Government has introduced a number of measures to promote entrepreneurship, business and job opportunities. These include: (i) the Al Rafd Fund, established by Royal Decree No 6/2013 to empower rural women as well as female and male entrepreneurs, business owners, job-seekers, families on social security and craftsmen; (ii) the Public Authority for small and medium enterprise development, established by Royal Decree No 36/2013 to generate fresh job opportunities and economic growth; (iii) the National Business Centre to help Omani entrepreneurs in developing successful enterprises and (iv) the Public Authority for Manpower Register, established by Royal Decree No 98/2011, which is in charge of a national labour database covering both government and private sector, as well as a database on Omani job seekers.

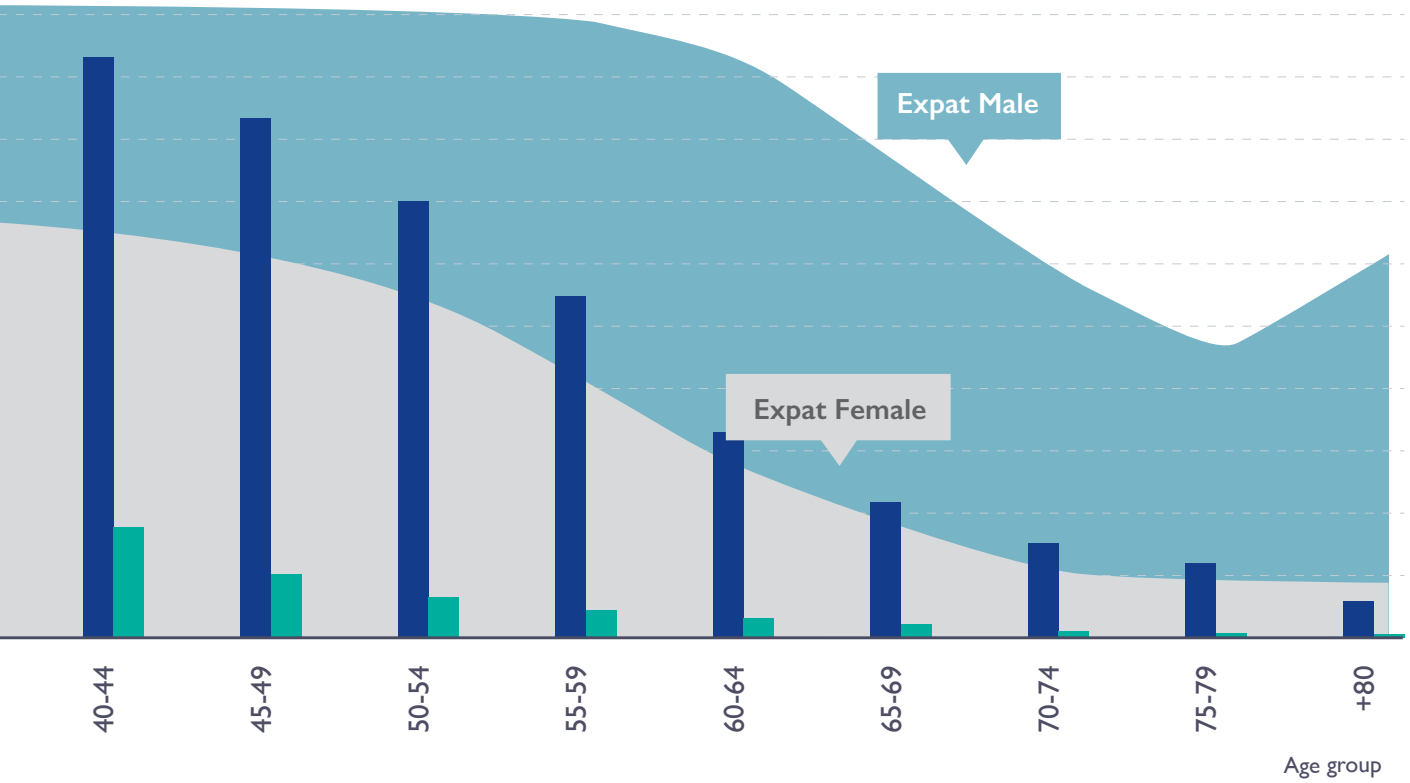
Figure 1.7
Labour force participation rate (% of each age group who are economically active), Omani nationals and expatriates, 2010



Source: 2010 Census, NCSI.

Figure 1.8
Labour statistics amongst Omani adults and youth, 2010





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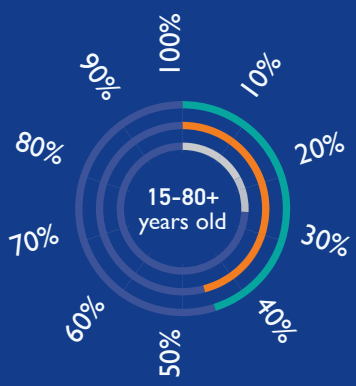
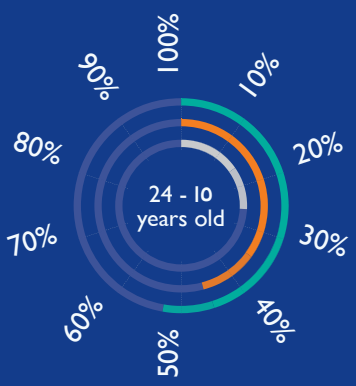
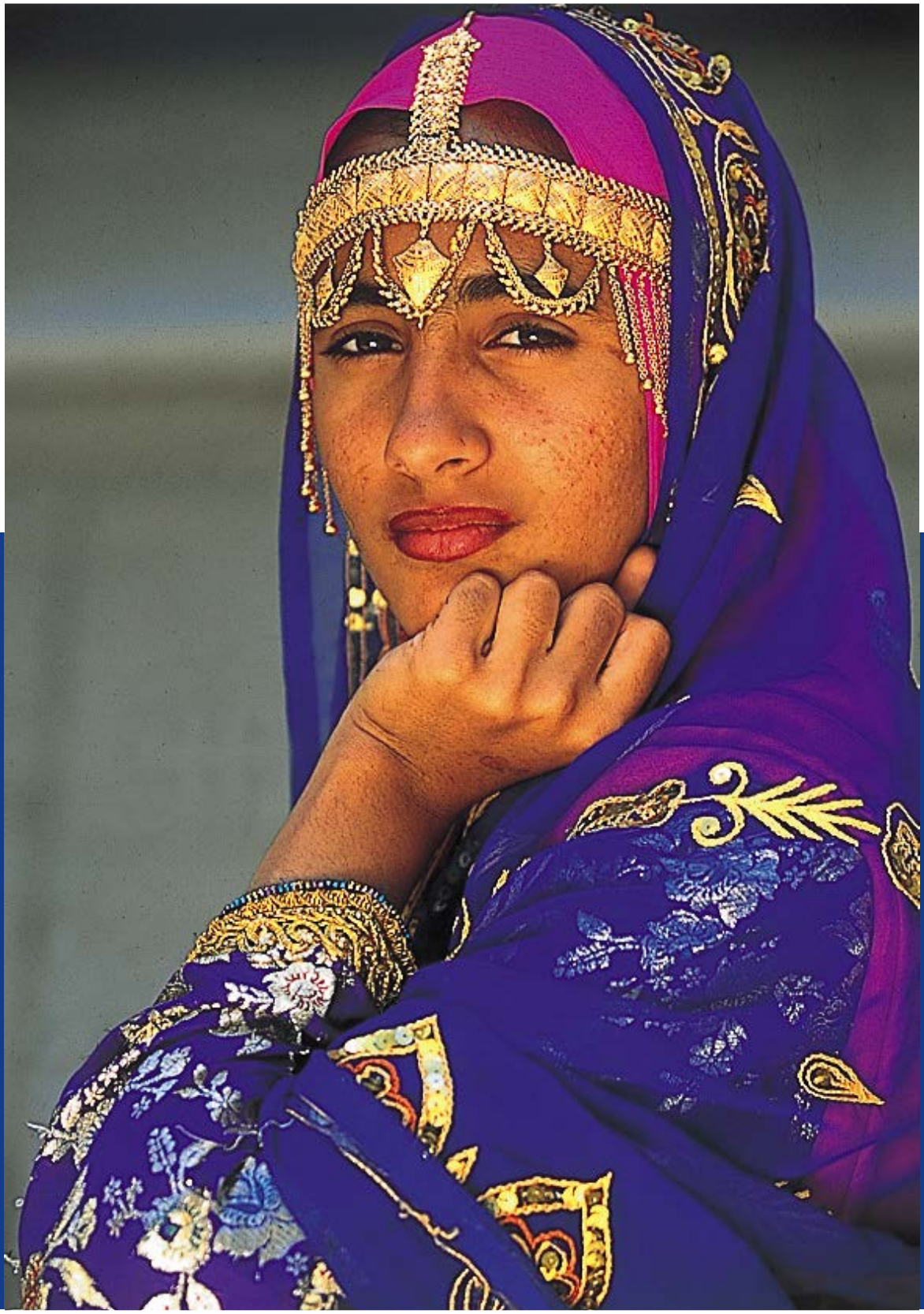




Source: 2010 Census, NCSI. The unemployment rate is the number of persons who are unemployed as a percent of the total number of employed and unemployed persons (i.e., the labour force (ILO definition).



2. Conceptual framework & methodology

14. **The primary purpose of this Situation Analysis is to enhance all stakeholders' knowledge and understanding of children's and women's rights in Oman.** It aims to alert decision makers and other stakeholders on possible emerging issues. Second, it aims to contribute to the national evidence base for planning and monitoring and to identify areas for further research. Third, the Situation Analysis aims to feed into the new Five-Year Development Plan (2017-2020) of the Government of Oman, as well as the programme of cooperation between the Government of Oman and UNICEF (2017 - 2020) and the accompanying Mid-Term Review (MTR) process.

15. **The Analysis attempts to apply the Human Rights Based Approach to Programming (HRBAP) and the UNICEF framework for analyzing inequities and bottlenecks.** The HRBAP and the Equity-Focused Approach complement each other, but cannot be applied without contextualization. To ensure analytical rigour, both approaches must also make a distinction between "manifestations" and "causes" (immediate, underlying, structural/basic), which make up the UNICEF nutrition conceptual framework.[37] The following paragraphs describe, first, the principles of the approaches and second, the challenges in applying the approaches.

The principles of the approaches

16. **The normative framework is provided by the national development priorities of Oman and its international commitments.** These include the Convention on the Rights of the Child (CRC), the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Millennium Declaration,[38] the Millennium Development Goals (MDGs) and other international development goals. All these should inform the recommendations and programming decisions at a later stage.

17. **Using HRBAP involves using the human rights lens.** In other words, the Guiding Principles of the CRC and CEDAW, as well as the Fundamental CRC principles and other human rights instruments (such as Humanitarian Principles) are used to examine the issues. If the data then allows, the HRBAP approach is integrated[a] with a *causal analysis, role-pattern analysis* and *capacity analysis*.[39] HRBAP does not necessarily involve using language such as "duty bearers" and "rights holders" which do not translate easily into another culture or language and is difficult for national and other partners. The approach involves both assessment and analysis: the two stages are not necessarily separate.

18. **The UNICEF framework for analyzing inequities and bottlenecks examines issues from the viewpoint of services (supply, demand and quality) and enabling environment** (Table 2.1). The premise of the approach is that inequities arise when certain population groups are unjustly deprived of basic resources that are available to other groups. These basic resources may include income, services or knowledge.

19. **Comparison of HRBAP and the equity analysis framework shows convergence and overlaps.** For example, a causal analysis of malnutrition will yield many causes at different levels such as poor feeding practices, lack of education in the mother, cultural beliefs, poor environmental sanitation and hygiene and so on. Additional analysis using HRBAP using the Principles of Universality and Non-Discrimination, for example, will focus on groups whose rights are not realized. Equity analysis will identify and analyse the inequities and their determinants. A role-pattern analysis of child health in HRBAP (analysing the role of health service providers and communities) would yield the same answers as an Equity Analysis of "Supply" and "Demand." An approach integrating the two would, therefore, need to avoid repetition.

a. The causal analysis, role-pattern analysis and capacity analysis have to be integrated, or there will be repetition.

Challenges in applying the approaches

20. Applying the HRBAP and the equity approach requires flexibility, an integrated perspective and, above all, disaggregated data. Additionally, a proper role and capacity analysis in the HRBAP requires qualitative data from all stakeholders, from decision makers to communities. In the equity approach, sufficiently disaggregated data are required to analyze trends and patterns in terms of equity determinants (demand, supply, quality and enabling environment).

21. In Oman, it was not possible to fully apply the equity and HRBAP approaches due to data constraints. Some sectors did not have data disaggregated by geographic area, while data disaggregated by socio-economic group were largely unavailable for many sectors. This Situation Analysis is, therefore, an initial attempt to bring the various approaches and available data together and identify the gaps. A more detailed analysis will be possible when disaggregated data from the 2014 Multiple Indicator Cluster Survey and qualitative data from other studies are available.

22. In most sections in this Report the analysis applies to Omani children but the aggregate service data may include some non-Omani children and women. Infectious diseases, for example, are recorded and monitored in Omanis and non-Omanis alike. Similarly the doctor to population ratio includes Omanis and non-Omanis but in employment, Omanis are distinguished from non-Omanis as necessary. In surveys such as those on undernutrition and behaviour, the analysis relates to Omanis, since the sampling frameworks seem to be constructed to exclude non-Omanis. Statistics on expatriates are not always available or consistent, since expatriate families come and go. In any case, the expatriate population, although significant, comprises largely working age males. In 2012, expatriate children accounted for less than 3 percent of the total population and less than 11 per cent of Oman's population below the age of 20.

Table 2.1
UNICEF's equity-based approach.

Key determinants of barriers and bottlenecks, leading to inequities

	Determinants	Description
Enabling Environment	Social Norms	Widely followed social rules of behaviour
	Legislation/Policy	Adequacy of laws and policies and implementation bottlenecks
	Budget/expenditure	Allocation & disbursement of required resources
	Management /Coordination	Roles and Accountability/ Coordination/ Partnership
Supply	Availability of essential commodities/inputs	Essential commodities/ inputs required to deliver a service or adopt a practice
	Access to adequately staffed services, facilities and information	Physical access (services, facilities/information)
Demand	Financial access	Direct and indirect costs for services/ practices; socio-economic level of household
	Social and cultural practices and beliefs	Individual/ community beliefs, awareness, behaviours, practices, attitudes
	Continuity of use	Completion/ continuity in service, practice
Quality	Quality	Adherence to required quality standards (national or international norms)

Source: UNICEF (2012): Guidance on Conducting a Situation Analysis of Children's and Women's Rights. New York: United Nations Children's Fund.[40]

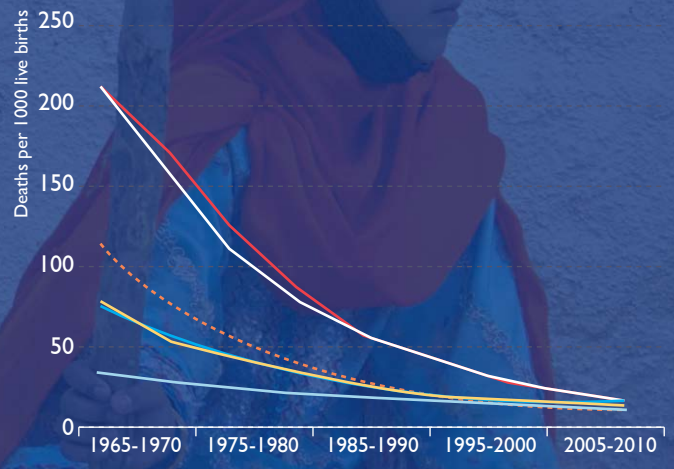
3 The overall situation of children and women

3.1 Trends and outcomes

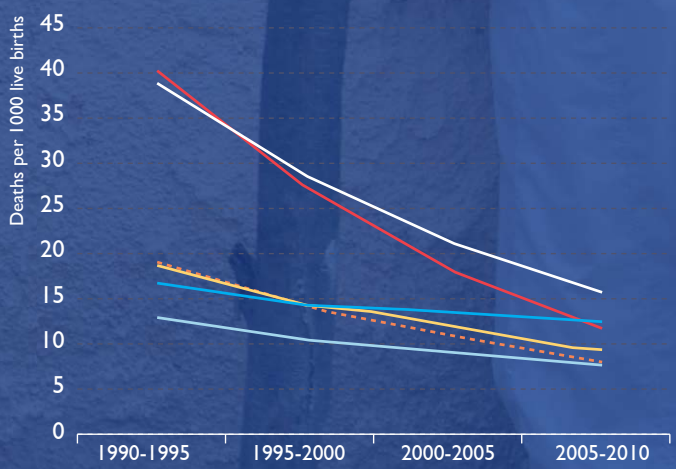
23. **The statistics underscore Oman's remarkable progress just over four decades.** In 1971, adult life expectancy was 51 years and one in every five children was likely to die before the fifth birthday.[41] By 2011, life expectancy had increased to 76 years, while 99 out of every 100 children could expect to live beyond the fifth birthday.[42] Over 98 per cent of children are immunized today, in contrast to 20 per cent in the 1980s, and the last virologically-confirmed polio case was reported in December 1993.[43] In 1971, only 5 per cent of boys and 1 per cent of girls were enrolled in school.[44] Today, both girls and boys enjoy universal primary education; secondary net enrolment rates are 88 per cent for girls and 80 per cent for boys;[45] and 98 per cent of youth in the age group 15 to 24 years are literate.[46 a] From an under-developed nation with almost no basic services in 1971, Oman has become a modern welfare state with infrastructure and services serving the needs of its children, women and men. A well developed health care system provides preventive and curative services free of charge to all Omani citizens. Public schools offer free education at all levels, including for expatriate children, together with free school transportation.

Figure 3.1

a. Under-five mortality trends, 1975-2010



b. Under-five mortality trends, 1995-2010



More developed regions* UAE Kuwait Oman Saudi Arabia Qatar

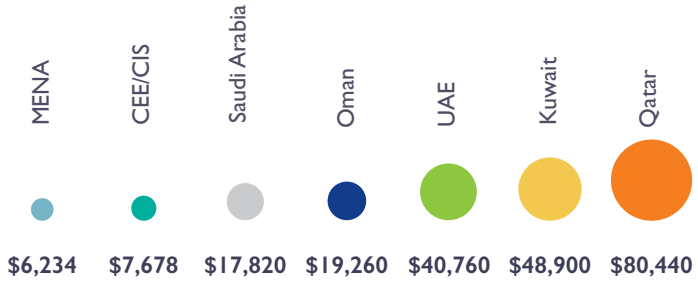
More developed regions comprise Europe, Northern America, Australia/New Zealand and Japan.

Source: UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA Population Division)

a. See also Figure 7.4

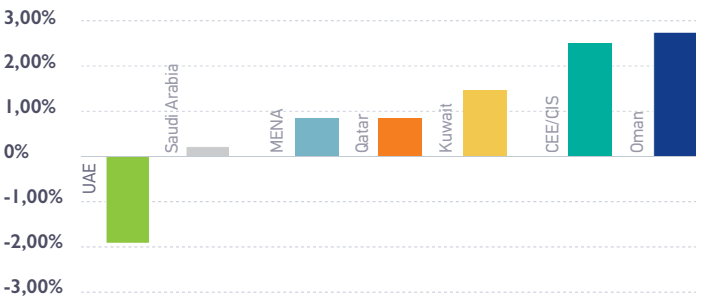
24. **Oman is amongst the world's top performers in reducing child mortality.** In this respect, it has overtaken other countries in the region that have higher GNI per capita, all the while maintaining consistent GDP growth (Figures 3.1 (a), 3.1 (b), 3.2 and 3.3). Oman ranks third amongst 195 countries and territories in terms of the reduction rate in under-five mortality since 1990.[a] Oman has reduced its under-five mortality rate by 82 per cent since 1990, well above that required by the international target for MDG 4 (Figure 3.4). Oman has also reduced its total fertility rate (TFR) at an average annual rate of 5.5 per cent over the period 1990-2011, making it one of the world's top countries in this respect (Figure 3.5).[b]

Figure 3.2
GNI per capita, 2011



Source: World Bank estimates. Gross national income per capita in current US$, World Bank Atlas method.

Figure 3.3
Average annual growth rate in GDP per capita, 1990 to 2011



Source: World Bank estimates.

Figure 3.4
Total under-five mortality reduction since 1990 (1990-2011)

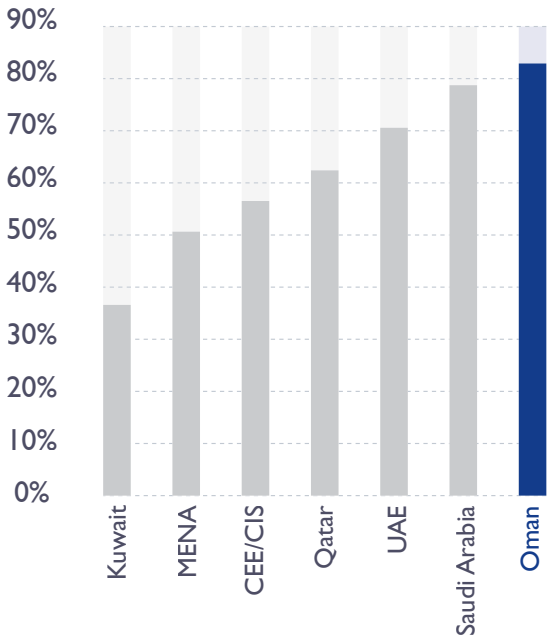
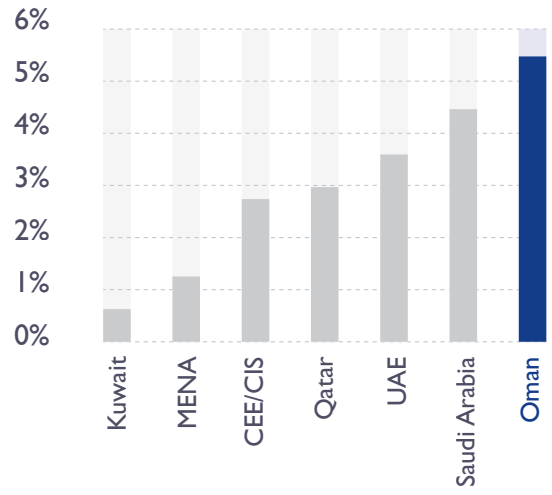


Figure 3.5
Average annual reduction rate in Total Fertility Rate (1990-2011)



Source: UNICEF. State of the World's Children 2013.

a. San Marino and the Maldives showed the greatest amounts of under-five mortality rate reduction during the period in question (85 and 90 per cent respectively of 1990 levels). 1990 is the baseline year for the Millennium Development Goals (MDGs).

b. Only the Maldives was faster in reducing TFR.

3.2 Enabling environment

25. **Oman administers a system of Sharia law, as well as compatible Omani laws. Legislation is promulgated by Royal Decree.** Pursuant to these Royal Decrees are Ministerial Decisions and Executive Regulations issued by the Government. The Omani Basic Statute of the State, of a constitutional nature, was promulgated in 1996 by Royal Decree 101 and states that Islam is the religion of the State and Islamic Sharia is the basis of legislation. A Personal Status Law was introduced by Royal Decree 32 in 1997, which addresses some aspects of family law, including marriage contracts, divorce, the rights and obligations of spouses, maintenance obligations, the nursing of children, guardianship and inheritance provisions.

26. **The Basic Statute seeks to accommodate the mixed diversities that exist in Oman.** It prohibits discrimination between citizens on the basis of "gender, origin, colour, language, religion, sect, domicile, or social status." There are no formal restrictions for either males or females in education, jobs or public services. To ensure equal justice for women, the government passed a law in 2008 stipulating equal consideration for the legal testimonies of men and women.[47] Article 35 of the Basic Statute grants personal and property protection to foreigners with legal residency in Oman.[48] In 2008, Oman established a new National Human Rights Commission.

27. **The recent adoption of Oman's Child Law on 19 May 2014 protects children further.** The Child Law was promulgated with Royal Decree No. 22/2014. The Law covers a wide range of issues, ranging from child survival, health and education to protection and recreation issues.

28. **Oman provides its citizens with extensive social services and social assistance.** Free health care, education, social protection and social security programmes have contributed to mitigating poverty. The Government's anti-poverty measures include social security programmes that provide allowances and other assistance for vulnerable groups such as orphans, widows, and divorced, unmarried or abandoned women, and families without an able breadwinner. The Government also provides assistance such as training and other measures to promote employment for those from these vulnerable groups and for job seekers.[49] Those with special needs, such as children with disability, are provided with services and programmes (Chapter 8). Pensions and social insurance have expanded to include both public and private sector employees. Nationals employed in the private sector are guaranteed a minimum monthly wage.[50]

29. **Despite the remarkable progress, developing the full potential of Oman's children and young people still faces challenges.** The later sections of this Situation Analysis reviews some of these challenges, notably in the areas of early childhood development (ECD), nutrition, child health, education, and protection and care for children and youth. One cross-cutting issue is the effective implementation of existing legislation, which requires evidence-based planning, monitoring and evaluation for quality control, and the strengthening of capacity, especially at regional and wilayat levels. Initiatives already being taken in this direction include capacity building for establishing a social observatory and disability observatory, the strengthening of data systems, and the implementation of various data collection initiatives, such as the Multiple Indicator Cluster Survey (MICS).[51]

30. **Certain issues highlighted by international bodies are sensitive.** Oman has committed to several international human rights treaties and conventions (Table 2.1). As part of the reporting process for the Convention on the Rights of the Child (CRC), the UN CRC Committee issued its Concluding Observations on Oman's second periodic report.[52] The Government has addressed some of these issues. Others remain, due to their divergence from Omani law or from societal beliefs and practices. The Committee commended government efforts to break the silence around sensitive issues, and urged action on the remaining issues.[53]

31. **In 2011, Oman repealed all but one of its reservations to the CRC.** Formerly, Oman's reservations on CRC in 1996 had related to all provisions not in accordance with Oman's Islamic sharia and legislation, notably on adoption (Article 21), public safety (Article 9, paragraph 4), nationality (Article 7) and religion (Articles 14 and 30). Revoking the reservation on paragraph 4 of Article 9 allows the state to share information on family members with the child (or vice versa) in the context of a separation between the parent and child by the state, such as detention, imprisonment or deportation. Lifting the reservation to Article 30 allows children from religious minorities to profess and practice their respective religions. The remaining reservation[54] is on Article 14, which accords a child the right to choose his or her religion.

32. **Some reservations still remain on CEDAW.** Oman's reservations on CEDAW at the time of accession relate to those provisions not in accordance with the country's Islamic sharia and legislation, specifically Articles 9, 15 and 16. These Articles relate to the rights of women and men with respect to their children's nationality, movement of persons and freedom to choose their residence and domicile, and the adoption of children. In 2011, the UN Committee on the Elimination of Discrimination Against Women noted Oman's positive record in adhering to international human rights conventions and its willingness to reform its domestic legislation in accordance with its international law obligations.[55]

3.3 Gender equality

33. **Oman has made significant progress in women's empowerment and gender equality.** Omani women have taken significant roles in nation building and sustainable development.[a] The Sultanate is currently preparing a national strategy that reflects the efforts made by the government to enhance the role of women in society. The strategy aims at ensuring the active and full involvement of women in socioeconomic development process as well as the enhanced participation and better representation of women in decision-making process. In 2008, the government revised laws to provide women with the same rights as men in obtaining government loans and acquiring government land.[56] The UN Committee on the Elimination of Discrimination Against Women also welcomed the promulgation of the Royal Decree 55/2010 supporting women's rights in the private sphere of family relations and marriage by preventing guardians from obstructing women's decision to marry and their choice of husbands. The UN Committee also welcomed the Human Trafficking Act promulgated by Royal Decree No. 126/2008 to combat trafficking in human beings, which was in accordance with the Palermo Protocol.[57] Additionally, after amendment of the Omani Passport Law, a woman now has the right to have a passport without approval from her husband, unlike in previous times. Indeed, the Basic Statutes of the State ensures freedom of residence and travel for all citizens.

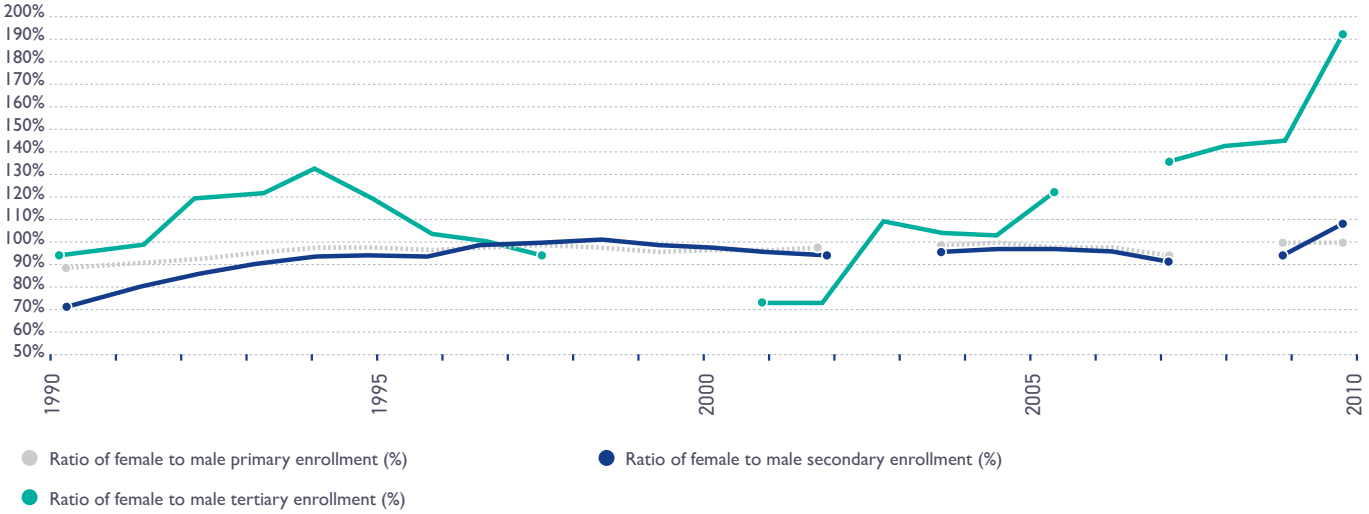
34. In education, female enrolment has achieved parity with, and even overtaken male enrolment (Figure 3.6). Despite the fluctuations in the trends (especially at tertiary level, which indicate that data quality could be an issue), the data show that since 1990, the ratio of female to male enrolment has increased and remained high at all three levels of primary, secondary and tertiary education. The narrowing of the gender gap was slower at the secondary level than that at the primary level. On the other hand, the proportion of females enrolled in tertiary education generally exceeds the corresponding proportion of males.

35. **The Government promotes women's participation in public service.** In 2010, 24 per cent of all public sector jobs were held by women,[58] and this proportion has increased to 44 per cent in 2013 of total government jobs, according to Omani Government sources. A four-phase training programme was implemented in 2012–2014 to develop women trainers in the areas of legal, social and political empowerment for Omani women, with a view to training female government employees in all governorates. The women trainers have begun training others, and the programme continued in 2014 and 2015 in its second phase to include 19 trainees in the same field, and this is expected to continue in the years to come.

a. The Omani Woman Symposium, 17-19 October 2009. The Symposium also emphasized the importance of the gender perspective in the policy and decision-making process.

Figure 3.6

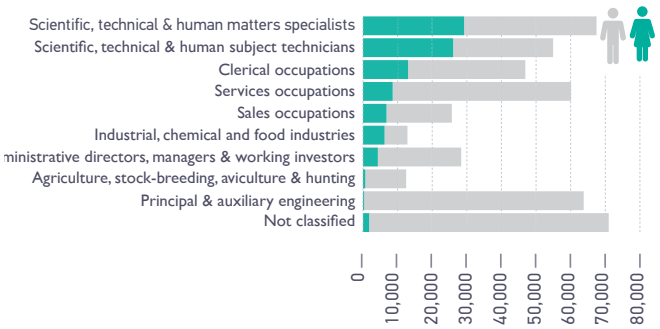
Ratio of female to male enrollment at each level of education



Note:These are not enroment rates, which are given in Chapter 7. Source: UNESCO Institute of Statistics

Figure 3.7

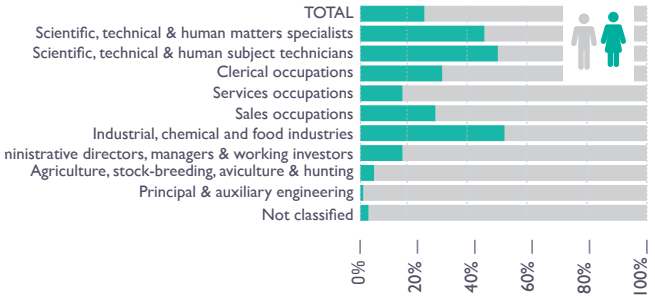
Numbers of employed Omanis by occupation and sex, 2010



Source: 2010 Census, NCSI. Note the significant number of workers, mainly male, who are not classified into any of these categories.These account for %16 of the total.

Figure 3.8

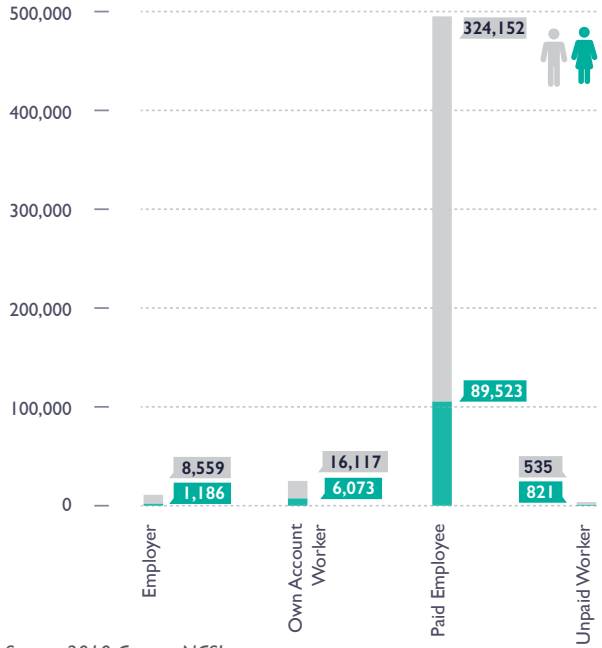
Percentage of employed Omani, female and male, in each occupation, 2010



Source: 2010 Census, NCSI.

Figure 3.9

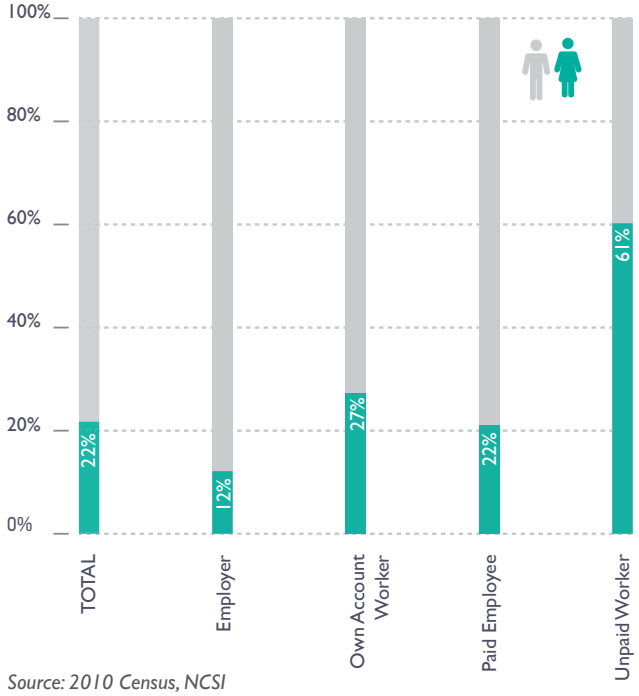
Numbers of women & men in each category of employment, 2010



Source: 2010 Census, NCSI

Figure 3.10

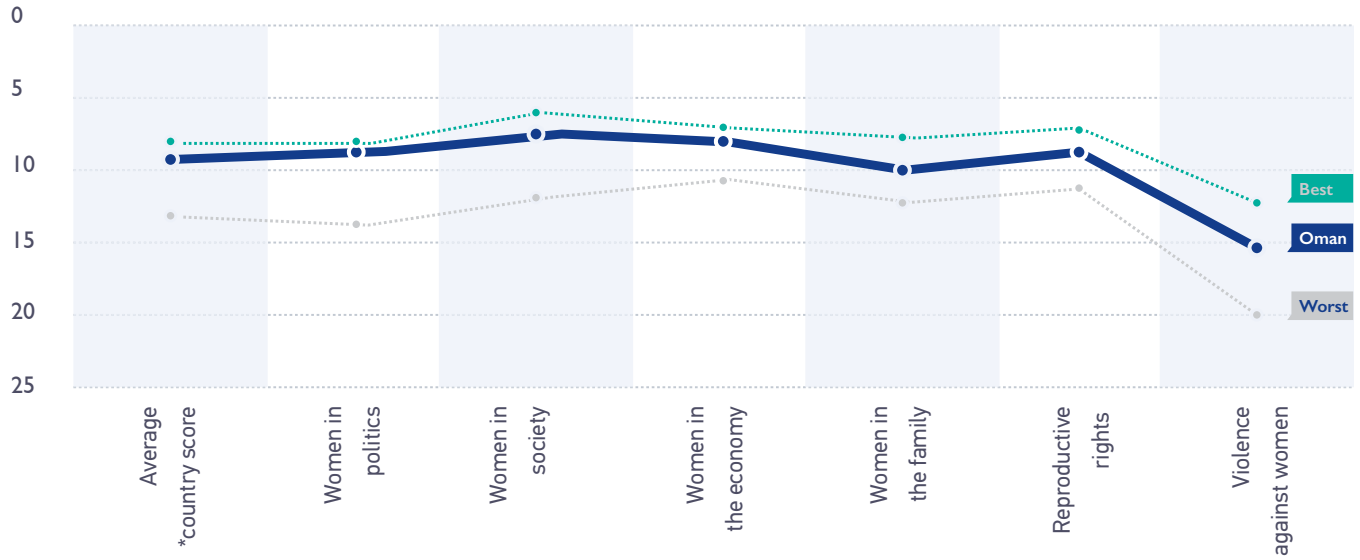
Numbers of employed Omanis by occupation and sex, 2010



Source: 2010 Census, NCSI

Figure 3.11

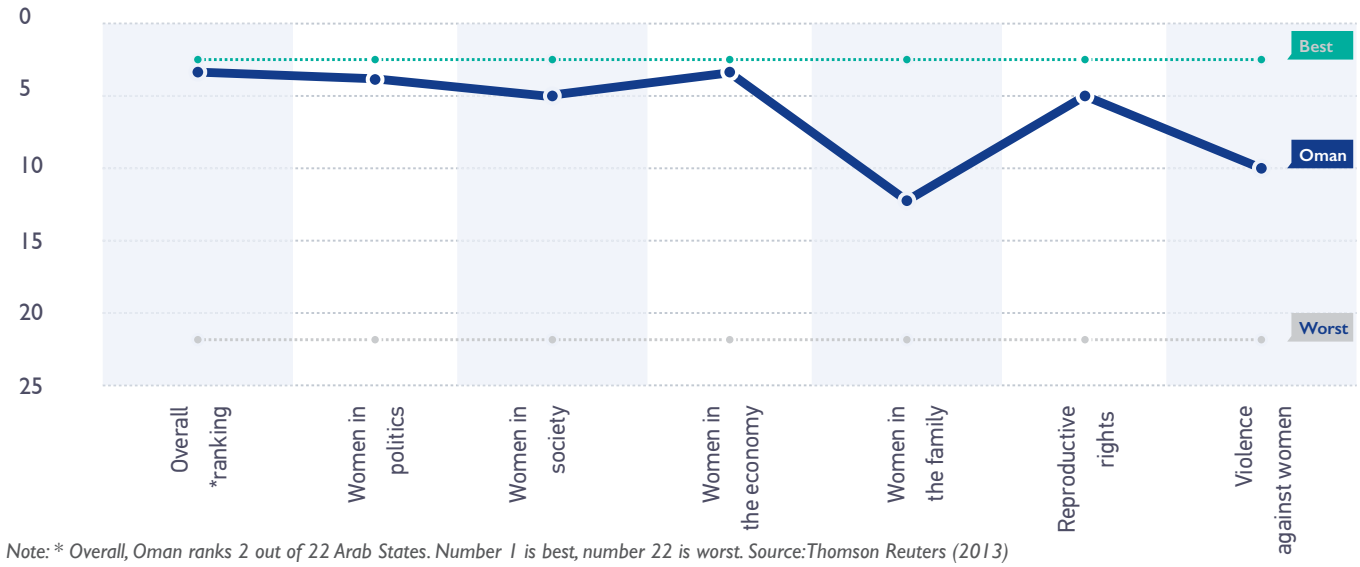
Worst & best states for women in the Arab region: actual scores derived from polls



*The higher the score, the worse the country. * Average country score was derived by averaging the scores from each category. Source: Thomson Reuters (2013).*

Figure 3.12

Worst & best states for women in the Arab region: ranking of 22 Arab states



*Note: * Overall, Oman ranks 2 out of 22 Arab States. Number 1 is best, number 22 is worst. Source: Thomson Reuters (2013)*

36. **The role of women in politics has increased.** Oman gave women the right to vote and to stand for election in 1994, the first Gulf Cooperation Council (GCC) state to do so. In 1995, women participated as candidates representing Muscat in the elections for the Shura Council (the Lower House of Parliament). Two women were elected and proved their capability. In 1997, the government publicized this experience amongst all the governorates to promote women as candidates for the Shura Council. Oman is seeing a sharp increase in female voters, from 11 per cent of total voters in the elections for the term 1997-2000 to 44 per cent in the elections for the term 2011-2015, indicating an increasing political awareness of women. In 2012, nine women were elected as council members in municipal council elections.

37. **The Government is committed to equipping women with skills for running successfully in Shura elections.** For the term 2011-2015, the Ministry of Social Development held training courses for the female candidates for Shura Council to build their capacities in the election process. Training courses were held over two stages: stage one on communication skills was held from 30/4/2011 until 4/5/2011, and stage two on media skills was held from 14/5/2011 until 18/5/2011. Voluntary lectures on the political empowerment of Omani women were also held. Furthermore, several

measures were implemented to encourage women's political participation, including: facilitating women's access to polling stations in various states and provinces during the seventh session of the Shura Council elections; advertising the agenda of each female candidate in newspapers; as well as a panel discussion on the important role of Omani women in the Shura Council, during the Scientific Forum on Empowerment and Social Responsibility in October 2011. In October 2013 the Scientific Forum addressed the role that women play in the education of their families during a panel discussion on the municipal councils specializing in service delivery and development, the importance of the participation of Omani women as members in these councils, and the challenges they face. In addition, a number of training programmes in the areas of strategic planning and effective management were organized for females in positions of leadership between 2010-2013; 120 female leaders attended each of these programmes and 60 volunteers participated in a training programme on legal awareness.

38. **Efforts are being made to improve women's legal literacy.** As many women are unaware of their basic rights under Omani Law, the Ministry of National Economy and the Ministry of Social Development have made efforts to educate and sensitize women in this respect.[59] In an effort to enhance legal literacy amongst all individuals in Omani society, and in particular women, the Ministry of Social Development issued explanatory notes on local laws related to family and women, published books, and held workshops and seminars for around 5,000 participants from different governorates.

39. **The participation of Omani women in different economic sectors is a significant contribution to society.** The Government has encouraged this trend and continues to stimulate women's participation in the economic development process by providing various kinds of support and encouragement, such as training, counselling, capital and marketing support.[60] The role of Omani women is also visible at the enterprise level, particularly in the textile and garment factories, where the majority of women workers are concentrated. The presence of women in workers' unions is expected to be influential in the development of the workers' unions' movement in the Sultanate.[61] Efforts are underway to create new job opportunities for women in tourism and private education, and increase the number of training programmes for girls. The Chamber of Commerce and Industry is an active partner in these endeavours. Many Omani women are running their own businesses from their homes. As mentioned in Chapter 1, the low LFPR amongst women may reflect the desire of the women themselves to prioritize family and child rearing. The Sultanate has also worked towards establishing mechanisms to support the economic participation of women, such as:

1. **"Alrafd" Fund** which was created by Royal Decree No. 6/2013. The Fund was established with an initial capital of 70 million Omani Rials in order to enable and support young male and female entrepreneurs looking for jobs, rural women, those depending on social security, as well as professionals and artisans of both sexes, in addition to existing small and medium-sized business owners.

2. **The General Authority for the Development of Small and Medium Enterprises:** Established by Royal Decree 36/2013, the Authority aims to strengthen the role of small and medium enterprises that can offer a variety of job opportunities for Omani youth of both sexes.

3. **National Business Centre:** This was established in 2012 to be the leading platform to support pioneers of Omani business from both sexes in the development of successful business ventures. The centre is considered to be part of an overall government strategy to support small and medium-sized Omani businesses which would contribute to advancing the Omani economy and create new job opportunities in the Omani market.

40. **Omani women are expanding to technical and specialist areas (Figure 3.7).** Women comprise 43 to 50 per cent of those employed in industries and as specialists and technicians (figure 3.8). In clerical and sales jobs, men account for 72 to 74 per cent of employment. The greatest numbers of women work as paid employees in the public and private sector (Figures 3.9 and 3.10). Women represent 22 per cent of all those in employment. They account for 22 per cent of paid employees, 12 per cent of employers, 27 per cent of own account workers, and 61 per cent of unpaid workers. The female unpaid workers, however, represent less than 1 per cent of all Omani women in employment.

41. **Oman is amongst the countries leading the Arab region in the realization of women's rights.** A 2013 poll of gender experts showed that Oman ranked sec-

ond in the region.[62] The poll covered six categories based on key CEDAW Articles. The experts were selected from local, national, regional and international humanitarian, development and human rights organizations, academia, media, health care systems, refugee shelters, women's shelters, legal advisers and activists, with a strong preference for female respondents. Examination of both Oman's actual score accorded by these gender experts (Figure 3.11) and its ranking relative to other countries (Figure 3.12) provides a fuller picture. According to the standards used in the poll, the Arab region as a whole lags behind in preventing violence against women and performs best in the area defined as "women in society." Oman performs best in the areas of women in economy and women in politics, and has a relatively weak performance in "Women in the family" and "Violence against women," according to the poll.

3.4 Environment

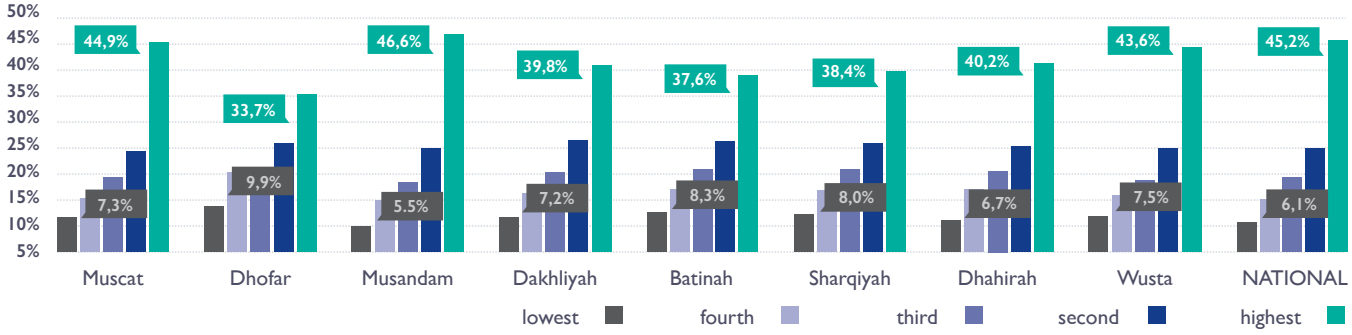
42. **Oman faces challenges related to environmental issues.** Oman's carbon footprint is amongst the highest in the world, due largely to consumer subsidies, the dependence on private cars, and inefficiencies in the use of water and energy, including in agricultural activities.[63] Other challenges include rising soil salinity, beach pollution from oil spills, limited natural freshwater resources and periodic droughts. Irrigation-intensive agriculture along the fertile coastal region of Batinah often leads to saline intrusion into aquifers, while overgrazing and desertification are growing problems in the south. The Government of the Sultanate of Oman has prioritized environmental issues on its national agenda, not only because these issues are already affecting children's lives, but also have an impact on the quality of life for Oman's future generations.

43. **Oman leads the Gulf region in environmental policy and legislation.** Oman is party[64] to several international environmental conventions treaties and protocols,[65] which are subsequently reflected in primary legislation (Royal Decrees) and secondary legislation (Ministerial Decrees). The first country in the region with a comprehensive environment law, Oman has a national integrated environmental policy with high-level, cross-cutting bodies under the direct control of the Government. The Ministry of Environment and Climate Affairs authorizes and regulates activities that may damage the environment. Oman's environmental law covers the most important areas (such as environmental permits; the "polluter pays" principle; environmental impact statements). The standards required by the legislation are high in many cases, and there are potentially heavy sanctions for breach of the legislation.[66] Further legislation will be needed to regulate new activities, with the growing focus on renewable energy technologies and carbon reduction.

3.5 Disparities and vulnerabilities

44. Consumption inequality shows subnational disparities but less so than some other countries in the region. Oman's Gini index[67] was 30.7 per cent in 2010/11.[68] This is similar to that for Egypt (30.8 per cent in 2008) but is generally lower than the Gini index in other countries in the region with available data, meaning that inequality in Oman is less.[a] Consumption data indicate the disparities between the governorates: Muscat's per capita consumption is one and a half times the national average and about twice that of Dhofar and Al Batinah (Figure 3.13). The magnitude of inequal-

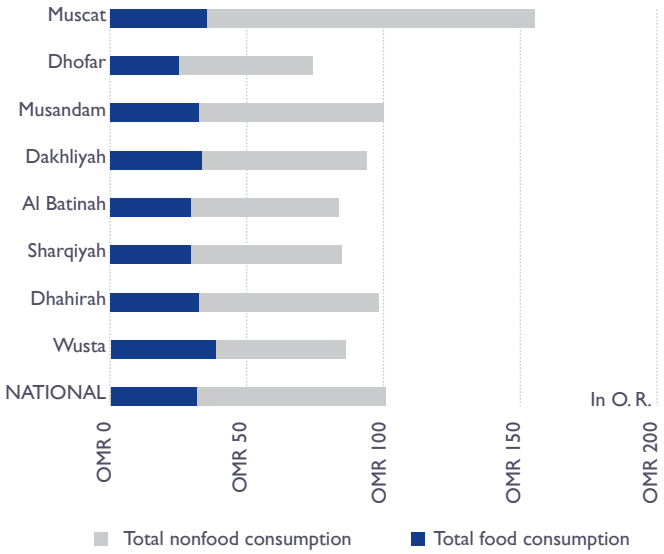
Figure 3.14
Percentage share of total consumption by quintile and governorate, Omani households, 2010/11



Source: Household Expenditure and Income Surveys, 2006-2011, NCSI

a. Gini indices: 35.4 per cent for Jordan, 2010; 36.1 per cent for Tunisia, 2010; 40.9 per cent for Morocco, 2007 and 41.1 per cent for Qatar, 2007. Source: World Bank, 2014

Figure 3.13
Average monthly per capita consumption in Omani households for food and non-food items by region, 2010/11

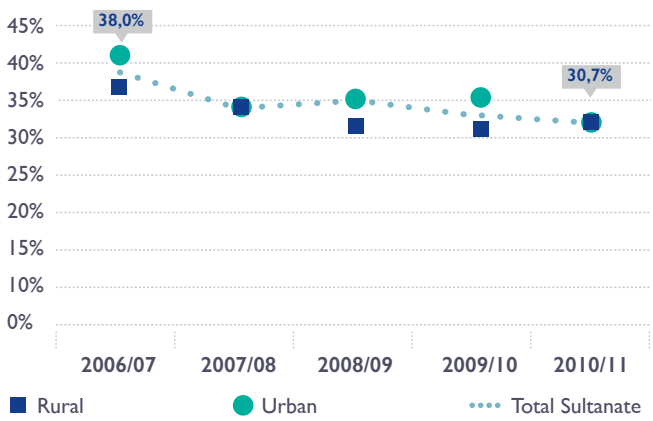


Source: Household Expenditure and Income Surveys, 2006-2011, NCSI

ity varies by region: the gap between rich and poor is greatest in Musandam and Muscat, and narrowest in Dhofar. In Musandam, the richest quintile accounts for nearly half that region's consumption, whilst in Dhofar, the richest quintile accounts for only one-third of the region's consumption. At the national level, in the period 2010-2011, the richest quintile accounted for 45 per cent of the country's consumption whilst the poorest quintile accounted for 6 per cent of consumption (Figure 3.14).

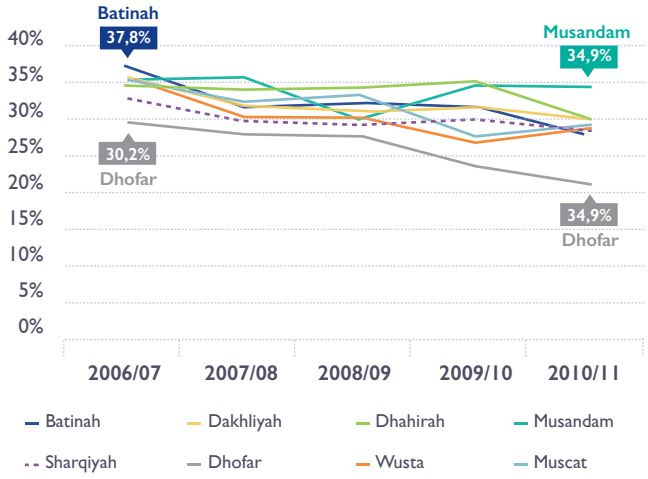
45. Remarkably, consumption inequality in Oman decreased from 2006 to 2011. Some other countries in the region show a rise in inequality, whilst others that show a decline in inequality have not matched that of Oman. Over just five years, Gini index in Oman has dropped 7.3 percentage points (Figure 3.15). The decline in equality varies among governorates. Musandam's Gini index has declined by just one percentage point, whilst Gini index in Al Batinah and Dhofar decreased by 9.3 and 8.8 percentage points respectively (Figure 3.16). The decline in inequality is also supported by the pattern of consumption across wealth quintiles. In 2006/2007, the richest quintile accounted for 54 per cent of the country's consumption whilst the poorest quintile accounted for 5 per cent of consumption. Five years on, the gap had narrowed by 9.5 percentage points, due to gains in the consumption shares of the second, third and fourth quintiles and a corresponding drop in the consumption share of the richest quintile (Figure 3.17).

Figure 3.15
Evolution of Gini indices over time, Omani households



Source: Household Expenditure and Income Surveys, 2006-2011, NCSI.

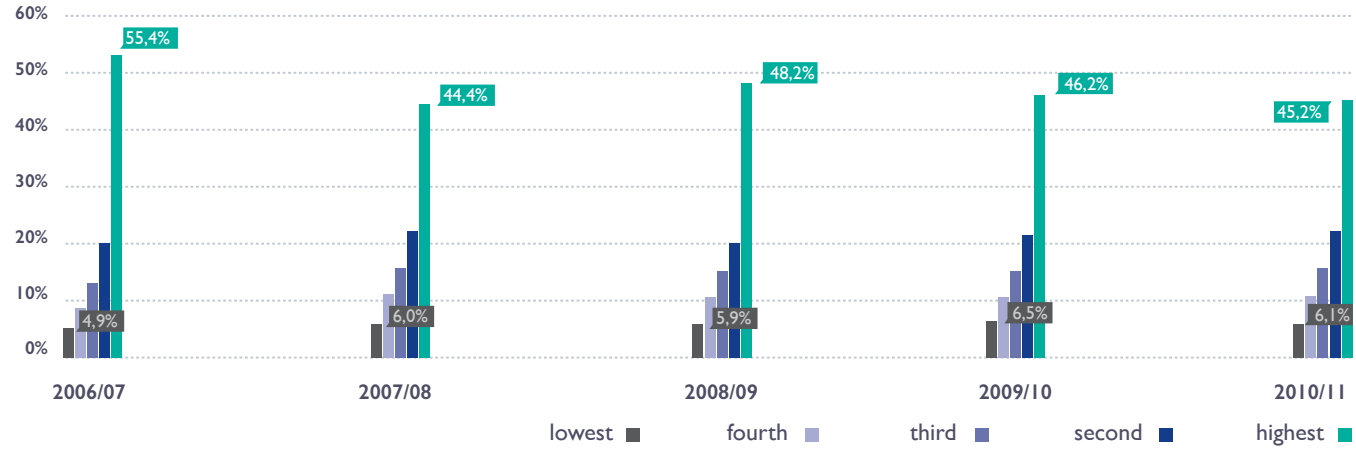
Figure 3.16
Gini indices by region, 2006/07-2010/11, Omani households



Source: Household Expenditure and Income Surveys, 2006-2011, NCSI.

Figure 3.17

Percentage share of total consumption by quintile, Omani households, 2006/07-2010/11



Source: Household Expenditure and Income Surveys, 2006-2011, NCSI

Table 3.1

Status of the Sultanate of Oman on UN Human Rights Treaties & Labour Conventions

Abbreviation	Treaty [1]	Date of ratification or accession[69]
CRC	Convention on the Rights of the Child	Accession: 09 Dec 1996
CERD	International Convention on the Elimination of All Forms of Racial Discrimination	Accession: 02 Jan 2003
CRC-OP-AC	Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict	Accession: 17 Sep 2004
CRC-OP-SC	Optional Protocol to the Convention on the Rights of the Child on the sale of children child prostitution and child pornography	Accession: 17 Sep 2004
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women	Accession: 07 Feb 2006
CRPD	Convention on the Rights of Persons with Disabilities	Signature: 17 Mar 2008 Ratification: 06 Jan 2009
	ILO Conventions[2]	
C029	Forced Labour Convention, 1930 (No. 29)	30 Oct 1998 In Force
C105	Abolition of Forced Labour Convention, 1957 (No. 105)	21 Jul 2005 In Force
C138	Minimum Age Convention, 1973 (No. 138) Minimum age specified: 15 years	21 Jul 2005 In Force
C182	Worst Forms of Child Labour Convention, 1999 (No. 182)	11 Jun 2001 In Force

Sources: [1] UN-OHCHR, 2014. [2] ILO, 2014.

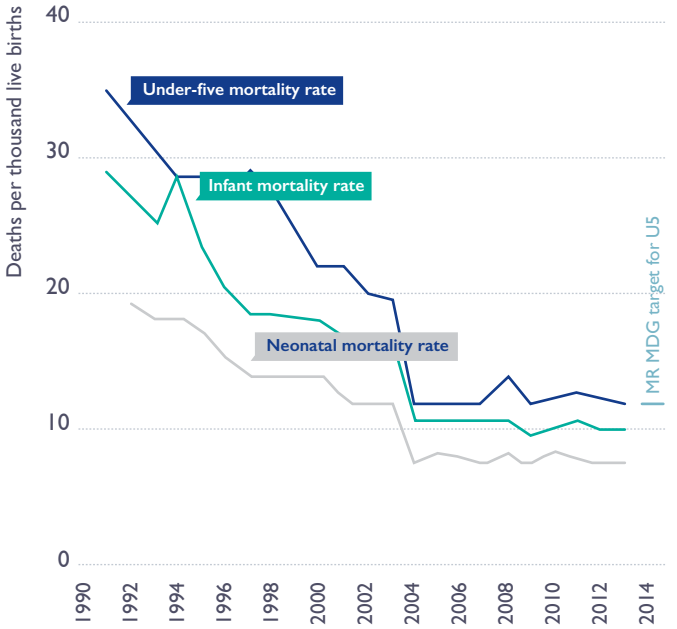
4 Maternal and child health

Since Oman started to modernize its services, maternal and child health have received priority attention, and the outcomes today show the success that these programmes have achieved. The Sultanate received the UN Award for Public Service for the sixth time – the 2014 award was to the Ministry of Health for its Omani Nurse-Midwife Project in the category of Promoting Gender Responsive Delivery of Public Services.

4.1 Trends and outcomes

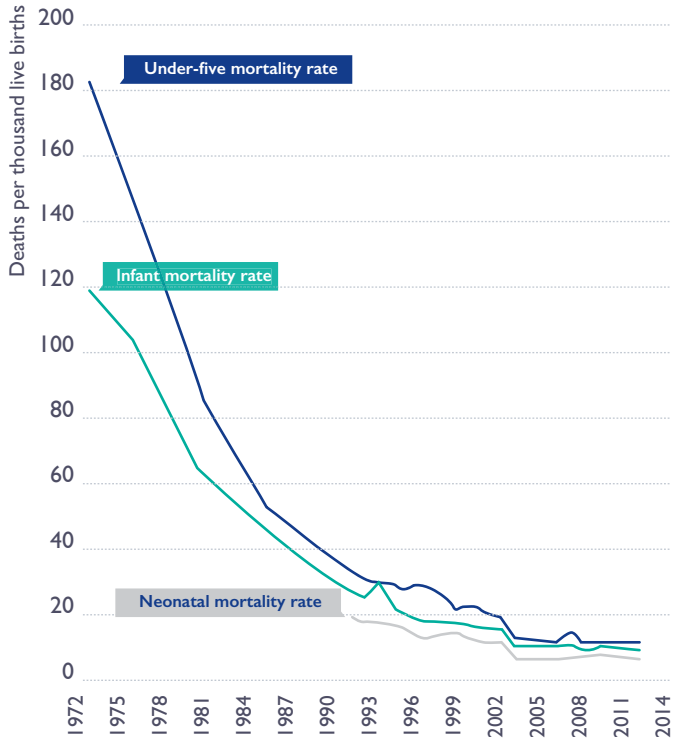
46. **Oman's progress in reducing infant and child mortality has been remarkable** (Figure 4.1). Having cut its 1990 under-five deaths by two-thirds since a few years ago, Oman has achieved the internationally set target of MDG 4[a] on reducing child mortality (Figure 4.2). As the country continues moving towards a higher level of development, child deaths from infections and malnutrition have declined. Consequently, the share of deaths due to neonatal causes has increased within overall under-five mortality. Oman's under five, infant and neonatal mortality rates are now approaching those of the United Kingdom, a country representative of the OECD average in this respect (Figure 4.3). Ministry of Health statistics show that in 1995, neonatal mortality accounted for 55 per cent of Oman's under-five mortality; by 2012, this proportion had increased to 60 per cent. In the UK, the share is around 63 per cent.

Figure 4.2
National estimates of Oman›s under-five, infant and neonatal mortality rates, 1990-2012



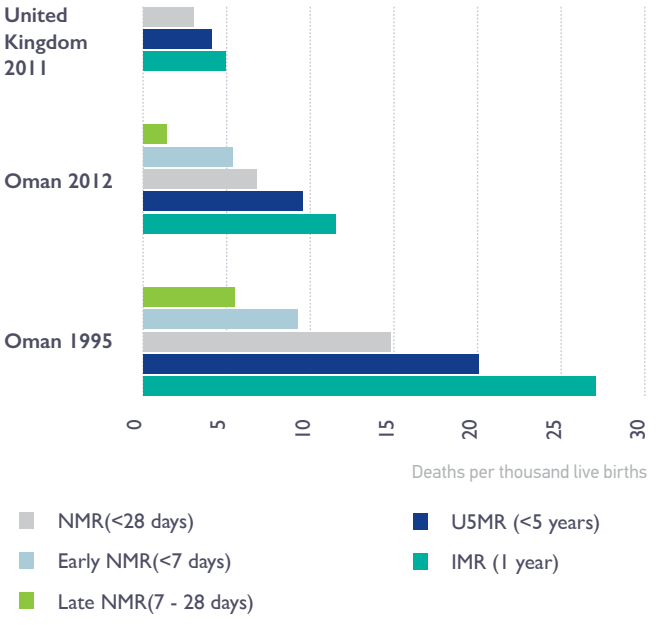
Source: Ministry of Health, Sultanate of Oman

Figure 4.1
National estimates of Oman's under-five, infant and neonatal mortality rates, 1972-2012



Source: Ministry of Health, Sultanate of Oman

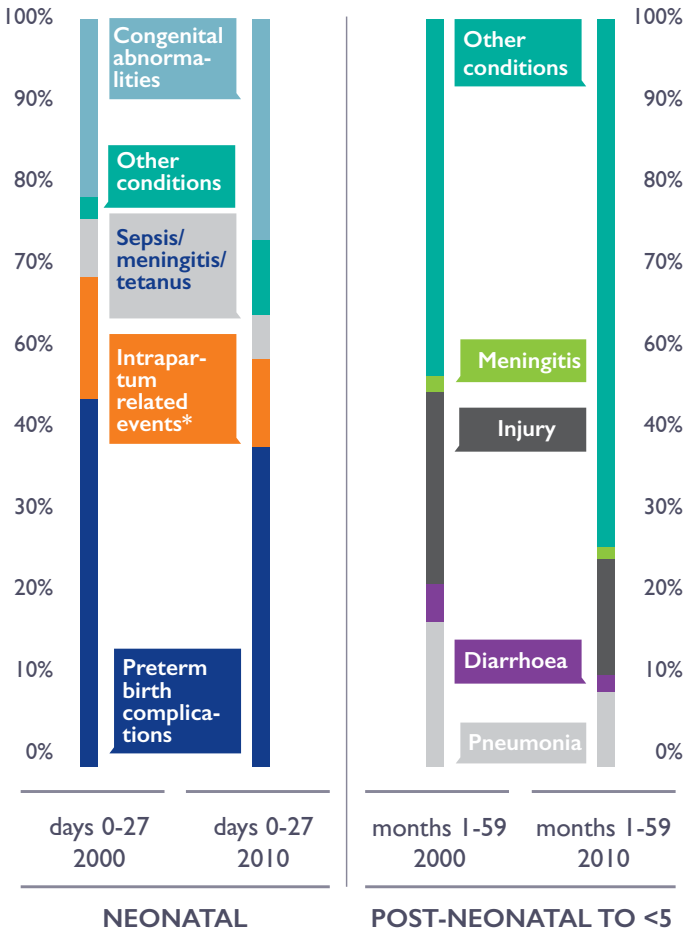
Figure 4.3
The composition of under-five mortality, Oman (1995-2012) and an OECD country (2011)



Source: Ministry of Health, Sultanate of Oman and OECD database

a. MDG 4 as adopted by the international community: "Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate".

Figure 4.4
Main causes of neonatal & under-5 mortality in Oman, 2000 and 2010



** Formerly referred to as "birth asphyxia." See Table 4.1 for details.*

Source: WHO calculations from Ministries of Health reports. http://cherg.org/projects/underlying_causes.html

47. **The proportions of the different causes of young child death have changed over the past ten years or so**[70] (Figure 4.4 and Table 4.1). The neonatal deaths are caused mainly by congenital abnormalities and by the events surrounding childbirth and birth complications. After the first month, the main causes of young child deaths in Oman are pneumonia and injury, followed by smaller proportions of infectious diseases. The main trends over the 2000-2010 period show a decrease in neonatal deaths due to pre-term birth complications, birth asphyxia, sepsis, most likely due to an improved quality of maternal and child health services, whilst the relative share of neonatal deaths due to congenital abnormalities has increased. In the older age group (1 to 59 months), the share of infectious diseases such as diarrhoea, pneumonia and meningitis have declined over the 2000-2010 period, whilst the share of other conditions has consequently increased. The Ministry of Health reports[71] show that these other conditions include congenital abnormalities, septicaemia and diseases of the circulatory system.

48. **Reducing child deaths further will require attention to the neonatal period and to congenital causes and injuries.** As in other countries that have made the epidemiologic transition, the share of deaths due to causes other than infections have risen, such as injury. In the age group 15-24 years, all forms of injuries including intracranial injuries account for over 40 per cent of death. Neoplasm and leukaemia, cardiac dysrhythmias and congenital anomalies of heart and circulatory system remain significant throughout as contributors to deaths of children older than five years (Table 4.2). At the same time, as later sections show, some parts of Oman are still challenged by infectious diseases such as diarrhoea.

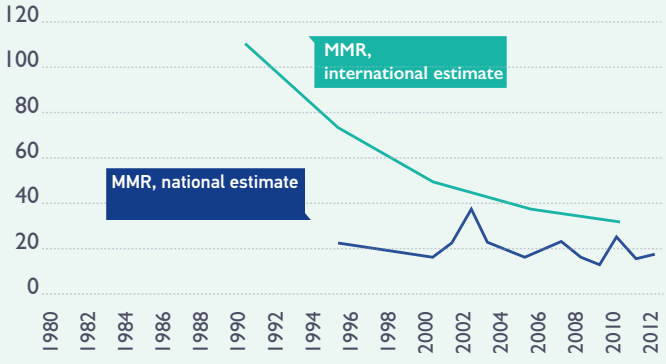
49. **Oman's steady progress towards institutional delivery care has led to a steady decline in maternal mortality ratio (MMR)** (Figure 4.5). International estimates of Oman's MMR[72] are now at the same level for the industrialized CEE/NIS countries and some OECD countries. Nonetheless, this is still higher than that of other GCC countries: Qatar (7 per 100,000 live births), Saudi Arabia (24 per 100,000 live births) and the United Arab Emirates (12 per 100,000 live births). Since Oman has near universal coverage by maternal health services, the difference is likely to be in the quality of maternal health services and maternal nutrition.

Table 4.1
WHO classification of the cause of young child deaths in Oman

	2000	2010	2000	2010
Causes of death	**Age 0-27 days**	**Age 0-27 days**	**Age 1-59 months**	**Age 1-59 months**
Pneumonia	0.40%	0.00%	19.44%	10.12%
Preterm birth complications	48.85%	43.00%		
Intrapartum related events*	16.31%	11.40%		
Sepsis/ meningitis/ tetanus	7.59%	5.86%		
Other conditions	3.28%	10.50%		
Congenital abnormalities	23.57%	29.24%		
Diarrhoea	0.00%	0.00%	5.20%	2.13%
Measles			0.01%	0.00%
Injury			25.19%	15,28%
Malaria			0.00%	0.00%
AIDS			0.37%	0.71%
Meningitis			1.94%	1.06%
Other conditions			47.85%	70.70%
Total	100%	100%	100%	100%

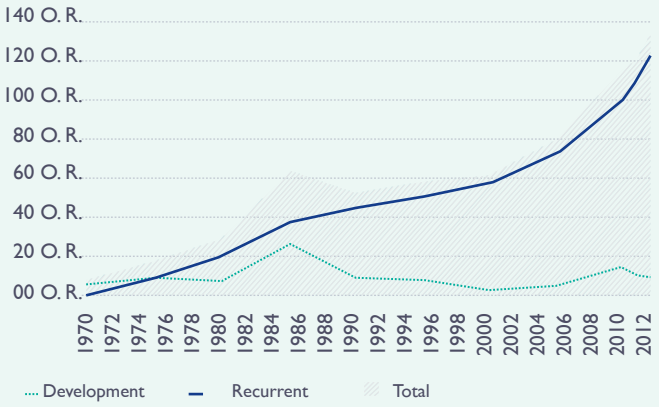
** Formerly referred to as "Birth asphyxia."*
Source: Child Health Epidemiology Reference Group. http://cherg.org/projects/underlying_causes.html

Figure 4.5
Trends in maternal mortality



Source: International estimates developed by WHO, UNICEF, UNFPA and the World Bank. National estimates from Ministry of Health in Statistical Year Book 2013, NCSI, Issue 41 and earlier years in Health Annual Reports

Figure 4.6
Ministry of Health expenditure per capita



Source: Annual Health Report, 2012, Ministry of Health.

Table 4.2

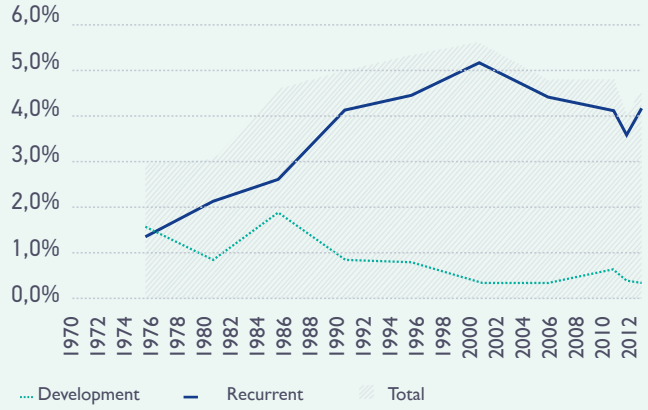
Ministry of Health classification of the cause of death amongst children and young people, age 5-24 years, 2012

Causes of death, ages 5 - 14 years	Percentage of total deaths
Injuries & Poisoning	20.7%
Neoplasm & Leukaemia	10.3%
Congenital anomalies of heart and circulatory system	8.6%
Pneumonia	6.9%
Septicaemia	5.2%
Cerebral palsy & other paralytic syndromes	5.2%
Cardiac dysrhythmias	5.2%
Intracranial Haemorrhage	3.4%
Causes of death, ages 15 to 24 years	
All Injuries other than Intracranial Injury & Burns	24.6%
Intracranial injury	16.9%
Neoplasm & Leukaemia	14.8%
Cardiac dysrhythmias	4.9%
Septicaemia	3.5%
Intracranial Haemorrhage	3.5%
Pneumonia	3.5%
HIV	2.8%

Source: Annual Health Report, 2012, Oman
Note: The statistics above represent only the leading causes of hospital mortality and not all causes of death in each age group. Therefore, the percentages do not add up to 100 per cent.

Figure 4.7

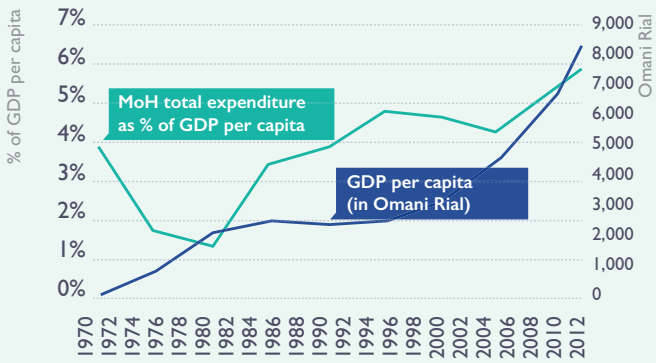
Ministry of Health expenditure as % of total Government expenditure*



Source: Recalculated from the Annual Health Report, 2012, Ministry of Health. Both recurrent and development expenditure are recalculated as a percentage of TOTAL Govternment expenditure, not government recurrent and development expenditure

Figure 4.8

Total Ministry of Health expenditure as % of GDP per capita



Source: Recalculated from the Annual Health Report, 2012, Ministry of Health

4.2. Enabling environment

50. **The health expenditure patterns reflect the Omani Government's strong commitment to improving the health of its people.** The Ministry of Health's spending per capita has steadily risen (Figure 4.6). In the earlier decades, the health spending on development saw a large increase as the health system infrastructure and services had to be developed. Concurrently, recurrent spending in health rose with the education, training and recruitment of large numbers of health system personnel, and this recurrent spending is still rising today. The development expenditure declined in the 1990s relative to overall health spending and has remained well below recurrent expenditure today (Figure 4.7). Overall, however, the Health Ministry's expenditure has increased in absolute amounts over the years. Figure 4.8 shows that as the country's GDP per capita rose steadily, the proportion of GDP per capita allocated to health has also kept pace by increasing yearly. The total expenditure on health as a proportion of GDP was 2.3 per cent in 2011,[73] still some way from that of the OECD countries (average 9.3 per cent of GDP in 2011).[74]

51. **The Ministry of Health is responsible for provision, coordination and stewardship of the health sector.** The Ministry of Health ensures the overall development of the health sector. In keeping with this role, the Ministry of Health acts as the principal architect of health system design and takes responsibility for achieving inter-sectoral coordination. It develops policies and programmes for the health sector and implements these in coordination with all relevant ministries and institutions under the government as well as in the private sector. The Ministry of Health also advocates to all other entities for policies and programmes favourable to the health sector, and advocates against policies that may adversely affect people's health.[75]

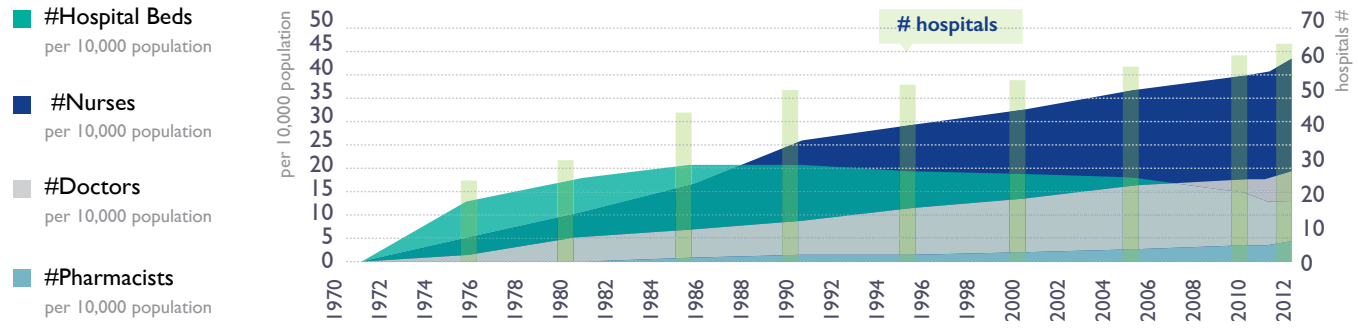
52. **Oman's three-tier health system provides primary, secondary and tertiary care through a network of linked health facilities.** The local primary health care (PHC) centre serves the inhabitants of surrounding villages; the Wilayat hospitals provide both primary and secondary health care to inhabitants of its Wilayat as well as those of nearby Wilayat; the regional hospital provides secondary and tertiary care to people in the region of its location. The goal is to have at least one PHC centre for every 10,000 population and ensure access to preventive and curative health care for the entire population of Oman.[76]

53. **The 2014 Child Law addresses the right to health and promotes a range of preventive and curative measures for child health.** The government is required to ensure the highest level of free healthcare for the child. The following are mentioned in the Child Law as priorities: reducing infant and child mortality, fighting disease and malnutrition, ensuring early detection of disabilities and addressing these appropriately, promoting antenatal, delivery and postnatal health care for mothers, providing health information to all sectors of society, parents and children, and protecting children from accidents and the hazards of environmental pollution. The 2014 Child Law also forbids customary practices that harm children and bans toys with hazardous materials.

54. **The School Health Programme aims to provide comprehensive healthcare for all students.** The Programme, initiated in the late 1990s, covers physical, mental and social health needs. Additionally, to ensure that the school environment is satisfactory for children, an environmental report is completed twice a year. In 2004, Oman launched the Health Promoting Schools initiative based on the WHO Global School Health Initiative.

Figure 4.9

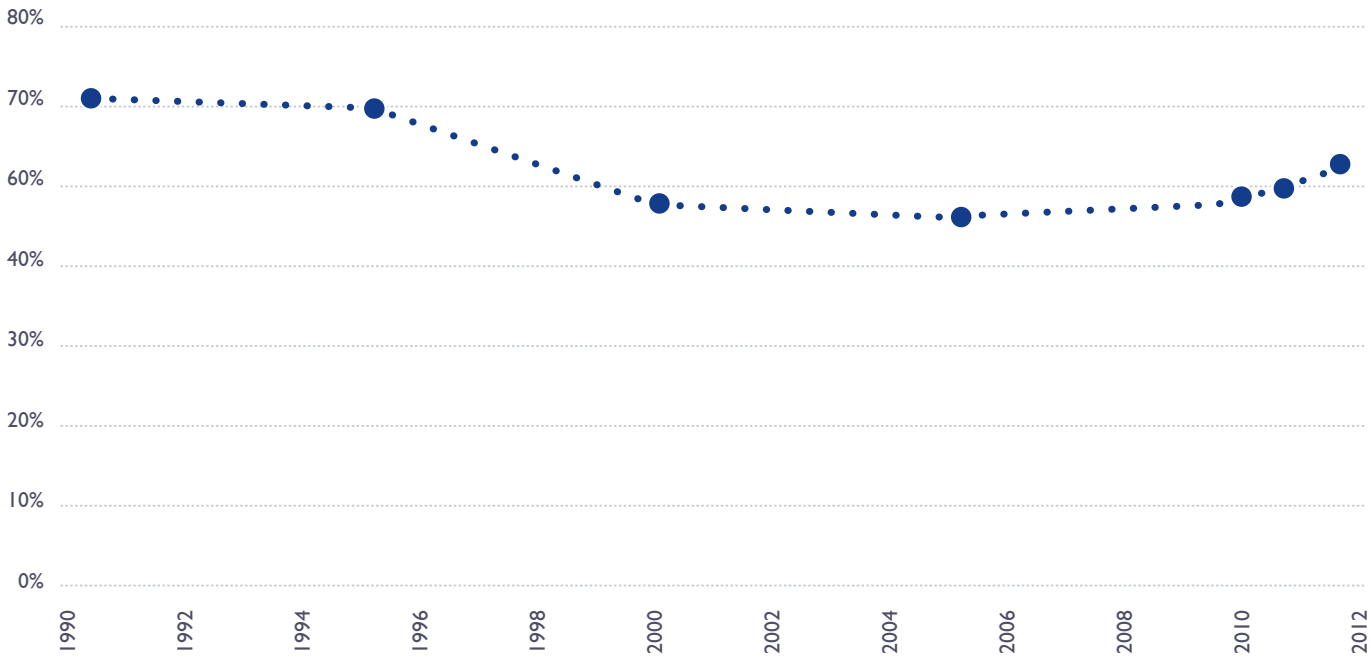
Health infrastructure and provision of health services by population, 1970-2012



Source: Annual Health Report, 2012, Ministry of Health (tables 3-1 for beds and 4-1 for health staff)

Figure 4.10

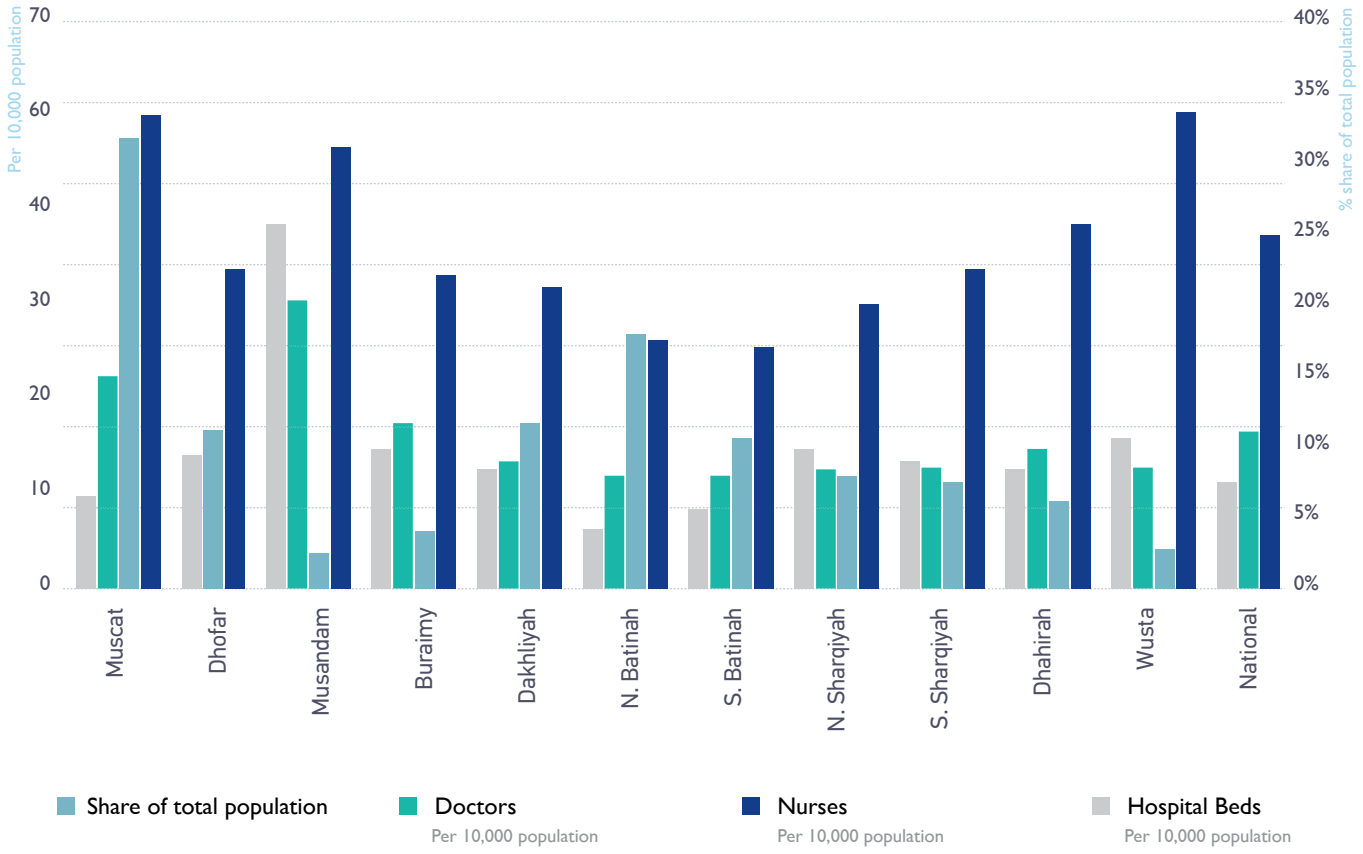
Bed occupancy rate as % of total health facility beds



Source: Recalculated from the Annual Health Report, 2012, Ministry of Health

Figure 4.11

Health infrastructure and staff by region ranked by share of population, 2012



Source: Table 3-2, Table 4-2 , Annual Health Report, 2012, Ministry of Health. Includes all health facilities, including private health facilities. Population for mid-2012 from the 2013 Statistics Annual, Government of Oman.

55. **In the water sector, several entities are responsible for service provision.** The Public Authority for Electricity and Water (PAEW)[a] is responsible for distributing potable water to all households in Oman, except for those in Sohar City and the Dhofar Governorate.[77] PAEW is also responsible for ensuring high quality water services while protecting the water resource by reducing water losses and wastage. The results of water quality tests are reviewed regularly by the regional Water Quality Surveillance programmes, each of which is under the concerned Regional Water Quality Section. The Surveillance & Public Health Sections have the responsibility to track the results of water quality monitoring. In Sohar, the Majis Industrial Services Company, a government-owned entity, and the Sohar Development Office are responsible for providing various water services. In Dhofar Governorate, the Office of the Minister of State and Governor of Dhofar, through the Directorate General of Water & Transport, is responsible for the operation and maintenance of desalination plants and establishment of water networks.[78] The Ministry of Regional Municipalities and Water Resources is responsible for the management of water resources, including preservation and protection of these resources. The Ministry of Agriculture and Fisheries is in charge of irrigation.

4.3 Key determinants of equity

4.3.1 Supply and quality of inputs and services

Health care services

56. **Health spending led to a dramatic improvement in the provision of infrastructure and services** (Figure 4.9). The growth in both public and private health facilities has kept pace with the growth in population, including the large expatriate population. The ratio of health care workers to the population has increased steadily. In 1975, there were 2 doctors and 5 nurses for 10,000 people. Today, there are 20 doctors for every 10,000 people, 11.4 general physicians for every 10,000 people, whereas there are 43.1 nurses for every 10,000 people as per data from 31 December 2012. For comparison, the OECD average was 32 physicians and 90 nurses per 10,000 in 2011.[b] Despite a decline in the ratio of hospital beds to population over the past two decades (figure 4.9), the system still has excess capacity: the bed occupancy rate in the Ministry of Health hospitals has fallen in recent years from 70 per cent in 1990 to 59 per cent in 2012 (Figure 4.10).

57. **The distribution of health facilities and staff across governorates varies.** Population density, distribution and geopolitical considerations all play a role. Musandam's population, cut off from the rest of Oman by the United Arab Emirates (UAE), is well-served.[79] With 1 per cent of the country's population, Musandam has seven health facilities and the highest ratios of health staff to population.[c] Health services in regions of low population density need to serve a spread-out population across vast distances. Al Wusta and Adh Dhahirah, with respectively 1 per cent and 4.7 per cent of the total population, have doctor-, nurse- and bed-to-population ratios higher than those in North Batinah, which has the second largest share of the country's population. North Batinah's doctor-to-population and nurse-to-population ratios are below that of the national average (Figure 4.11).[80]

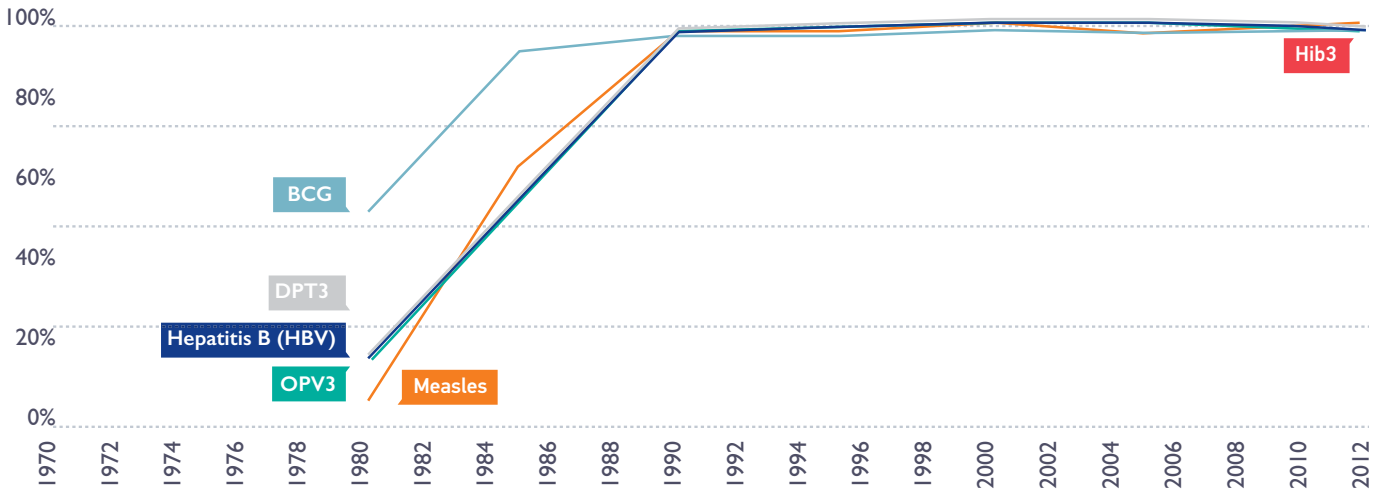
58. **The immunization coverage is now universal** (Figure 4.12). Immunization indicates the extent and reach of the health care system, as well as its utilization and demand by families. The coverage of the Expanded Programme of Immunization (EPI) rose sharply from the 1980s. Oman has provided Hepatitis B vaccination for its infants since 1990. Later additions to the EPI included Haemophilus influenzae type B (Hib3) and the combined measles, mumps and rubella vaccines. These more recent vaccines have also rapidly reached a coverage of 99 per cent. The dropout rate is negligible: the difference in coverage is insignificant between BCG and subsequent vaccinations to protect against other antigens.

a. The PAEW assumed the electricity and related water responsibilities of the Ministry of Housing, Electricity and Water, which became the Ministry of Housing. The PAEW was established by Royal Decree (92/2007) promulgated on 9 September 2007. The establishment of PAEW has enabled the privatization of utilities which was fully implemented in 2004 with Royal Decree 78/2004.

b. Although the average for OECD countries is 32 physicians and 90 nurses per 10,000 population in 2011, the individual countries vary: Japan and Poland have 22 physicians per 10,000, the USA has 25 and the UK has 28.

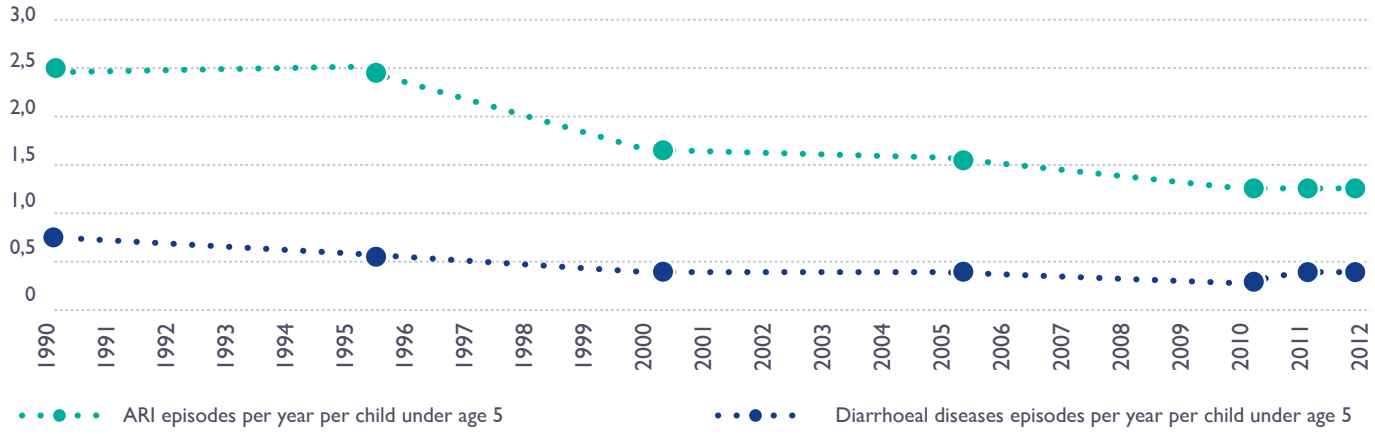
c. Musandam's public health facilities include one governorate hospital, two local hospitals, one extended health centre and three health centres.

Figure 4.12
Immunization coverage in children one year of age



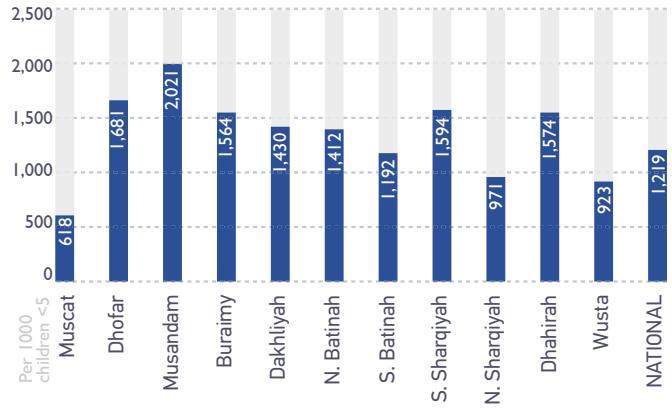
Source: Annual Health Report, 2012, Ministry of Health.

Figure 4.13
Diarrhoeal disease and acute respiratory infections: episodes per child under 5 years of age



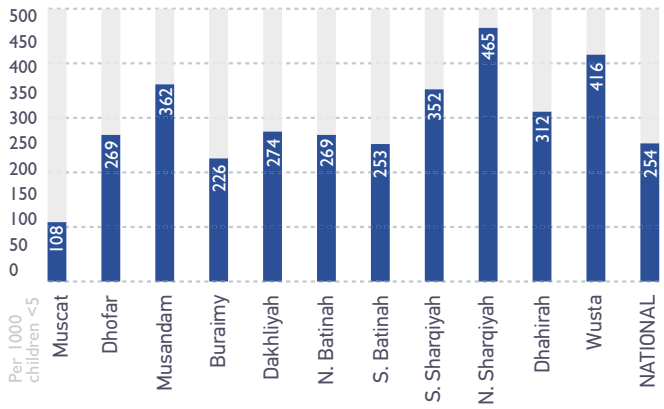
Source: Annual Health Report, 2012, Ministry of Health.

Figure 4.14
ARI rates by region, children under five years old as reported by MoH health facilities



Source: Annual Health Report, 2012, Ministry of Health.

Figure 4.15
Diarrhoeal disease rates by region, children under five years old as reported by MoH health facilities



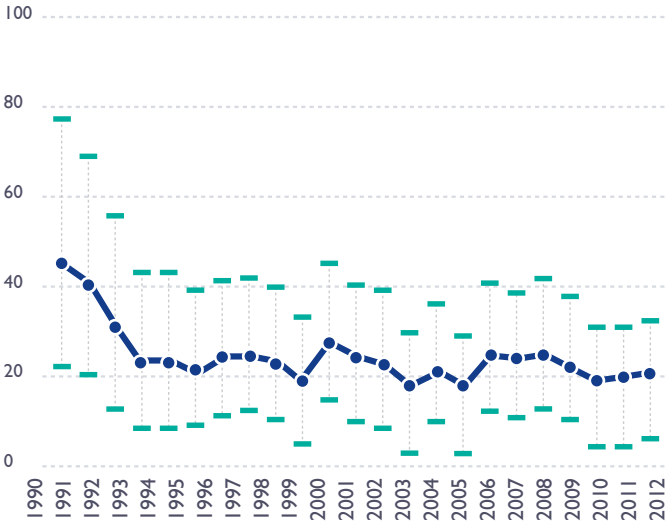
Source: Annual Health Report, 2012, Ministry of Health.

59. **Oman has seen a gradual decline in diarrhoeal diseases, but these are still an issue** (Figures 4.13 and 4.14). The downward trends in diarrhoeal diseases indicate a better and cleaner environment for young children. The change also reflects better knowledge amongst caregivers and health service workers, all of which may be attributed to the overall socio-economic progress of the country. All these improvements have contributed to the decline in infant and under-five mortality rates mentioned earlier. Nonetheless, the diarrhoea incidence rate in 2012 was still around 254 per thousand children under the age of five years. This proportion is much higher in North Ash Sharqiyah, Al Wusta, Musandam and South Ash Sharqiyah, where the rates range from 352 to 465 (Figure 4.14). The facility data capture only reported incidences and may include children with multiple diarrhoea episodes. Household survey data will therefore show differences with facility data. Survey data from 2008[81] show that 9 per cent of children under age five suffered from diarrhoea in the two weeks preceding the survey. Diarrhoea is linked to water, hygiene, seasonal and food factors.

60. **Acute Respiratory Infections (ARI) incidence has also declined over time** (Figure 4.13). Still, survey data show that fever still accounts for most of the illnesses at household and community level, and affects at least one-third of children.[82] The rates per 1,000 children are highest in Musandam, Dhofar, South Ash Sharqiyah and Adh Dhahirah. Eight out of 11 governorates have incidence rates above 1,000 per thousand children under age five (Figure 4.15), indicating multiple episodes in a child.

61. **Oman has steadily reduced Tuberculosis (TB) prevalence over the decades.** By 2012, its prevalence rate was 18 per 100,000,[83] lower than most other countries in the MENA region (Figure 4.16).[a] Still, some 470 people in Oman are newly infected each year. Although TB primarily affects adults, the disease nonetheless has a serious impact on children. First, they are exposed to infection by TB, which undermines their potential. Second, an adult with TB has an impact on the whole household, especially if he or she is the caregiver.

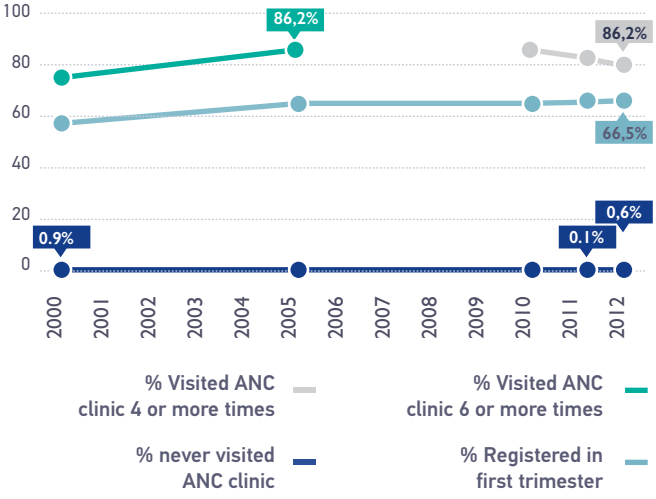
Figure 4.16
TB prevalence, per 100,000 population



Source: WHO TB database estimates . Bars indicate high-low estimates. Includes HIV.

62. **The coverage of antenatal health care services (ANC) is very high.** At least four out of five registered pregnant women have ANC visits four or more times (Figures 4.17). Indeed, each pregnant woman has an average of 6 ANC visits (Figure 4.18). The proportion who never received ANC services is less than one percent of registered pregnant women.[84] Survey data confirm the remarkably high coverage indicated by institutional data: the survey showed that only 2 per

Figure 4.17
Antenatal health services coverage, as % of registered pregnant women

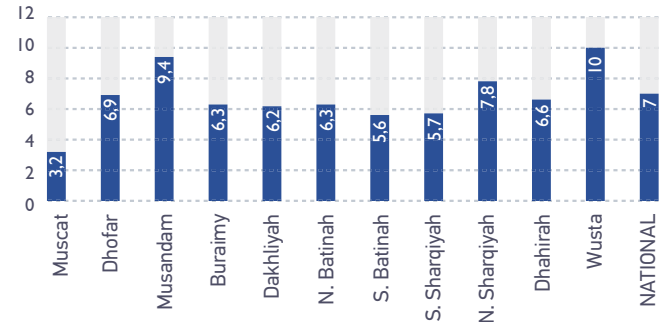


Source: Annual Health Report, 2012, Ministry of Health.

a. Only Jordan (8.5), Saudi Arabia (17) and the UAE (2.4) have lower TB prevalence according to WHO statistics.

cent of all pregnant women did not make or receive any ANC visit in 2008.[85] Some 71 per cent of ANC visits were performed by doctors, 28 per cent by a nurse/midwife, and 1 per cent by an assistant nurse/midwife.[86] Nearly all (>99 per cent) pregnant women receiving ANC received the following services: measurement of blood pressure, taking of blood and urine samples, and ultrasound scanning. Some 72 per cent of women were told in antenatal visits about pregnancy complications (68 per cent of "rich" women versus 78 per cent of "poor" women).[87]

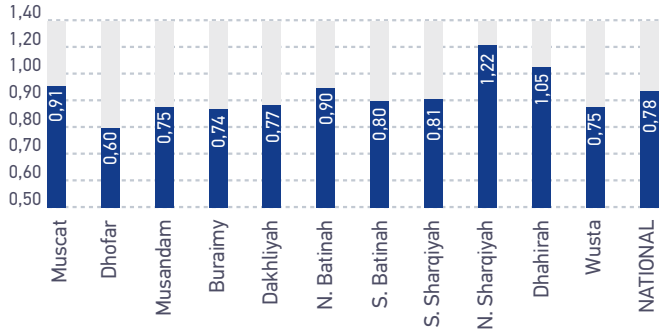
Figure 4.18
Average number of ANC visits per registered pregnancy, MoH facilities only



Source: Annual Health Report, 2012, Ministry of Health.

63. **Oman's women also enjoy universal coverage of postnatal care services (PNC).** While some 87 per cent of registered pregnant women[a] received PNC services in 2012, Ministry of Health statistics for the same year show that all women who had live births attended a postnatal clinic at least once after delivery. Even the region with the lowest PNC coverage, Dhofar, had 60 per cent of registered pregnant women receiving PNC (Figure 4.19).[88]

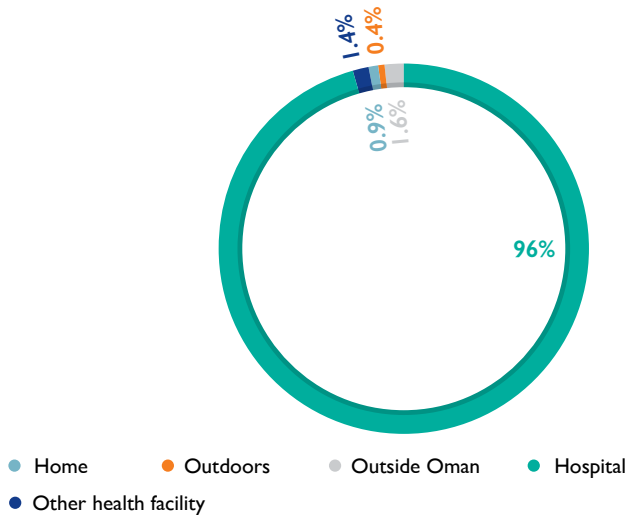
Figure 4.19
Ratio of postnatal care (PNC) visits to pregnant women registered at MoH health facilities,* by region



** The number of PNC visits divided by the number of registered pregnant women. This approximates the mean number of PNC visits made/received by women following delivery. Source: Annual Health Report, 2012, Ministry of Health.*

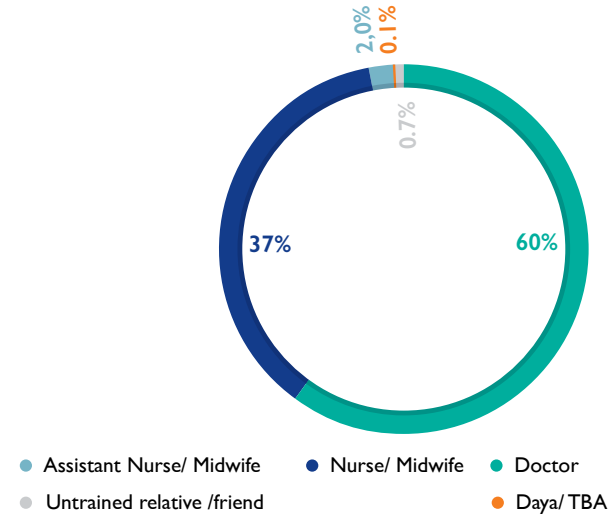
64. **Oman has universal coverage of health facility delivery and skilled attendance at delivery.** Survey data showed that except for just over one per cent of deliveries at home or outdoors, the rest took place in health facilities (Figure 4.20).[89] Less than 1 per cent of deliveries were not attended by health personnel (Figure 4.21).

Figure 4.20
Place of delivery2004-2008



Source: Reproductive Health Survey 2008, Ministry of Health.

Figure 4.21
Attendance at birth 2004-2008



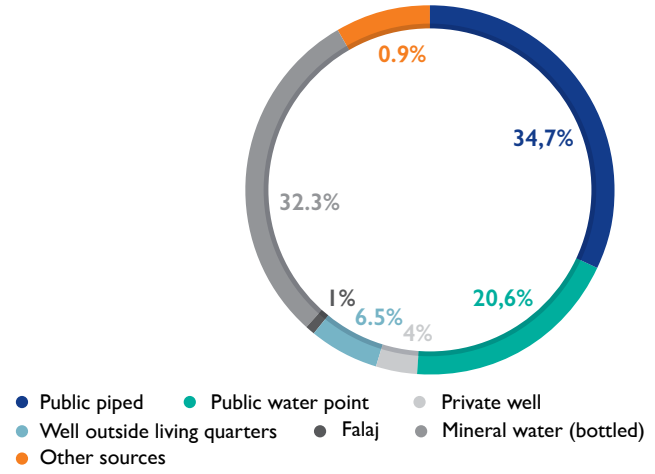
Source: Reproductive Health Survey 2008, Ministry of Health.

a. This means postnatal visits as a proportion of all pregnant women registered in the antenatal care register.

Water and sanitation

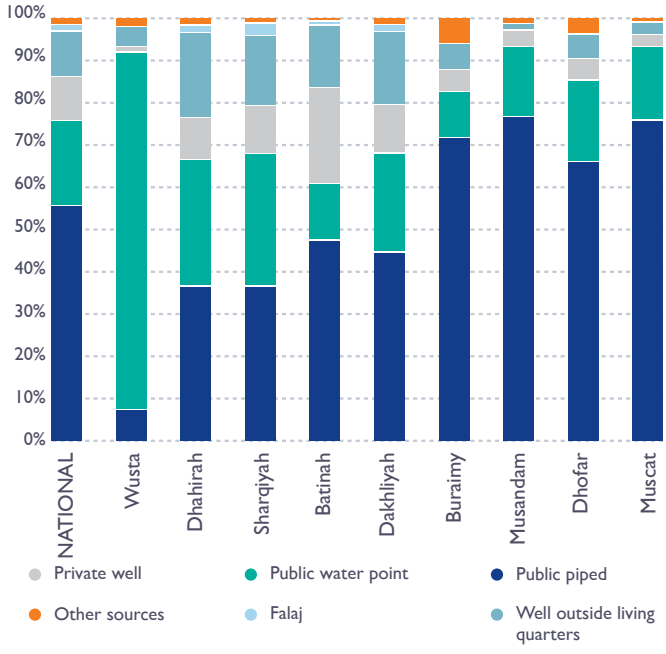
65. **International estimates show that Oman has achieved near-universal access to improved water sources and improved sanitation facilities.** The WHO/UNICEF Joint Monitoring Programme[90] (JMP) estimates show coverage levels of 93 per cent and 97 per cent respectively for water and sanitation with even higher levels for urban areas. Rural areas lag behind slightly in access to improved water sources (86 per cent) but not in sanitation (95 per cent). These figures, however, are only used for international comparisons.[91]

Figure 4.22
% of occupied housing units by drinking water source



Source: General Population, Housing & Establishments Census, 2010

Figure 4.23
% of occupied housing units by water source for household use



Source: General Population, Housing & Establishments Census, 2010

66. **Oman uses its own system for classifying water sources.** As indicated by the 2010 census, these are: (i) water provided through the public pipe system; (ii) water provided at public water points; (iii) water from a private well; (iv) water from a well outside the living quarters (v) falaj[92] and (vi) bottled water (but only for drinking, not for household use). Among these sources (i) and (ii) could be considered "improved" or safe according to JMP definition,[a] because these sources are protected from outside contamination. Moreover, for these sources, the Government has an extensive system of water quality control (see below). The other sources, however, require a case-by-case approach to compare with the standard international terminology. Sources that are protected (such as a protected well) would be called "improved," whereas open wells would be considered unimproved. Falaj would be considered surface water if the water flows through an open channel, and therefore, unsafe. In addition, the census makes a useful distinction between drinking water source and water sources for household use (Figures 4.22 and 4.23).

67. **A significant proportion of the population uses bottled water for drinking** (Figure 4.22). However, international practice recommends considering the bottled water improved *only if* the household uses an improved source for cooking and personal hygiene (washing, bathing). In other words, the international system classifies the access to improved water source by household use rather than drinking water alone, because the whole household environment is important for the population's health. This analysis will therefore focus on the type of water for household use.

68. **Oman aims to have 90 per cent of its population of Oman connected to the water network by 2035.** Oman has been experiencing in the last few years a rapid and continuous growth of water demand: an average of 15 per cent increase per year, as a result of its robust growth.[93] Figure 4.23 indicates coverage figures by region in 2010. For household use, the piped network reaches 57 per cent of occupied housing units (dwelling places or dwellings). If access to public water points is also counted, then 77 per cent of dwell-

a. See explanation of JMP unsafe sources in endnote.

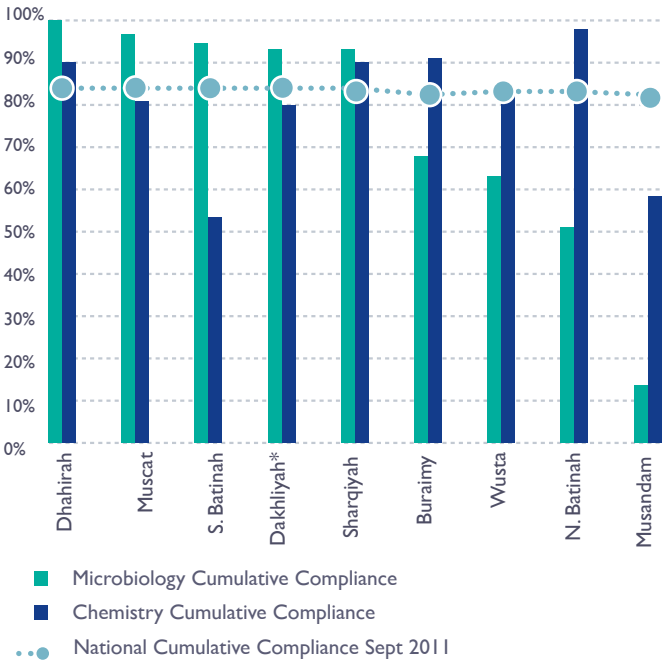
ings are served by pipes in homes or by public water points. The coverage by the piped network is lower than the national average in Al Wusta, Ash Sharqiyah, Adh Dhahirah, Ad Dakhliyah and Al Batinah; however, Al Wusta has a high proportion of households served by public water points. In the other four governorates (Ash Sharqiyah, Adh Dhahirah, Ad Dakhliyah and Al Batinah), a significant proportion of households are served by well water (from 21 per cent to 38 per cent of occupied housing units).

69. **The diversity of water sources in Oman highlights the tremendous challenges. At one end, high quality water is produced by distillation or desalination.** At the other end, water from rural wells undergo little or no treatment. Different means of water transport and storage add to the challenges of maintaining a high quality of water. Transmission systems can cover hundreds of kilometres, distribution systems are extensive and are rapidly expanding in major cities. In remote areas, supplies to communities (often transient) are often via boats or tankers to remote desert, mountainous or island locations. Small community well systems are often remote and untreated, with poor infrastructure.

70. **Around 85 per cent of Oman's tap water comes from sea water.** Desalination plants are located throughout the country.[94] Urban areas have been receiving desalinated water for some time. The remainder of the water comes from groundwater. Oman is more fortunate than other Gulf Cooperation Council (GCC) countries[b] because of its marginally higher rainfall, which replenishes its aquifers. The country is, however, having to address the challenges of over-extraction of groundwater and sea water intrusion.[95] Oman is aware of the need for conserving and protecting its aquifers as alternative water reserves in the longer term.[96]

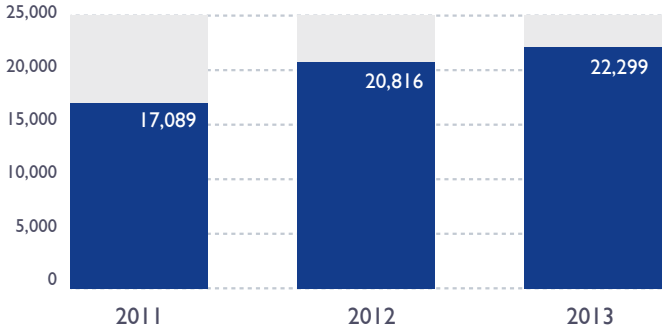
71. **The Sultanate has invested heavily in water desalination and treatment.** Oman uses the reverse osmosis process for desalination, as well as Multiple Stage Flash Distillation. After desalination, water is re-mineralized and chlorinated to produce drinking water that

Figure 4.24
Regional Cumulative Compliance: Microbiology & Chemistry by parameter by September 2011 (Treated Water)



**Dakhliyah: Chemistry Data for August & September 2011.*
Source: Public Authority for Electricity & Water

Figure 4.25
Number of water samples collected, 2011-2013



Source: Public Authority for Electricity and Water

is ready for customers to use. The PAEW distributes water from its production plants through a vast supply network. Water is initially transported through large diameter pipes from the water production plants to reservoirs where the water is stored. It is then carried to customers through pumping stations and local networks of smaller pipes.[97]

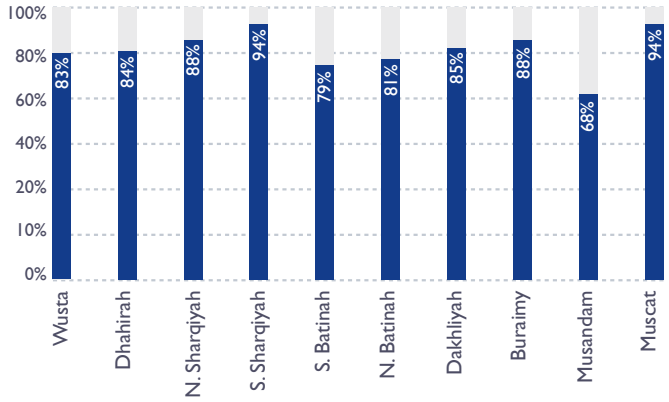
72. **Oman has a comprehensive system of water treatment and quality control for the public water system.** The guidelines for the water quality system con-

b. The GCC countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

form to WHO norms for water quality management and Water Safety Plans. The water quality surveillance system monitors several stages in the process of water treatment or extraction to the delivery,[98] such as raw water monitoring (i.e., water sources), treatment process monitoring, treated water monitoring, waste water discharge monitoring, water transport and distribution monitoring and water supply hygiene. The frequency of sampling is specified by type of asset and by group of parameter.

73. **Water quality data are used to identify issues and problems.** Several options for action are identified in the guidelines on monitoring. Figure 4.24 shows the variation of water quality across governorates with regard to compliance with microbiological and chemical parameters in September 2011. Poor compliance with parameters indicates weaknesses in operations, maintenance, sample collection and transportation. The data have helped to highlight a number of issues. One issue is remineralization at Sohar Water Treatment Works in North Batinah, which needs to be addressed. In Musandam, the lack of robust disinfection processes in the oilfield areas has affected the quality of ground water. In Al Wusta, the low compliance with microbiological parameters has been linked to the reverse osmosis plants, despite the robust treatment process in these places.[99]

Figure 4.26
Percentage of water samples having passed water quality standards by Governorate, 2013

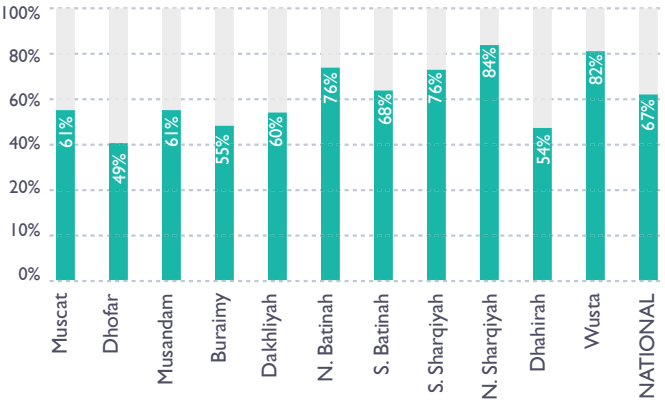


Source: Public Authority for Electricity and Water

74. **The number of samples collected has increased yearly to keep up with the expansion of water provision** (Figure 4.25). Overall, Muscat has the best water quality (Figure 4.26). Musandam has the poorest quality of water. North and South Batinah and Al Wusta also have poor water quality. In general, the results reflect the poor compliance of these same governorates with microbiological and chemical parameters (Figure 4.24). Dhofar is absent from these charts as PAEW is not responsible for water provision in that governorate.

4.3.2 Demand[a] and socio-cultural practices

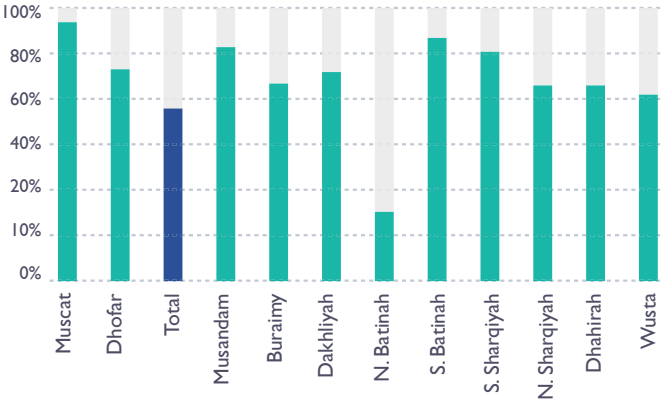
Figure 4.27
Pregnant women having registered at ANC health facilities in their first trimester, by region, 2012



Source: Annual Health Report, 2012, Ministry of Health.

75. **Two-thirds of registered pregnant women register at health facilities from the first trimester.** This is the first indicator used in this report to assess awareness and demand. This means one-third of registered

Figure 4.28
Percentage of registered pregnant women having at least 1 ANC visit in their last four weeks of pregnancy

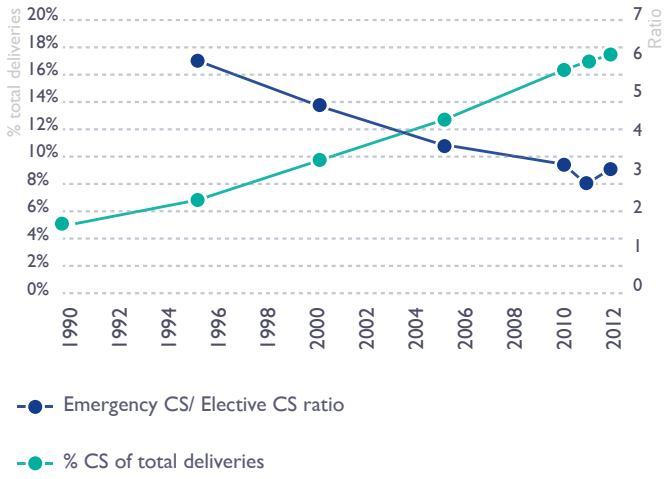


Source: Annual Health Report, 2012, Ministry of Health.

a. Women's health seeking behaviour and utilization of maternal and reproductive health services indicate awareness and demand.

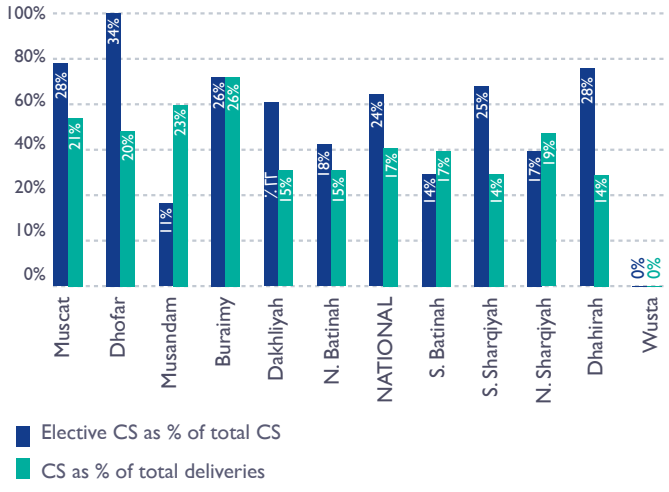
pregnant women register only in their second or third trimesters. This is somewhat lower than the 75 per cent estimate from 2008 survey data. Having early antenatal visits makes it more likely to have better pregnancy and child nutrition outcomes, since problems are addressed early. Amongst these problems is stunting, which begins with deficiencies in maternal nutrition that need to be addressed from the earliest days. By governorate, Muscat has a surprisingly low proportion who registers from the first trimester. In North Ash Sharqiyah and Al Wusta, over 80 per cent of pregnant women do so (Figure 4.27).[100] Disaggregated survey data show that 75 to 76 per cent of those with primary or secondary education register during the first trimester, as opposed to 66 per cent of illiterate pregnant women who do so.[101]

Figure 4.29
Caesarian Sections (CS) as a proportion of total deliveries and ratio between Emergency CS and Elective CS, 1990-2012, MoH facilities



Source: Annual Health Report, 2012, Ministry of Health. The Emergency CS/ Elective CS ratio is obtained by dividing the total number of emergency CS by the total number of elective CS.

Figure 4.30
Caesarian Section (CS) rates and type by region, MoH facilities



Source: Annual Health Report, 2012, Ministry of Health.

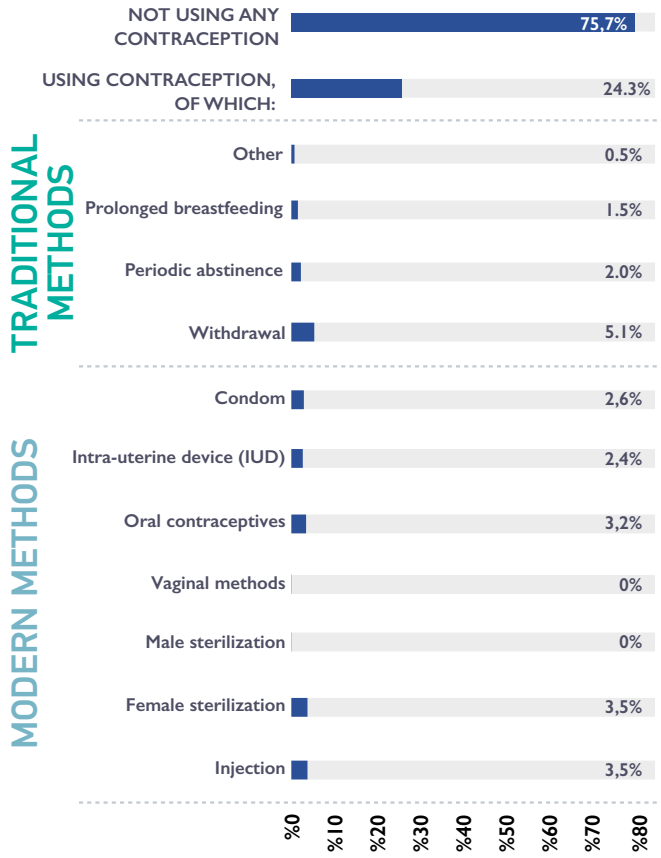
76. **Oman monitors ANC services to ensure an ANC visit at least once during the last month of pregnancy.** This is the second indicator used here to assess awareness and demand. This proportion is low in Muscat and North Batinah: 49 and 25 per cent respectively. It is much higher in the sparsely population governorates (Al Wusta, 68 per cent and Dhofar 77 per cent) (Figure 4.28). The existence of a relatively strong private sector in Muscat and North Batinah could be an explanation;[a] there may be gaps in some health data from private sector facilities.[b]

77. **An increasing proportion of elective caesarean sections** (C-Sections) indicate a lack of awareness about the serious health consequences for mothers and infants. C-Sections are performed in about 17 per cent of deliveries. Increasingly, the C-Sections are being performed on an elective basis as shown by the steady drop in ratio of elective C-Sections to emergency C-Sections: in 1995, one elective C-Section was done for every six emergency C-Sections. By 2012, this ratio was one elective C-Section for every three emergency C-Sections. The highest rate of elective C-Sections as a proportion of total C-Sections was found in Dhofar, Muscat and Dhahirah (Figures 4.29 and 4.30). WHO recommends that to improve maternal and perinatal outcomes, caesarean section should be done only when there is a medical indication.[102] Overuse of caesarean delivery in low-risk women exposes women and infants to potential harm with minimal likelihood of benefit. Of particular consequence are downstream effects including childhood chronic illness and placental complications in subsequent pregnancies. With accumulating surgeries, life-threatening complications occur more frequently. WHO indicates that C-Section rates above a certain limit have not shown additional benefit for the mother or the child, and some studies have even shown that high CS rates could be linked to negative consequences in maternal and child health.[103,104]

a. Ministry of Health explanation.

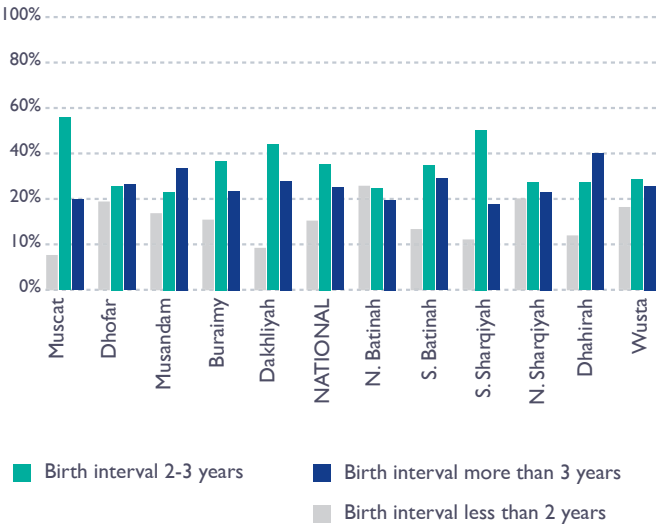
b. The data in Figures 4.27 and 4.28 are taken from Table 8-4 in the 2012 Annual Health Report.

Figure 4.31
Contraceptive use rate, % of currently married Omani women aged 15 to 49 years old, 2008



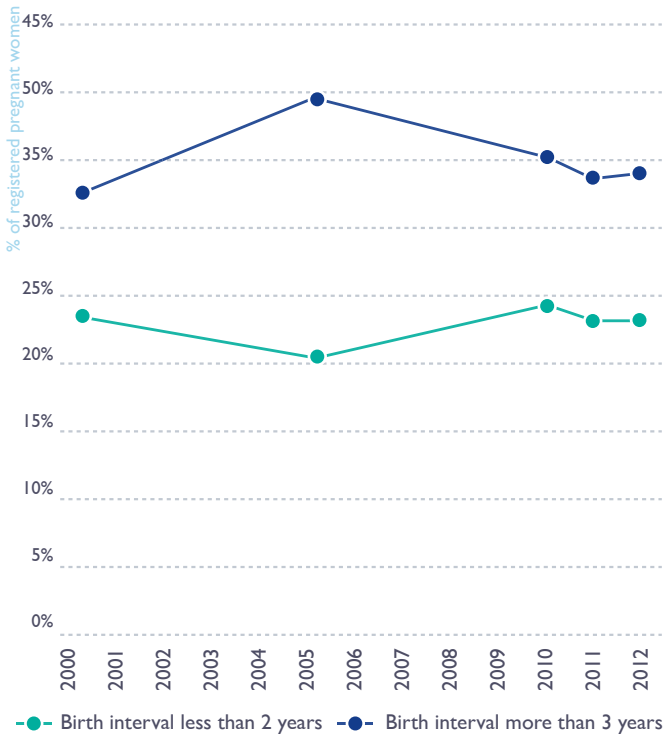
Source: Reproductive Health Survey, 2008, MoH.

Figure 4.32
Birth interval by region, % of pregnant women registered



Source: Annual Health Report, 2012, Ministry of Health

Figure 4.33
Birth intervals of registered pregnant women



Source: Annual Health Report, 2012, Ministry of Health.

78. **The demand for and the use of contraceptives are closely linked to socio-cultural practices.** Only 24 per cent of married women used contraceptives in 2008 (Figure 4.31). Some 76 per cent of married women did not use any contraception at all.[105] The Annual Health Report 2012 notes that total fertility rate had not fallen from 3.3 over the preceding three years. Survey data from 2008 show that about 44 per-cent of Omani ever-married women had given birth to five or more children, with poorer women having on average a greater number of children. The total unmet need[106] in Oman in 2008 was around 56 percent.[107] These comprised women who wished to use contra-ceptives but for cultural or other reasons were not able to do so. This is a relatively high proportion; many poorer and less educated countries have lower unmet needs. The unmet need for child spacing (32 percent, those who wished to delay having a child or another child) in 2008 was higher than the unmet need for limiting the number of children (24 percent, those do not want any more children).[108] The unmet need is strongly influenced by gender and behaviour norms and is therefore not as predictable as other indicators

in health, education and nutrition. Anecdotal reports mention that Omani women are afraid of the side-effects from contraceptives. Nationwide, one-quarter of pregnant women registered at health facilities have an interval of less than two years between the successive births, and this proportion is around a third in North Batinah and North Ash Sharqiyah (Figure 4.32). This proportion has not fallen significantly over the past decade (Figure 4.33).

4.4 Challenges and opportunities

79. **Overall, women in Oman enjoy access to maternal health services at a high level of coverage, even in the most remote places.** However, reducing the MMR and reducing the rate of disability amongst children will require enhancing the quality of health services, improving the nutritional status of women and improving the health knowledge and awareness of women. Such health knowledge is required even amongst women in Muscat. Chapter 8 deals further with inadequate health knowledge on the issue of consanguineous unions.

80. **Reducing maternal mortality further will also require satisfying the unmet need for family planning amongst women.** By preventing high risk and unwanted pregnancies, family planning alone could cut maternal deaths by almost a third.[109] In Oman, the total fertility rate has not fallen over the preceding three years. Around 76 per cent of married women did not use any contraception in 2008, but over half of these reported wishing to do so. The total unmet need to contraceptives is rather high.

81. **Overall, previous sections show that the disparities in health are significant amongst governorates, as shown by the range of each indicator.** Table 4.2 shows the ranking of the different governorates with "1" indicating the best (most healthy) situation for children and women and "11" or "9" represents the worst situation (water coverage is reported only for 9 governorates, as in the census). For comparison, the relative ranking of the governorates by consumption and expenditure (in per capita terms) is indicated.

82. **Behaviour and knowledge play a role as important as that of wealth or infrastructure.** For example, the wealthier governorates (i.e., highest per capita consumption) do not necessarily have the best indicators for health. Musandam, the second wealthiest in per capita terms, has a high coverage for piped water, but has poor rankings in childhood diseases. Other disparities are discussed in the nutrition chapter. Overall, this emphasizes the importance of knowledge and behavioural data in any future data collection efforts.

83. **The limitations of such rankings highlight the need for knowledge or behavioural data at household level.** The rankings using institutional data suffer from some drawbacks. First, diarrhoeal disease and ARI rates are those reported to health facilities and it cannot be assumed that the statistics reflect the actual prevalence of these childhood diseases in the community. The reported cases may also reflect greater health seeking behaviour by care-givers, which in turn is influenced by education and knowledge. Second, the indicators on antenatal and postnatal care could be the result of either better monitoring by the health services or greater awareness amongst pregnant women, or both. It is not possible to tell which. The forthcoming MICS should help to fill in some of these data gaps in the household, knowledge and behavioural aspects of health.

Table 4.3
Ranking of governorates by selected health indicators

Indicator (institutional data only)	Muscat	Dhofar	Musandam	Al Buraymi	Ad Dakhliyah	North Batinah	South Batinah	South Ash Sharqiyah	North Ash Sharqiyah	Adh Dhahirah	Al Wusta
ARI rates per 1000 children under age 5 [a]	1	10	11	7	6	5	4	9	3	8	2
Diarrhoeal disease per 1000 children under age 5 [a]	1	5	9	2	6	4	3	8	11	7	10
Coverage by public piped network [b]	2	4	1	3	6	5			8	7	9
Percentage of registered pregnant women having registered in the first trimester [a]	7	11	6	9	8	3	5	4	1	10	2
Percentage registered pregnant women having at least 1 ANC visit in their last four weeks of pregnancy [a]	10	4	2	6	5	11	1	3	8	7	9
Ratio of PNC visits to registered pregnant women [a]	4	11	3	10	8	5	7	6	1	2	9
Nurses per 10,000 population [a]	2	6	3	7	8	10	11	9	5	4	1
Doctors per 10,000 population [a]	2	10	1	3	4	11	6	8	9	5	7
Average Omani monthly per capita consumption [c](1= highest; 8= lowest)	1	8	2		4		7		6	3	5

Sources: [a] Annual Health Report, 2012, Ministry of Health; [b] Census 2010, NCSI; [c] Household Expenditure and Income Surveys-2006-2011, NCSI

For health indicators, a ranking of 1 indicates the best situation (i.e., best for child health), a ranking of 11 or 9 indicates the worst situation for the given indicator.

5 Nutrition

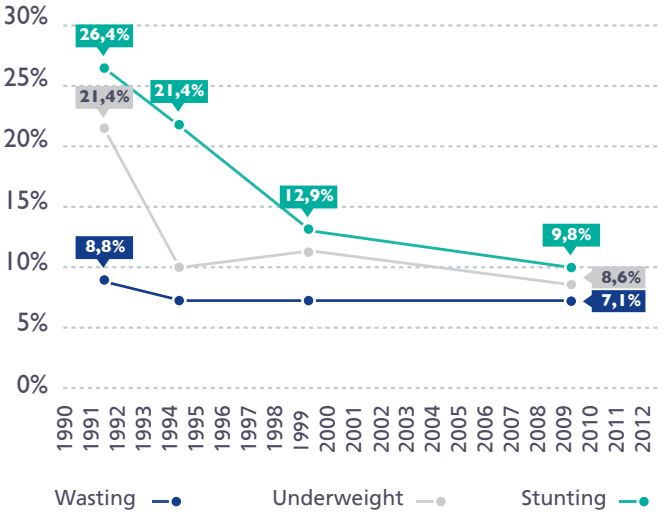
5.1 Trends and outcomes

Services data unless otherwise stated are assumed to include non-Omanis as well.

5.1.1 National trends

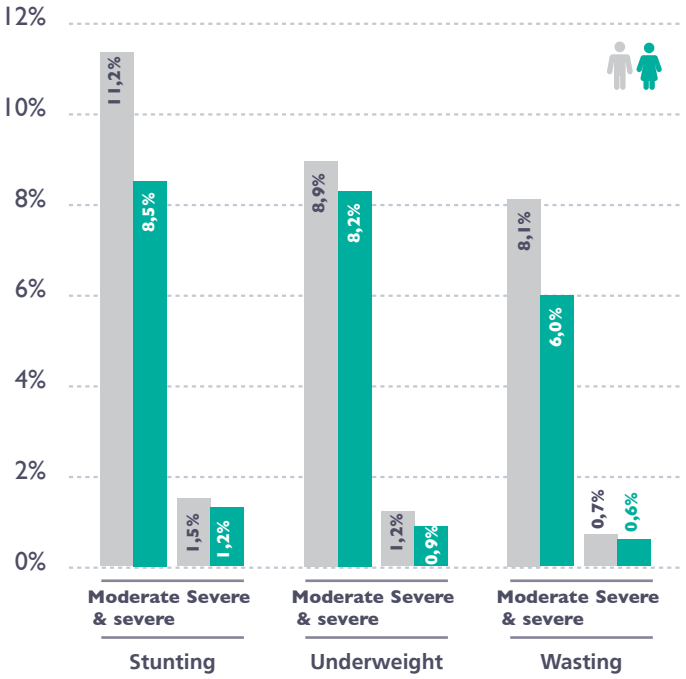
84. **Oman has made dramatic progress in reducing stunting in young children** (Figure 5.1). Stunting rates declined from 26 per cent in 1991 to 13 per cent in 1999 and around 10 per cent in 2009. Over the same period, underweight prevalence also came down, reaching 9 per cent in 2009, meaning that Oman had achieved the MDG 1 target on underweight prevalence six years before the target date of 2015. The reduction in underweight would have been faster if wasting had seen similar progress, since underweight is a composite indicator of wasting and stunting.[110] Wasting rates have not improved much since the early 1990s, when it was nearly 9 per cent. The 2009 survey[111] showed wasting prevalence of around 7 per cent.[a] Figure 5.2 shows these malnutrition indicators disaggregated by sex and by severity. Comparing these with the WHO cut-off values in child nutrition indicators for public health significance (Table 5.1), Oman's wasting levels amongst children are defined as "poor", whilst both underweight and stunting are at low prevalence.

Figure 5.1
Prevalence of stunting, underweight and wasting in children under the age of 5 years (2006 WHO standards*)



** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards. Source: World Health Organization, Global Database on Child Growth and Malnutrition. Survey data from earlier years have been recalculated according to 2006 WHO standards.*

Figure 5.2
Percentage of children under age 5 affected by stunting, underweight and wasting by sex, 2009(2006 WHO standards*)



** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009

85. **Even at low levels, however, the impacts of stunting and wasting are serious.** Studies show that stunting in young children is closely associated with poor educational performance, reduced years of schooling and lower incomes as adults. Children affected by stunting are more likely to grow into adults who are less educated, poorer, less healthy and more prone to non-communicable diseases. Stunting is, therefore, a widely accepted predictor of the poor quality of human capital of a nation and child growth is recognized as an important indicator of nutritional status and health in populations.[112] Wasting impairs the functioning of the immune system and can lead to an increased risk for death. Low birth weight, underweight status[113] and micronutrient deficiencies, particularly in vitamin A and zinc, are underlying causes of child death. Globally, 14 per cent of child deaths are attributed to stunting and underweight status. Three-quarters of children who die from causes related to malnutrition show little or no outward sign. This means that malnutri-

a. Note: the earlier survey data was calculated using the 1977 NCHS-WHO standard reference population. The 2009 PEM survey was calculated based on the 2006 WHO standards, which is now universally used. Accordingly, trends cannot be compared over time without recalculating the earlier survey results according to the new WHO standards. The WHO global database, used for these trends, has done this recalculation of the indicators according to the WHO standards.

Table 5.1
Cut-off values in child nutrition indicators for public health significanceweight and wasting by sex, 2009(2006 WHO standards*)

Indicator	Prevalence cut-off values for public health significance
Underweight (low weight for age)	< 10%: Low prevalence 10-19%: Medium prevalence 20-29%: High prevalence > 30%:Very high prevalence
Stunting (low height for age)	< 20%: Low prevalence 20-29%: Medium prevalence 30-39%: High prevalence > 40%:Very high prevalence
Wasting (low weight for height)	< 5%: Acceptable 5-9%: Poor 10-14%: Serious > 15%: Critical

Source:WHO. 2010b. Nutrition Landscape Information System (NLIS) Country Profile Indicators: Interpretation Guide. Geneva

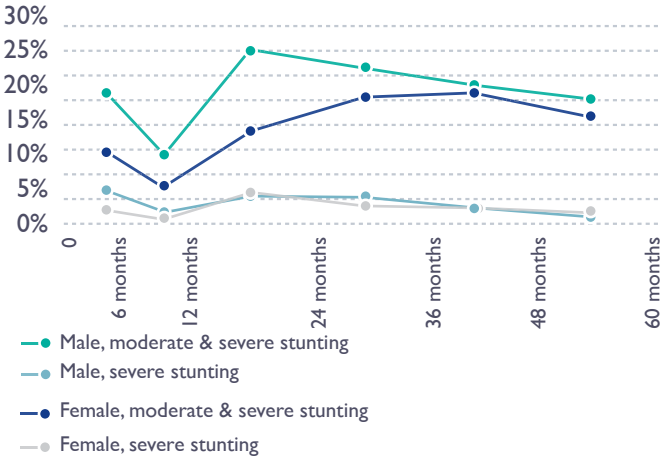
tion is often not recognized, not understood or not addressed, because the child is thought to be receiving sufficient food. The economic costs of undernutrition, in terms of lost national productivity, are significant, ranging from 2 to 3 per cent of a country's GDP. [114]

86. Stunting and wasting at different ages show differences that reflect the health risks at various ages (Figures 5.3 to 5.6).

- Stunting is due to the cumulative effects of undernutrition, especially in mothers, and infections before and after birth. Stunting begins in utero and already affects one in ten children (11 per cent boys, 6 per cent girls) between birth and five months. Stunting is less prevalent in the age group between 6 to 11 months but thereafter goes up, and remains fairly high. International research shows that by the time the child is two years old, it is too late to reverse the damage from stunting.[115]

- Wasting indicates acute weight loss, which is usually the result of insufficient food intake or repeated infectious diseases, especially diarrhoea. The onset of wasting is also early, its prevalence being highest in children

Figure 5.3
Percentage of children under age 5 affected by stunting, by age group, 2009(2006 WHO standards*)

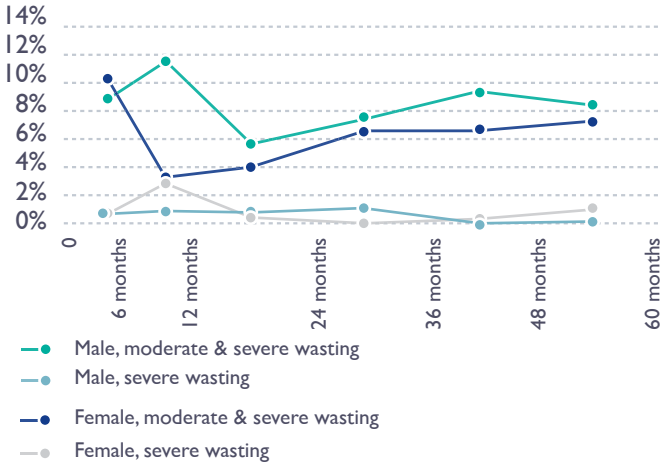


** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009

under the age of one year because these youngest age groups are most vulnerable to risks posed by inappropriate feeding and infections. Wasting declines between the age of one to two years and rises slightly thereafter (Figure 5.6).

- The underweight prevalence trend is a mix between wasting and stunting, and is highest in the older age groups (Figure 5.6).

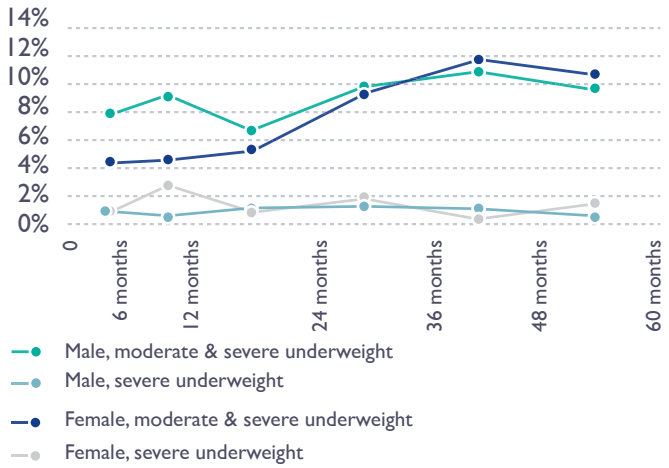
Figure 5.4
Percentage of children under age 5 affected by wasting, by age group, 2009(2006 WHO standards*)



** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009

Figure 5.5

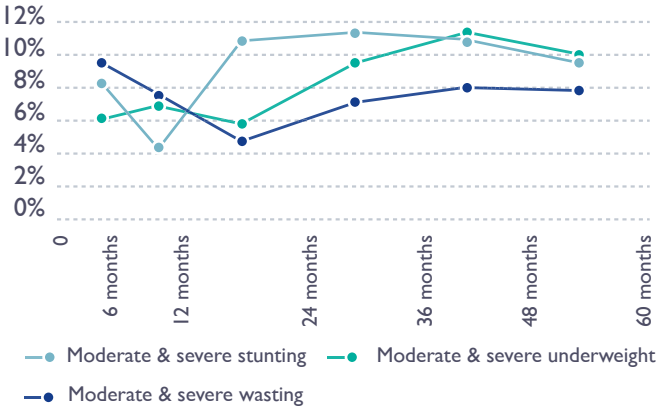
Percentage of children under age 5 affected by underweight, by age group, 2009(2006 WHO standards*)



** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009

Figure 5.6

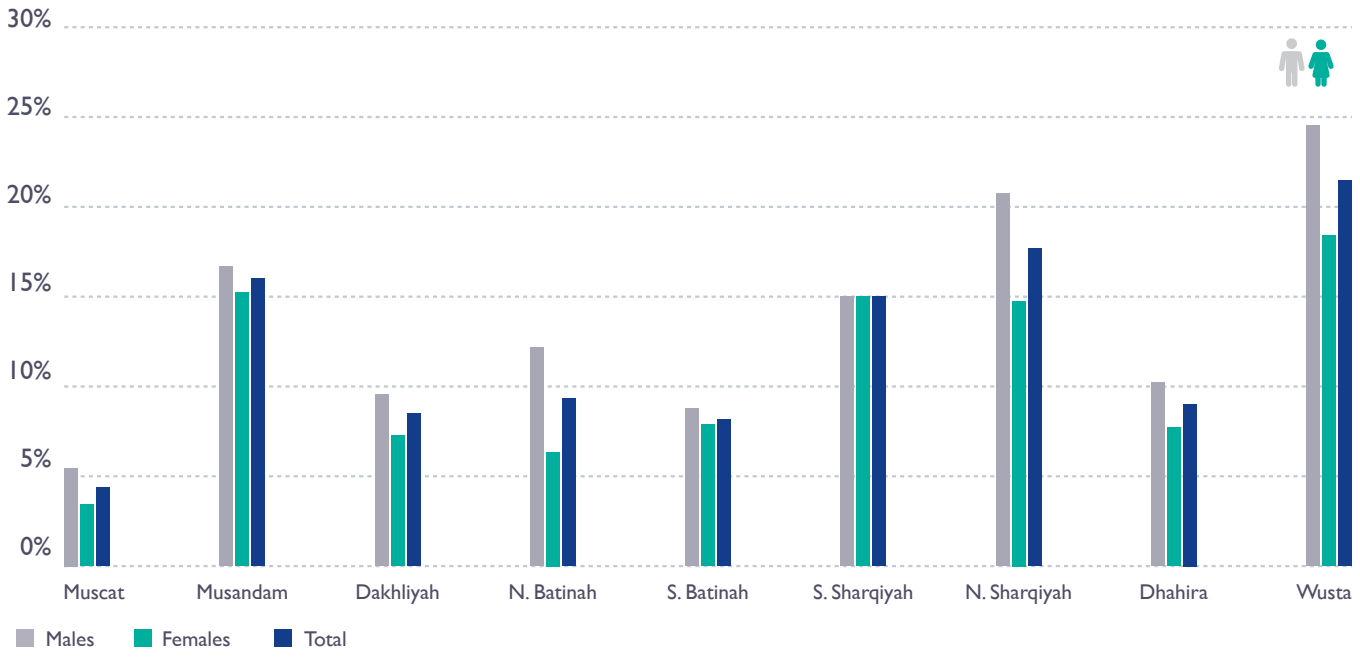
Percentage of children under age 5 affected by stunting, underweight and wasting by age group, 2009(2006 WHO standards*)



** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009

Figure 5.7

Percentage of children under age 5 affected by stunting by region and sex, 2009(2006 WHO standards*)



** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009. Dhofar sample incomplete. AdDhahira results represent both AdDhahira and AlBuraymi.

87. **Boys suffer slightly higher levels of stunting than do girls** (Figures 5.3 to 5.5). Studies elsewhere in the world have reported on the same phenomenon, noting that boys seem to be more vulnerable to health and nutrition risks than girls in the same age groups.[116,117]

5.1.2 Inequities

88. **The disparities vary by governorate, with differences up to five-fold for stunting.**[a] Muscat's children usually have much better nutritional status than those from other governorates.

- Muscat has the lowest stunting rates whilst Musandam, North Ash Sharqiyah and Al Wusta have stunting rates that are three to five times higher. In Al Wusta, one in four boys and one in five girls are affected by stunting (Figure 5.7).
- North Ash Sharqiyah, Dakhliyah and Musandam have wasting rates that are respectively 3 times, 3.1 times and 4.2 times that of Muscat (Figure 5.8). Musandam shows abnormally high wasting rates among boys, due to the component of severe wasting amongst boys (5.2 per cent compared to less than 2 per cent for other governorates). Severe wasting is associated with decreased food intake and diarrhoeal disease. It is notable that North Ash Sharqiyah, Al Wusta and Musandam have the highest diarrhoea rates amongst the governorates (Figure 4.14, Chapter 4).

Figure 5.8

Percentage of children under age 5 affected by wasting by region and sex, 2009(2006 WHO standards*)

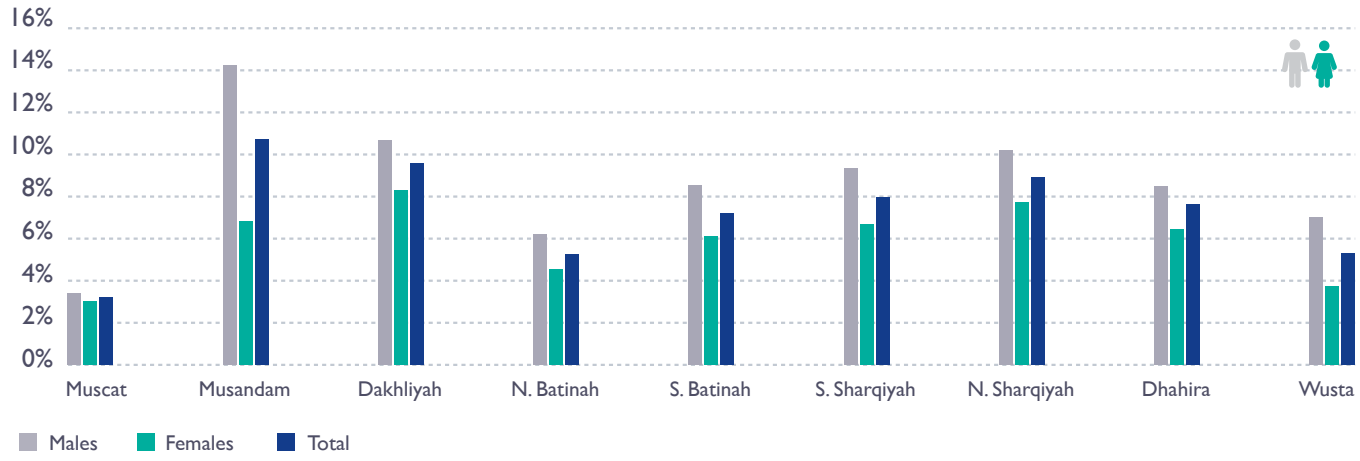
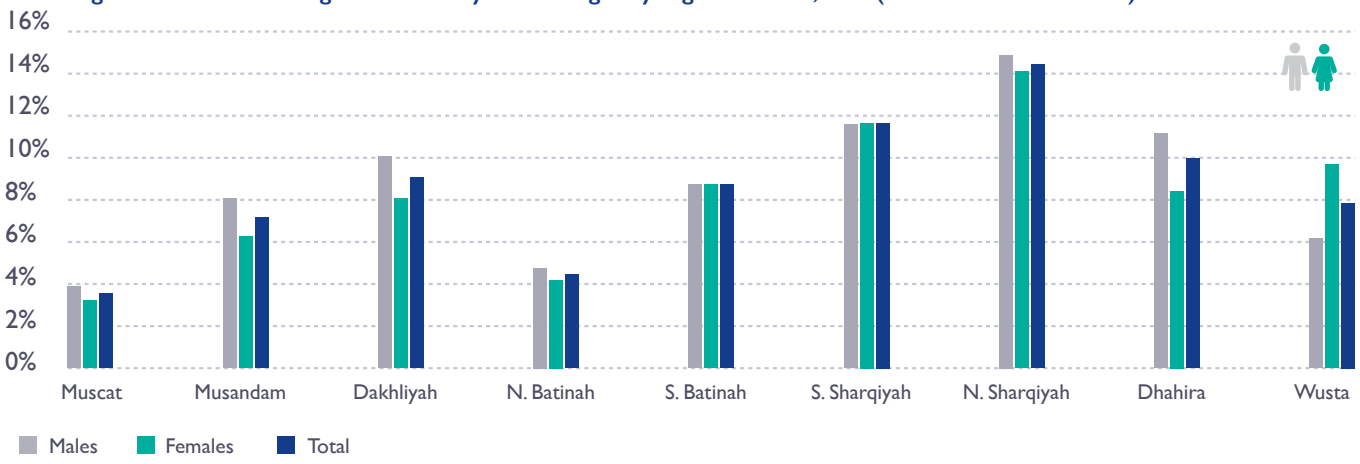


Figure 5.9

Percentage of children under age 5 affected by underweight by region and sex, 2009(2006 WHO standards*)



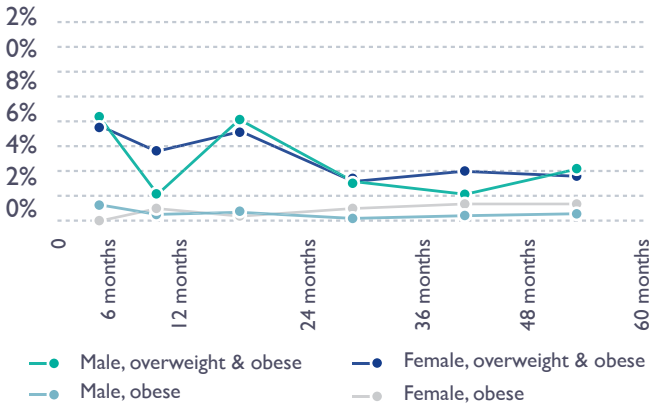
** Expressed in percent below minus 2 standard deviation units from the median of the 2006 WHO standards.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009. Dhofar sample incomplete. AdDhahira results represent both AdDhahira and AlBuraymi.

a. The PEM survey did not complete the sample for Dhofar. Adh Dhahirah was divided administratively into two health regions after the study was designed and implemented (Adh Dhahirah and Al Buraymi). Therefore, Adh Dhahirah results are representative of these two governorates before they separated.

- North Ash Sharqiyah and South Ash Sharqiyah have the highest rates of underweight; the former has four times the underweight prevalence rate of that in Muscat. Al Wusta has an abnormally high rate of underweight amongst girls, in contrast to other governorates where boys have a higher underweight rate (Figure 5.9).

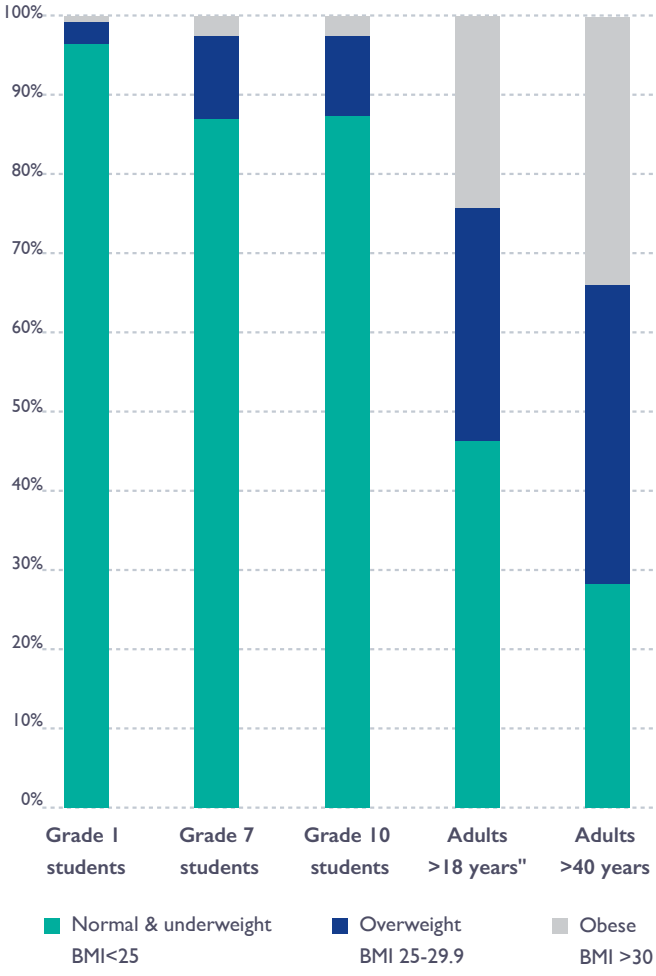
89. **Overweight and obesity prevalence rates in children and young people increase after the age of five years.** Before this age, the prevalence rate of overweight and obesity is between 1 to 4 per cent, with generally higher values before the age of 2 years (although there are unexplained fluctuations) (Figure 5.10). The overweight/obesity rates then increase in the school-aged population and keep on increasing with age into the adult population (Figure 5.11). Obesity amongst young people is not only related to lifestyle issues, but is also associated with stunting as a child. Studies show that nutritionally stunted children are at increased risk of obesity.[118]

Figure 5.10
Percentage of children under age 5 affected by overweight & obesity, by age group, 2009*



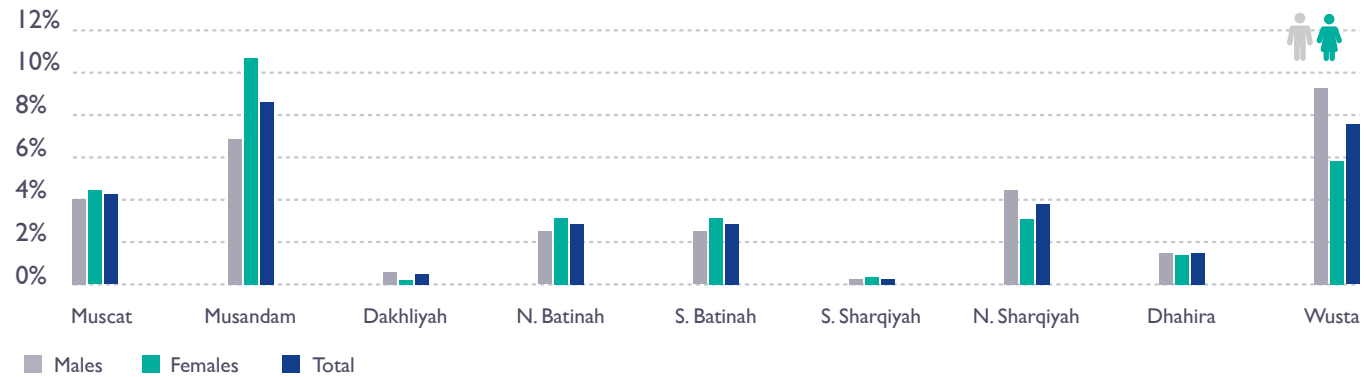
** Overweight and obesity were considered at +2 and +3 Z-scores, respectively for Body Mass Index for Age (BMIA). Overweight and obesity calculated with weight for height do not show signficant differences from those calculated with BMIA. Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009.*

Figure 5.11
Overweight and obesity prevalence by age group



Sources: World Health Survey 2008, Ministry of Health, for adults > 18 years. Annual Health Report, 2012, Ministry of Health, for adults >40 years and for all students.

Figure 5.12
Percentage of children under age 5 who are overweight and obese, by region and sex, 2009



Overweight and obesity were defined as +2 and +3 Z-scores, respectively for BMIA. Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009. Dhofar sample incomplete. AdDhahira results represent both AdDhahira and AlBuraymi.

90. **The governorates most affected by obesity and overweight are also those most affected by stunting.**[a] Al Wusta and Musandam have much higher proportions of overweight and obese children than the other governorates (Figure 5.12): 8 and 9 per cent respectively, compared to below 2 per cent for South Ash Sharqiyah, Dakhliyah, Adh Dhahirah[b] and South Batinah. Thus, Musandam and Al Wusta are the top two provinces in overweight and obesity amongst children as well as being amongst the three governorates with highest levels of stunting (Figure 5.7). The two are not unrelated, as mentioned above.[119] Childhood nutritional stunting is associated with impaired fat oxidation, a factor that predicted obesity in other at-risk populations. This finding may help explain increases in body fatness and the prevalence of obesity among stunted adults and adolescents in poorer populations elsewhere in the world.[120] Obesity is further discussed in Chapter 8 as a lifestyle issue.

5.2 Enabling environment

91. **Nutrition falls under the Directorate-General of Health Affairs.** Chapter 4 on child health already covered the budget, expenditure and health planning and policy issues. This section will deal with the enabling environment formed by the legislation/policy framework relating to nutrition. Social norms are discussed in the section on Demand.

92. **Oman has developed a sound legislative and policy framework for infant and young child feeding (IYCF).**

- Oman had a Breastfeeding Policy from 2007. The updated National Policy on Infant and Young Child Feeding adopted in 2011 is generally in line with WHO/UNICEF recommendations for breastfeeding. Furthermore, the 2011 policy contains useful points in addition to the WHO-UNICEF recommended best practices.[121]
- Ministerial Decision No. 55/98 regulating the Marketing of Breastmilk Substitutes provides protection for infants and young children, their families and for health workers. It gives legislative effect to parts of the International Code of Marketing of Breast-Milk Substitutes. A revision is in process, with the inclusion of "growing up milks," and "feeding bottles, teats and pacifiers" to ensure that these products are not encouraged.[122] As of 3 August 2014, the revision was still pending approval.
- The Omani Food-Based Dietary Guidelines provide the framework for older children and adults.
- The 2014 Child Law forbids advertising of food products detrimental to young child nutrition.

93. **Low exclusive breastfeeding rates and the relatively high wasting prevalence require rigorous implementation of the regulatory framework on breastfeeding.** In particular, the marketing of breastmilk substitutes needs stronger monitoring and enforcement of sanctions. The increase in women working outside the home (Chapter 3) adds another dimension. The 2014 Child Law prescribes paid maternity leave for female employees of both public and private sector. However, the Committee on the Rights of the Child (2006) highlighted the shortening of maternity leave in the public sector from 60 to 45 days and the abolishment of breastfeeding hour for working mothers. More measures may be needed to make legislation conducive to breastfeeding.[123]

94. **The fortification of wheat flour with iron and folate has improved maternal nutrition.** Oman Flour Mills began successfully fortifying flour with iron and folic acid in October 1996, making Oman the first country worldwide to achieve national-scale flour fortification with folic acid.[124] The fortification of wheat flour is now mandatory in Oman, whilst rice and maize flour are not fortified. The programme's impact is further discussed in section 5.3.1.

95. **Oman's 1996 legislation on universal salt iodization has been effective but requires monitoring.**[125] This is discussed in section 5.3.1.

a. The PEM survey did not complete the sample for Dhofar. Adh Dhahirah was divided administratively into two health regions after the study was designed and implemented (Adh Dhahirah and Al Buraymi). Therefore, Adh Dhahirah results are representative of these two governorates before they separated.
b. The results for Adh Dhahirah includes Al Buraymi as stated above.

5.3 Key determinants of equity

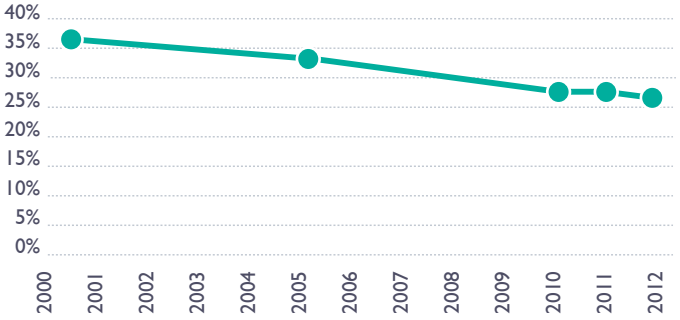
5.3.1 Supply and quality of inputs and services

96. **The nutrition outcomes in children are influenced by a broad range of factors.**[126] The three immediate determinants of optimum foetal and child nutrition are feeding and care practices, food and nutrient intake, and a low burden of infectious diseases. Underlying determinants that affect these include the mother's health and nutrition, the mother's education, food availability and use, a hygienic environment, and health care services.[127] Of particular importance are the ability and reach of health staff to provide counselling on IYCF, including breastfeeding. Many determinants of malnutrition lie outside the health sector, such as the mother's education, food availability, household income and the nature of the mother's work. This section analyses the factors on which there are data. Further analyses and cross correlations will require robust data disaggregated by governorate.

97. **The mother's health and nutrition status before and during pregnancy is key in combatting child undernutrition.** The mother's health and nutritional status before and during pregnancy determines the child's birthweight[128] and other nutritional status indicators. After birth, the stunting is due to diets deficient in micronutrients, poor IYCF practices, frequent illnesses and infections, and poor hygiene conditions. The process of becoming a stunted child begins in utero, and continues up to two years of age,[129] that is, the first 1,000 days of life. After this age, some catching-up might take place, but it is too late to undo the damage of the early years. The impact of stunting continues into adulthood.[130]

Figure 5.13

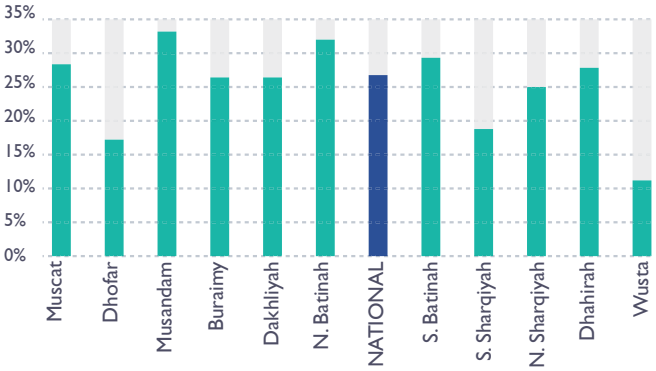
Proportion of registered pregnant women who are anaemic obese, by region and sex, 2009



Source: Annual Health Report, 2012, Ministry of Health. Anaemia prevalence based on haemoglobin levels (see text)

Figure 5.14

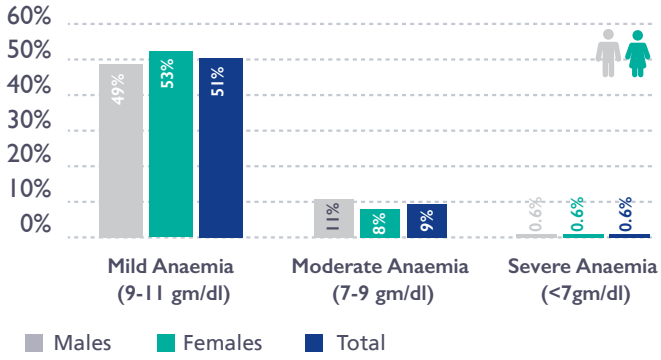
Percentage of registered pregnant women affected by anaemia by region, 2012



Source: Annual Health Report, 2012, Ministry of Health. Anaemia prevalence based on haemoglobin levels (see text)

Figure 5.15

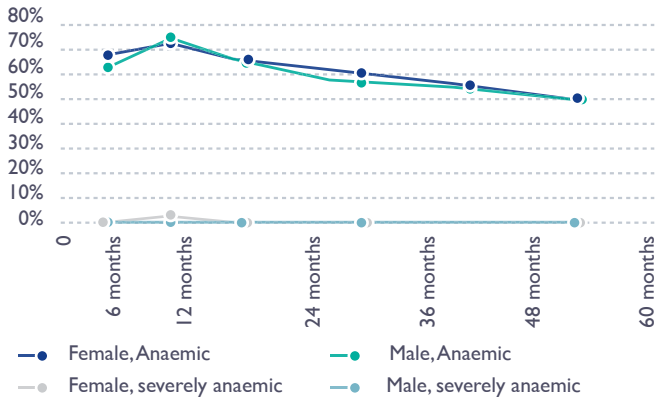
Percentage of children under age 5 affected by anaemia, by level of severity, 2009*



** Children with hemoglobin levels below 11g/dl were labeled anaemic; those with levels below 7g/dl were labeled severely anaemic.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009

Figure 5.16

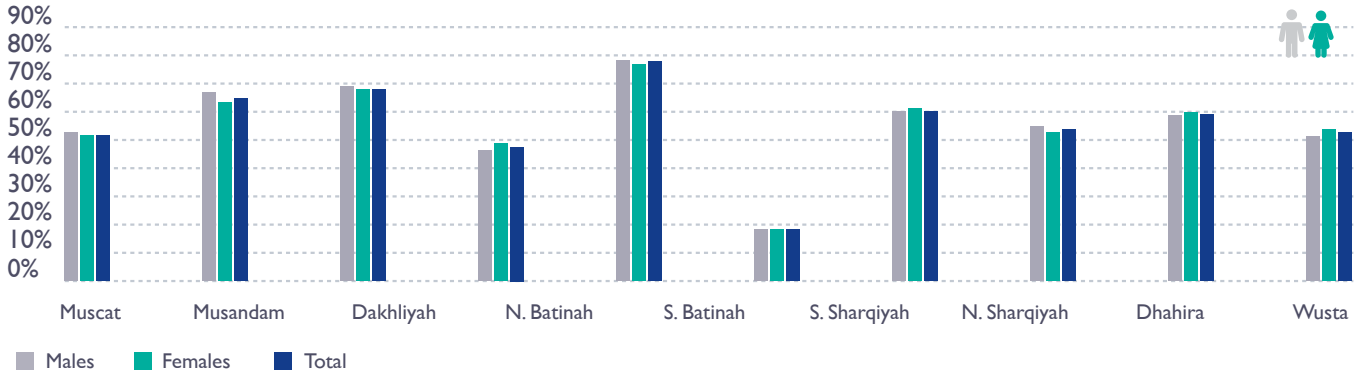
Percentage of children under age 5 affected by anaemia, by age group, 2009*



** Children with hemoglobin levels below 11g/dl were labeled anemic and those with levels below 7g/dl were labeled severely anemic. Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009*

Figure 5.17

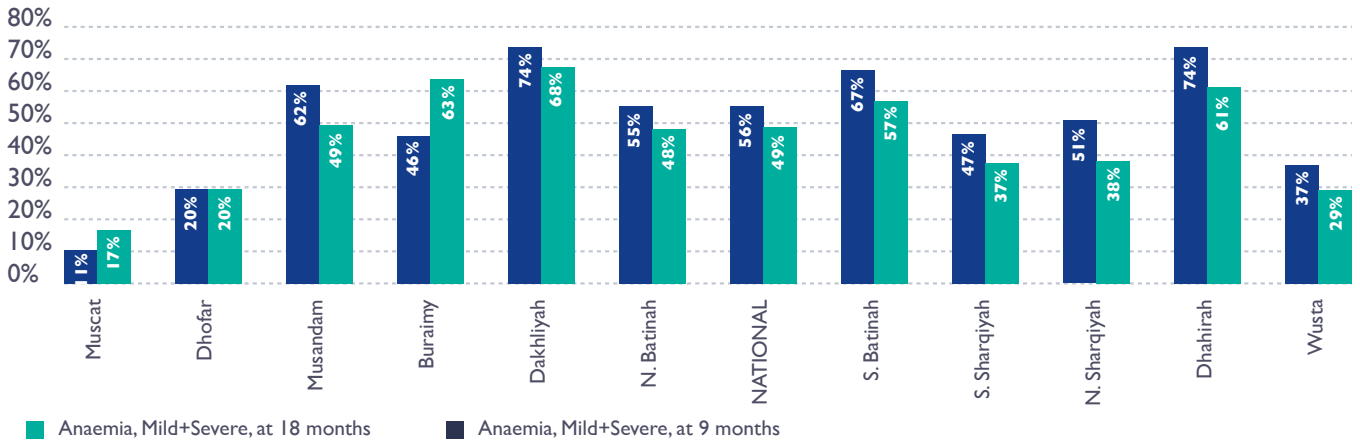
Percentage of children under age 5 affected by anaemia by region and sex, 2009*



** Children with haemoglobin levels below 11g/dl were labeled anaemic and those with levels below 7g/dl were labeled severely anaemic.*
Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age , 2009 . Dhofar sample incomplete. Ad Dhahira results represent both Ad Dhahira and Al Buraymi.

Figure 5.18

Anaemia prevalence rates amongst children on the Child Health Care Registry, MoH facilities, 2012



Source: Annual Health Report, 2012, Ministry of Health. Anaemia prevalence based on haemoglobin levels (see text)

98. **Health facility data from 2012 show that some 27 per cent of pregnant women suffer from anaemia.** This has improved from 37 per cent in 2000 (Figure 5.13). This is most likely due to Oman's flour fortification programme (see below). Amongst the governorates, Musandam has the highest rates of maternal anaemia (33 per cent) followed by North Batinah, South Batinah and Muscat (28 per cent), all above the national average (Figure 5.14).[a]

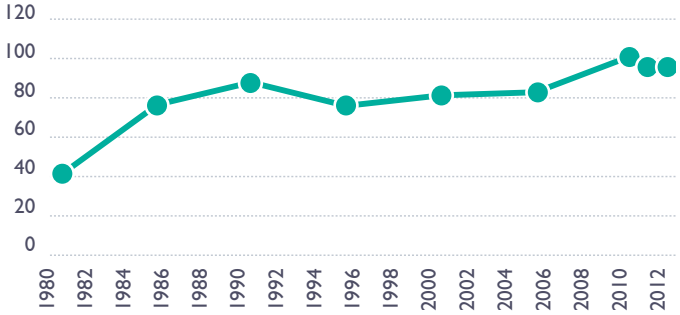
99. **Anaemia affects half or more of all children of all age groups.**[b] WHO has set standards for the classification of anaemia into high, moderate and low anaemia. However, WHO warns that "mild" is a misnomer: iron deficiency is already advanced by the time anaemia is detected, and the deficiency has consequences even when no anaemia is clinically apparent.[131] Accordingly, all children with anaemia, whether mild, severe or moderate, need attention. The rate for anaemia is higher between birth and age one (over 60 per cent) and declines slightly amongst young children over the age of two years. Still, around half the children under five years of age are affected by anaemia (Figures 5.15 and 5.16), a high level of prevalence. Amongst children under five years of age, South Sharqiyah, North Batinah and Muscat have the lowest prevalence of anaemia, while Musandam, Dakhliyah and South Batinah all have rates above 60 per cent (Figure 5.17). Recent institutional data confirm the high prevalence of anaemia at nine and 18 months of age (Figure 5.18) (although health facility data are not strictly comparable with survey data).

a. The definition of anaemia is haemoglobin values below 12 g/dl for women and below 13 g/dl) for men. 2012 Annual Health Report, 2012, Appendix.
b. A child is considered anaemic if his/her haemoglobin value is below 11 g/dl and severely anaemic if below 7 g/dl. Mild anaemia is defined as: 9-11 g/dl (2009 PEM survey)

100. **Oman's fortification of wheat flour with iron and folate is a major contributor to decreased anaemia in pregnant women and reduced spina bifida rates.** Between 1991 and 1996, Oman's spina bifida incidence fluctuated from 2.34 to 4.03 per 1,000 deliveries. Following the flour fortification programme that began in 1996, spina bifida incidence fell sharply, reaching 0.29 per 1000 deliveries by 2006.[132] In contrast, an earlier nationwide iron and folate supplementation for pregnant women, beginning with their first visit to the health centre, did not have an impact on *spina bifida*.[133] This was because preventing spina bifida and other neural tube defects requires adequate folate during the periconception[a] period.[134] Such targeting is difficult to achieve in supplementation programmes, due to operational challenges in identifying the pre-pregnancy period (e.g., in unplanned pregnancies) and ensuring continuous compliance. On the other hand, fortification provides a cost-effective and blanket intervention that ensures adequate consumption of folate on a daily basis for women before and during pregnancy.[135]

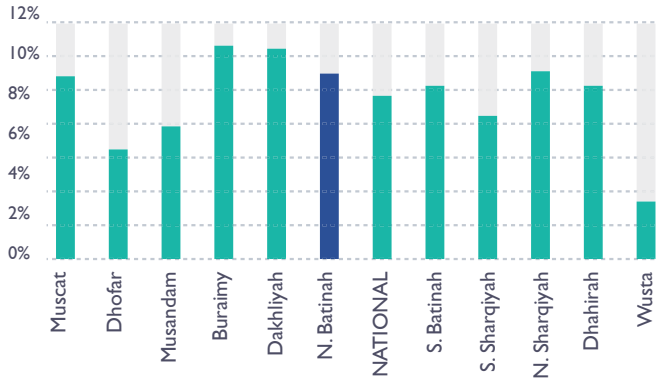
101. **As well as iron deficiency, inherited disorders of haemoglobin and iron deficiency have been identified as causes of anaemia in Oman.**[136] A National Genetic Blood Disorders Survey in 1996[137] estimated that the contribution of genetic disorders to anaemia (defined as blood haemoglobin concentration below normal) was 25.5 per cent. Other more recent studies also confirm genetic disorders such as alpha-thalassaemia, highly prevalent in Oman, as significant contributors to anaemia.[138]

Figure 5.19
Low birthweight* rate per 1000 live births



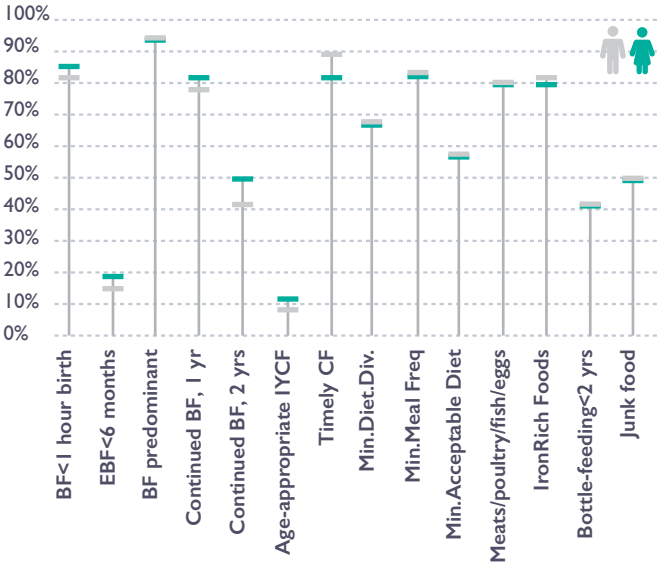
**Defined as the % of liveborn infants who weigh less than 2,500 grams at birth.*
Source: Annual Health Report, 2012, Ministry of Health.

Figure 5.20
Low birth-weight rate* in MoH hospitals and health centres in different governorates, 2012



**Defined as the % of liveborn infants who weigh less than 2,500 grams at birth.*
Source: Annual Health Report, 2012, Ministry of Health.
Note: The governorates host the health facilities where deliveries take place. However, these may or may not be where the mothers live.

Figure 5.21
Percentage of under-five children reached by selected infant and young child feeding practices, 2009

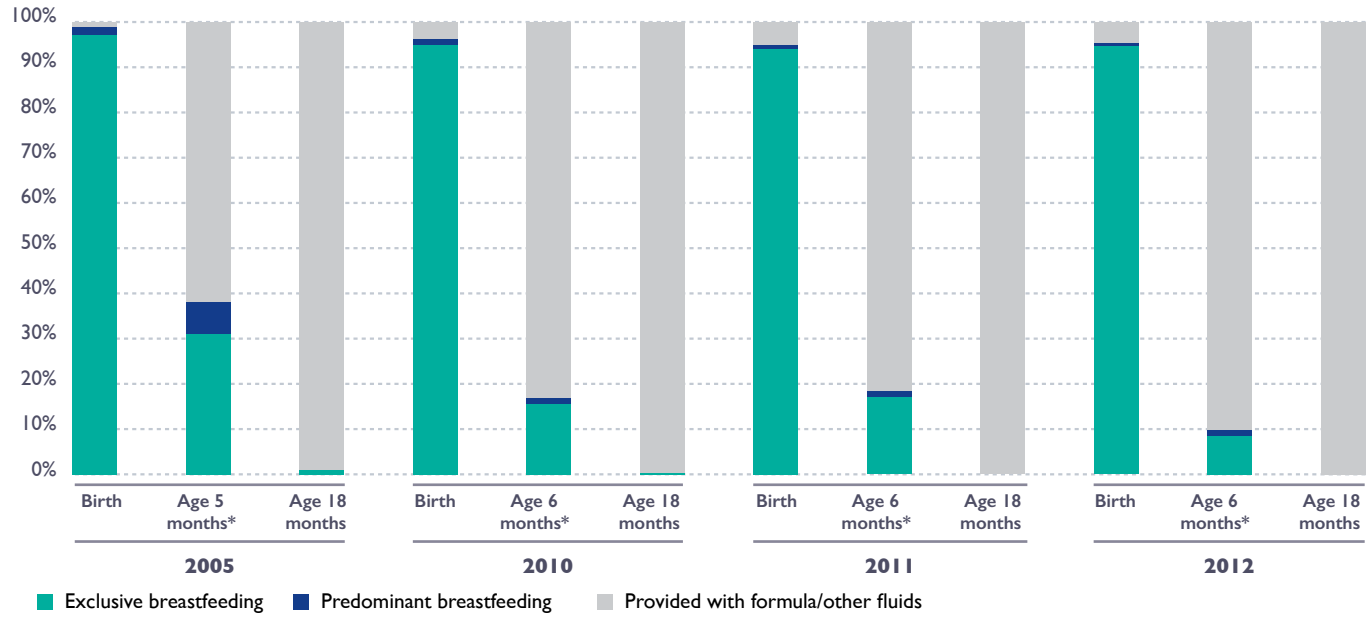


Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009. The key to the abbreviated interventions is given below.

a. Periconception: the time period around conception, around the time of getting pregnant.

KEY TO INDICATORS	
BF<1 hour birth	% children < 2 years having received breastfeeding within 1 hour of birth
EBF<6 months	% children <6 months given exclusive breastfeeding
BF predominant	% children <6 months breastfed but with other fluids, e.g., water and formula
Continued BF, 1 yr	% children who continue to be breastfed at 1 year of age
Continued BF, 2 yrs	% children who continue to be breastfed at 2 years of age
Age-appropriate IYCF	% children having received age-appropriate infant and young child feeding
Timely CF	% children having received timely complementary feeding (Introduction of solid, semi-solid or soft foods at 6-8 months of age)
Min.Diet.Div.	% children aged 6-23 months achieving Minimum Dietary Diversity
Min.Meal Freq	% children aged 6-23 months consuming minimum meal frequency
Min.Acceptable Diet	% children aged 6-23 months consuming minimum acceptable diet
Meats/poultry/fish/eggs	% children aged 6-23 months consuming meats, poultry, fish or eggs
IronRichFoods	%children aged 6-23 months consuming iron-rich or iron-fortified products
Bottle-feeding<2 yrs	% infants less than 24 months of age who received bottle feeding
Junk food	% children aged 6-23 months consuming junk food

Figure 5.22
Low birth-weight rate* in MoH hospitals and health centres in different governorates, 2012



Before 2010, exclusive breastfeeding status was recorded at 5 months.

Source: Annual Health Report, 2012, Ministry of Health.

102. **Oman's low birth-weight rate seems to be increasing, which is a worrying trend.** Low birth-weight is a contributing factor to infant mortality. In 2012, one in ten infants born alive in Oman had a body weight lower than 2.5 kilogrammes (Figure 5.19). Low birth-weight may be the result of the mother's poor nutritional status, including folate deficiency, her infections during pregnancy, exposure to tobacco smoke (including environmental tobacco exposure), and congenital or chromosomal abnormalities in the foetus. Figure 5.20 shows the variation in low birth-weight rate in different health facilities across.

103. **Oman has brought iodine deficiency disorders (IDDs) under control, but the legislation needs enforcement and monitoring.** Following a decree on the iodization of salt for human consumption in 1995 by the Minister of Commerce and Industry, surveys in 1996, 1997 and 2000 indicated an increase in household consumption of iodized salt, from 35 per cent in 1996 and 65 per cent in 1997 to 68.5 per cent in 2000. The studies also indicated an increase in the availability of iodized salt in local shops (85 per cent of local shops in 1998). A 2004 survey[139] found that 16.8 per cent of Omani non-pregnant women were deficient in urinary iodine (UI) below 100 µg/L) and that different socio-economic groups showed no significant differences in their UI levels which were well above the international UI cut-off of 100 µg/L. However, only 59 per cent of households had adequately iodized salt (≥15ppm) available during that survey. Other studies noted that the availability of iodized salt was still an issue in some parts of the country and that non-iodized salt still entered Oman from neighbouring countries.[140] Monitoring the salt iodization coverage will be essential for Oman to achieve truly universal coverage by iodized salt and maintain this status.[141] More recent data are also needed.

104. **Vitamin A deficiency control programmes have been effective. In 2011, health facilities detected 198 cases (or 0.3 per cent of outpatients) with clinical Vitamin A deficiency, mostly in Dhofar and North Batinah.** By 2012, the number of cases had dropped to 4.[142] The Ministry of Health initiated the Vitamin A supplementation programme in 1994 as part of EPI. The Vitamin A supplement programme covered 98 per cent of children under two years of age and 95 per cent of mothers in 2009.[143] Additionally, a programme for the fortification of cooking oil with Vitamin A has been in place since 2010.[144]

5.3.2 Demand and socio-cultural practices

105. **The nutrition of young children is sensitive to a wide variety of cultural norms and practices.** Those in Oman with an impact on young children's nutritional status include multiple and too closely spaced births (Chapter 4), which are associated with poor maternal health and inadequacy of care, the early introduction of water, herbs, teas and formula for infants, thus preventing exclusive breastfeeding, and misconceptions that link pregnancy to child diarrhoea in the breastfed child (thus shortening the period of continued breastfeeding).[145] Whilst Oman's younger women have a high literacy rate, older women have lower levels of education and literacy (Chapter 3), and are less likely to adopt appropriate child care and feeding practices. The relatively high level of wasting (for a country of Oman's high income status) indicates that diarrhoea may still be a problem among certain vulnerable populations.

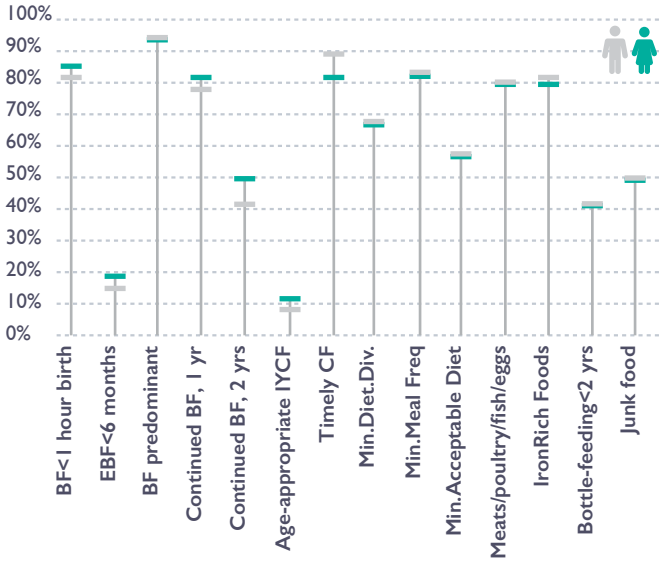
106. **IYCF practices are suboptimal (Figures 5.21, 5.22). These are key determinants of nutritional status in young children.** Survey data[146] from 2009 recorded the decline in exclusive breastfeeding: whilst 83 per cent of women breastfed their infants within one hour of birth, the exclusive breastfeeding rate was low (16 per cent of children under six months of age). 78 per cent of mothers continued breastfeeding up to one year of age, but thereafter, continued breastfeeding to the age of two years[a] dropped to around 44 per cent. Age-appropriate IYCF was quite rare (less than 10 per cent of young children) although timely[b] complementary feeding was common (84 per cent). The majority of children in the age group 6-23 months enjoyed adequate dietary diversification (67 per cent), had the minimum recommended meal frequency (83 per cent), and consumed meats, poultry, fish or eggs, iron-rich or iron-fortified products (80 per cent). However, a significant proportion of children did not receive these benefits. Around half the children under two years of age consumed junk food and 41 per cent of the same age group received bottle-feeding. The survey found that the sex of a child did not make a

a. Continued breastfeeding up to two years of age is in line with WHO and UNICEF recommendations.

b. Meaning that at six to eight months, infants are introduced to solid, semi-solid or soft foods

Figure 5.23

Percentage of under-five children reached by selected infant and young child feeding practices, 2009



Source: Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009. The key to the abbreviated interventions is given below.

significant difference to feeding practices (Figure 5.21). More recent facility data[a] [147] confirm the low proportions of children who were exclusively breastfed below the age of six months: not only has the proportion of newborns receiving only breastmilk decreased by three percentage points from 2005 to 2012, but also only 9 per cent of six months old children were exclusively breastfed (Figure 5.22)

107. **Every governorate shows low rates of exclusive breastfeeding and age-appropriate IYCF** (Figure 5.23). A significant proportion of infants below age 2 years receive bottle-feeding (24 per cent to 68 per cent); this proportion is highest in Muscat. Muscat also has one of the lowest proportions of children who benefit from adequate dietary diversification. Junk food use is highest in Adh Dhahirah and South Batinah.

5.3.3 Patterns of inequity

108. **The magnitude of disparity across governorates varies by indicator** (Figure 5.24). The greatest disparities are seen in anaemia amongst children: the levels vary across governorates by 4 times to 7 times respectively for children under 5 years old and children at 9 months. Anaemia in pregnant women varies less across governorates, whilst the disparities in wasting and low birth-weight are the smallest. The interpretation of disparities must go together with a review of the actual prevalence. For instance, wasting and low birth-weight rates show less disparity between governorates, because most governorates need improving in these two areas. Figure 5.24 should therefore be examined together with Figure 5.25, which shows the variation by governorates. Here, the governorates are ranked according to health facility data on anaemia at 9 months.[b] Muscat has the lowest stunting, wasting and diarrhoea rates. Anaemia levels are generally high. Attempts to relate these to data on health services and piped water access were not fruitful.

109. **Disparity mapping is key for studies and interventions.** The region where an indicator shows the greatest disparity (e.g., childhood anaemia, Figure 5.24) needs targeted specific interventions for that indicator. This should be in addition to the national programme, and not replacing it. For example, nation-wide actions to address anaemia amongst young children are surely needed, but at the same time, South Batinah, Adh Dhahirah and Ad Dakhliyah need special attention, such as studies to determine why the levels of childhood anaemia are so much higher. Currently there is insufficient information to answer such questions.

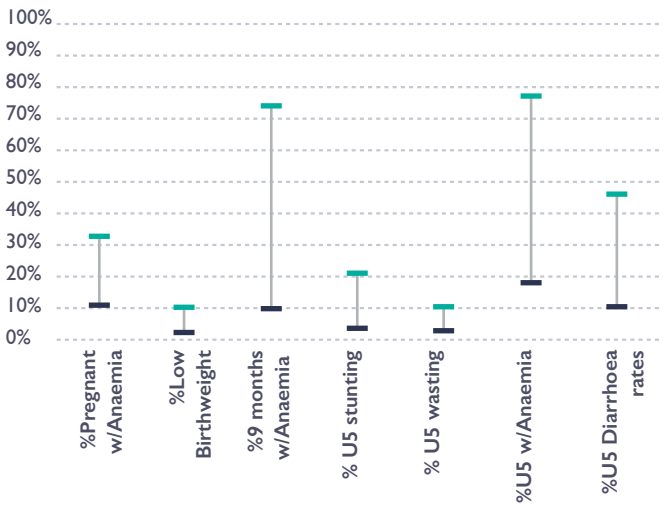
KEY TO INDICATORS:

% Pregnant w/ Anaemia:	Percentage of registered pregnant women affected by anaemia (Figure 5.14)
% 9 months w/Anaemia:	Percentage of children on the Child Health Care Registry affected by anaemia (Figure 5.18)
% U5 a/Anaemia:	Percentage of children under the age of five years affected by anaemia (Figure 5.17)
% U5 stunting:	Percentage of children under the age of five years affected by moderate and severe stunting (Figure 5.7)
% U5 wasting:	Percentage of children under the age of five years affected by moderate and severe wasting (Figure 5.8)
% U5 Diarrhoea rates:	Reported diarrhoeal disease cases per 100 children under the age of five years (Figure 4.14 x 1/10)

a. Facility data are not strictly comparable with survey data because of the different way in which these were collected, different denominators, etc. Nonetheless, in the absence of more updated comprehensive data, facility data may be used as indicative measures.

b. It is recognized that health facility data are different from household survey data. However, the 2009 Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age did not have all the regions.

Figure 5.24
Disparities in selected nutrition and health indicators across regions, 2009-2012



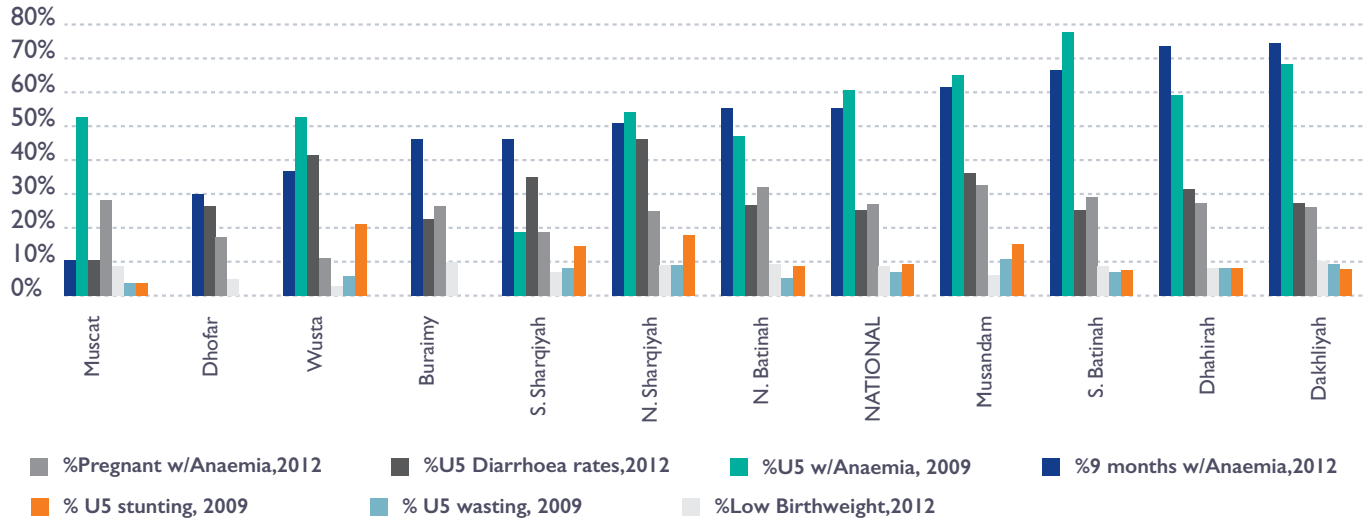
Source: 2012 Annual Health Report, MoH and Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009.

schooling and productivity. They agreed that addressing malnutrition should be the top priority for policy-makers & philanthropists.[148]

111. **In Oman, stunting, anaemia, and the increasing low birth-weight rate need special attention.** Together, these indicate that maternal nutrition needs to be urgently addressed. Studies are needed to determine why childhood anaemia is so much higher in some regions and why the low birth-weight rate has increased over the past two decades, despite steady improvement in other social indicators.

112. **A holistic approach is needed to tackle the remaining areas of undernutrition, including micronutrient deficiencies, in a convergent approach**

Figure 5.25
Situation of children and women by key nutrition indicators and region, 2009-2012 (ranked by anaemia at 9 months)



Source: 2012 Annual Health Report, MoH and Second National Health Survey for Protein Energy Malnutrition in Children below Five Years of Age 2009. The 2009 survey does not report on Dhofar and Buraimy.

5.4. Challenges and opportunities

110. **The importance of young child nutrition to a country's human capital cannot be overestimated.** The Copenhagen Consensus 2012 Expert Panel of world renowned economists found that every dollar invested in reducing undernutrition resulted in a $30 return on investment in terms of increased health,

with early childhood programmes (Chapter 6). The guidelines from the global Scaling Up Nutrition (SUN) movement provide a useful reference framework.[149] The SUN road map focuses amongst others on (a) the scaling-up of 13 direct nutrition interventions focused on the first 1,000 days of life (Box 5.1), and (b) the promotion of broader multi-sectoral approaches to nutrition, such as nutrition-sensitive interventions in agriculture, food security, social protection, education, water, sanitation and public health.

Box 5.1
The SUN interventions

The following are 13 direct nutrition interventions endorsed by SUN. Most of them are relevant to Oman except for intervention 9. Oman is already implementing many of the interventions on the supply side; e.g., vitamin A supplementation and flour fortification with folate and iron. However, Oman may wish to consider strengthening and expanding demand-side interventions, notably those to address behaviour change.

1.	Breastfeeding
2.	Complementary feeding for infants after the age of six months
3.	Improved hygiene practices including hand washing
4.	Vitamin A supplementation of children under 5 years old
5.	Therapeutic zinc supplements for diarrhoea management
6.	Multiple micronutrient powders
7.	De-worming drugs for children and pregnant women
8.	Iron-folic acid supplements for pregnant women to prevent and treat anaemia
9.	Iodized oil capsules, where iodized salt is unavailable
10.	Salt iodization
11.	Iron fortification of staple food
12.	Prevention or treatment for moderate undernutrition
13.	Treatment of severe undernutrition ("severe acute malnutrition") with ready-to-use therapeutic foods (RUTF).

Nutrition counselling of pregnant women and mothers of young children is necessary for interventions 1, 2 and 3, as well as for ensuring compliance with other interventions.
Adapted from: Scaling Up Nutrition (SUN), 2011. http://scalingupnutrition.org/wp-content/uploads/2013/05/SUN_Framework.pdf

113. There is a need for recent and disaggregated household data. Nutrition and care practices are not easily measured by health facilities, because families who bring children to health facilities to measure their nutritional status are already self-selected – in other words, they are not a representative sample of the population. In particular, they are not the most vulnerable, because their parents already know enough and have the means to bring them to the health facilities. Additionally, the data needs to be disaggregated not only by region, but also by other factors such as mothers' education, household poverty quintiles, type of water used and so on.

114. Oman has a sound legislative framework for improving nutrition; however, the implementation needs to be better monitored and enforced. One example is the progress towards universal salt iodization. Another is the regulatory framework on breastfeeding. Both need stronger monitoring and enforcement.

6 Early Childhood Development

115. **Society benefits from investment in early childhood development (ECD).** Investing in ECD enhances the cognitive development of children, increases their readiness for school, and improves school attendance and performance[150] in primary and secondary education, leading to a higher quality of the country's workforce. Investments in sound ECD programmes also make sense economically: the benefits to society outweigh the costs from five to seven times.[151,152] ECD's link with future productivity and reduced health costs make it a recognized factor in economic growth.[153] Furthermore, the children in greatest need benefit the most, showing the greatest response to ECD programmes. Whilst the earliest interventions (from prenatal and antenatal care, birth and up to the age of two years) have the greatest impact on the child,[154] interventions for psychological development after this critical period are also effective.[155]

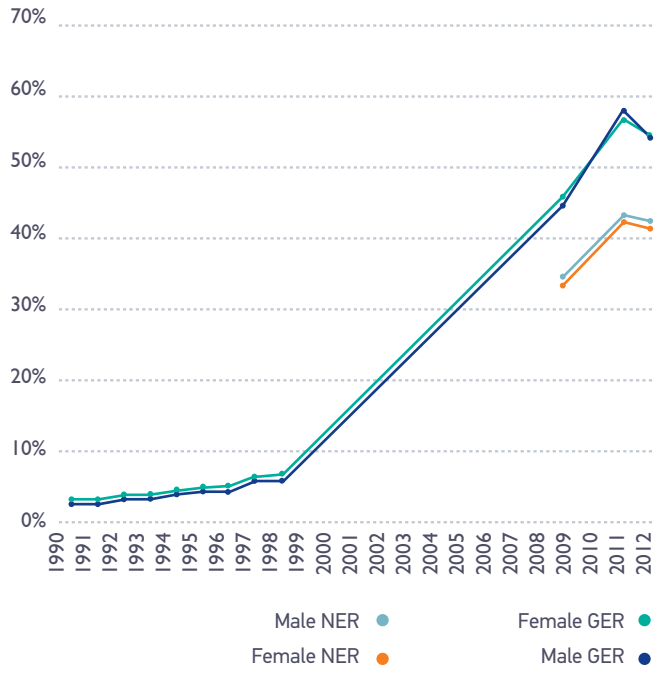
116. **Making a distinction between ECE (early childhood education) and ECD is important.** The former leaves out the health, nutrition and physical growth components and has only the components of psychological, educative and psychosocial interventions and parental/caregiver education. To be of maximum benefit to the child, ECD interventions should be an integrated mix of psychological, psychosocial, health and nutrition interventions.[156]

117. **Truly integrated ECD is difficult to implement at the operational level.** This is because in many countries, different ministries are responsible for the different sectors that make up ECD and the interventions may not converge on the same children and even the same communities. Additionally, ECD is time-intensive and therefore resource-intensive. Like nutrition and growth counselling, it requires the service provider to give individual attention to each child. This is why many countries with limited resources find it difficult to expand ECD on a nation-wide scale. The key is to start with an already successful nationwide community-based programme and insert the additional components needed.[157] Integrated ECD also requires a strong central coordination body able to enforce national ECD norms on a variety of actors, many of them from the private sector. International evidence shows that the outcomes of good ECD programmes are worth the extra expense and care.[158, 159, 160]

6.1. Trends and outcomes

118. **ECE is the fastest growing component of the education sector** (Figure 6.1). Oman has encouraged ECE expansion through private-sector programmes and more recently, in the public sector. In 2012, 58,500 children were attending pre-primary programmes (public and private).[161] The average annual growth rate of ECE enrolment was 9.3 per cent over the period 1990 to 2012.[163, 164] The private sector dominates the provision of ECE services.[165] Recent years have seen some expansion by government programmes and by non-profit institutions.

Figure 6.1
Pre-Primary Enrolment Ratio (%)

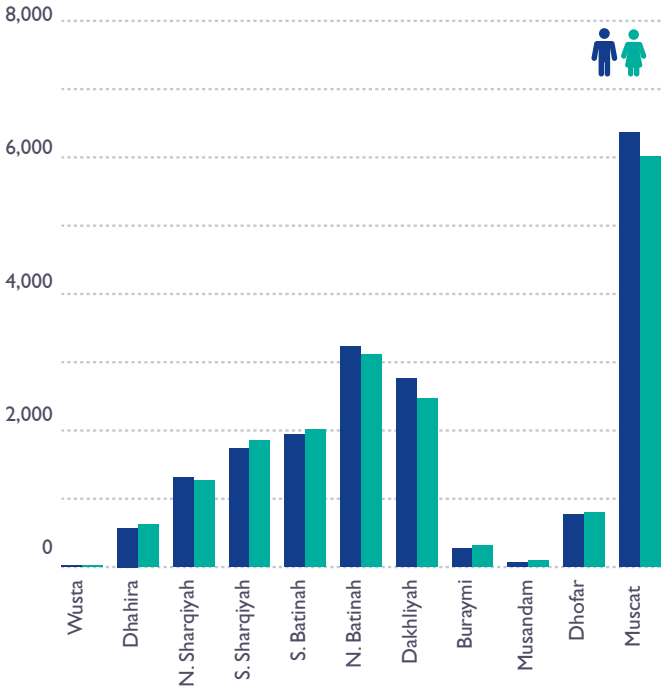


Source: UNESCO Institute for Statistics

119. **Oman's pre-primary enrolment rate has rapidly improved but still needs to catch up with those of some countries in the region.** According to the Ministry of Education, Oman's gross enrolment ratio at pre-primary level was 54 percent in 2011 and 47.4 percent in 2012. [a] This is lower than ECE enrolment rates in some countries of the region.[166]

120. **Children of low-income families, especially in rural areas, still lack access to adequate ECE services.** The majority of pre-primary enrolment takes place in urban areas. For example, a 2012 study showed 94 nursery centres in the Sultanate Oman (including for non-Omani children). Of these, 50 centres were in Muscat.[167] Whilst the number of private kindergartens (Figure 6.2) is increasing at a fast pace across Oman, including several in rural areas,[168] lower income families are not able to access their services, as these private kindergartens are fee-based. The Ministry of Education has introduced a pilot programme that trains and supervises "preparation class" teachers to prepare young children for a successful transition to school. Most of these teachers are volunteers from local communities who have completed grade 12, but could not enter higher education or find paid employment. Retaining these teachers is difficult because they do not have regular salaries and receive only small financial incentives from the Ministry of Education. The programme was limited to 58 schools and 1,173 children in 2008-09.[169]

Figure 6.2
Distribution of Private Kindergarten students by region and sex, 2012/13



Source: The Annual Educational Statistics Book, 2012/13, MoE. Does not include all pre-primary, but only private kindergartens registered with MoE.

a. The Government is reviewing UNESCO statistics on Oman.

121. **The lack of equal opportunity in ECE provision needs to be addressed.** The rapid expansion of private ECD facilities could widen educational disparities between the higher and lower-income families. Private kindergartens, mostly in urban areas, are well equipped with facilities and resources, with teachers holding formal qualifications for pre-primary teaching and having undergone Ministry of Education training programmes. Such opportunities are lacking in disadvantaged rural areas. Children whose parents cannot afford private preschools start their basic education without an ECD or ECE programme; yet these children in greatest need would have benefited the most from ECD programmes.[170]

6.2 Enabling environment

122. **A set of principles govern pre-primary education in Oman.** Pre-primary education aims to promote balanced development, strengthen Islamic principles, instil pride in nationality and language, foster positive attitudes and a cooperative outlook, promote knowledge and participation in national social events, provide children with a developmentally appropriate curriculum to promote their emerging skills, and prepare children for school.[171] The pre-primary level of education, mapped as ISCED[a] 0 level by UNESCO,[172] has an official entry age of 4 years and lasts 2 years, until the child turns 6 years old, upon which he/she enters the first stage of basic education.

Table 6.1
Types of ECE services provided in Oman

ECE/ Pre-primary services	Remarks	Age group	Curriculum by:	Fees
Oversight by Ministry of Awqaf and Religious Affairs (MARA)				
Qur'anic schools or Madrassas	Public. Established and administered by MARA	3 – 6 years	MARA	No
Oversight by the Ministry of Social Development (MoSD)				
Private Nurseries	Private. Ministerial decision No. 121/2012 applies. Owned /operated by private sector. Some are internationally accredited.	Variable	Own	Yes
Child Growth Houses	Voluntary, for rural children	3½ to 5½ years	Own	Small fee
Children's Corner	Voluntary. Supervised by the Omani Women's Associations in cities and Wilayat centres	3½ to 5½ years	MoSD	Small fee
Oversight by the Ministry of Education (MoE)				
Private sector kindergartens	Private, but under the administrative and technical supervision of MoE.	3-6 years & 4-6 years	MoE	Yes
Preparation Classes in public schools	Public, attached to public schools	5 years old	MoE	No
Qur'anic schools or Madrassas	Private	3½ to 5½ years	MARA + special	Yes
Royal Oman Police kindergartens	Public. Only children of those working for Royal Oman Police	4 years	MoE & own	Small fee
Royal Armed Forces of Oman	Public. Only children of those working for Royal Armed Forces	3½ to 5½ years	MoE	Small fee

Adapted from Ministry of Education and World Bank (2012) and information from MoSD (2014)

a. International Standard Classification of Education

123. **Oman's ECE services vary widely in institutional set-up and requirements** (Table 6.1). There is insufficient data to judge the extent to which the services also fulfil the requirements for integrated ECD. Many of the ECE programmes, although provided by private entities, are still under the direct supervision of the Ministry of Education and the Ministry of Social Development (kindergartens and pre-kindergartens respectively). The Ministry of Awqaf and Religious Affairs (MARA) supervises the Qur'anic schools or Madrassas for young children. The different types of pre-primary services cover different age groups of children, which need to be taken into account in calculating gross and net enrolment ratios for these services.

124. **The government is prioritizing ECE.** The Government has put in place measures to encourage and coordinate the private sector's contribution to ECE expansion through appropriate policies and regulations. At the same time, the Government is making its own efforts to ensure greater ECE access and higher quality. A legislative framework and various decrees[a] have been put in place to regulate the nursery and kindergarten programmes services provided to young children. For example, the Ministry of Social Development Decree 212/2012 sets out the rules and regulations for nurseries in Oman. The government has also implemented a yearlong national awareness programme advocating ECE enrolment. In-service teacher training programmes contribute to capacity building of ECE professionals. The Sultan Qaboos University and Nizwa University now offer a four-year degree course in ECE. Quality improvement is being implemented through the development, regulation, implementation, and evaluation of nursery and kindergarten curricula and manuals. An early childhood education supervisory team at the Ministry of Education coordinates activities in this area.[173] The 2014 Child Law further regulates nursery services, stipulating that these must follow the standards set by the Ministry of Social Development. It also stipulates that authorities provide such services for young children of female prisoners in every central prison.

6.3 Key determinants of equity

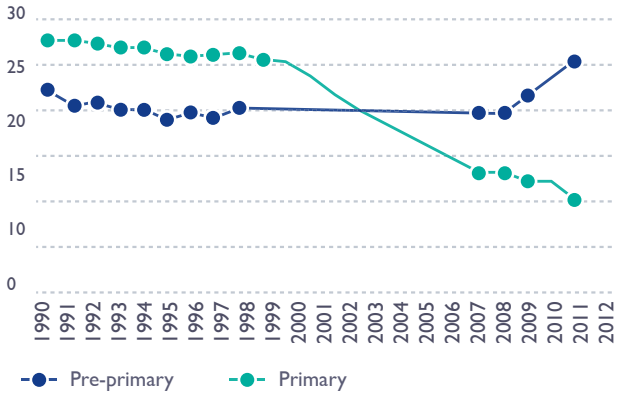
6.3.1 Supply and quality of services

125. **An evaluation of the Ministry of Education's kindergarten curriculum was generally positive.**[174] The evaluation found that kindergarten classes using the Ministry of Education's developed curriculum had a better quality learning environment than that of kindergartens not yet using the developed curriculum. The evaluation found no significant relation between teachers' qualifications and the quality of the kindergarten classroom environment. Instead, it found that teachers' years of experience had a positive impact on the quality of the learning environment. The evaluation identified a number of strengths and weaknesses in the curriculum and recommended the implementation of the curriculum in all kindergartens, and the enhancement of teacher skills though intensive training programs

126. **Information is limited on the quality of services provided by kindergartens.** The Ministry of Education provides kindergarten teachers with in-service training programs focused on pedagogy and interactive learning, which follow the principles of the child-centred approach.[175] Teachers are also trained on young children's characteristics, abilities, needs, individual differences, and approaches to learning. The kindergarten curriculum was evaluated in 2008.

127. **The pre-primary pupil-teacher ratio appears to be higher than that in primary school** (Figure 6.3). However, it is unclear whether the UNESCO data is representative of all types of pre-primary in the country, given the many different types run by different institutions. The smaller the class, the more interactions the child will have with the teacher, enhancing the quality of learning.

Figure 6.3
Pupil-Teacher Ratio



Source: Pre-primary ratios from UNESCO Institute for Statistics. Primary ratios from MoE Educational Indicators 2010/11 and 2011/12 for more recent years and from UNESCO Institute for Statistics for 1990-2003

a. For example, the Ministry of Social Development Decree 212/2012 on Organizational Regulations for Nursery Centres.

128. **The nursery curricula developed by the Ministry of Social Development[176] are comprehensive.** The nursery manual, for example, emphasizes the importance of a flexible approach, and the importance of offering children a variety of activities that promote their skills, meet their needs, and take into account the individual differences among children. The curriculum includes items designed to develop children's confidence, independence, language abilities, social skills, large and small motor muscle coordination, problem solving and relationship skills. It also includes instructions to teachers for identifying developmental characteristics of children at different ages with indicators and warning signs. The manual covers health issues and guidelines for responding to injuries and accidents.

129. **An evaluation in 2009 found the content and quality of services in nurseries variable.** The sample comprised 20 nurseries distributed amongst Muscat and other governorates.[177] The evaluation included, among others, the qualifications of administrative and teaching staff, the availability of developmentally appropriate equipment, the quality of early childhood programmes, the level of family involvement and the health and nutrition aspect of the nurseries. The evaluation results show that over half the teachers and caregivers held a high school degree. The programmes varied: some promoted memorization and play, others used various teaching strategies and field trips. Some nurseries provided assessment reports to families on their children's developmental abilities. Parental involvement and follow-up varied. The 2009 evaluation identified areas for improvement in terms of facilities, caregivers' capacities and accreditation of nursery programmes. The evaluation recommended the provision of ECD programmes that would promote children's development, improving caregiver capacities by using employment standards and in-service training programs, and working with public and private universities to develop ECD specialties.

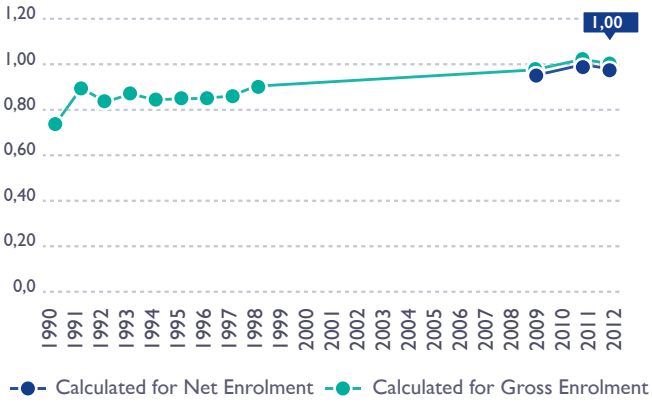
130. **Oman is taking steps to improve the nurseries and raise the capacity of nursery caregivers.** The efforts aim to improve the institutional mechanisms for nurseries, upgrade human resources and develop a scientific evidence base for further improvements. To this end, a project is underway in collaboration with the Arab Gulf Programme for Development (AGFUND) and Sultan Qaboos University with a view to conduct a further situation analysis of nurseries.

131. **ECD and ECE services are particularly important since children in Oman start school relatively late.** To enter public schools, children have to be at least 5 years and 9 months old by the end of September each year. This is later than the norm in most high-income countries and again, highlights the need for laying a good ECD/ECE foundation. A World Bank report[178] on Oman noted that the growth of private preschools benefited mainly the well-off families and that the expansion of publically financed preschool education was one of the most promising ways to enhance educational outcomes, particularly for the most disadvantaged and least educated sections of society. The report recommended expansion of public services in areas of poor educational performance, either by attaching preschool classes to existing schools, or by using a voucher scheme to finance participation in private preschool education at agreed rates.[179]

6.3.2 Demand

132. **The rapid growth in ECE enrolment shows a strong demand. Oman has seen a 46 per cent increase in the numbers of children enrolled in pre-primary education from 2007 to 2012.**[180] The government's awareness-raising and advocacy programmes on ECE have contributed to the rise in enrolment. The awareness raising was conducted in collaboration with UNICEF-Oman, and included a year-long national campaign starting in November 2008 to increase the awareness of the importance of pre-school education. An assessment of the 2008 campaign was generally positive and attributed a rise in parents' awareness[181] to the campaign.

Figure 6.4
Gender Parity Index (GPI), pre-primary enrolment



Source: UNESCO Institute for Statistics

133. **Gender parity in pre-primary enrolment has steadily increased.** There is now little difference between the enrolment of girls and that of boys (Figure 6.4).

134. **Supply cannot currently keep up with the demand.** Challenges remain in providing services for the Omani children of kindergarten age not attending these programmes. This is due in large part to the location of most kindergartens, which are clustered in the capital, as well as the financial inaccessibility of private kindergartens for low-income families. The assessment of the 2008 campaign highlighted the need to expand early childhood education services to include low-income families and families with children having special needs.

6.4 Challenges and opportunities

135. **Tackling the remaining challenges in ECD will require political commitment.**

136. **First, increased public investment in ECD will be needed, not just in ECE.** Government leadership and involvement are essential for ensuring ECD provision on a large scale, while maintaining quality and ensuring access by low-income families.[182] The pace of expansion, the access required for these families and above all, the necessary convergence with health and nutrition interventions are beyond the scope of the private sector alone. In particular, the development and recruitment of qualified ECD teachers to work in poorer areas will require significant investment by the government. Additionally, holistic ECD services will require health and nutrition interventions. A national ECD strategy is, therefore, required to provide focus and link up the ECD work of various ministries, such as the Ministry of Social Development, the Ministry of Education and the Ministry of Health. An expert is currently working on a study on investment in early childhood in the Sultanate.

137. **Second, public ECE services should be expanded through existing mechanisms.** The Ministry of Education's programme for preparation classes at basic education schools could be expanded, particularly in rural areas. This will allow expanding school readiness programmes for pre-school children into the poorer areas. Although nurseries and kindergartens are increasing in number, most of the programmes are owned and run by the private sector, making it difficult for underprivileged children to gain access, especially since many programmes are located in the capital.

138. **Third, the quality of services, teacher efficiency, and the learning environment is variable and will need improvement.** Overall, the qualifications and competencies of early childhood teachers need to be strengthened. Many teachers are high school graduates and lack the proper pre-service training experience needed to implement developmentally appropriate care and education strategies. Consistent norms and standards are needed across the different types of preschool programmes.[183] With regard to kindergartens, the main challenge will be the application of pedagogical teaching strategies that are appropriate for working with very young children.

139. **Fourth, a systematic and evidence-based approach is needed to assess gaps in early childhood services.** The Ministry of Social Development is currently developing the national strategy for childhood, which will assess the services provided to children, identify the challenges and needs in education, health, and child protection as well as in the social and cultural areas. Any comprehensive situation analysis should link up with previous and ongoing research. It should cover the delivery of services, the effectiveness, convergence and quality of psychosocial, health and nutrition interventions, the workforce skills and training needs, information systems, curricula, pedagogy, financing, governance and the policy legislation framework. The health and nutrition components should be in line with those in the First 1,000 days approach (Chapter 5, Box 5.1).

140. **Following this comprehensive analysis, national standards for integrated ECD will need to be adopted and enforced.** The Ministry of Education is preparing a manual on development standards for early childhood, which is being revised and pending final approval. The standards should pay special attention to quality concerns in early childhood programmes with regards to the infrastructure, educational materials, and the nutrition, education and care of young children. The Government may wish to develop a national rating scale and indicators for rating ECE/ECD facilities in terms of a developmentally appropriate learning environment, the professional competency of teachers and caregivers, and parental education programmes. The national strategy will need to take all the new findings and standards into account.

Education

7.1 Trends and outcomes

Table 7.1
Mapping of Oman's education system and the correspondence with ISCED

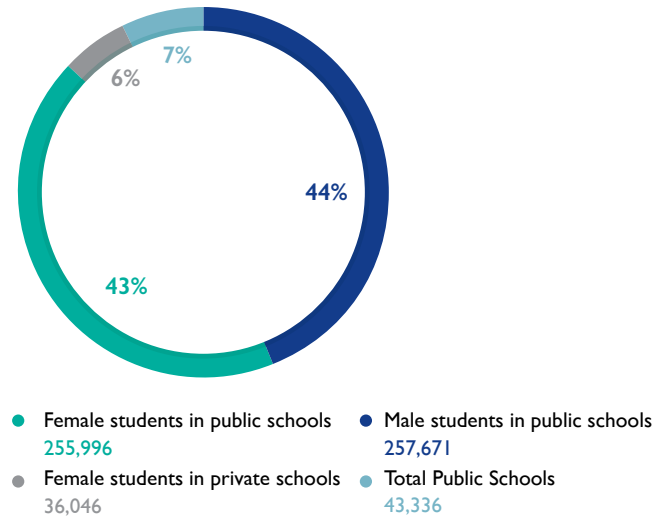
<table>
<tr><th>Age</th><th>Grade</th><th>Basic Education System (BE)</th><th>General Education System (GE)</th><th>ISCED Level (UNESCO)</th></tr>
<tr><td>Birth</td><td colspan="2" rowspan="4">Private nurseries & day care centres (See Table 6.1)</td><td colspan="2" rowspan="4">PrePrimary (ISCED 0)</td></tr>
<tr><td>1</td></tr>
<tr><td>2</td></tr>
<tr><td>3</td></tr>
<tr><td>4</td><td></td><td rowspan="2">Kindergarten</td><td rowspan="2">Kindergarten</td></tr>
<tr><td>5</td><td></td></tr>
<tr><td>6</td><td>1</td><td rowspan="4">Basic Education Cycle 1</td><td rowspan="8">General</td><td rowspan="4">Primary (ISCED 1)</td></tr>
<tr><td>7</td><td>2</td></tr>
<tr><td>8</td><td>3</td></tr>
<tr><td>9</td><td>4</td></tr>
<tr><td>10</td><td>5</td><td rowspan="6">Basic Education Cycle 2</td><td rowspan="6">Lower Secondary (ISCED 2)</td></tr>
<tr><td>11</td><td>6</td></tr>
<tr><td>12</td><td>7</td></tr>
<tr><td>13</td><td>8</td></tr>
<tr><td>14</td><td>9</td></tr>
<tr><td>15</td><td>10</td></tr>
<tr><td>16</td><td>11</td><td rowspan="2">Post-Basic Education</td><td rowspan="2">Post-Basic</td><td rowspan="2">Upper Secondary (ISCED 3)</td></tr>
<tr><td>17</td><td>12</td></tr>
<tr><td>18</td><td colspan="4">Tertiary</td></tr>
</table>

Sources: National system from Ministry of Education, Oman. ISCED system from Oman ISCED mapping by UNESCO, School Year reference 2009. Available from: http://www.uis.unesco.org/Education/ISCEDMappings/Pages/default.aspx

141. **Oman has invested in a modern education system, carrying out the necessary reforms.** From 900 students in 1970, school enrolment now covers nearly 600,000 students in 2012/13 (Figure 7.1).[184] The growth has mainly been achieved by the accelerated provision of public schools, classrooms and teachers. To improve learning outcomes, the government restructured the education system in 1998/99, replacing the earlier General Education (GE) structure with the new Basic Education (BE) structure. The country is still going through the transition from GE to BE, with some schools still in the GE system. In 2007/2008, following the Ministerial Decree (No. 59/2006), Oman initiated the post-basic education system, comprising grades 11 and 12. Table 7.1 shows the relationship between the GE, BE, post-basic systems and the UNESCO International Standard Classification of Education (ISCED). The continuing reforms aim to further strengthen the development of skills for employment and career planning, adopt internationally recognized curricula and student assessment systems, and promote student-centred learning.

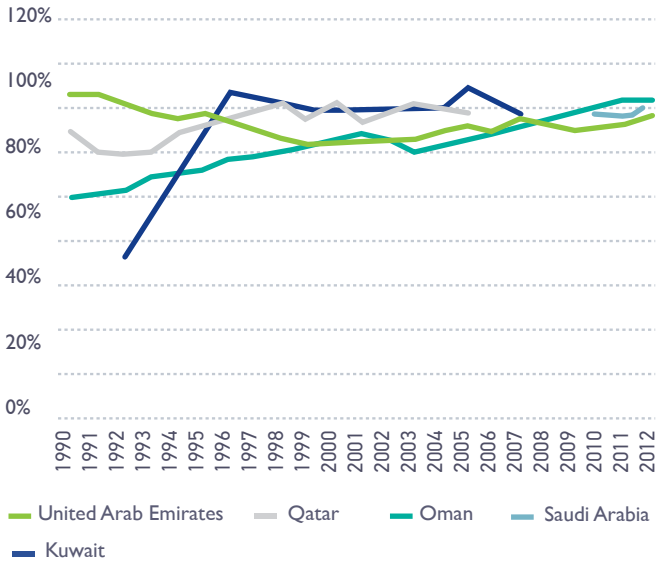
142. **Oman has achieved near-universal primary education with steadily increasing enrolment rates over the past two decades.** Oman has shown remarkably steady progress in increasing access to primary education over the past two decades or so. Its net enrolment rate (NER) has overtaken that of some other countries in the region (Figure 7.2) and primary education coverage is now near universal. Both primary adjusted net enrolment rate (ANER)[185] and NER increased by approximately 29 percentage points from 1990 to 2012.

Figure 7.1
Student numbers by sex, public & private schools, 2012



Source: MoE: Annual Educational Statistics Book 2012-13

Figure 7.2
Net enrolment ratio, primary

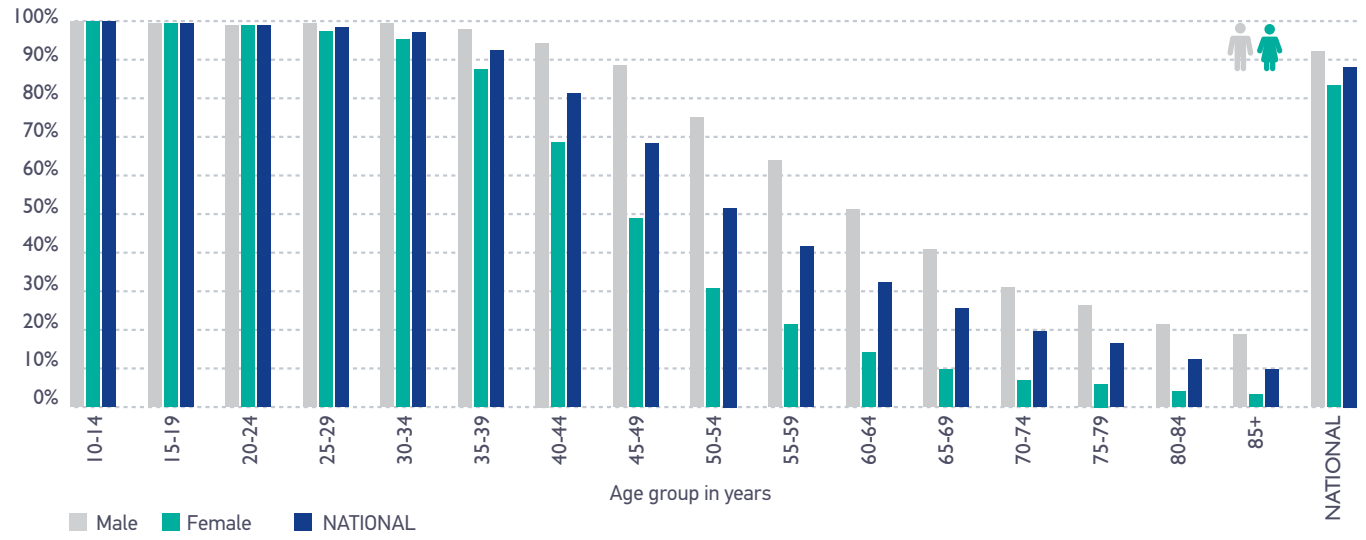


Source: UNESCO Institute for Statistics

143. **The progress in secondary education is also impressive. In 1993, only about half the children of secondary school age (ISCED 2 and ISCED 3) were enrolled in Oman's secondary school system.** By 2012, the secondary NER had increased by more than 34 percentage points. UNESCO data show that although Oman had started out with NER well below that of some countries in the region, it has caught up over the past five years or so.

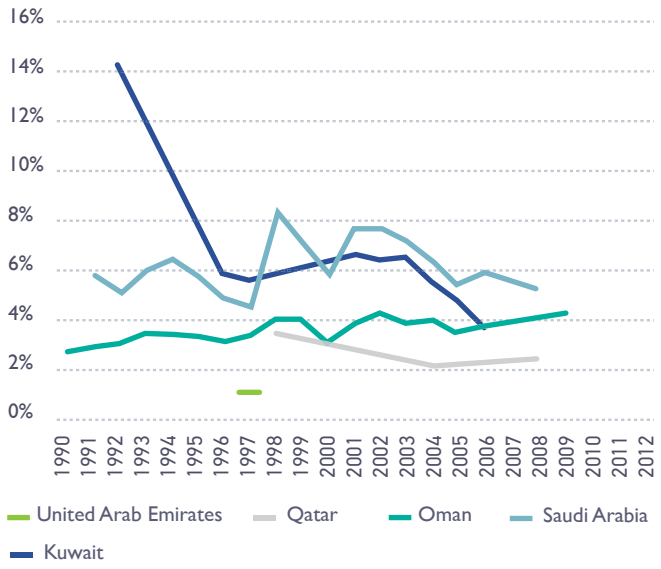
144. **Oman has achieved universal literacy rates amongst young people in the age group 15-24 years** (Figure 7.3). Ninety-nine per cent of this age group are literate. With the steady increase of secondary enrolment rates, Oman is seeing a rising proportion of literacy in the younger age groups. Those in the older age groups represent previous generations when Oman's population was not so educated. Even amongst young people, the 15-19 years old age group (literacy rate 99.1 per cent) is more literate than the 20-24 year old age group (literacy rate 98.7 per cent).[186]

Figure 7.3
Literacy rates by age group, 2010



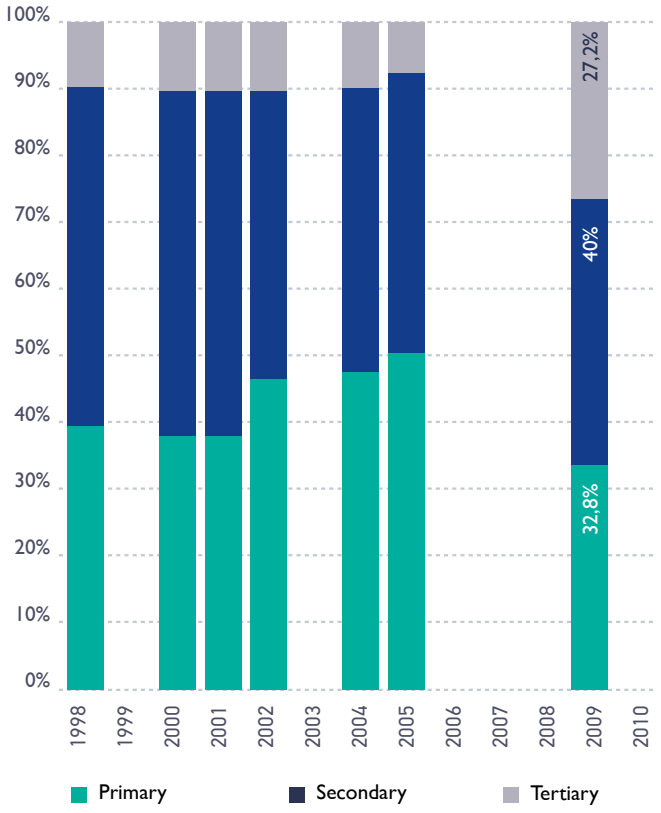
Source: MoE: Educational Indicators 2010-2011 based on 2010 census

Figure 7.4
Public expenditure on education as % of GDP



Source: UNESCO Institute of Statistics. Note: the trends in the earlier part of the 1990s for Kuwait probably reflect the Gulf War and its aftermath.

Figure 7.5
Percentage distribution of public current expenditure on education by level



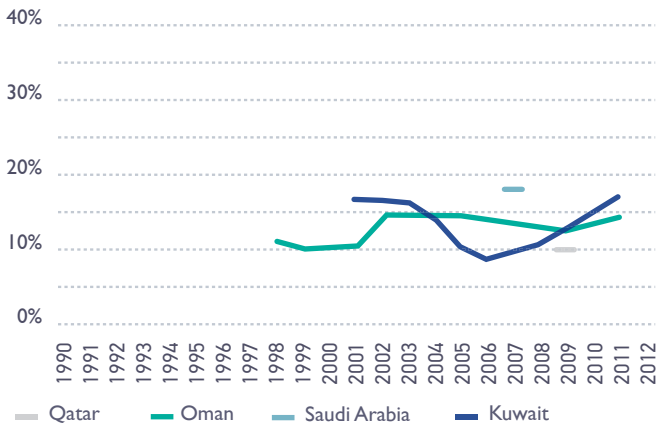
Source: UNESCO Institute of Statistics

7.2 Enabling environment

145. **Education expenditure patterns reflect the government's commitment to education.** As mentioned in Chapter 1, public spending on education increased from 11 per cent of total government expenditure in the 1990s[187] to 30 per cent in 2006, 21 per cent in 2012 and 17.1 per cent in 2013[188] (Figure 1.2). In 2009, recurrent expenditure on education accounted for 37 percent of all civil ministries' recurrent expenditure or 18 percent of total government recurrent expenditure.[189] International estimates show that as a percentage of GDP, Oman's public expenditure on education compares favourably with that of other countries in the region (Figure 7.4),[190] although still below the OECD average of 6.3 per cent (2010).[191] Oman's education spending has increased from 1990, in contrast to declining trends in some other countries over the same period.

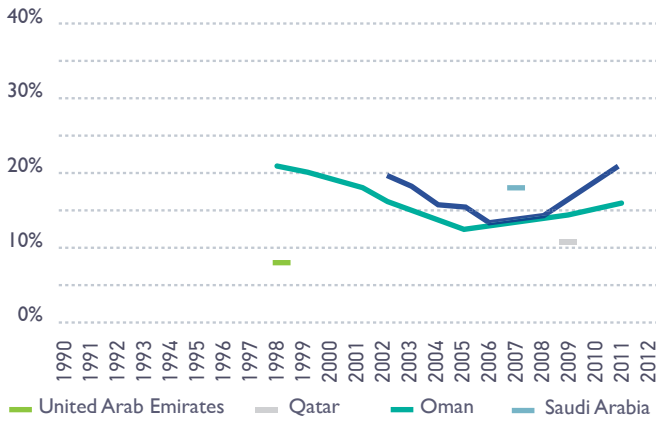
146. **With the achievement of universal primary education, Oman now prioritizes secondary education within its public spending on education** (Figure 7.5). The share of public current expenditure on education allocated to the primary level has dropped to around 33 per cent of the total public current expenditure on education, from between 38 and 50 per cent in the period 1998-2005.[192] The government spends around 14 per cent and 16 per cent of GDP per capita for each pupil at the primary and secondary levels respectively. Figures 7.6 and 7.7 show the equivalent spending by other countries, using UNESCO statistics for comparison.[193]

Figure 7.6
Public expenditure per pupil as a % of GDP per capita, primary



Source: UNESCO Institute of Statistics

Figure 7.7
Public expenditure per pupil as a % of GDP per capita, secondary



Source: UNESCO Institute of Statistics

147. **The proportion of government education spending that goes to staff remuneration in Oman is high.** Recent reports show that staff costs accounted for over 90 per cent of recurrent education expenditures in Oman.[194] This leaves little left for non-salary recurrent expenditure, such as for teaching materials, which affect the quality of education. The numbers of teachers and administrators have also increased over time, although the number of classes and students have remained stable. The OECD average for staff compensation as a percentage of all current expenditure in 2010 was just below 80 per cent.[195]

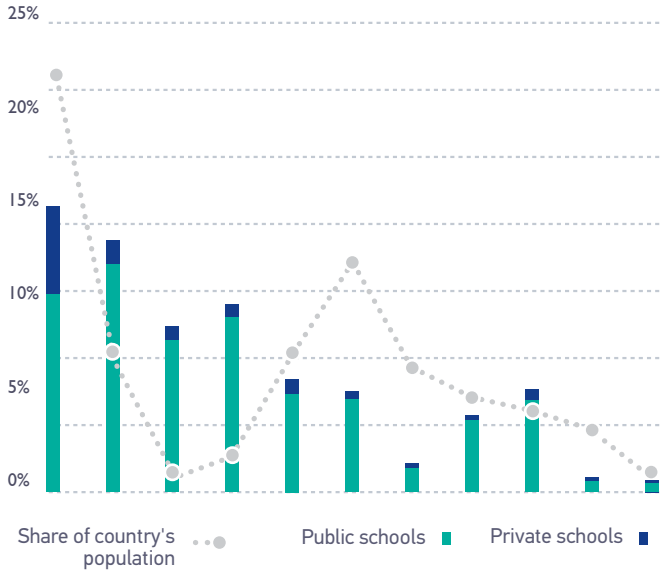
7.3 Key determinants of equity

7.3.1 Supply and quality of inputs and services

Access and availability

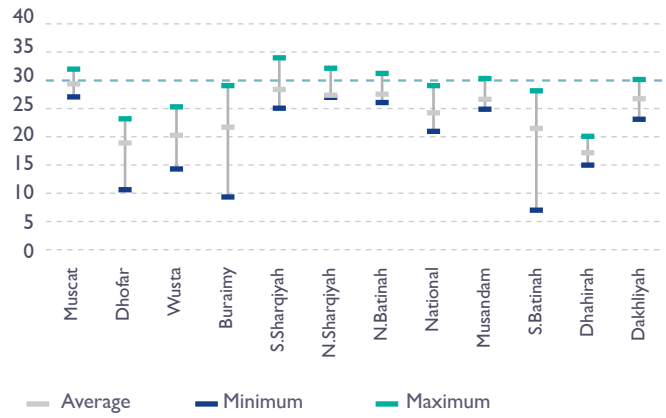
148. **The school system and infrastructure have the capacity to absorb additional students, although there are still second shift schools.** This is shown by the distribution of student population, student-class ratios and student-teacher ratios across all governorates. Even the public schools in the more densely populated governorates with the largest student populations (Muscat and North Batinah, Figure 7.8) have an average student-class ratio that is below the maximum limit set by the Ministry of Education (Figure 7.9). This is 35 students per class for all grades, except grades 1 to 4 in the BE system, for which the limit has been set at 30 students per class. In 2011/12, Dhofar, Al Wusta and Musandam had the lowest student-class ratios, reflecting the sparsely populated nature of these governorates. On the other hand, in 2011/12, 8 per cent of public schools had second shift classes.[196]

Figure 7.8
Percentage regional share of total student population, public and private schools, compared against percentage regional share of total population, 2012/13



Source: MoE, 2012-13 Annual Educational Statistics Book

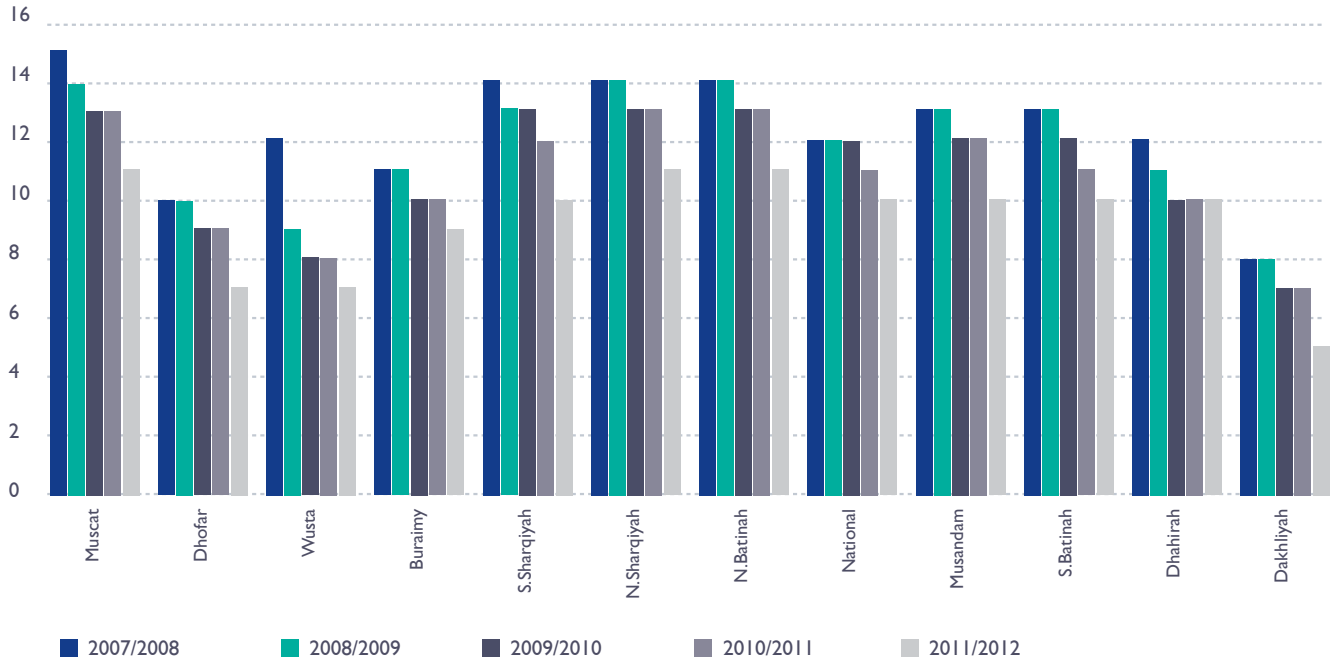
Figure 7.9
Students per class in public schools by region: average, maximum & minimum, grades 1-12, 2011/12



Note: Calculated for three education levels in both BE and GE systems: Grades 1-4, 5-10 & 11-12 (BE cycle 1, BE cycle 2 & Post-Basic). Maximum limit specified by MoE (dashed horizontal lines) is 35 per class except for BE Cycle 1, which is 30. Source: MoE, Educational Indicators 2011/12

149. **Student teacher ratios have fallen from 13 to 10 over the past five years.** All governorates show a slight decrease in this ratio over the period 2007/08 to 2011/12 (Figure 7.10). In 2011/12, Al Wusta, Dhofar and Musandam showed the lowest ratios (5, 7, 7 respectively), being governorates where the population is sparsely distributed. The recruitment of more teachers has contributed to the decrease in the student teacher ratio.[197]

Figure 7.10
Student-teacher ratio in public schools, all grades



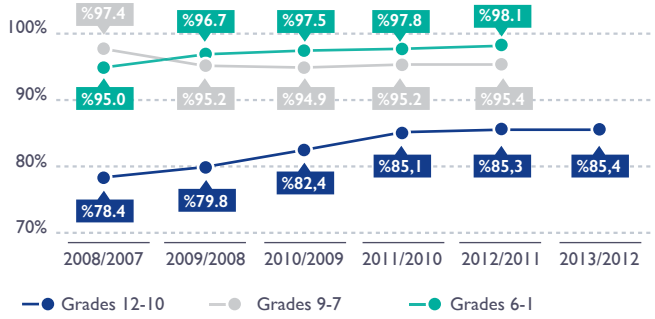
Source: MoE: Educational Indicators 2010/11 and 2011/12

150. **Private school enrolment is growing each year.** Almost half of all students in Oman's private schools are enrolled in Muscat (Figure 7.8). In 2012, students enrolled in private schools represented 13.4 per cent of all students in Oman (Figure 7.1),[198] an increase from 12.1 per cent in 2011.[199]

151. **The non-Omani students in public schools enjoy the same educational opportunities that are offered free of charge to Omani citizens.**[200] In 2011/12, non-Omanis represented 2.1 per cent of all public school students (4 per cent in Muscat public schools) and 10 per cent of all private school students. These proportions vary across governorates.[201]

152. **Oman has achieved universal access to primary education and significant progress in secondary education** (Figure 7.11). The ANER shows that in the school year 2011/12, 98 per cent of children of ages 6 to 11 years were enrolled in school in grades 1 to 6 or higher. Amongst children of age 12-14 years, 95 per cent were enrolled, and in the age group 15 to 17 years, the ANER was 85 per cent. Thus, from age 12 on, around 5 to 15 per cent of children are either over-age, or not in school.[202]

Figure 7.11
Adjusted net enrolment ratios, grades 1-12, public & private schools



Source: Educational Indicators 2011/12 & MoE data for this report

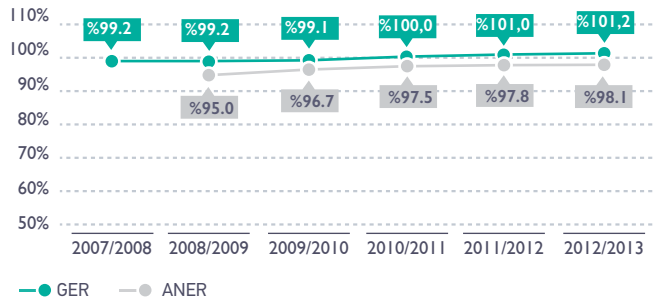
Age of entry

153. **The differences between gross enrolment ratio (GER), ANER and NER have decreased, showing a reduction in late entrants** (Figures 7.12, 7.13, 7.14). In 1990, Oman's primary ANER and GER showed a 15 percentage points difference. This difference decreased to 4 percentage points in 2006/07 and by 2011/12, to 3 percentage points for grades 1 to 6. This improvement may be attributed to the government's efforts to enrol children at the correct age in school (see below). In older age groups, the difference between GER and ANER/NER has decreased but remains significant.[203]

154. **The government's efforts to enrol children at the appropriate age are showing results.** In 2006, the Ministry of Education reduced primary school admission age from 6 years to 5 years 10 months in government schools, and 5 years 6 months in private schools. This resulted in the narrowing of differences between GER and NER. The positive impact of this policy has not yet reached older ages, where the improvement is less marked. For example, available data show a difference between GER and NER of 17 percentage points for grades 7-9 (2010) and 18 percentage points for grades 10-12 (2012), indicating the significant proportion of over-aged children in these older classes.[204] A review of the age structure of students by grade (Figure 7.15) shows that as the grades progress upwards, the proportion of children who are of the appropriate age for that grade declines from 89 per cent in grade 1 to around 56 per cent in grades 11 and 12, meaning that some 44 per cent of students in the two top classes are over-aged. In this respect, the new BE system is more efficient than the older GE system: an average 66 per cent of students in grades 5 to 10 are of the appropriate age for their class in the GE system, compared to an average 72 per cent of students in the same grades in the BE system (Figures 7.16 and 7.17).[205]

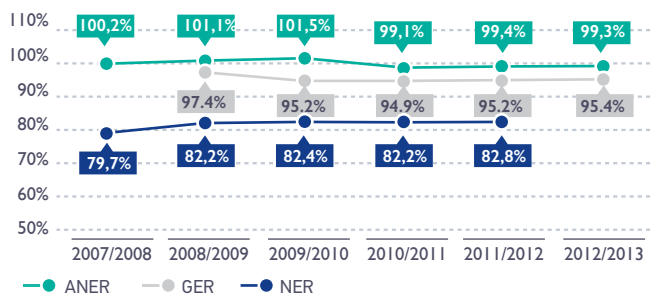
155. **Late enrolment at school appears to be a major cause of the high proportion of over-aged students.** Repetition (section 7.3.2) also contributes to the phenomenon, but the proportions of over-aged children are too high for repetition alone, and are probably due to late enrolment from grade 1. The differences between the ANER and NER (e.g., 12 and 8 percentage points respectively in grades 7-9 and 10-12) show the presence of under-aged children. Underage children are less common than are overage children, meaning that many more parents enrol their children in grade 1 late, rather than early. Grade 1 enrolment rates show a slight narrowing of the gap between GER and ANER over the past five years (Figure 7.18).[206]

Figure 7.12
Adjusted net & gross enrolment ratios, grades 1-6, public & private schools



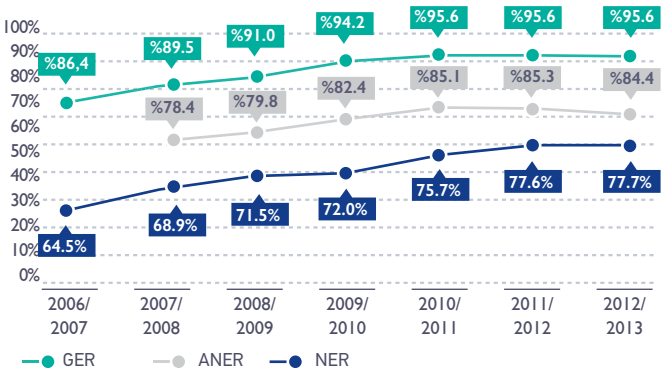
Source: MoE: Educational Indicators 2010/11, 2011/12

Figure 7.13
Net, adjusted net & gross enrolment ratios, grades 7-9, public & private schools



Source: MoE: Educational Indicators 2010/11, 2011/12

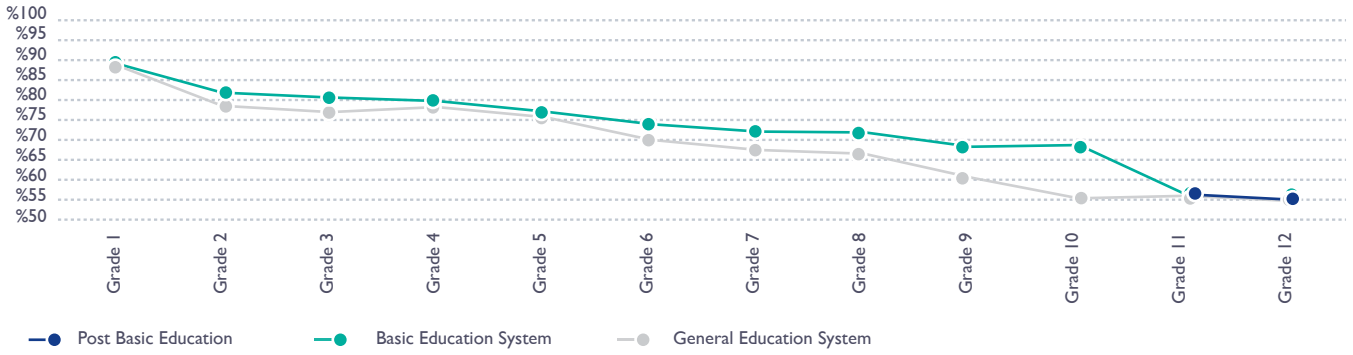
Figure 7.14
Net, adjusted net & gross enrolment ratios, grades 10-12, public & private schools



Source: Educational Indicators 2010/11, 2011/12 & MoE data for this report

Figure 7.15

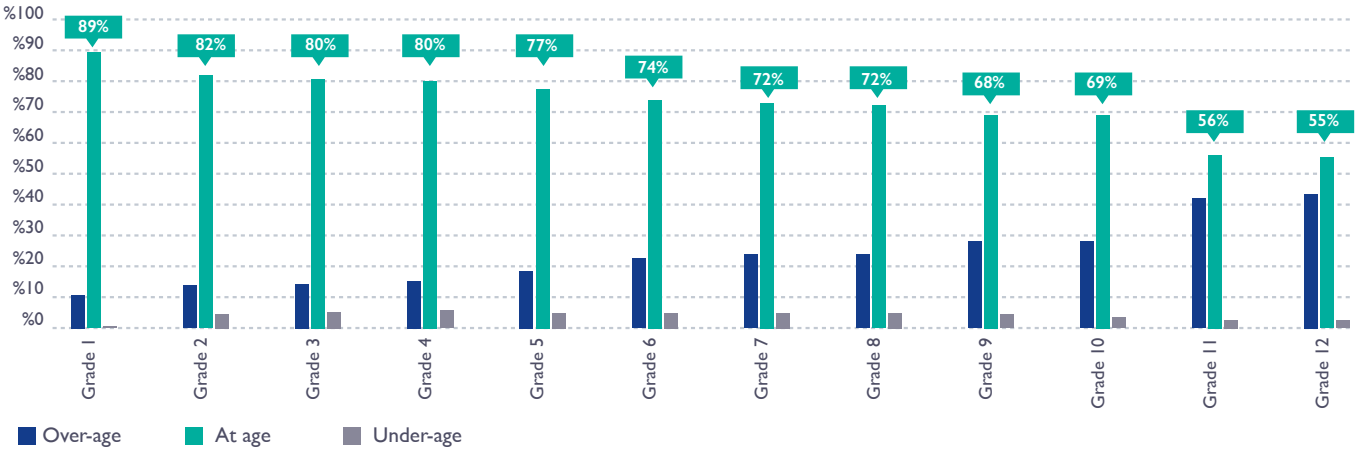
Proportion of students who are at the appropriate age for their class in public schools, BE and GE systems, 2011/12



Source: MoE: Educational Indicators 2011/12

Figure 7.16

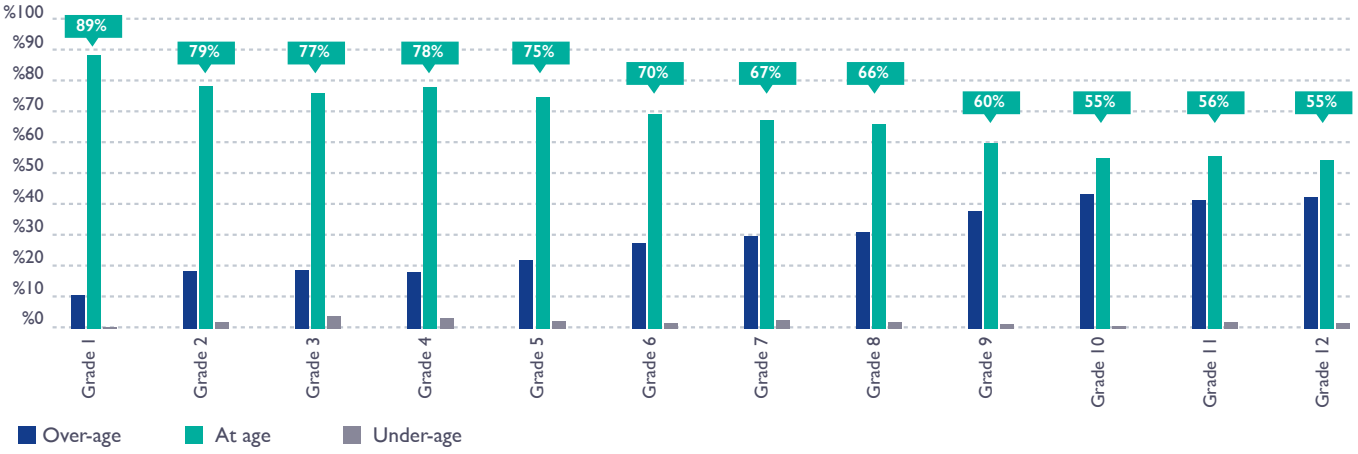
Student distribution by age and grade in public schools, Basic and Post-Basic Education, 2011/12



Source: MoE: Educational Indicators 2011/12

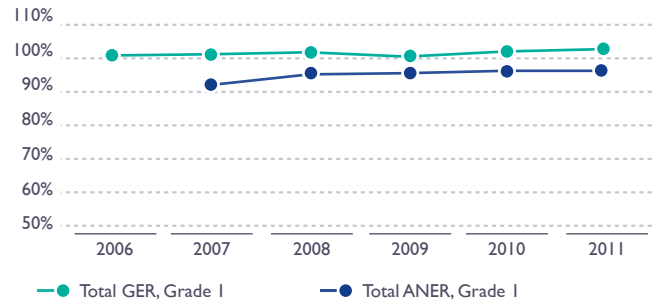
Figure 7.17

Student distribution by age and grade in public schools, General and Post-Basic Education, 2011/12



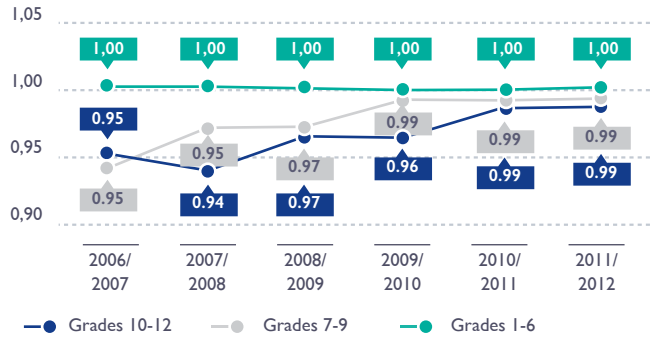
Source: MoE: Educational Indicators 2011/12

Figure 7.18
Grade 1 enrolment rates, public & private schools



Source: MoE: Educational Indicators 2010/11 and 2011/12

Figure 7.19
Gender parity indices calculated with GER, grades 1-12, public & private schools



Source: MoE: Educational Indicators 2010/11, 2011/12

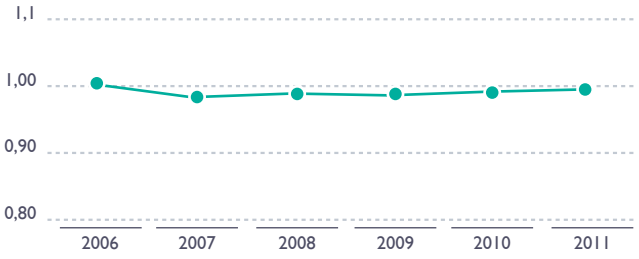
Disparities in access

156. **A comprehensive analysis of disparities in education is constrained by the unavailability of sufficiently disaggregated data.** Disaggregated data is needed not only by governorate on enrolment, survival, transition rates, performance and other learning outcomes, but also by other socio-economic groupings. The main barrier is the uncertainty in the population denominators by governorate and the scarcity of household survey data that can be used to examine linkages between education and various socio-economic factors.

157. **Oman has achieved gender parity for both primary and secondary education.** The gender parity index (GPI)[a] lies between 0.99 and 1.0 for grades 1 to 10 (Figure 7.19). The GPI for grade 1 also shows no disparity (Figure 7.20).[207]

158. **Disaggregating literacy rates by sex and age group shows a prominent gender gap in older age groups** (Figure 7.3). From the age of 35 years, when the proportion of literate men is ten percentage points higher than the proportion of literate women, the gender gap reaches its maximum (a difference of 44 percentage points in favour of men) in the age group of 50-54 years. In the reproductive age group (15-49 years), younger women have a high rate of literacy, but 13 to 51 per cent of the older women (35 to 49 years) are still illiterate.[208]

Figure 7.20
Gender parity index for Grade 1, calculated with GER



Source: MoE: Educational Indicators 2010/11, 2011/12

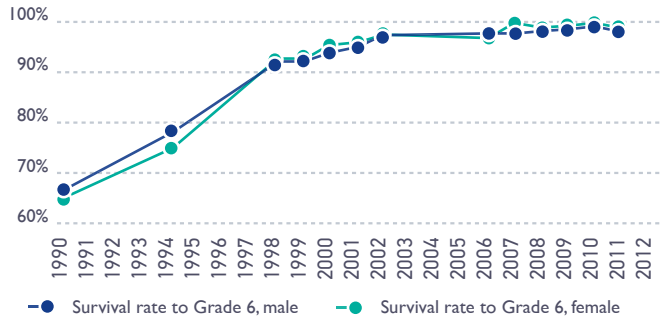
a. By definition, the GPI is calculated with GER.

7.3.2 Demand and internal efficiency

159. **Survival rates to grade 6 have increased from 1990 to 2010 by nearly 35 percentage points.** Female survival rates have caught up with and overtaken male survival rates (Figures 7. 21, 7.22).[209] The gender parity for survival rates (calculated by dividing female survival rate by male survival rate) was 1.01 in 2011/12. In other words, for every 100 boys that stay on until grade 6, 101 girls stay on until the same grade. Data on survival rates by governorate or for older classes were not available. Along with other indicators, intake (previous section), survival and retention reflect demand. These are also influenced by the internal efficiency of the system, indicated by various indicators such as repetition and promotion.

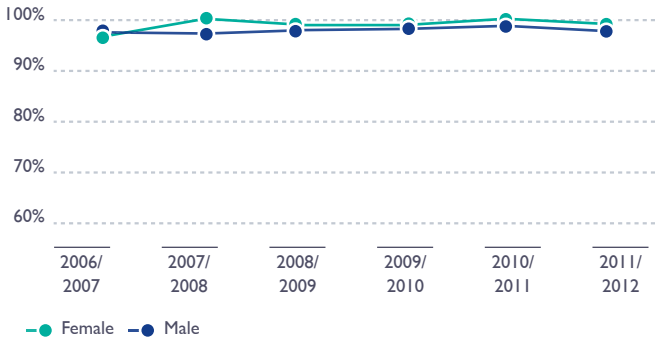
160. **There is little or no repetition in lower grades, but in higher grades, repetition rates are significantly higher.** This is because the standards for passing examinations are stricter for older classes.[210] Over a six-year period, repetition rates ranged from 2.2 per cent to 4.1 per cent in grades 5 to 10, and from 1.6 per cent to 3.9 per cent in grades 11 to 12, with no significant pattern. Girls repeat less than boys and this gender difference is more marked in the older classes, especially in grades 11 and 12 (Figure 7.23).[211]

Figure 7.21
Survival rates to grade 6, female and male 1990-2011



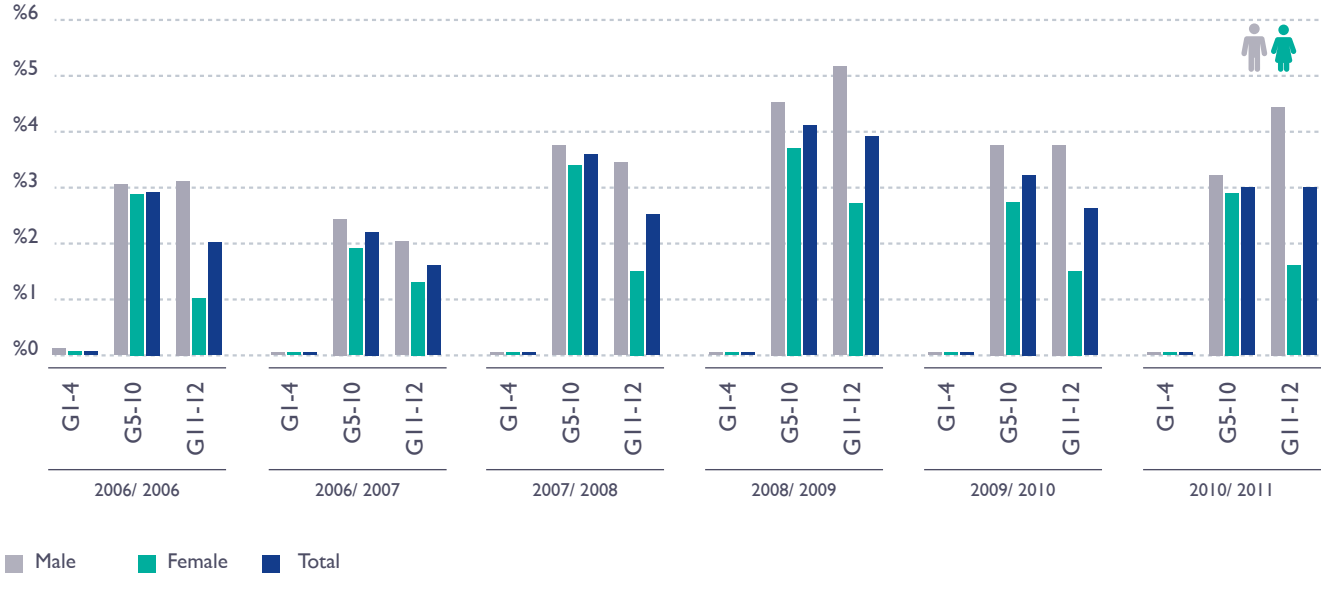
Source: Before 2005: UNESCO Institute for Statistics. 2006 to 2012: MoE Educational Indicators 2010-2011 and 2011-12

Figure 7.22
Survival rates to grade 6, female and male 1990-2011



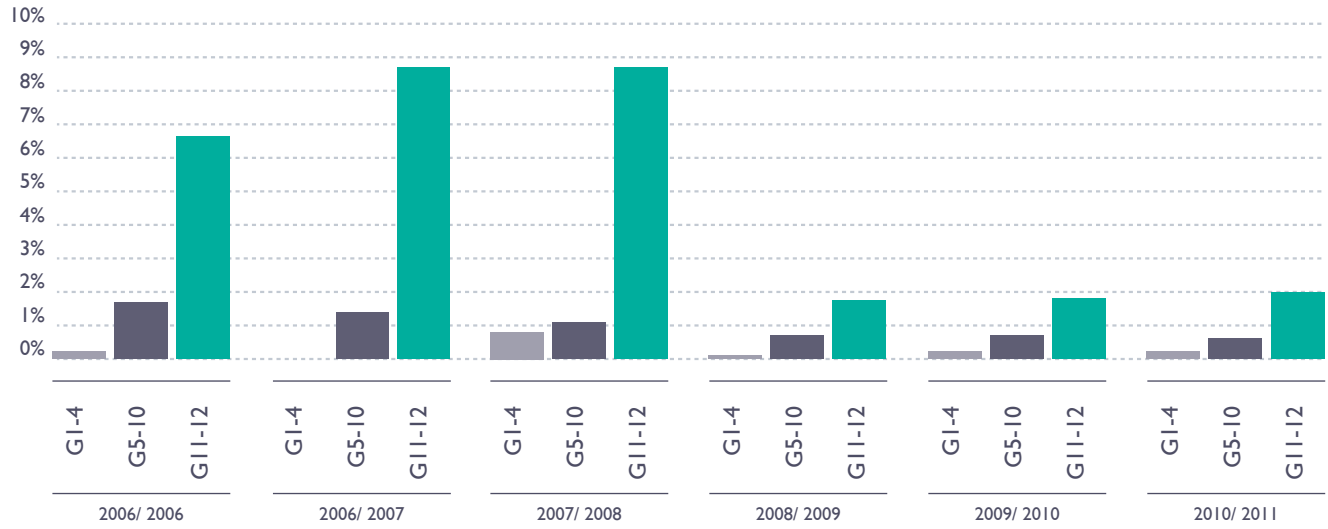
Source: Before 2005: UNESCO Institute for Statistics. 2006 to 2012: MoE Educational Indicators 2010-2011 and 2011-12

Figure 7.23
Repetition rates by educational level and sex, public & private schools



Source: MoE: Educational Indicators 2010/11, 2011/12

Figure 7.24
Repetition rates by educational level and sex, public & private schools



Source: MoE: Educational Indicators 2010/11, 2011/12

161. **Whilst dropout rates increase with grade, but have declined sharply in the past few years to below 2 per cent** (Figure 7.24). Dropout rates are under 1 per cent from grades 1 to 4, but start increasing in grades 5 to 10 and are higher in grades 11 and 12.[212] A study[213] identified numerous reasons for dropping out: violence from teachers, including humiliation, physical and verbal abuse, sexual harassment by the teacher, poor teaching methods, disinterest of teachers and lack of encouragement, inflexibility of teachers in refusing students' requests to pray, favouritism shown by teachers, economic difficulties in the family, social problems in the family, such as divorce, desertion and polygamy, drug abuse, early marriage, especially in nomadic areas (although the law in Oman states 18 as the minimum age of marriage), pressures for the child to work and discrimination against dark-skinned children.

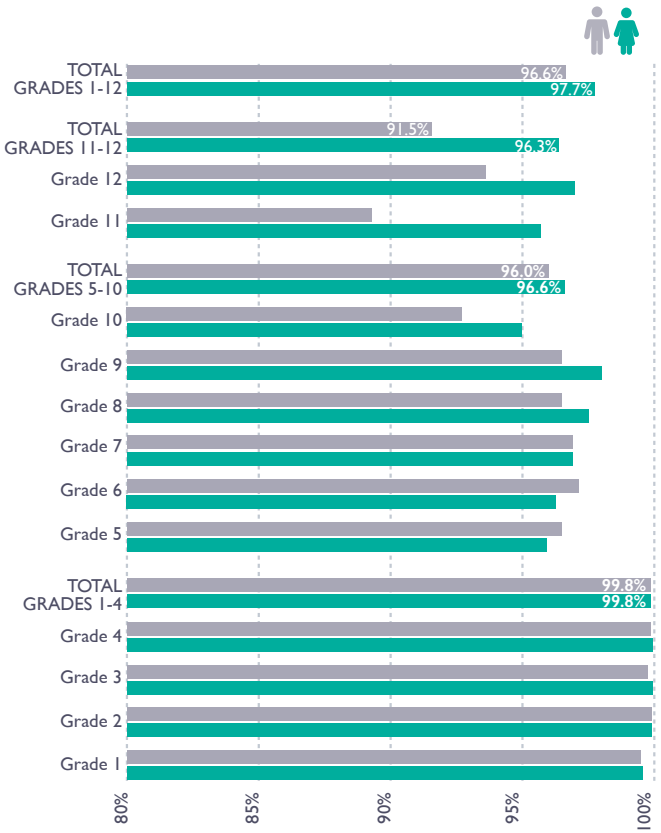
162. **Overall, the promotion rates[214] decline slightly from primary to grade 12.** Nearly all children are promoted from grade 1 to grade 4. Around 96 per cent of children from grade 4 are promoted to grade 5 and promotion rates in grades 11 to 12 are 94 per cent on average. The average promotion rate for the whole system was 97 per cent in 2010/11.[215] As mentioned under repetition, older grades have stricter criteria for examinations and promotion. (Figure 7.25).

163. **Girls have a higher promotion rate than boys do** (Figure 7.25). The gender parity calculated with promotion rates is 1.00 for grades 1 to 4 (meaning parity). In grades 5 to 10, gender parity is 1.01, meaning that 101 girls are promoted for every 100 boys. Subsequently, in the transition from grade 10 to 11, 107 girls are promoted for every 100 boys. For the whole cycle, the gender parity calculated with promotion rates is 1.01.

7.3.3 Quality and learning outcomes

164. **Oman's education reforms include the introduction and expansion of a child-centred approach in teaching and learning.** The approach emphasizes life skills and real-life applications in the curriculum, the implementation of continuous assessment and a reduction of class size. A school-based management process has been implemented, and a program to evaluate overall school performance has been in operation for some years. The Ministry of Education has also raised the initial teacher qualification standard and increased the official number of instruction days.

Figure 7.25
Promotion rates, public and private schools, 2010/11



UNESCO definition of promotion rate: proportion of pupils from a cohort enrolled in a given grade during a given school year who study in the next grade in the following school year. Source: MoE: Educational Indicators 2011/12

165. The Ministry of Education is increasing the pool of qualified Omani teachers. The Omanization policy is crucial for long term sustainability of education sector improvements. Good progress has been made in recruiting and training Omani teachers. By 2012/13, 87 per cent percent of teachers (93 per cent of female teachers and 76 per cent of male teachers) were Omani.[216] The level of teacher qualifications has also improved: in 2012, some 83 percent of teachers had a degree-level qualification, up from only 8 percent in 1972.[217]

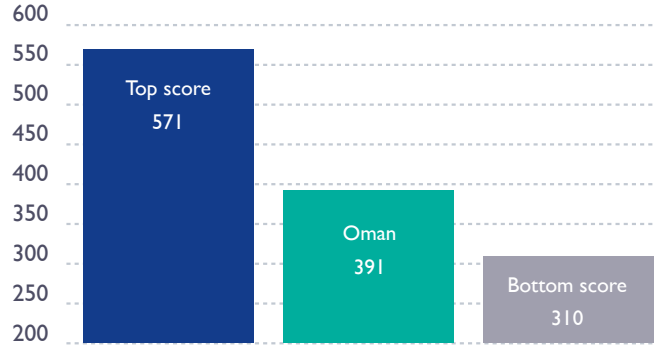
166. The remote governorates have a greater proportion of teachers who are less experienced, as teachers posted to those places tend to transfer out more quickly. For example, in 2009, 59 percent of teachers in Al Wusta and 42 percent of teachers in Dhofar had less than 5 years' experience compared with 26 percent nationally.[218] Expatriate teachers fill the vacancies in remote places: in 2012/13, 37 per cent of teachers in Al Wusta and 33 per cent of teachers in Dhofar were expatriates.[219]

167. **Learning outcomes were found inadequate, as measured against various assessments.** Oman has so far participated in three rounds of international assessments. These were of grade 4 students assessed by the 2011 PIRLS[220] (Progress in International Reading Literacy Study); grade 8 students assessed by the 2007 TIMSS; and grades 4 and 8 students assessed by the 2011 TIMSS (Trends in International Mathematics and Science Study).[221]

168. **The PIRLS reading assessment shows low scores for Grade 4 students from Oman.** The scores fall in the lower half of the global ranking (Figure 7.26). At subnational level, children who are from urban areas and children belonging to richer households score better, perhaps because they have better access to good schools and their parents are likely to be better educated than in rural areas. Across all socio-economic groups, girls' reading performance in grade 4 is consistently better than that of boys (Figure 7.27).[222]

169. **In TIMSS assessments for mathematics and science, Omani students scored below average.** Furthermore, the performance has not substantially improved from 2007 to 2011 assessments and has declined or remained stagnant (Figure 7.28). Omani students did better in science compared to mathematics. In the 2011 assessment of Grade 8 students for math-

Figure 7.26
Score for Omani students compared to top and bottom ranking countries in international PIRLS assessment, 2011, grade 4 reading



Source: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2011.

ematics, Omani students scored in the bottom fifth of participating countries. Within Oman itself, children from the richer quintiles generally scored higher than did those from the poorer quintiles, but not always. For example, both girls and boys from quintile 4 scored higher in Grade 4 mathematics and science than those in quintile 5; boys in quintile 2 in Grade 8 science outscored those in quintiles 3 and 4 (Figures 7.29 and 7.30).[223]

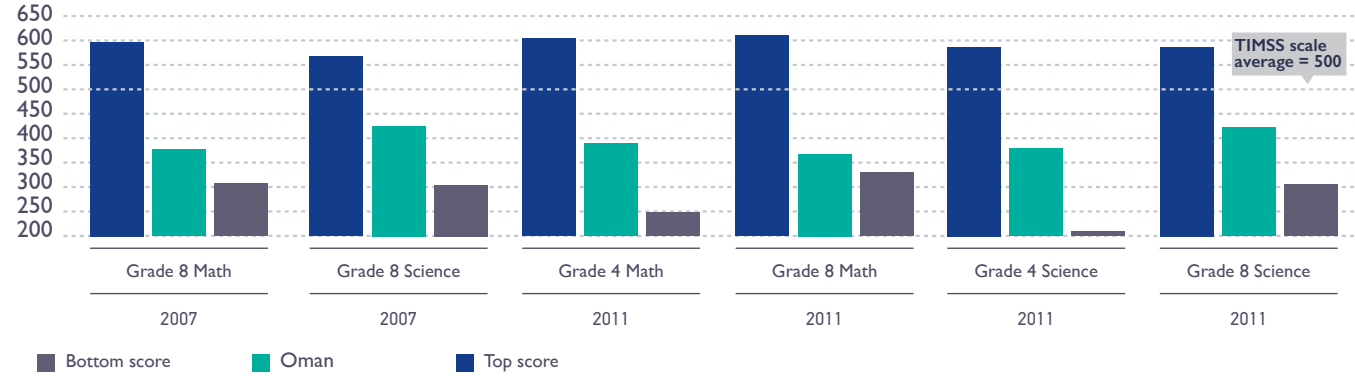
170. **National assessments also indicate learning achievement below expectations.** The Ministry of Education conducts sample-based national assessments of grades 4, 7 and 10. Assessment results generally indicate low student achievement. The grade 7 assessment in 2006/07, for instance, found that most students did not reach the standard expected by the Ministry of Education.[224] The grade 10 assessment of national learning performance in 2012/2013[225] showed that amongst Omani nationals, 94 per cent of girls and 90 per cent of boys from grade 10 were transferred to the next stage. Performance was marginally better in the BE system compared to the GE system by 1-2 percent. In some governorates (South Sharqiyah, Al Wusta and Al Buraymi) transfer rates were much lower, especially amongst boys (Figure 7.31).[a]

171. **There are significant gender differences in performance.** In TIMSS, girls scored consistently higher than did boys (Figures 7.29 and 7.30) across all socio-economic groups, in both science and in mathematics. In 45 countries and territories participating in the grade 4 level PIRLS 2011, Oman had the second largest gender difference in favour of girls,[b] whilst in the 57 countries and territories participating in the grade 4 level TIMSS 2011, Oman again had the second largest gender difference in favour of girls.[c] In the grade 10 national assessments in 2012/13, girls outperformed boys by 3 to 4 percentage points (Figure 7.31).

Figure 7.27
Omani students' PIRLS scores for grade 4 reading, by residence, sex and wealth quintiles, 2011

Source: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS)

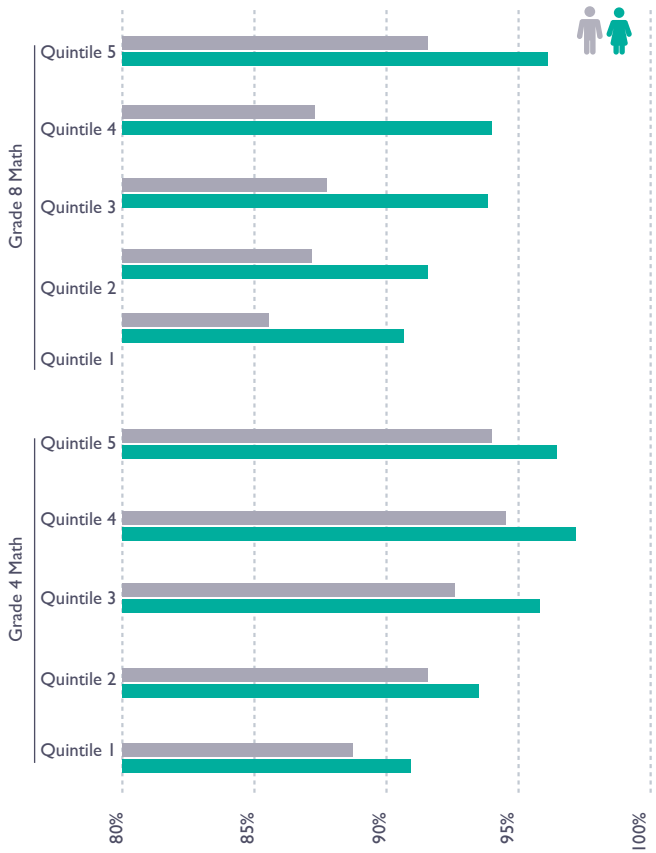
Figure 7.28
Average scores for Omani students compared to top and bottom ranking countries in international TIMSS assessments, 2007-2011



Source: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007, 2011

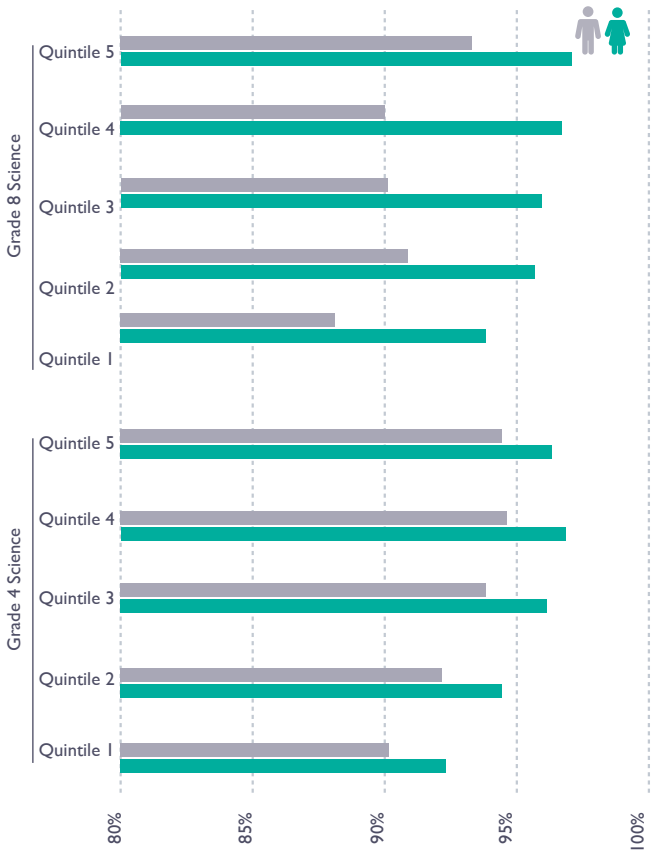
a. Ministry of Education data provided for this report.
b. Next only to Saudi Arabia.
c. Next only to Kuwait

Figure 7.29
Omani students' TIMSS scores for Grades 4 and 8 Mathematics by sex & wealth quintile, 2011



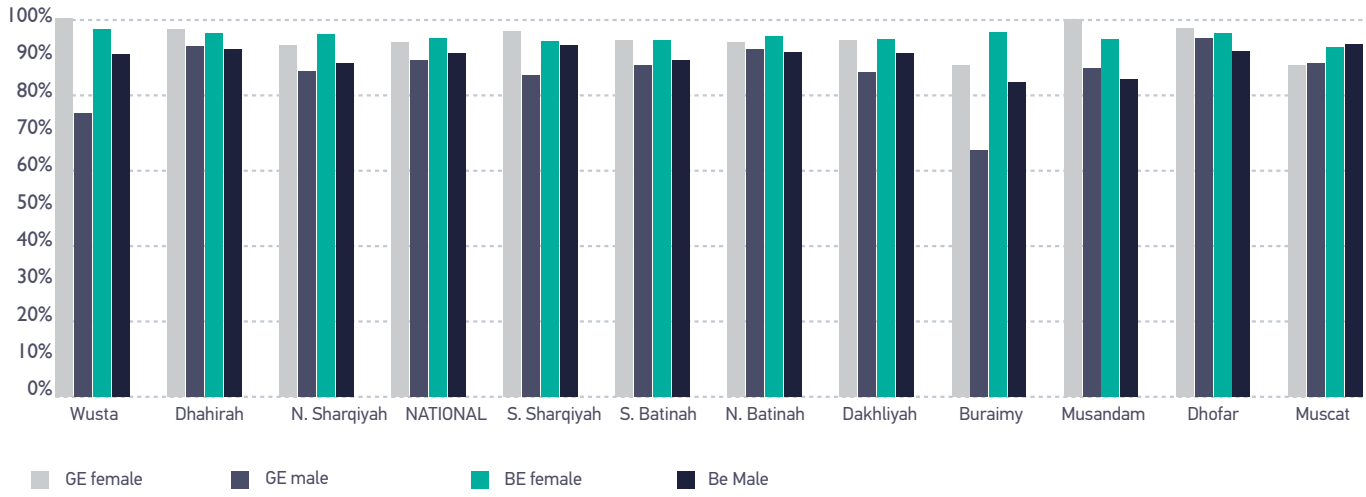
Source: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011

Figure 7.30
Omani students' TIMSS scores for Grades 4 and 8 Science by sex & wealth quintile, 2011



Source: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011

Figure 7.31
Percentage of Omani children having passed the grade 10 national assessment by region, by BE and GE schools and by sex, public schools, 2012/13



Note: does not include expatriate children. Source: Ministry of Education data provided for this report. Information was unavailable on the composition of denominator (e.g., dropouts, etc.). This may explain why the percentage of children who passed and were promoted exceeded 100% for GE schools in Wusta.

7.4 Challenges and opportunities

172. **Oman has made tremendous achievements in its drive to universalize education and expand education infrastructure.** The country now needs to increase attention to the qualitative aspects of the education system and identify the most vulnerable groups and the actions required. Hence the need for more disaggregated data and qualitative data.

173. **A priority task will be to ensure the employability of young Omanis in the new knowledge economy.** At the same time, the job market needs to have sufficient opportunities to attract well-educated young people. A significant concern is that there are more highly skilled Omani youth than there are jobs, resulting in a loss of investment as Omani talent seeks better opportunities elsewhere. Many programmes have been put in place for training young people in line with labour market needs. The Ministry of Education has established Career Guidance Centres to provide advice to young people on job availability, and to match them with training opportunities and learning programmes. A small but increasing number of basic education graduates have entered technical education and vocational training programmes. In 2012, UNESCO estimated that 16 per cent of young people were enrolled in tertiary education (23 per cent of young women and 12 per cent of young men).[226] While girls outnumber and outperform boys in the education system, female workers are underrepresented in the labour market (see Chapters 1 and 3). One-fifth of job seekers, particularly females, stated that they were not willing to accept work in the private sector due to unsuitable working conditions.[227]

174. **Interventions will need to identify and address the root causes for the low performance of boys.** Not enough is known about this. Special studies will be needed on parents' expectations and attitudes and on the motivation, learning and lifestyles of both boys and girls. Taking a positive deviance approach by determining the factors leading to higher performance of certain groups could be helpful.

175. **The capacity of the education management information system needs strengthening.** In particular, the system needs to be able to produce regionally disaggregated data on enrolment, survival and other indicators as well as data disaggregated by socio-economic factors. This will then provide a firm basis for targeted plans and actions to address the system's inefficiencies and identify various subnational disparities.

176. **The teaching-learning outcomes need to improve. The results of international and national assessments should be used to improve the quality of the system.** Studies that aim to increase retention are also relevant in improving learning outcomes. These studies suggest that improving the pedagogical capacity of teachers is a priority. Studies elsewhere emphasize the importance of the way the teachers teach in class: such as the need to give feedback to students on their homework and test results, and go through the solutions together with the students in class. Pre-service and in-service training will need to prioritize teacher quality. One report mentions that teacher trainers do not have sufficient classroom experience or practical teaching skills and that in-service training should be more practical and responsive to teachers' needs.[228] The reporting and administrative requirements for teachers need to be lightened. Human resource planning and training need to focus on ensuring adequate numbers and capacities of Omani teaching staff.

177. **The 2014 Child Law has made education mandatory until completion of the elementary level.** This will help in addressing child protection and lifestyle issues discussed in Chapter 8.

8 Care and protection

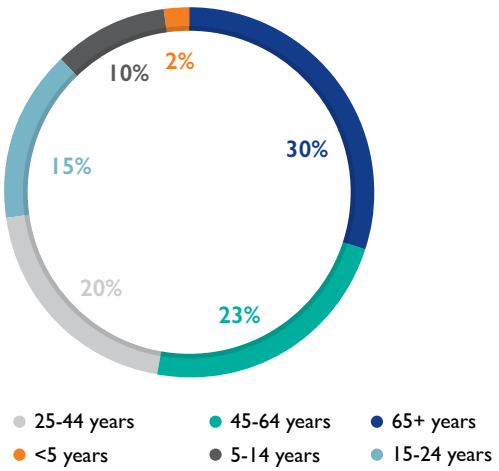
8.1 Children with disabilities

8.1.1 Trends and outcomes

178. **The prevalence of disability in the Omani population is around 3 per cent.** The 2010 census[229] reported a prevalence of 3.2 per cent (3.4 per cent for males, 3 per cent for females) for the entire Omani population, of which 27.1 per cent were children and young people of ages 0- 24 years (Figure 8.1). The prevalence of disability amongst children aged 0-14 years is lower, at around 1 per cent. Disability is consistently higher in males than in females, in both numbers and prevalence (Figure 8.2). Altogether, the 2010 census identified around 62,500 people with some form of disability, of which some 7,400 are children below age 15 years.[a]

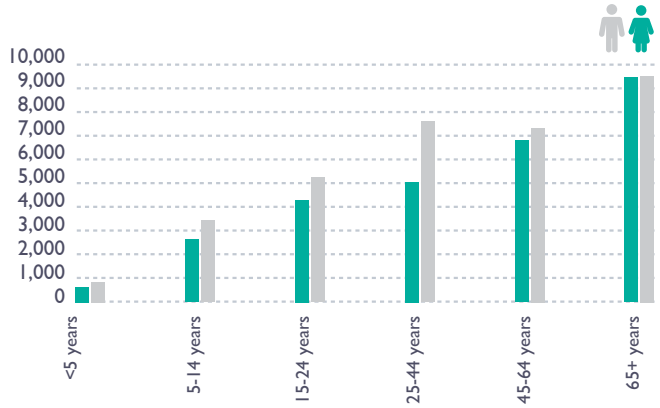
179. Disability prevalence rates should not be compared across countries.[230] The differences in disability prevalence between various countries (Table 8.1) are due to the differences in the concepts and methods used to identify persons with disabilities. Even within the OECD, different systems are used.[231] Identification and reporting systems in the OECD countries are also more developed and consequently are able to identify a greater proportion of people with mild forms of disability. There is an issue of culture: certain countries may have more families who do not want to admit to outsiders that they have disability in the family, especially since census questions are not directed at every member of a given household. As Oman moves towards a more regular and comprehensive information system on people with disabilities, the prevalence reported in the census could increase.

Figure 8.1
Age structure of population with disability, 2010



Source: population & housing Census 2010

Figure 8.2
population with disability by age and sex, 2010



Source: population & housing Census 2010

Table 8.1
Prevalence of disability in various countries

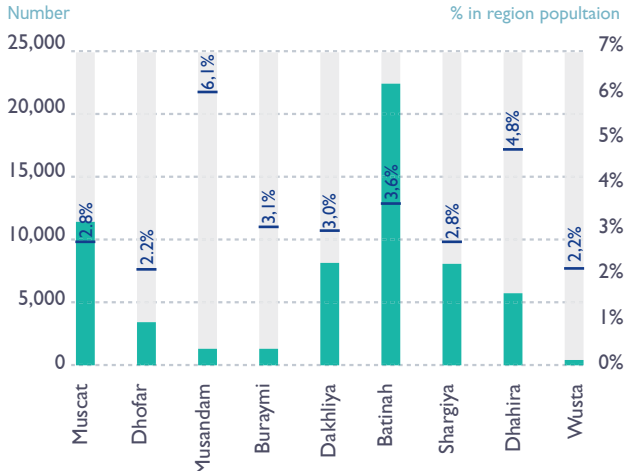
	Total population			Children age 0-14 years		
	Female	Male	Total	Female	Male	Total
Australia, 1993, Survey	17.6%	18.4%	18.0%	5.6%	8.3%	7.0%
Brazil 1991 Census	0.7%	1.1%	0.9%	0.4%	0.5%	0.4%
Canada, 1991, Survey	15.6%	15.4%	15.5%	6.0%	7.9%	6.9%
Germany 1992, Survey	7.5%	9.4%	8.4%	0.8%	1.0%	0.9%
Oman, 2010 Census	3.0%	3.4%	3.2%	1.0%	1.2%	1.1%
Sweden 1988 Survey	13.4%	10.6%	12.1%			
UK 1991 Census*	12.6%	11.6%	12.2%	2.2%	2.7%	2.4%
US 1994 Survey	15.7%	14.4%	15.0%			

Source: UN Department of Economic and Social Affairs. Human functioning and disability. http://unstats.un.org/unsd/demographic/sconcerns/disability/disab2.asp

a. Census figures are rounded off to the nearest hundred.

180. **The 2010 census employed a new measure of disability based on the principle of equal opportunity in exercising day-to-day functions.**[232] According to this principle, seven categories of disability were defined. These were disability related to sight, hearing, walking and climbing stairs, remembering or concentrating, taking care of oneself, communicating in normal language, and movement of the upper part of the body. The measure was based on the recommendations of the Washington Group for Disability Statistics.[233] For each of the seven dimensions, three degrees of difficulty and six reasons for the disability were asked.[234]

Figure 8.3
Geographic distribution of people with disbility by region, number percentage, 2010



Source: population & housing Census 2010

181. **The geographic distribution of disability shows marked variation.** The highest numbers are in Muscat and Al Batinah (Figure 8.3), as these two governorates not only have a high concentration of population, but also greater access to services required for testing, identification and care. Furthermore, rural families with disabled children are likely to bring or send their children to these two governorates in order to benefit from the services available in the cities. Other reasons will require further study. Musandam and Adh Dhahirah respectively have a prevalence of two times and 1.6 times the national average (6.1 and 4.8 per cent of each governorate's respective population).

8.1.2 Enabling environment

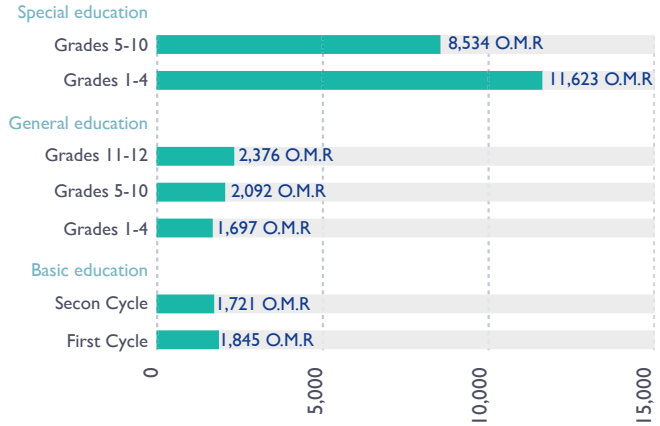
182. **Oman has put in place legal mechanisms as part of its commitment to international treaties on the rights of children with disabilities.** Oman ratified the International Convention on the Rights of Persons with Disabilities in March 2008, and issued in April 2008 the Law on the Welfare and Care of Persons with Disability (Royal Decree No. 63/2008). This Law provides a legal framework for the implementation of the 1996 Convention on the Rights of Persons with Disabilities and Article 42 of the Convention on the Rights of the Child. The Law sets out the rights of persons with disabilities, including the right to preventive and rehabilitation health services (Article 5 and 6), the right to education according to persons' abilities (Article 7), vocational rehabilitation (Article 8), the right to work with the full rights of able persons (Article 9) and to participate in social, cultural and sports activities (Article 11).[235] Oman's National Plan for the Care of Children with Disabilities is in progress,[236] having been developed to conform to the provisions of Oman's legal framework.

183. **The Government's policy is to support and empower persons with disabilities so that they can function as productive members of the society.** The government provides social security support for children with disabilities who are without parents. For those with physical disabilities, the government makes prosthetic devices available for rehabilitation, provides opportunities for certified vocational training, and provides assistance in job placement in the governmental and private sector. The government also recognizes their rights to benefit from public services and participate in sports activities.

184. **The general institutional framework aims to provide holistic care for persons with disabilities.** A National Committee for the Care of Persons with Disabilities has been established at a national level. The committee is headed by the Minister of Social Development, and members include representatives of per-

Figure 8.4

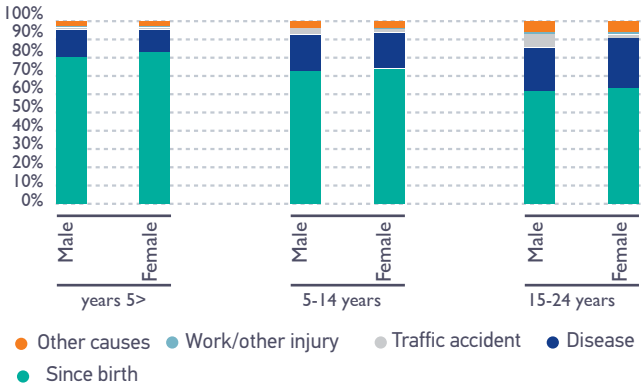
Average cost per student in public education for the academic year 2012/13



Source: population & housing Census 2010

Figure 8.5

Children and young people with disability by sex and cause of disability, 2010



Source: population & housing Census 2010

sons with disabilities. The Committee is responsible for identifying the needs of persons with disabilities and facilitating means to address these, as well as for raising community awareness in this respect.[237] In early 2014, the Cabinet made a decision to upgrade the disability unit at the Ministry of Social Development to a full-fledged department. This decision will enhance the ongoing work related to disability and contribute to more effective and efficient processes.

185. **One major constraint is the high cost of specialized services for children with disabilities.** Because of this, these services are largely centralized and provided in Muscat, with the exception of some institutions, mentioned in paragraph 189. Nonetheless, the Omani Government has invested considerable resources for children with disabilities: for example, the average cost per student enrolled in Oman's Special Education is over RO 10,000 or 5.2 times greater the average cost per student in mainstream basic and general education (under RO 2,000). Whilst the cost of Special Education is known, other government expenditures on the care and rehabilitation of children with disabilities are difficult to estimate as the budget is allocated to concerned ministries to cover all related activities for all age groups. Figure 8.4 compares the unit costs for Special Education and mainstream education.

8.1.3 Key determinants

Causes of disability

186. **The majority of children and young people with disability have been born with the condition** (Figure 8.5). These are the causes related to congenital conditions in the child or mother, or to the pregnancy and delivery process. The next largest contributor to child disability is disease. Increasingly, as the child grows older, the share of disease, injury and other causes increase at the expense of congenital and birth-related causes. The trend is not only due to more risk factors (such as traffic accidents) as the child grows older, but also due to the fact that severely disabled children may die much earlier, thereby decreasing the share of congenital disability in the older age groups. At every age, the numbers of boys affected by congenital or related disability are higher than that of girls. Boys also suffer more from disability related to disease and traffic accidents, and this phenomenon may make it appear that boys are less affected by congenital causes in percentage terms.

187. **The breakdown of causes show that child disability can be prevented or reduced.** Congenital disability can be reduced through genetic screening and other testing, whilst disability caused in the pregnancy and delivery process can be reduced through time-

ly reporting by pregnant women for antenatal care visits and skilled handling by health care staff. Disability caused by disease, injury and accidents can all be reduced as many of the causes are preventable or treatable.

Supply: services, inputs and quality

188. **Oman has a range of specialized and mainstream services for children with disabilities, according to age and special needs.**[238, 239, 240] Out of a total of some 7,400 children under age 15[241] who have some form of disability, some live in residential institutions that care for them, others live at home with their parents who are given support by a range of institutions described below. The exact numbers are not known at the time of this report but can be estimated as follows. Altogether, available sources indicate that some 3,100 children and youth with disability are receiving care or education services (specialized or inclusive).[242] The remaining few thousand seem to be cared for by their families with support from the Ministry of Social Development and the special institutions mentioned below. This then accounts for the majority of children with disability.[a] Most children with disabilities, therefore, have access to care services, except in those cases where the parents do not wish to reveal the disability of their child.

189. **The specialized institutions are largely centralized in Muscat, largely because expansion is costly.** Indicative costs for education have already been discussed above. The specialized institutions include the following:[243]

- The Early Intervention Centre in Muscat for young children with disability up to the age of 6 years. The centre provides a number of services among them are kindergarten programmes, psychotherapy and cognitive therapy, and portage home visits to empower mothers to care for the disabled child.
- The Association for the Care of Disabled Children, which has its base in Muscat in addition to six centres throughout the country, provides rehabilitation services to children with special needs between the age of 6 and 13 years.
- The Home for the Care of Disabled Children in Muscat provides care and physical rehabilitation to children with disabilities between the age of 3 and 14 years on both residential and day care basis, as well as support to families that care for children with disabilities.
- Al Khawd Training Centre for the Disabled provides educational programmes and vocational training to children and young people with motor disability and hearing impairment from the age of 16 years to prepare them for the demands of the labour market.
- Al Wafa voluntary social centres, a social institution with 17 centres, deliver services to children with disabilities under the supervision of the Ministry of Social Development in various regions of the country.
- In addition to these specialized centres, there are also schools that provide Special Education for children with disability. In 2012/13, the special schools (for children with hearing, sight and mental disabilities) had over 500 children enrolled. Such schools have their own Special Education teachers.

190. **Oman implements measures to foster integration of children with disability.** The Ministry of Education implements inclusive education for disabled children who are able to fit in with mainstream students in normal schools. There are 199 inclusive schools across all governorates that have integrated children with lower levels of disability in some classes. In 2012/13 these inclusive schools had around a thousand children enrolled.[b] The Ministry of Health provides services for prevention and early detection of disability amongst children. These include premarital counselling and genetic testing, and screening for birth defects, hypothyroidism, hearing and visual impairments. Despite the relevance of premarital counselling and genetic testing to child disability, however, this service is poorly utilized.[244] The Ministry of Health also provides rehabilitation services, primarily physiotherapy following acute conditions. One governmental centre in Muscat affiliated to the Ministry of Social Development is able to provide longer term rehabilitation.

a. Interviews with Government officials give the same picture.

b. Figures of students have been rounded off. Annual Educational Statistics Book 2012/13

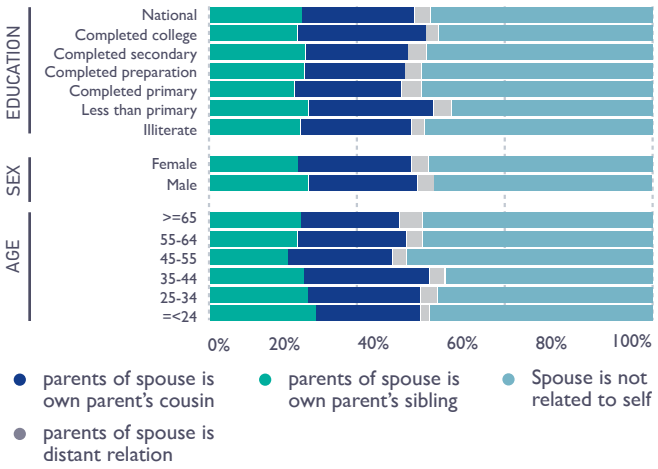
191. **Recent measures in inclusive education have enhanced learning opportunities for children with disability.** Inclusive schools have introduced student-centred curricula and the use of modern education technology to provide equal learning opportunities for children with disabilities. The Ministry of Education has also increased the number of school years for children with visual and hearing disabilities. The Ministry of Education has implemented training for existing teachers, recruited new teachers and reduced class size to improve the quality of education. Four types of inclusive programmes were introduced into Omani schools: (i) partial inclusion for children with hearing and cognitive disabilities from 2005/2006, (ii) full inclusion for children with physical disabilities and exceptionally, a number of children with visual and hearing disabilities who were previously integrated, (iii) a programme for students with speech and language disorders, from 2005/2006, and (iv) a programme for students with special learning disabilities from 2000/2001. These inclusive programmes rapidly have expanded to accommodate children with different types of disabilities. The main challenge in inclusive education and Special Education is that the number of trained and skilled teachers cannot keep up with the rapid expansion of education services for children with disability.[245]

192. **Most services delivered by NGOs are limited to the major cities and are of variable quality.**[246] These services usually include training and education of children with disabilities, support to and empowerment of families, provision of prosthetic devices, and efforts to raise community awareness. The services are provided by volunteers with limited training, which may adversely affect the quality and impact. The shortage of funds is a major issue for most non-governmental organizations. Only a few NGOs are able to provide long-term rehabilitation services.

Demand: knowledge, practices and beliefs

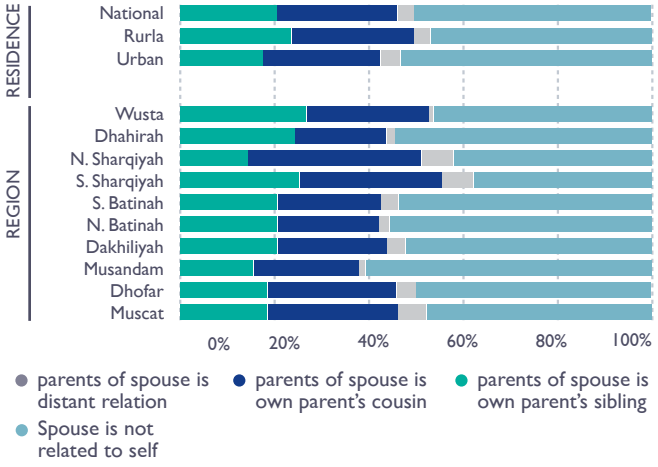
193. **Less information is available on the demand side.** Clearly, families need to be more aware of the issues related to disability, their causes, prevention, treatment and appropriate care. The public will need to be more informed on the rights of persons with disability as enshrined in the International Convention on the Rights of Persons with Disabilities. As in other countries, stigma and discrimination may influence behaviour at the household, community and school level, which in turn has an impact on inclusion. There is a need to improve both quantitative and qualitative data so that families and civil society can play a stronger role in addressing child disability.

Figure 8.6
Consanguinity amongst ever married repondents, by education level, sex and age group, 2008



Source: Reproductive Health Survey 2008, Ministry of Health

Figure 8.7
Consanguinity amongst ever married repondents, by residence and Region/Governorate, 2008



Source: Reproductive Health Survey 2008, Ministry of Health

194. **Oman has a high rate of marriages that are consanguineous** (Figures 8.6 and 8.7). Consanguinity is a major risk factor for congenital anomalies, which are a leading cause of infant death and disability.[247] The Reproductive Health Survey found that only half of all marriages in 2008 were between two people who were not blood relations. Meanwhile, 21 per cent of unions were between the offspring of siblings (brother/sister, and therefore the marriage was between first cousins); 26 per cent were between the offspring of cousins and the remaining 3 per cent of marriages were between distant relations. Thus 47 per cent of marriages were unions between close relatives.[248]

195. **The reasons for consanguinity in marriages are cultural and traditional. Some 58 per cent of respondents reported that it was a good idea to marry within the family.** Some 74 per cent stated that the reason for congenital abnormalities or genetic disorders lies in marriage between relatives. Other reasons given by respondents for congenital abnormalities or genetic disorders include exposure to X-rays, German measles (rubella), certain medications, pesticides, smoking, nutrient deficiencies in the diet, magic and an act of God. Some 58 per cent of respondents were able to state that the child had a high probability of suffering from genetic disorders if both parents were carriers of such disorders. Some 70 per cent agreed with genetic testing before marriage. Amongst the public, the main sources of information on genetic disorders were TV/radio (26 per cent), school (23 per cent), health facilities (21 per cent), family and relatives (18 per cent) and newspapers and print media (10 per cent).[249]

196. **The high rates of consanguinity in marriages extend across all strata of society.** Oman's young people take pride in following tradition. There are no large differences in opinion on this matter between the different socio-economic or age groups, whether between primary school leavers and educated professionals, or between young and old (Figure 8.6). Consanguineous marriages are slightly more common in rural than in urban areas. Al Wusta, South Ash Sharqiyah and Adh Dhahirah have the highest rates of marriage between first cousins (24 to 27 per cent), whilst South Ash Sharqiyah, Al Wusta and North Ash Sharqiyah have the highest rates of marriages between close relations (51 to 56 per cent, Figure 8.7).

8.1.4. Challenges and opportunities for action

197. **A major challenge will be to ensure regular and robust data for planning and monitoring programmes and plans for children with disability.** The Ministry of Social Development and the National Centre for Statistics and Information are planning a national survey. It will be important to include means to collect behavioural and qualitative data, as well as data on the quality and sustainability of services received. Additionally, experience elsewhere underscores the usefulness of longitudinal tracking mechanisms for children with disability. Comprehensive and longitudinal data are, therefore, needed on child disability and related services, preferably integrated in a single database and available to the different Ministries and other relevant actors.

198. **Another challenge will be to enhance the coordination between the ministries and other actors, including private entities, delivering services.** Health care, long-term rehabilitation, education and training need to be coordinated and areas of limitation need to be identified. It will be particularly important to coordinate education and awareness raising efforts and orient these towards specific goals and targets in the National Plan. One report points out the inadequate coordination in the awareness raising area.[250] Resolving the data issue mentioned above will go a long way towards enhancing coordination.

199. **Efforts need to be stepped up to strengthen the demand and utilization side.** This will involve raising knowledge and awareness amongst communities. The Ministry of Health has made premarital counselling and genetic testing available and accessible; yet these services are poorly utilized. Premarital counselling and

genetic testing, therefore, should become pre-requisites for completing marriage procedures. Health education campaigns should include such preventive issues. Communities also need to be informed that developmental impairment or delay may appear when the child is older, even if the health services screening at a younger age does not reveal such delays. The 2014 Child Law promotes health and genetic screening for couples before their marriage; however this is not mandatory.

200. **Effective information, education and communication strategies are needed.** Such activities are essential to create a supportive environment for persons with disabilities. Currently, most NGOs conduct public education activities, such as awareness raising campaigns and the distribution of printed materials. However, such public education efforts by NGOs are still limited in coverage and will need to focus more on achieving behaviour change.[251]

201. **Another challenge is the provision of services for those with disability in remote areas.** There are no easy solutions to this, since costs are the main barrier to increasing such access, especially since certain rural areas have such widely dispersed populations. The earlier comparison of unit costs between normal education students and Special Education students indicate the enormous amount of resources required to expand these and other specialized social services across the whole country.

202. **Oman's promotion of inclusive education as well as special education for children with disabilities is commendable.** Inclusive education is able to build confidence in children with disabilities as well as teach normal children about disability and the needs of those with disabilities. Indeed, the rapid expansion of successful inclusive programmes has led to an acute shortage of qualified teachers. The Ministry of Education provided short in-service training in Special Education for those teachers already holding bachelor degrees in different specialties and also organized a number of training workshops. However, short training courses in Special Education for teachers new to such work may not be adequate to provide them with the skills and confidence to deliver quality education for children with disabilities. Longer-term human resources planning and management will be needed to address this issue.

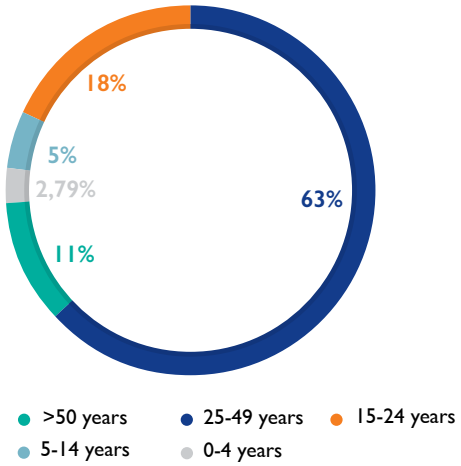
8.2 HIV/AIDS

8.2.1 Trends and outcomes

203. **HIV prevalence in Oman is still low but an increasing threat to young people.** Children and young people constitute one-quarter of cases ever reported (Figure 8.8). Transmission is largely through heterosexual contact and homosexual/bisexual contact, with smaller proportions of mother-to-child transmission, and transmission via injecting drug use. Oman has had no transmission via blood transfusion since 1998. The mode of transmission is unknown in around 22 per cent of cases (Figure 8.9).[252] The majority of HIV cases below the age of 15 years are due to vertical transmission.[253]

204. **In recent years, HIV incidence has increased, with the share of girls and women in reported HIV cases on the rise.** At the end of 2013, a total

Figure 8.8
Cumulative total (2,291 cases) of all HIV cases ever registered, 1984-2012, by age group

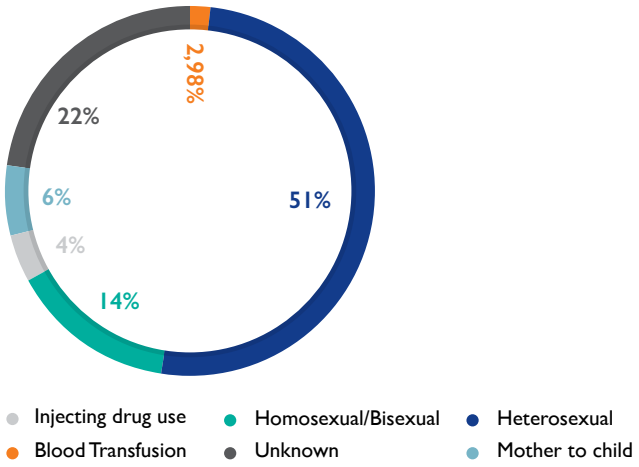


Source: Annual health report, 2012, Ministry of health.

a. Of the cumulative total of 2,291 cases from 1984 to 2012, 846 have died, leaving 1,445 people living with HIV in 2012.

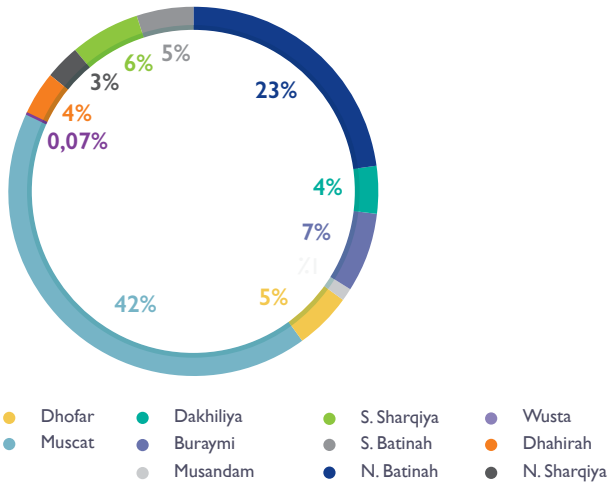
of 1,511 people were registered and living with HIV, up from 1,445 cases living with HIV in 2012.[a] Females as a proportion of the cumulative total have gradually increased, from 19 per cent in 2000 to 30 per cent in 2012 (Figure 8.10). The irregularity of the incidence trend is possibly due to stigma, which means that not all cases may be reported.

Figure 8.9
Mode of transmission amongst people currently living with HIV at end-2013 (1,511 cases)



Note: There has been no transmission through blood transfusion since 1998. The data cover only people who are still alive.
Source: Data provided by DCDSC, Ministry of health, April 2014 for this report

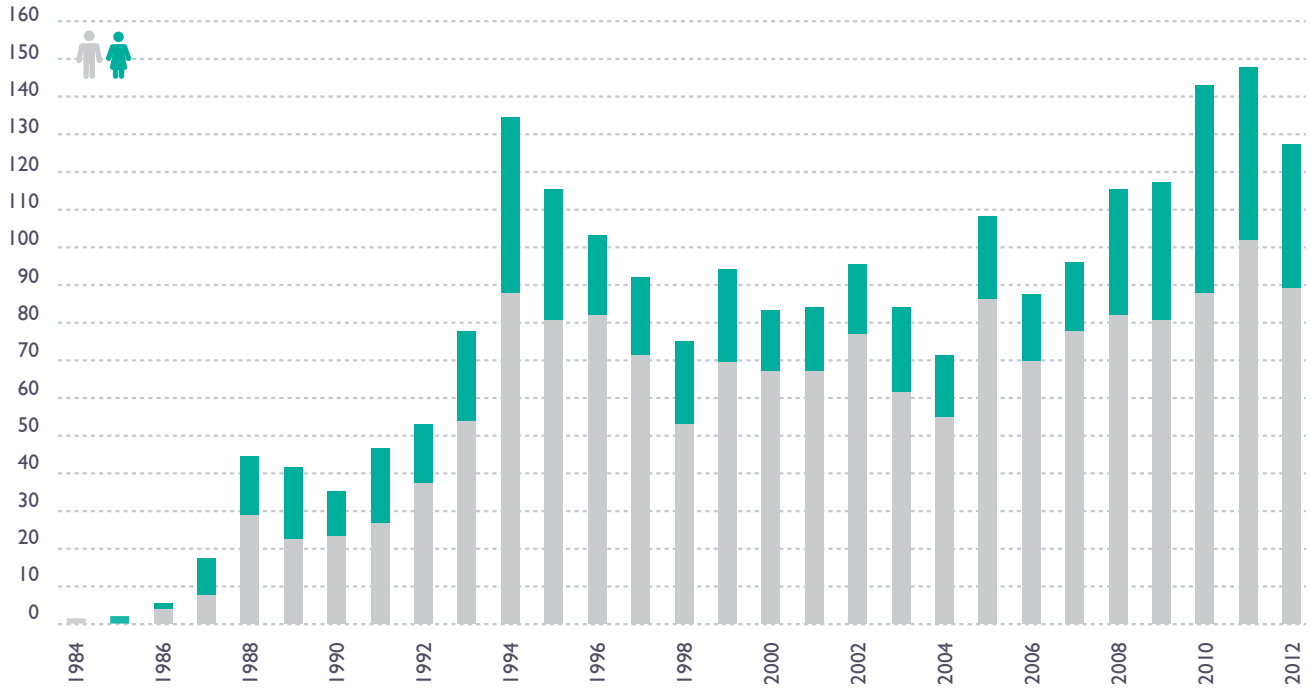
Figure 8.11
People living with HIV by region, % at end-2012 (Total 1,445 living)



Source: Annual health report, 2012, Ministry of health.

205. **Muscat and North Batinah account for the largest share of people currently living with HIV** (Figure 8.11). These two governorates respectively make up 42 per cent and 23 per cent of the total number of cases. This is because Muscat and North Batinah also account for the largest share of the country's population at 30 per cent and 17 per cent respectively.[254]

Figure 8.10
HIV cases registered each year by sex, 1984-2012 (Cumulative total 2,291 cases)



Source: Annual health report, 2012, Ministry of health.

8.2.2 Enabling environment

206. **The Ministry of Health has implemented policies and services to limit the spread of HIV in the country.** A technical committee for AIDS regulates and guides matters related to diagnosis and treatment. The National Educational Committee for AIDS includes representatives from other ministries and relevant organizations in the country. The HIV/AIDS Control Section in the Ministry of Health is responsible for prevention and control measures to limit the spread of HIV, all of which are part of the National AIDS Programme (NAP). In 2007, Oman launched the National Strategy for HIV/AIDS (2008-2011) and in 2009, the country initiated HIV testing and counselling services for all pregnant women. HIV-positive patients are treated at 15 different sites spread throughout Oman. Four of these sites are in Muscat.[255] In addition to pregnant women, the government also provides health-related services to at risk populations, such as men having sex with men (MSM), sex workers, injecting drug users (IDUs) and patients with sexually transmitted infections (STIs). The government provides HIV-positive IDUs with counselling, monitoring and medical treatment, including anti-retroviral therapy (ART), as well as social assistance, de-addiction and rehabilitation services, needle and syringe exchange and condoms.[256]

8.2.3 Key determinants

Supply, services and inputs

207. **More information is needed on risky lifestyles, which fuel the epidemic.** As in other countries, driving factors may also include domestic violence and the stigma associated with HIV testing and reporting.

208. **A range of measures have been put in place to control the HIV epidemic and to respond to the needs of people living with HIV.** These include Oman's strong blood safety policies, its information, education and communication activities, and effective programmes for prevention of HIV and sexually transmitted infections (STIs), which involve prompt identification of people with STIs, initiation of appropriate therapy and measures for treatment.[257] The Ministry of Health policy requires all people living with HIV to undertake HIV counselling at least once every 6 months and to be assessed for their viral load and CD4 counts. At the end of 2012, 50 per cent and 59 per cent respectively of all registered HIV-positive males and females living with HIV were on antiretroviral treatment (ART). In 2013, WHO raised the CD4 threshold for ART from 350 to 500/mm3.[258] Although this has raised ART costs for the country, Oman has kept to these new guidelines.

209. **Oman is likely to achieve the goal of every child born free of HIV and leads as a model for other countries in this respect.** This is because Oman's primary health care system offers optimal circumstances for HIV control (paragraph 210). Oman has integrated HIV testing and counselling as part of its ANC services. The near-universal coverage of ANC services offers the opportunity for early detection and prevention of vertical transmission of HIV to children. More than 90 per cent of pregnant women attending ANC services have been tested for HIV since 1 July 2009.[259] Oman has therefore successfully tackled the complex issues related to the coordination and the integration of MCH/ANC services with effective PMTCT strategies. Table 8.2 indicates the large scale of this undertaking.

Table 8.2
Testing of pregnant women for HIV

Year	Number of pregnant women tested for HIV at antenatal care sessions	Pregnant women found HIV- positive	%
2009	32000	9	0.03%
2010	67110	27	0.04%
2011	72253	25	0.03%
2012	78934	26	0.03%
2013	77926	29	0.04%

Source: Data provided by DCDSC, Ministry of Health, April 2014 for this report

210. **The strength of Oman's programme for prevention of mother to child transmission (PMTCT) lies in eight factors.** First, Oman has a strong primary health care system with universal coverage. Second, to obtain antenatal care services, Oman makes it mandatory for every pregnant woman to register at health facilities and receive an antenatal care card. Thus, the Ministry of Health has records of all pregnant women. In many other countries, the challenge lies in reaching pregnant women who have no idea they are HIV-positive and do not access any type of service. Oman has overcome this. Third, Oman's antenatal care services already have programmes to screen pregnant women for other diseases, such as the venereal disease research laboratory (VDRL) test. Fourth, once a pregnant woman is found to be sero-positive, a strong referral system from primary health facilities to ART treatment centres kicks in. Fifth, each of the 15 ART treatment centres across Oman provide free antiretroviral drugs (ARVs). Sixth, a trained obstetrician and paediatrician is put in charge to manage the treatment and care of HIV positive mother and child. Seventh, the government provides free testing of HIV viral load and CD4 all over Oman. Eighth, all district hospitals in the country provide HIV counselling and other support services for those who need these. All these offer lessons for other countries and show the way forward for quick decisive action.

211. **Additionally, Oman has an extensive HIV screening programme.**[260] In 2011, a total of 883,696 people were tested for HIV: around 28 per cent were Omani nationals, while 72 per cent were expatriates. In addition to pregnant Omani nationals who are tested in antenatal care services as mentioned above, other groups screened include patients with sexually transmitted infections and/or tuberculosis, blood donors, food handlers, and groups in pre-employment screening.[261]

Demand: awareness and practices

212. **The stigma associated with HIV translates into lack of knowledge and awareness on the epidemic.** Health centres and hospitals are the most common sources of information on HIV, as reported by people living with HIV and their caregivers. Television was identified as the next source. Physicians and counsellors are the main source of information on ART services.[262] However, amongst the general population, knowledge of HIV is low. In 2001, one-third of adolescents stated incorrect methods of infection of sexually transmitted diseases, such as hand shaking.[263] In 2008, around one-quarter of young people at college believed that they could be infected with HIV from a mosquito and one-fifth believed that they could be infected from sharing food.[264] In 2012, most people living with AIDS reported not being comfortable with disclosure and stated that their neighbours knew nothing about their seropositive status.[265]

8.2.4 Challenges and opportunities for action

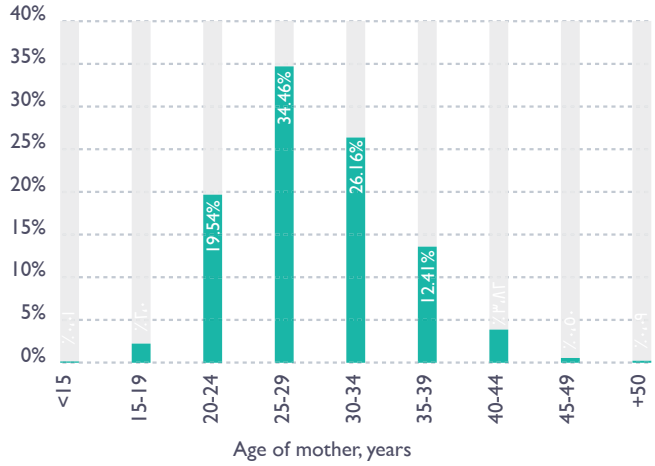
213. **The greatest barrier and challenge to controlling the spread of HIV in Oman is stigma and denial.** The mainstream population, those not affected, need to be made aware that they are at risk. Clearly, some of the infections are being transmitted through spousal relations and by people who are usually not seen as "populations at risk." The perception of a divide between an at-risk population (e.g., sex workers, injecting drug users) and the "normal" population, "them" and "us," fuels the epidemic. Married people may not want to admit to extramarital relations and MSM may not want to admit to lifestyle issues. Communication strategies will need to address such issues.

214. **There is no systematic data collection among the most-at-risk populations (MARPs).**[266] The HIV data is largely based on mass screening among blood donors, antenatal care clients, premarital and pre-employment screening, in which the MARPs are typically under-represented. Well-functioning voluntary and confidential testing (VCT) services are required to make it easy for persons at higher risk, such as MSM, sex workers and injecting drug users, to have a confidential HIV test.[267] More data are needed on their HIV status, practices, backgrounds, movements, and vulnerabilities, so that strategies can be effective in reaching them with preventive measures, testing, counselling and treatment, as appropriate.

8.3 Risky lifestyles

215. **Young people are exposed to risks in daily life.** These include teen pregnancies, drugs and substance abuse, HIV and other STIs, internet addiction, sexual exploitation and abuse, and inappropriate eating and living habits that lead to obesity and chronic non-communicable diseases. The following sections deal only with selected issues due to data constraints.

Figure 8.12
Registered live births amongst Omanis by mother's age, 2012



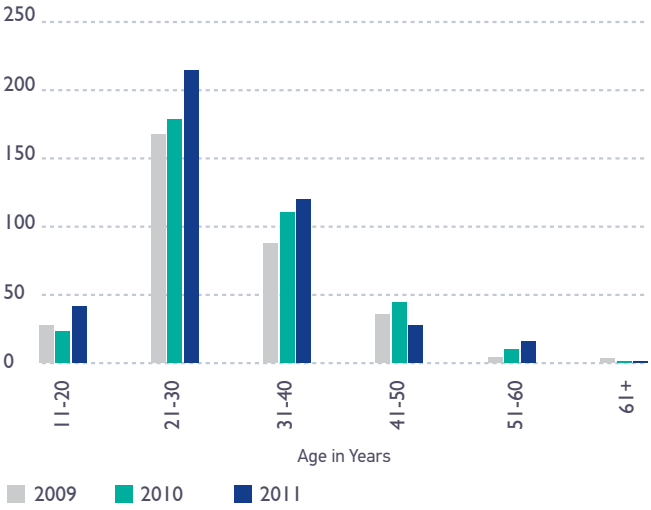
Source: MoH and Royal Omani Police in: 2013 Statistical Year Book

8.3.1 Trends and outcomes

216. **Teenage pregnancies and adolescent births are seen in only a small proportion of the population.** The 2003 census data revealed that 4 per cent of girls and 0.2 per cent of boys aged 15 to 19 years were married.[a] Of the total pregnancies in 2008, survey data showed that only 1.2 per cent had begun childbearing while in their teens (15-19 years).[268] In 2012, facility data showed that the proportion of mothers who gave birth below the age of 19 was only around 2 per cent (Figure 8.12).

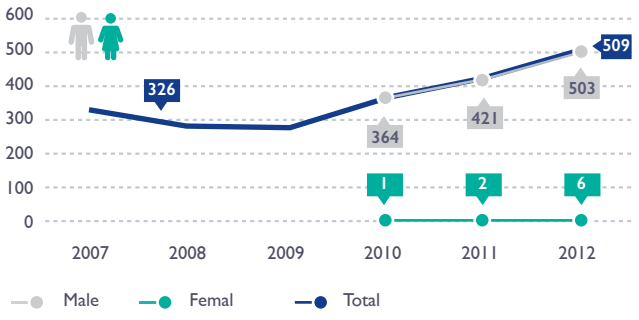
217. **Oman has higher rates of obesity than many OECD countries.** 30 per cent of Omanis above age 18 are overweight and 24 per cent are obese,[269] whilst amongst adults above 40 years, over one-third is overweight and another third (34 per cent) is obese (Figure 5.11).[270] This is higher than the OECD average, where obese adults (not just overweight) constitute 23 per cent of the adult population. Obesity starts early. Rapid changes in dietary habits, lifestyles, and lack of physical activity mean that as the child grows older, he and she becomes overweight and perhaps obese. Obesity is documented in the Annual Health Reports of the Ministry of Health as well as in the World Health Survey.[271] Obesity increases from grade 1 through grade 7 and grade 10, where one in ten students are overweight (with their body mass index (BMI) above 25) and around 3 per cent are obese (BMI over 30).[272 b]

Figure 8.13
Number of drug cases by age group and year of registration, 2012



Source: Yearly Statistic Report for Narcotics and Psychotropic Substances, 2012

Figure 8.14
Drug cases by year of registration and sex, 2012



Source: Yearly Statistic Report for Narcotics and Psychotropic Substances, 2012

218. **Substance abuse is an issue amongst the young.** The substance of choice appears to be "two or more drugs", followed by opiate and alcohol. The distribution of registered drug cases by year and age show

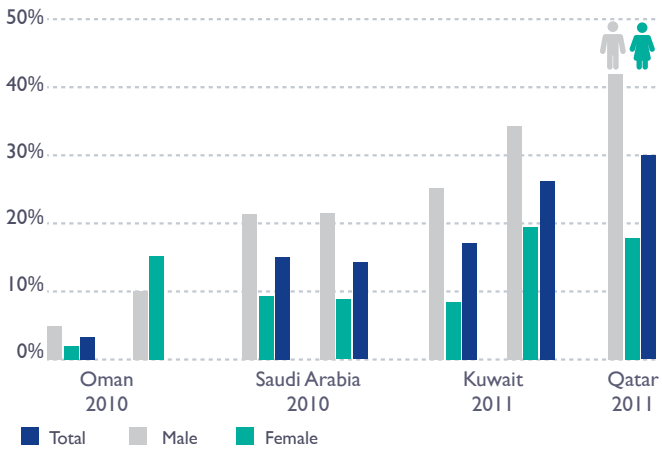
a. As the census generates data by five-year age groups, the actual proportion of marriages before the age of 18 years was not available.
b. WHO defines overweight as > +2 SD weight-for-height.

that those between the ages of 21 to 30 years old are the most affected, although younger ages are also registered (Figure 8.13).[273] The problem affects predominantly boys and men (Figure 8.14). Whilst the total number of cases appear to be on the increase (Figure 8.14), these are only the registered cases, which means that the apparent increase could also signal improved reporting and registration. The drug users are predominantly in Muscat (75 per cent) followed by North Batinah (11 per cent). Some 99 per cent of registered drug users are Omani; the remaining drug users are expatriates largely from countries in the MENA region and from South Asia.[274]

219. **Oman has amongst the world's lowest tobacco use rates by the young.** Of all countries in the world where WHO had data, Oman's adolescents (13 to 15 years of age) had amongst the lowest prevalence of tobacco use. Other countries in the Gulf region have a much higher prevalence (Figure 8.15). Oman's prevalence is even lower than that in many OECD countries. The pattern continues into adulthood. Only 14.7 per cent of men and 0.2 per cent of women in Oman smoke, compared to 31.9 per cent of men and 1.2 per cent of women in Qatar, and 21 per cent of men and 20 per cent of women in the United Kingdom.[275]

220. **Other lifestyle issues, such as social pressures, depression, violence, and boredom drive risky behaviour amongst the young.** These are, therefore, examined as key determinants in section 8.3.3. For instance, social pressures may cause stress, depression or low self-esteem. These, in turn, may increase a young person's vulnerability to drug and substance abuse, internet addiction, and inappropriate eating and living habits. The issue of internet addiction requires more data. One study on Omani adolescents from high schools in Muscat, found that 18 per cent of respondents used the internet for more than 4 hours daily and that some made "excessive use" of the internet.[276]

Figure 8.15
Tobacco use prevalence amongst 13-15 years old children, selected countries, 2009-2011



Source: Tobacco Free Initiative, WHO: most recent surveys of youth tobacco use in WHO Member States

8.3.2 Enabling environment

221. **Oman has responded to health issues associated with obesity in its Eighth Five-year Plan for Health Development, National Strategic Plan (2011–2015).** In order to combat childhood obesity and the medical consequences of obesity in adulthood, the promotion of healthy lifestyles was designated as the central focus.

222. **Oman has established a multi-sectoral approach to dealing with substance abuse, given that the issue cuts across many sectors.** The 1999 Law on the Control of Narcotics & Psychotropic substances provides the legal framework for the national response to substance abuse. The National Committee for Narcotics & Psychotropic Affairs, headed by the Under-Secretary of the Ministry of Health, comprises the following ministries: Finance, Education, Religious Affairs, Justice, Social Development and Sports. The Committee is responsible for establishing policies for addressing the import, export and cultivation of narcotic and psychotropic substances, for coordinating efforts amongst the appropriate official and non-official authorities, and for implementing prevention and treatment plans for the control of substance abuse. Oman established the National Registry for Addiction in 2003 to collect data, record and observe all cases of addiction in Oman and perform data analysis.

223. The 2014 Child Law recognizes the need for a healthy and safe lifestyle for the young. Children's interest in various fields such as the arts, literature, knowledge,

human heritage and scientific progress are to be promoted. To this end, the government is required to establish libraries and special clubs for children in all provinces in Oman to support the social, psychological, and cultural development of children. The Child Law also bans the selling of alcohol, tobacco, illegal drugs, and mind-altering drugs to children.

8.3.3 Key determinants

Determinants of risky lifestyles

224. **Greater openness and exposure to international markets have driven many of the lifestyle changes amongst young Omanis.** The rapid developments of the past four decades in Oman have had a positive impact on the opportunities and lives of young people. These positive changes have been accompanied by the availability of new products, the pressures from new markets and globalization, and the development of new interests amongst young people.[277] For example, young people generally feel that smoking makes them look attractive.[278] Marketing to make them consume more goods is part of the social pressures that young people face. For some, such social pressures make them anxious and uncertain over their future. Low self-esteem amongst some young people exacerbates these problems.[279]

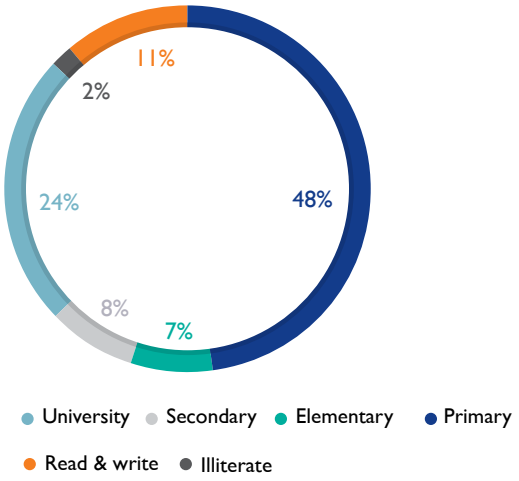
225. **With growing affluence has also come more leisure time, boredom and the freedom to experiment.** A 2008 survey among college students found that about one-third spent over two hours every day watching TV or playing computer games.[280] A 2001 survey[281] found over two-thirds of young people saying they were bored. A 2008 survey found that one-quarter of both male and female college students had experimented with psychoactive (psychotropic) drugs.[282]

226. **Violence and problematic relationships may drive young people into depression or undermine their self-esteem.** The next section deals further with violence. Apart from personal history and illness and stressful life events, key factors associated with depressive symptoms included physical punishment during childhood or adolescence, disruptions in the family and problematic relationships with parents, siblings, peers and teachers.[283] Some of the problems between young people and their parents may be rooted in changing values, such as parents being "too strict," and also a lack of communication and dialogue between parent and child.[284]

Substance abuse

227. **Drug use cuts across education levels and employment status.** Around half the registered drug users have only primary education; however, one-quarter have university education (Figure 8.16). In 2012, only 3 per cent of the registered users were students; 53 per cent were unemployed and 41 per cent were working. Well over half the drug users were young single males, although about a third are married. In such cases, drug use has serious implications for their children. Two-thirds of the users came to register for themselves, 17 per cent were brought by family and 7 per cent brought by the police.

Figure 8.16
Registered drug users by education level 2012



Source: Yearly Statistics report for Narcotics and Psychotropic Substances, 2012

228. **Treatment and other services are provided to registered drug users.** These services include needle and syringe exchange programmes, social assistance, and de-addiction and rehabilitation services as needed. Oman has compulsory treatment for people with drug use disorders, while drug courts and programmes divert drug users from the criminal justice system towards treatment.[285]

229. **As expected, HIV prevalence amongst registered drug users is much higher than in the general pop-**

ulation. It was 4.4 per cent in 2010, 1.2 per cent in 2011 and 1 per cent in 2012. Over the same period, the prevalence of Hepatitis B and C rose among the drug users. Overall, the number of registered drug cases is too small to draw any firm conclusions about disease trends, especially as there may be drug users that have not registered.

Teenage pregnancy

230. **Oman's strong performance in girls' education has clearly contributed to reducing teenage marriages and pregnancies, which are detrimental to both maternal and child nutrition.** Although facility data, census and survey data are not strictly comparable, the available data supports the conclusion that teenage pregnancy does not seem to be an issue in present-day Oman.

Obesity

231. **Childhood obesity is associated with a higher probability of obesity in adulthood.** As mentioned in Chapter 5, obesity amongst young people is related not only to lifestyle issues but also to the increased risk of obesity from stunting when young. Studies show that nutritionally stunted children are at increased risk of obesity.[286] In turn, this increases the likelihood of certain disabilities and diseases, such as diabetes and cardiovascular diseases. The risks for most non-communicable diseases resulting from obesity depend partly on the age at onset and the duration of obesity. Obese children and adolescents are likely to suffer from both short-term and long-term health consequences. The most significant of these are cardiovascular diseases, mainly heart disease and stroke, diabetes, musculoskeletal disorders, especially osteoarthritis; and cancers of the endometrium, breast and colon.[287]

8.3.4 Challenges and opportunities for action

232. **A strategy for young people will need to promote wide interests and physical activity.** This will foster a healthy lifestyle that equips them to deal better with risks, including obesity. Young people who reported having no hobbies were found more likely to be depressed.[288] The same study[289] found that physical activity had a "buffering effect … on depressive symptoms." In 2008, 43 per cent of male and 58 per cent of female university students reported having only low physical activity, whilst a smaller proportion (26 per cent of young men and 6 per cent of young women) reported having high levels of physical activity.[290] Those who lack interests or hobbies or find these difficult to pursue may be more vulnerable to peer pressure and risky behaviour. Strategies for promoting positive and healthy lifestyles will need to include incentives for healthy competition and knowledge sharing amongst the young, as well as the education of parents on a range of issues, from obesity to violence and addiction.

8.4 Child protection systems

233. **An effective child protection system safeguards children against all forms of abuse, neglect, violence and exploitation.** The causes of phenomena such as child abuse, child exploitation and neglect are inter-related at a deeper level. Recognizing these causes and identifying the range of actions involved in protection will require a systems-based approach, rather than just an issue-based approach that focuses on categories of children who need special protection. The list of such children is extensive, and includes children with disability (section 8.1), those affected by violence, by conflict with the law, by lack of parental care, by addiction (section 8.3), by neglect and discrimination and so on. This section deals with systemic requirements as well as with the remaining groups of children in need of special protection.

8.4.1 Trends and outcomes

234. **Data are generally scarce on trends for children in need of special protection.** Much of the available data are, instead, on institutions and services for these children. Although data on children with disability and those affected by HIV/AIDS are available, trend and outcome data on children without primary care-givers and children in conflict with the law are not currently available.

235. **The 2003 and 2010 censuses did not report any evidence of child labour as defined by Oman, i.e., employment of children below the age of 15 years.** In the age group 15 to 19 years old, the 2010 census recorded 3.2 per cent (5.2 per cent of males and 1.2 per cent of females) who were employed. This proportion has gone down from that in 2003, which had recorded 13.5 per cent of the same age group (15 to 19 years) who were in employment. Clearly, the increasing enrolment in secondary and higher education and the overall progress of the country have contributed to this. More teenagers are apparently staying on in school or engaged in pursuits other than employment.

236. **A significant proportion of children and young people are exposed to violence.** The violence may be from peers in the form of bullying. A 2005 survey recorded the experience of being bullied in over one-third of students. The bullying included physical punishment: around a fifth of boys and a tenth of girls reported being hit, kicked, pushed, shoved around or locked indoors.[291] The violence may also be from within the family. In a 2005 study, boys and girls reported being physically punished at home, to the point of injury, at times requiring treatment in hospital.[292] At a workshop with counterparts, experts stated that 90 per cent of reported incidents of violence were confirmed, including physical and sexual abuse.[293]

8.4.2 Enabling environment

237. **A child protection system requires an enabling environment, as well as services and other inputs (key determinants) of the equity approach.** The requirements for an enabling environment for child protection are set out below, based on global experience:[294, 295]

- *Commitment, legal and policy framework:* An effective child protection system requires government commitment, a legislative and policy environment supportive to child protection and the means to implement these.
- *A continuum of services:* At national, societal and family levels, the systems need to have the required capacities and resources for delivering protection services in a continuum that ranges from promotion, prevention and response. It is not sufficient to focus solely on response, since harm has already been done to the child by the time the system responds.
- *Attitudes, culture and customs* are a key component of effective child protection systems. The ability to promote open discussion of issues is crucial, since only then will violations be reported and addressed.
- *Behaviour change:* Effective systems must support activities that change attitudes and behaviour, strengthen parenting skills, and sensitize communities on the negative impact of violence on children.
- *Participation:* Effective child protection systems cannot be top-down: clearly, the degree to which children themselves have life skills and knowledge and are able to participate protects them from a wide range of threats.
- *Monitoring, reporting and oversight* are essential elements for the government to ensure that children are protected.

238. **Oman already has many of the components for a good child protection system in place, in particular, high level commitment.** This is a sine qua non for the system's effectiveness. Other components may need to be strengthened and assessed further in a separate exercise; UNICEF and the Government already conducted an assessment of some components in 2010.[296]

239. **Oman has put in place laws and Royal Decrees in line with its ratification of the Convention on the Rights of the Child in 1996.** Several ministries work individually and collectively to meet the child's needs and create a protective environment. The Government of Oman has also established a National Committee to observe the implementation of the Convention on the Rights of the Child.[297] The Ministry of Social Development has issued Ministerial decision No. 330/2012, which established a shelter for women and child victims of abuse.

240. **Oman's 2014 Child Law covers a wide range of child protection issues.** These include alternative care for children, child disability, violence against children and psychological, physical and sexual abuse of children, exploitation of children, and temporary care where children at risk can be placed. The 2014 Child Law provides for the strengthening of structures to support child protection (paragraph 244) and commits the Government to use all available ways to rehabilitate child victims of violence, abuse and exploitation, and to work on re-integrating the child in the society. It specifies that such children have to be placed in a temporary care facility, according to a decision from the Attorney General and based on a recommendation from a child protection worker. In the event that children have to be removed from their families or communities due to violence and lack of safety, child protection workers are tasked with monitoring the well-being of children, after the unsafe conditions have been removed and children released back to their families.

241. **The 2014 Child Law now makes it mandatory for all individuals who have knowledge of violence, exploitation, abuse or any infringement of child rights to report these.** Doctors, teachers are specifically mentioned in the Law as having a duty to report. This has addressed the gap in legislation in this area. Previously, some health care professionals took initiatives themselves to involve law enforcement officials in serious and severe incidents.

242. **The Sultanate has a system for caring for children without primary caregivers.** The 2014 Child Law promotes the right to decent alternative care for orphans or children without primary care givers. These may be children who are deprived of family care or children of unknown parents or unknown father. Care is provided to such children through the alternative family or child development centres, which are established along internationally recognized principles aiming to provide the child with a family environment offering love and emotional stability. In 2013, some 334 children were placed in foster families across the country. The Ministry of Social Development monitors closely the psychological state and security of children rejected by foster families.

243. **Oman's minimum age of employment has been raised from 13 to 15 years by Royal Decree No. 35/2003.** Children between ages 15 and 18 are barred from working for more than six hours a day. Oman's Labour Law further restricts children between ages 15 and 18 from working on weekends and holidays or from working overtime. The 2014 Child Law reiterates that occupations harmful to the child's health, safety or moral well being are prohibited. These occupations are to be determined by the Ministry of Manpower after coordinating with the concerned departments. The Child Law also reiterates that the Ministry of Manpower can raise the 15 years' age limit for certain occupations or industries according to their nature. The Child Law specifies that the work should not obstruct the child's education.

8.4.3 Key determinants

244. **Reporting and referral services for child victims of violence and abuse constitute one of the pillars of a child protection system.** The National Committee on Family Affairs, founded by the Royal Decree No. 12/2007, established in May 2009 a telephone service/hotline for complaints and reports, which are then investigated and dealt with by a multi-disciplinary task force established in 2008 to investigate, manage and rehabilitate children victims of violence. Institutional mechanisms have been initiated for responding to violence against children. The 2014 Child Law has given the Ministry of Social Development the responsibility of forming "Child Protection Committees," which receive complaints and reports on violence, exploitation or abuse of children and other violations of child rights. These Committees are tasked with protecting children and Committee members and have judicial and executive authority to apply the Child Law.

245. **Social cohesion and family networks play a key role in determining the welfare of the most vul-**

nerable children. Orphaned children are cared for by the remaining parent and members of the extended family, because of Oman's social cohesion. The Ministry of Social Development provides financial support to orphaned children with limited resources and assists orphaned children to pursue their education. Orphaned children are different from children of unknown parentage, mainly because orphaned children already have family and identity, and therefore these have to be taken into consideration in their treatment.

246. **Birth registration and the support and care by foster families of children are important determinants.** Potential foster families are subjected to initial evaluation by the Ministry of Social Development as well as periodic and annual supervision to follow the status of the child. Affiliation to a tribe is important in Omani society. Therefore, the decision of the Council of Ministers at session 5/2013 to grant a tribal name to a child of unknown parentage or unknown father, together with Ministerial Decision No. 259/2013 amending some provisions of the executive regulations for the Civil Status Law, will contribute substantially to the social status of these children. The 2014 Child Law will also ensure all children are registered at birth, have a name and citizenship according to the rules and procedures indicated in the civil status law, making it more likely that all children are protected.

247. **The Law on Juvenile Accountability (promulgated by Royal Decree 30/2008) has significantly advanced guarantees for juveniles.** This Law defines a juvenile as any male or female under eighteen years old. This Law is directed towards reform and rehabilitation and provides for the establishment of special departments for the care of and rehabilitation of delinquent juveniles: for example, the Juvenile Police Unit, the Juvenile Affairs Division, the Juvenile Guidance Centre and the Juvenile Reformatory. The penal law specifies that children in conflict with the law receive an age-appropriate treatment oriented towards rehabilitation. Further details are provided in Box 8.1.

248. **The juvenile is considered delinquent when he has committed an act punishable by the law between the ages of 9 and 18 years old.** One of the measures and penalties shown in chapter II of the Juvenile Accountability Law will be taken against the juvenile. This means that no minor will be subject to imprisonment. Box 8.1 shows the measures to be taken against the delinquent juvenile. It should be noted that the CRC recommends 12 years as the minimum age of criminal responsibility.

249. **Information on the capacities of institutions and service providers is inadequate.** The Ministry of Social Development prepares its social work strategy by using diagnostic reports on the quality of services in the different governorates, with the aim to improve and develop these services. The Ministry of Social Development and other concerned ministries will need to take the lead in any assessment of their capacities.

8.4.4 Challenges and opportunities for action

250. **Oman has progressed in its legislative reforms to protect children;** however, some gaps still exist.[298] These include: the age of criminal responsibility, which is set at nine years, while the UN Committee on the Rights of the Child recommended raising this to an internationally acceptable level and the need to revise Article 38 of the criminal law to criminalize parental use of physical punishment. Other challenges include the need to have regular supervisory visits to places employing children below the age of 18 years to monitor children's wellbeing and employers' compliance with Omani laws.

Box 8.1

Oman's reforms in juvenile justice: the Juvenile Accountability Law

The Law was issued by Royal Decree No 30/2008 on 9 March 2008.

Juvenile justice institutions:

The Juvenile Police Unit is in charge of collecting evidence on juvenile cases. The Juvenile Affairs Division at the Ministry of Social Development is responsible for reviewing and submitting reports on actual or potential juvenile delinquency cases, and is in charge of supervising and implementing the judicial examination, release from the police and post-release care. Juveniles at risk of delinquency, for whom an order is issued, are placed at the Juvenile Guidance Centre, which is under the Juvenile Affairs Division at the Ministry of Social Development. The work of the Centre is governed by a bylaw issued by Ministerial Decree No 259/2013. The Juvenile Reformatory is under the Juvenile Affairs at the Ministry of Social Development. It provides accommodation, care and rehabilitation services for juvenile offenders who are placed there following a court order. The work of the Reformatory is governed by a bylaw issued by Ministerial Decree 126/2010. There is no independent and specialized court for juveniles in the Sultanate. Instead, each court is required to dedicate a circuit to consider juvenile cases, held with specialized judges. The Law stipulates that the trial of a juvenile shall be held in closed sessions in order to make sure that the future of the juvenile is not compromised.

Juvenile Justice measures:

The juvenile is considered delinquent when he is between 9 and 18 years old and has committed a crime or a misdemeanour. The Juvenile Accountability Law sets out the measures and penalties to be taken, with the aim of ensuring that the juvenile becomes a good member of society. Care arrangements (Article 15) include handing the juvenile over to one or both parents, a custodian, a family member or relative, alternative family, the Juvenile Guidance Centre or any approved juvenile care organization. It also includes issuing warnings, reprimanding or preventing the juvenile from having access to certain places or practising certain professions. Reform measures (Article 20) include placement in the Juvenile Reformatory, placement under probation, enrolment in vocational training, appropriate mandatory assignments and placement in a health institution.

Article No 27 of the Juvenile Delinquency Law states that if the juvenile delinquent who is under 16 years old committed a crime or multiple crimes or more than one crime for the same purpose (providing that they are correlated with each other and not divisible), he will be subject to one or more measures, as shown in article 15 and article 20. Other than confiscation and closing the shop, the juvenile may not receive any other punishment or measure provided by any other law. Article 28 of the Law states that if the minor who is 16 years old committed a crime punishable by prosecution or capital punishment, he/she will be subject to custody of not less than three years and not more than 10 years. If he/she commits a crime punishable by temporary or permanent punishment, he /she will be subject to not more than half of the maximum custody for the committed crime and by not less than three years custody for the crimes. The court may apply one of the measures shown in Article 20 – without prejudice to sub-penalties stipulated at the Omani Penal Code. The judge will decide the period of custody, depending on the age of the minor and the specific case. The judge has the full jurisdiction to issue the suitable judgment. It should be noted that the custody punishment will be served by the juvenile delinquent at the Juvenile Reformatory and not in prison.

Source: Ministry of Social Development

251. **A number of other areas offer opportunities for Oman to ensure a good child protection system.** The following areas were identified at the 26-27 March 2014 meeting held between the Government of Oman and UNICEF, preparatory to the MTR of the Cooperation Programme between the Government of Oman and UNICEF (2012 – 2015). First, the legal/policy framework applying to children in need of protection and or in conflict with the law should be strengthened in line with internationally proven approaches. Second, on service provision, the several promising initiatives that have already been launched by different Ministries need to be scaled up and strengthened. Third, measures to raise community awareness on domestic abuse will strengthen protection systems. Fourth, strengthening the capacities of child protection services, their staff and other stakeholders will be needed to ensure a good child protection system.

252. **Overall, there are challenges in the robustness and availability of child protection data.** The census data on disabilities has the major limitation of being available only in certain years.[299] An integrated management information system is needed for the entire child protection system. Such a system should report on all children with special protection needs and be able to do longitudinal tracking (see also section 8.1.4, paragraph 197). Information on behaviour also needs to be collected.

9 Summary and conclusions

Oman's development over the past four decades has been striking. From an under-developed nation with almost no basic services, Oman has become a modern welfare state with good health care, universal primary education, high secondary enrolment rates and universal literacy rates amongst young people. The country's progress in having reduced deaths amongst its under-five children is one of the fastest in the world. Consumption inequality in Oman decreased from 2006 to 2011, a remarkable achievement in the Middle East and North Africa region. Oman has also made significant strides in women's empowerment and gender equality, especially in education. Within the Arab region, Oman is one of the leaders in realizing women's rights. To develop further, Oman will need to enhance its human capital, ensure that the economy generates high productivity jobs that attract young educated Omanis, and address the challenges related to environmental sustainability.

Child health and nutrition

Child mortality and morbidity. Oman has already achieved the Millennium Development Goal (MDG) 4 on reducing child mortality. Dramatic improvements in health infrastructure and services – including universal immunization coverage – have led to a drop in infectious childhood diseases, although diarrhoea rates are still an issue in certain parts of the country. Because of the decline in infections, congenital abnormalities and the events surrounding childbirth and birth complications have become the main contributing causes to young child deaths.

Child undernutrition. Oman has also made dramatic progress in reducing child undernutrition, having achieved the MDG 1 target on cutting underweight prevalence by half. The prevalence of stunting in young children is now "low." However, even at low levels, the impacts of stunting and wasting in young children are serious. Furthermore, wasting is still above the threshold defined as "acceptable" by WHO.

Micronutrient deficiencies. Oman's wheat flour fortification programme, launched in 1993, has reduced anaemia rates and spina bifida rates significantly. Even so, anaemia still affects at least half of Oman's young children. Vitamin A deficiency control programmes have been effective, reaching a high coverage of children and mothers. Iodine deficiency disorders are under control, but the legislation needs enforcement and monitoring, since Oman still needs to achieve sustained and universal coverage by iodized salt. The availability of iodized salt and non-iodized salt from neighbouring countries could still be an issue.

Disparities. Both stunting and wasting show marked disparities by governorate, with differences up to five-fold for stunting. Muscat has the lowest stunting rates whilst Musandam, North Ash Sharqiyah and Al Wusta have stunting rates that are three to five times higher. North Ash Sharqiyah, Ad Dakhliyah and Musandam have wasting rates that are three to four times that of Muscat. Anaemia amongst children shows the greatest disparities: the levels vary across governorates by four times to seven times respectively for anaemia in children under 5 years old and children at 9 months. Wasting and low birthweight rates, however, show less disparity between governorates, because most governorates need improving in these two areas.

Determinants of child health and nutrition include the mother's health and nutrition status before and during pregnancy, the quality and availability of health services, infant and young child feeding (IYCF) practices, the young child's environment, hygiene and caring practices, and the mother's education and health-seeking behaviour:

- *Maternal health.* Oman has universal coverage by antenatal and institutional delivery services. Furthermore, nine out of 10 registered pregnant women receive postnatal care services and all women with live births attended a postnatal clinic at least once after delivery. Such high coverage by maternal health services has led to a decline in Oman's maternal mortality ratio, which however, is still higher than that of other GCC countries. Given Oman's achievement of near universal coverage by maternal health services, the difference is likely to be in the quality of services and the level of health awareness amongst women. For example, one-third of registered pregnant women register at health facilities only in their second or third trimesters, whilst over a third of registered pregnant women do not have an ANC visit in their last month of pregnancy, even though this is recommended practice in Oman. The available indicators show disparities in health seeking behaviour: for example, in Muscat and North Batinah, the proportion of registered pregnant women not having an ANC visit in her last month of pregnancy rises to one-half and three-quarters respectively. Additionally, the rising trend of elective caesarean sections (C-Sections) indicates a lack of awareness about the serious health consequences for mothers and infants; C-Sections comprise nearly a fifth of deliveries.

- *Reproductive Health.* There is also an unmet need for family planning amongst women – a little over half the women in Oman in 2008 wanted to use contraceptives but for cultural or other reasons were not able to do so.

- *Maternal nutrition.* One indicator of the mother's nutritional status is the rate of low birthweight. Oman's low birthweight rate seems to be increasing, which is a worrying trend. Another indicator is anaemia. At least one in four infants are born to mothers with anaemia.

- *IYCF and caring practices.* Infant and young child feeding (IYCF) practices are suboptimal. The early introduction of water, herbs, teas and formula for infants prevents exclusive breastfeeding, and misconceptions that link pregnancy to child diarrhoea in the breastfed child shorten the period of continued breastfeeding. Young women below 35 years of age have a high literacy rate, but women in older age groups have lower levels of education and literacy, and may be less likely to adopt appropriate and hygienic child feeding practices. The quality of care is also affected negatively by mothers having multiple and too closely spaced births.

- *Hygiene and diarrhoea.* The relatively high level of wasting, for a country of Oman's high-income status, indicates that hygiene and diarrhoea may still be problems among certain vulnerable populations. Wasting and

stunting are known to be associated with decreased food intake and diarrhoeal disease. Thus, in Oman, the governorates with the highest diarrhoea rates (North Ash Sharqiyah, Wusta and Musandam) also show significant levels of child stunting (Musandam, North Ash Sharqiyah and al Wusta) and in some cases, wasting (North Sharqiyah and Musandam).

- *Water and sanitation.* International estimates by the WHO/UNICEF Joint Monitoring Programme show high coverage by improved water sources and sanitation facilities, reaching well over 90 per cent of the population. Oman uses its own system for classifying water sources, according to which three-fourths of the dwellings are served by the piped network or public water points. Oman's public water system goes through a comprehensive quality control system that checks for compliance with microbiological and chemical parameters. Muscat has the best water quality whilst Musandam, North and South Batinah and Al Wusta have poor water quality. The diversity of water sources in Oman, including rural wells with little or no treatment, and the different means of water transport and storage are among the many challenges of maintaining water quality. The Sultanate has invested heavily in water desalination and treatment: most of its piped water now come from seawater.

Opportunities for action. (i) In Oman, stunting, anaemia, and the rising low birthweight rate need special action. A holistic approach is needed to tackle these remaining areas of undernutrition in a convergent approach with early childhood programmes. (ii) Disparity mapping and studies are needed for a number of issues; for example, to determine why childhood anaemia is so much higher in South Batinah and Dakhliyah. Currently there is insufficient information to answer such questions. (iii) The disparities also show that behaviour and knowledge are important - the wealthiest governorates do not necessarily have the best indicators. Therefore, future data collection efforts should include data on behaviour and knowledge of communities. (iv) Legislative frameworks need to be better monitored and enforced, especially with regard to marketing of breast-milk substitutes and universal salt iodization. (v) Reducing maternal mortality further and reducing the rate of disability amongst children will require enhancing the quality of health services, improving the nutritional status of women and improving the health knowledge and awareness of women. Such health knowledge is required even amongst families in Muscat.

Early Childhood Development (ECD)

Enrolment in ECE. Early childhood education (ECE) is the fastest growing component of the education sector. ECE expansion has been mainly by the private sector, and more recently, by government and non-profit institutions. Gender parity in pre-primary/ECE enrolment has steadily increased and has achieved parity between the enrolment of girls and boys. Despite the progress in ECE, Oman's pre-primary enrolment figures lag behind some other countries in the region. Children of low-income groups, especially in rural areas, still lack access to adequate ECE services. The majority of pre-primary enrolment is in urban areas. Retaining teachers in rural areas is difficult.

Quality and components of services. Oman's ECE services vary widely in institutional set-up and requirements. Information is limited on the quality of services but existing studies indicate the content and quality of services in nurseries to be variable. The extent to which the services for pre-primary children are integrated ECD services (incorporating growth, nutrition and health) is unclear.

Government commitment. ECD and ECE services are particularly important since children in Oman start school relatively late. Therefore, the government is prioritizing ECE with measures to encourage and coordinate the private sector's contribution to ECE expansion through appropriate policies and regulations. At the same time, the Government is making its own efforts to ensure greater access and higher quality.

Demand. The rapid growth in ECE enrolment shows a strong demand, with supply lagging behind. Challenges remain in providing for the significant proportion of Omani children who are of kindergarten age but not attending pre-primary programmes. This is due in large part to the location of most kindergartens, as well as the financial inaccessibility of private kindergartens for low-income families.

Opportunities for action. (i) Increased public investment in ECD will be needed, and not just ECE alone. Government leadership and involvement are essential for ensuring ECD provision on a large scale while still maintaining quality and ensuring access by low-income families. The pace of expansion, the access for the poorer segments of society and the necessary convergence with health and nutrition interventions are beyond the scope of the private sector alone. (ii) Integrated ECD is difficult to implement at the operational level, because of its cross-sectoral and time-intensive nature. Oman therefore needs to start with an already successful nationwide community-based programme, incorporate the additional components needed, and establish a strong central coordination body to set and enforce national ECD norms on all partners. (iii) Special efforts are needed to improve the quality of ECD services, teacher qualifications and competencies, and the learning environment for children. (iv) A systematic and comprehensive analysis is needed to assess gaps in early childhood

services and interventions. (v) Following this analysis, national standards for integrated ECD will need to be adopted and enforced. A national ECD strategy is required to provide focus for the ECD work being implemented by various ministries.

Education

Access. Oman has achieved near-universal primary education with steadily increasing enrolment rates over the past two decades. The progress in secondary education is also impressive, although higher grades require further improvement. Oman has also achieved universal literacy rates amongst young people in the age group 15-24 years. The student-class ratios and student-teacher ratios across all governorates show that Oman's school system and infrastructure have the capacity to absorb additional students, although there are still second-shift schools. Student teacher ratios have fallen from 13 to 10 over the past five years, a decrease attributed to the recruitment of more teachers. Non-Omani students in public schools enjoy the same educational opportunities that are offered free of charge to Omani citizens. Private school enrolment is growing each year.

Intake. The narrowing differences between GER and NER show that the government's efforts to enrol children at the appropriate age are showing results, with the new BE system showing greater progress in this respect than the older GE system. Late enrolment at school appears to be a major cause of the high proportion of over-aged students.

Demand and efficiency. Survival rates to grade 6 have increased by nearly 35 percentage points from 1990 to 2010. Repetition has decreased for lower grades, but shows room for improvement in higher grades. Recent years have seen a decline in dropout rates, although there is still a trend of increasing dropout rates with grade. A study on retention has identified numerous reasons for dropping out, ranging from the teacher's behaviour to social problems. Overall, the promotion rates decline slightly, going from primary to grade 12.

Disparities. Analysis of regional disparities in education is constrained by the unavailability of sufficiently disaggregated data.

Quality and learning outcomes. National assessments indicate learning performance below expectations. The grade 7 assessment, for instance, found that most students did not reach the standard expected by the MoE. Various international assessments (PIRLS and TIMSS) also found learning outcomes in Oman to be inadequate, compared to those in many other countries. Students from urban areas and those belonging to richer households had higher reading scores. Omani children from the richer quintiles generally scored higher in TIMSS than did those from the poorer quintiles, but not always.

Gender parity. Oman as a whole has achieved gender parity for both primary and secondary education. Overall, the gender parity index increases in favour of girls as children progress from grades 1 to 12. Girls have a higher promotion rate than do boys. Literacy rates in the younger groups do not show any gender gap; however, older age groups show a prominent gender gap, with male literacy rates higher than female literacy rates by 20 or more percentage points. International assessments of learning outcomes show significant gender differences. Across all socio-economic groups, girls perform consistently better than do boys in reading, science and mathematics. National assessments also show better promotion rates for girls.

Opportunities for action. (i) To match its tremendous achievements in universalizing education, Oman will need to emphasize education quality. The teaching-learning outcomes will need to improve, for example, by enhancing the pedagogical capacity of teachers, accelerating Oman's ongoing expansion of a child-centred approach in teaching and learning, and increasing the pool of qualified Omani teachers. (ii) The education system will need to improve the employability of young Omanis in the evolving labour market and equip them with skills appropriate for the new knowledge economy. At the same time, the job market needs to have sufficient opportunities that attract well-educated young people. (iii) Studies will need to identify the root causes for the low performance of boys and interventions will be needed to address this issue. (iv) The capacity of the education management information system needs to be strengthened. In particular, the system needs to be able to produce robust data that are disaggregated regionally and by socio-economic group.

Care and protection: children with disabilities

Trends. The prevalence of disability in the Omani population is around 3 per cent. This prevalence is lower than estimates for OECD countries, probably due to differences in classifying disability, weaknesses in identification and reporting systems, and families not wanting to admit having a disabled person in their household. The highest numbers of people with disability are in Muscat and Al Batinah, as these two governorates not only have a high concentration of population, but also greater access to services required for testing and care.

Institutional framework. Oman's institutional framework for people with disability includes the 2008 Law on the Welfare and Care of Persons with Disability and the National Plan for the Care of Children with Disabilities; the latter is still being developed. The Government's policy is

to support and empower persons with disabilities so that they can function as productive members of the society. The 2014 Child Law also promotes the rights of children with disabilities.

Services. Oman has a range of specialized and mainstream services for children with disabilities, according to age and special needs. Most children with disabilities have access to care services, except in those cases where the parents do not wish to reveal the disability of their child. The Ministry of Health (MoH) provides rehabilitation services, primarily physiotherapy following acute conditions. The Education Ministry implements inclusive education for disabled children who are able to fit in with mainstream students in normal schools and special education for those not able to go to normal schools. Most services delivered by NGOs, however, are limited to the major cities and are of variable quality. One major constraint to expansion beyond the major cities is the high cost of specialized services for children with disabilities. The average cost of educating a child with a disability is more than five times that of a non-disabled child.

Prevention of disability. The majority of children and young people with disabilities have been born with the condition. The breakdown of causes show that child disability can be prevented or reduced. The Ministry of Health provides services such as premarital counselling, genetic testing and health screening of couples for prevention and early detection, especially since Oman has a high rate of marriages that are consanguineous. However, such services are poorly utilized. Families need to be more aware of the issues related to the causes of disability, its prevention, treatment and appropriate care at the family and community level.

Opportunities for action. (i) Comprehensive and longitudinal data are needed on child disability and on all services for children with disabilities, integrated in a single database and made available to all Ministries and organizations implementing or overseeing the programmes. (ii) Coordination needs to be improved between the ministries and the various entities, including private entities, delivering services. (iii) Efforts are also needed to strengthen the demand and utilization side, with effective information, education and communication strategies. (iv) Costs are the main barrier to having specialized services for children with disability in remote areas. Therefore, it will be important to strengthen and build up the mainstream health and education services for prevention, identification and referral of disabilities with particular focus on these areas. (v) The rapid expansion of successful inclusive programmes has led to an acute shortage of qualified teachers. Longer-term human resources planning and management will be needed to address this issue.

Care and protection: children affected by HIV/AIDS

HIV/AIDS trends. HIV prevalence in Oman is still low, but is an increasing threat to young people. Children and young people constitute one-quarter of cases ever reported. HIV incidence is on the increase, with the share of girls and women in reported HIV cases on the rise. Muscat and North Batinah account for the largest share of people currently living with HIV; these two governorates also account for the largest share of the country's population.

Government response to HIV/AIDS. The government has strong blood safety policies and effective programmes for the identification, prevention and treatment of HIV and sexually transmitted infections (STIs). Oman has an extensive HIV screening programme, which covers all pregnant women, patients with sexually transmitted infections and/or tuberculosis, blood donors, food handlers, pre-marital and pre-employment screening. All district hospitals in the country provide HIV counselling and other support services. The government conducts information, education and communication activities. HIV-positive patients are treated at 15 different sites spread throughout Oman, including four in Muscat, which all provide free antiretroviral drugs (ARVs). The government provides free testing of HIV viral load and CD4 across Oman.

Oman's PMTCT programme. Oman is likely to achieve the goal of every child born free of HIV, because of its highly successful programme for prevention of mother to child transmission (PMTCT). In 2009, Oman initiated HIV testing and counselling services for all pregnant women. Oman's primary health care system offers optimal circumstances for HIV control. HIV testing and counselling have been integrated into ANC services, which have near-universal coverage. The ANC services thus become the means for early detection and prevention of HIV transmission to children. Once a woman is found to be sero-positive, a strong referral system from primary health facilities to the ART treatment centres kicks in. Trained obstetricians and paediatricians manage the treatment and care of HIV positive mother and child.

Opportunities for action. (i) The greatest challenge to controlling the spread of HIV in Oman is the low knowledge of HIV amongst the general population. Oman therefore needs to combat the stigma associated with HIV and the resulting lack of knowledge and awareness on the epidemic. (ii) There is no systematic data collection among the most at risk populations (MARPs). The HIV data is largely based on mass screening among blood donors, antenatal care clients, premarital and pre-employment screening, in which the MARPs are generally under-represented.

Care and protection: young people and risky lifestyles

Obesity amongst children and youth. Obesity and overweight are associated with stunting in children. For example, Wusta and Musandam have much higher proportions of overweight and obese children than other governorates in Oman, and are also amongst the three governorates with highest levels of stunting. Lifestyle issues may also play a role in obesity amongst Omani young people. Oman has higher rates of obesity than many OECD countries amongst its adults.

Substance use and abuse. Oman has amongst the world's lowest tobacco use rate among adolescents. The rates are below those of other countries in the region as well as those of many OECD countries. Available data on registered drug cases show that those between the ages of 21 to 30 years old are the most affected, although younger ages are also registered. Oman has established a multi-sectoral approach to dealing with substance abuse. Treatment and a range of other services are provided to registered drug users. HIV prevalence amongst registered drug users is much higher than in the general population.

Underlying causes. Violence and problematic relationships may drive young people into depression or undermine their self-esteem. Other lifestyle issues, such as social pressures, depression, violence and boredom drive risky behaviour amongst the young, such as experimenting with psychoactive drugs. Young people need to be encouraged to have wide interests and physical activity to promote a healthy lifestyle.

Care and protection: child protection systems

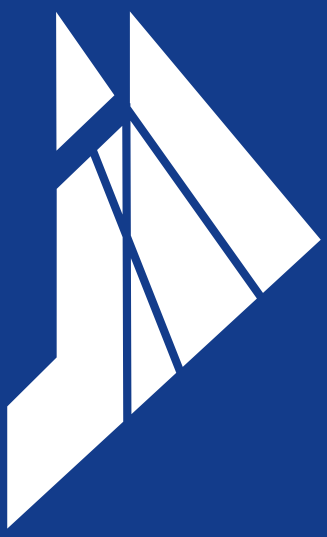
Rationale for the approach. An effective child protection system safeguards children against all forms of abuse, neglect, violence and exploitation. The causes of phenomena such as child abuse, child exploitation and neglect are inter-related at a deeper level. Recognizing these causes and identifying the range of actions involved in protection will require a systems-based approach, rather than an issue-based approach alone that focuses on categories of children. In other words, institutions and systems need to be strengthened to form a continuum of services for children in need of special protection.

Children subject to violence. A significant proportion of children and young people are exposed to violence at school, or from within the community and family. An estimated one-fifth to one-third of schoolchildren reported being subjected to violence in one survey. Challenges include under-reporting on abuse cases, due to inadequate awareness amongst communities and a reluctance to intervene within a family. The MoH has established a reporting and referral system that reaches down to the community level, but this is under-utilized. The 2014 Child Law has made it mandatory for individuals such as health workers and teachers to report on violence, exploitation or abuse of children. It also facilitates the removal of children from situations of violence against them, and Ministerial decision No. 330/2012 makes provisions for a shelter for women and child victims of abuse. The National Committee on Family Affairs has established a telephone service/hotline for complaints and reports, which are then investigated and dealt with by a multi-disciplinary task force. Radio and television broadcasts have tried to educate parents on the harm done by violence against children.

Children without primary care givers. Orphaned children are cared for by the remaining family or members of the extended family, because of Oman's social cohesion. Children of unknown parentage are looked after by the system. Over the years, the system of care has changed to provide the child with a family-like environment. Rejection of children by their foster families, for various reasons, is a risk. The change in the legislative framework (ministerial decree 2013/259) that grants a tribal name to a child of unknown parentage or unknown father will contribute substantially to the social status of these children, as affiliation to a tribe is important in Omani society.

Children in contact with the law. Oman's juvenile justice reform in 2008 was a major step forward, promoting approaches such as alternatives to detention. The age of criminal responsibility remains at 9 years, although if sentenced, the child is not put in prison. It should be noted that the UN Committee on the Rights of the Child recommends raising the minimum age of criminal responsibility to an internationally acceptable level.

Opportunities for action. (i) Oman has many of the components for a good child protection system already in place, in particular, legislative reform and high-level commitment. However, certain legislative and policy gaps will need to be addressed. (ii) The several promising initiatives already being implemented by different Ministries need to be scaled up and strengthened. In this regard, the capacities of institutions and service providers will need further strengthening. (iii) Measures to raise community awareness on domestic abuse will strengthen protection systems. (iv) Better information systems are needed for robust and comprehensive data on child protection. An integrated management information system is needed for the entire child protection system. Such a system should report on all children with special protection needs and be able to do longitudinal tracking.



Acronyms

AGFUND	Arab Gulf Programme for Development
ANC	Antenatal care
ANER	Adjusted net enrolment ratio/rate
ART	Antiretroviral therapy
ARV	Antiretroviral (drugs)
BCG	Bacille Calmette–Guérin vaccine (against tuberculosis)
BEBasic	Education system of Oman
CD4	cluster of differentiation 4, or T-cells
CDC	Centers for Disease Control and Prevention, USA
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CERD	International Convention on the Elimination of All Forms of Racial Discrimination
CRC	Convention on the Rights of the Child
CRC-OP-AC	Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict
CRC-OP-SC	Optional Protocol to the Convention on the Rights of the Child on the sale of children child prostitution and child pornography
CRPD	Convention on the Rights of Persons with Disabilities
DCDSC	Department of Communicable Disease Surveillance & Control, Ministry of Health
DESA	See UN-DESA
ECD	Early Childhood Development
ECE	Early childhood education
EESE	Enabling environment for sustainable enterprises
EFA	Education for All
EIB	European Investment Bank
EPI	Expanded Programme on Immunization
FAO	UN Food and Agricultural Organization
GCC	Gulf Cooperation Council
GE	General Education System of Oman
GER	Gross enrolment ratio
GNI	Gross national income

GSHS	Global School-based Student Health Survey
GYTS	Global Youth Tobacco Survey
HDI	Human Development Index
Hib3	Third dose of Haemophilus influenzae type B vaccine
HIV/AIDS	Human immunodeficiency virus/ acquired immune deficiency syndrome
HRBAP	Human Rights Based Approach to Programming
IACAPAP	International Association for Child and Adolescent Psychiatry and Allied Professions
IDD	Iodine deficiency disorders
IDU	Injecting drug user
IEA	International Association for the Evaluation of Educational Achievement
ILO	International Labour Organization
IMR	Infant mortality rate
IPU	Inter-Parliamentary Union
ISCED	International Standard Classification of Education (UNESCO)
ISESCO	Islamic Educational, Scientific, and Cultural Organization
IYCF	Infant and young child feeding
JMP	Joint Monitoring Programme of UNICEF and WHO
KAP	Knowledge Attitude Practice
KAPB	Knowledge Attitude Practice and Beliefs
LFPR	Labour force participation rate
MARA	Ministry of Awqaf and Religious Affairs
MARP	Most at risk population
MARPOL	International Convention for the Prevention of Pollution from Ships
MCH	Maternal and child health
MDG	Millennium Development Goal
MENA	Middle East and North Africa
MICS	Multi-Indicator Cluster Survey
MMR	Maternal Mortality ratio

MoE	Ministry of Education
MoH	Ministry of Health
MoNE	Ministry of National Economy
MoSD	Ministry of Social Development
MSM	Men having sex with men
MTR	Mid-Term Review
NCHS	National Center for Health Statistics, CDC, USA
NCSI	National Centre for Statistics and Information
NER	Net enrolment rate
NLIS	Nutrition Landscape Information System
OECD	Organisation for Economic Co-operation and Development
PAEW	Public Authority for Electricity and Water
PEM	Protein energy malnutrition
PHC	Primary health care
PIRLS	Progress in International Reading Literacy Study
PMTCT	Prevention of mother to child transmission
RHS	National Reproductive Health Survey
RO	Rial Omani, the national currency unit
RUTF	Ready-to-use therapeutic foods
STI	Sexually transmitted infections
SUD	Substance use disorders
SUN	Scaling Up Nutrition initiative
TB	Tuberculosis
TFR	Total fertility rate
TIMSS	Trends in International Mathematics and Science Study
U5MR	Under-five mortality rate

UAE	United Arab Emirates
UN	United Nations
UN-DESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UN-OHCHR	United Nations Office of the High Commissioner for Human Rights
VCT	Voluntary counselling and testing
VDRL	Venereal disease research laboratory test
WHO	World Health Organization
WHS	World Health Survey

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Notes

Chapter 1. Introduction

1. FAO, 2008.
2. Ministry of Health: Annual Health Reports and Ministry of Education Annual Educational Statistics Books
3. FAO, 2008.
4. UNDP, 2013.
5. The HDI is a composite index based on life expectancy at birth, mean years of schooling and gross national income (GNI) per capita (UNDP, 2013). See http://hdr.undp.org/en/statistics for calculations.
6. UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA Population Division)
7. UNICEF, 2013.
8. Ministry of Education, 2006, cited in UNICEF, 2009.
9. UNICEF, 2013.
10. CMI, World Bank, EIB and ISESCO, 2013.
11. UNICEF defines all those under 18 years as a child. National statistics system and censuses have age groups in 5 year intervals. The age of 24 years is cited here as this is the upper limit for young people/youth defined by various UN agencies (WHO defines adolescents as people aged 10–19 years, youth as those aged 15–24 years, and young people as those aged 10–24 years, while the UN Statistical Division uses the term young people and youth interchangeably for the group 15-24 years). See Tylee et al. (2007), UN (1985), which states, "..the United Nations, for statistical purposes, defines those persons between the ages of 15 and 24 as youth without prejudice to other definitions by Member States"
12. Oman Statistical Yearbook 2013
13. Oman Ministry of Health, 2012. Annual Health Report 2012
14. World Health Survey 2008
15. Recalculated from the Oman Statistical Yearbook 2013.
16. The 2013 definition of high income countries is GNI per capita of $12,616 or more. The gross national income per capita is calculated in current US$, World Bank Atlas method. http://data.worldbank.org/about/country-and-lending-groups
17. World DataBank http://databank.worldbank.org/data/home.aspx
18. Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2005 U.S. dollars.
19. NCSI, 2013. Statistical Yearbook 2013: National Accounts.
20. Oman Ministry of National Economy (MoNE), 2007. Long-term Development Strategy (1996–2020): Vision for Oman's Economy (Oman 2020). Muscat, Oman: MoNE.
21. ILO, 2011.
22. A Knowledge Economy is one in which knowledge is acquired, created, disseminated, and applied to enhance economic development (OECD, 1996; World Bank, 2007)
23. Muscat Daily, 2013.
24. CMI, World Bank, EIB and ISESCO, 2013.
25. ILO, 2010
26. ILO, 2010.
27. General Census of Population, Housing and Establishments 2010.
28. Oman Ministry of National Economy, 2010.
29. Oman National Centre for Statistics and Information, 2013.
30. ILO definition of Labour Force: The labour force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the relative size of the supply of

labour available to engage in the production of goods and services. The labour force participation rate is calculated by expressing the number of persons in the labour force as a percentage of the working-age population. The labour force is the sum of the number of persons employed and the number of unemployed. The working-age population is the population above a certain age – ideally aged 15 and older – prescribed for the measurement of economic characteristics. Available from: http://kilm.ilo.org

31. General Census of Population, Housing and Establishments 2010.
32. ILO, 2011.
33. The unemployment rate is calculated according to ILO definitions: the share of the labour force without work but available for and seeking employment. http://www.ilo.org/ilostat/
34. Youth unemployment refers to the share of the labor force ages 15-24 without work but available for and seeking employment.
35. Household Expenditure and Income Surveys-2006-2011, NCSI
36. ILO, 2011.

Chapter 2. Conceptual framework & methodology

37. UNICEF, 1990.
38. The Millennium Declaration is much broader than the MDGs (which were developed from Chapter III of the Millennium Declaration). The Declaration emphasizes human rights (Chapter V) and Protecting the Vulnerable (Chapter VI) and importantly, humanitarian emergencies. Accordingly, any Rights-based Situation Analysis must use not only the MDGs but also the Millennium Declaration. There is also no emergency or rights perspective in the MDGs.
39. The range of analyses that are recommended are (a) causality analysis (immediate, underlying and structural causes), (b) role pattern analysis (roles of and relationships between various rights holders and duty bearers), (c) capacity gap analysis of key groups and institutions responsible for respecting, protecting and fulfilling the rights of children, and (d) policy environment analysis, which examines socio-economic policy, legal, administrative and budgetary issues which bear on the situation.
40. UNICEF, 2012.

Chapter 3. The overall situation of children and women

41. United Nations Statistical Division.
42. United Nations Statistical Division.
43. WHO 2014c.
44. UNESCO Institute for Statistics (UIS)
45. UNESCO Institute for Statistics (UIS)
46. General Census of Population, Housing and Establishments 2010.
47. Alsalmi, H.S., 2011.
48. Alsalmi, H.S., 2011.
49. Oman Supreme Council for Planning, 2012.
50. Bertelsmann Stiftung, 2012.
51. UNICEF Country Office, Muscat.
52. UN Committee on the Rights of the Child (2006).
53. UN Committee on the Rights of the Child (2006).
54. Reservation of Oman on Article 14 of the CRC: "The Sultanate does not consider itself to be bound by those provisions of Article 14 of the Convention that accord a child the right to choose his or her religion …." (United Nations Treaty Collection, 2014a).
55. United Nations Treaty Collection, 2014b, and UN Committee on the Elimination of Discrimination against Women, 2011.
56. Royal Decree (No. 125/2008) amending the government land entitlement system.
57. UN Committee on the Elimination of Discrimination against Women, 2011.

58. Recalculated from the 2010 census data.
59. UNICEF, 2010b.
60. ILO, 2010.
61. ILO, 2010.
62. Thomson Reuters Foundation, 2013
63. CMI, World Bank, EIB and ISESCO, 2013.
64. A 'State party' to a treaty is a country that has ratified or acceded to that particular treaty, and is therefore legally bound by the provisions in the instrument (UN definition) http://www.unicef.org/crc/files/Definitions.pdf
65. The major conventions that Oman is Party to: Convention on Biological Diversity, United Nations Framework Convention on Climate Change, United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, United Nations Convention on the Law of the Sea (LOS), Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter (London Convention), Montreal Protocol on Substances That Deplete the Ozone Layer, International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997(MARPOL), International Convention for the Regulation of Whaling. Others can be found at the Ministry of Foreign Affairs website http://mofa.gov.om/?cat=117&lang=en
66. Eldridge and Rudd, 2009.
67. The Gini Index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of one (or 100 per cent) implies perfect inequality.
68. Household Expenditure and Income Surveys-2006-2011.
69. 'Accession' is an act by which a State signifies its agreement to be legally bound by the terms of a particular treaty. It has the same legal effect as ratification, but is not preceded by an act of signature. The formal procedure for accession varies according to the national legislative requirements of the State. To accede to a human rights treaty, the appropriate national organ of a State – Parliament, Senate, the Crown, Head of State or Government, or a combination of these – follows its domestic approval procedures and makes a formal decision to be a party to the treaty. Then, the instrument of accession, a formal sealed letter referring to the decision and signed by the State's responsible authority, is prepared and deposited with the United Nations Secretary-General in New York.

    'Ratification' is an act by which a State signifies an agreement to be legally bound by the terms of a particular treaty. To ratify a treaty, the State first signs it and then fulfils its own national legislative requirements. Once the appropriate national organ of the country – Parliament, Senate, the Crown, Head of State or Government, or a combination of these – follows domestic constitutional procedures and makes a formal decision to be a party to the treaty. The instrument of ratification, a formal sealed letter referring to the decision and signed by the State's responsible authority, is then prepared and deposited with the United Nations Secretary-General in New York.

    'Signature' of a treaty is an act by which a State provides a preliminary endorsement of the instrument. Signing does not create a binding legal obligation but does demonstrate the State's intent to examine the treaty domestically and consider ratifying it. While signing does not commit a State to ratification, it does oblige the State to refrain from acts that would defeat or undermine the treaty's objective and purpose.

Source: Introduction to the Convention on the Rights of the Child: Definition of key terms. http://www.unicef.org/crc/files/Definitions.pdf

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Chapter 4. Child Health

70. Child Health Epidemiology Reference Group. These statistics are based on reports by the Ministries of Health from all member countries. The submission format is standardized for comparison across countries. http://cherg.org/projects/underlying_causes.html
71. Ministry of Health, 2012.
72. United Nations inter-agency maternal mortality estimates that were released in late 2010. Periodically, the United Nations Inter-agency Group (WHO, UNICEF, UNFPA and the World Bank) produces internationally comparable sets of maternal mortality data that account for the well-documented problems of under-reporting and misclassification of maternal deaths, including also estimates for countries with no data. Owing to an evolving methodology, these values are not comparable with previously reported MMR 'adjusted' values. Comparable time series

on MMRs for the years 1990, 1995, 2000, 2005 and 2008 are available at http://data.unicef.org/maternal-health/maternal-mortality

73. World Health Organization National Health Account database. Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. http://www.who.int/health-accounts/ghed/en/
74. OECD, 2013.
75. Information extracted from Annual Health Reports provided by the MoH.
76. UNICEF, 2009.
77. Information provided by Oman PAEW for this report.
78. The Majis Industrial Services Company, a government-owned entity, and the Sohar Development Office are responsible for providing various water services in Sohar. In Dhofar Governorate, the Office of the Minister of State and Governor of Dhofar, through the Directorate General of Water & Transport, is responsible for the operation and maintenance of desalination plants and establishment of water networks.
79. Ministry of Health, personal communication, 2014.
80. Recalculated from mid-2012 population in the Statistical Yearbook 2013.
81. National Reproductive Health Survey 2008
82. National Reproductive Health Survey 2008
83. WHO Global TB database
84. Annual Health Report 2012.
85. National Reproductive Health Survey 2008
86. National Reproductive Health Survey 2008
87. Wealth quartiles (rich, upper-middle, lower-middle and poor) were calculated on the basis of per capita expenditure data calculated from the survey's monthly household expenditure. National Reproductive Health Survey 2008, Ministry of Health, Sultanate of Oman.
88. Annual Health Report 2012
89. National Reproductive Health Survey 2008
90. The WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation is tasked with providing estimates that are comparable among countries and across time. Because definitions of "improved" sanitation facilities and drinking-water sources can vary widely among countries, the JMP has established a standard set of categories that are used to analyze national data on which the MDG trends and estimates are based. The population data used are those established by the UN Population Division (World Population Prospects: 2011 Revision). The definitions and data sources used by the JMP are often different from those used by national governments. JMP estimates may therefore differ from national estimates. According to the JMP, an improved drinking-water source is one that, by the nature of its construction, adequately protects the source from outside contamination, particularly faecal matter. An improved sanitation facility is one that hygienically separates human excreta from human contact. "Improved sanitation facilities" do not include shared sanitation facilities even if they are otherwise "improved." For each country, the JMP estimates are based on fitting a regression line to a series of data points from household surveys and censuses.
91. In the JMP water classification, WHO and UNICEF consider the following water sources unimproved or unsafe: unprotected dug well, unprotected spring, surface water (river, dam, lake, pond, stream, canal, irrigation channel), vendor-provided water (cart with small tank/drum, tanker truck), bottled water (bottled water is considered improved only when the household uses another improved source for cooking and personal hygiene), and tanker truck water. The following sanitation facilities are considered to be unimproved or unsafe for health: flush/pour flush to places that are not covered (i.e., piped sewer system, septic tank, pit latrine), pit latrine without slab, bucket, hanging toilet or hanging latrine, and no facilities /open defecation.
92. Falaj is a channel dug in the earth, the source of which is groundwater in the subsoil or valleys. Falaj is a traditional method of extracting water from aquifers in a sustainable way, used by Omanis over the ages to obtain drinking water and water for irrigation. The quality and quantity of water varies – some falaj go deep underground and have water the whole year round; others that are shallower dry up during extended dry periods. The whole system of falaj is called aflaj (Source: Oman Ministry of Tourism).
    The high level of sustainability of this system is proven by the fact that many of the present aflaj are thought to be over 1000 years old yet about 4000 of those still provide a constant flow of water to this day. (Schout, 2013)

93. Data provided by the Oman PAEW, 2014, for this report.
94. Data provided by the Oman PAEW, 2014, for this report
95. Schout, 2013.
96. Hutton, S., 2003
97. Oman PAEW http://www.paew.gov.om/Home
98. PAEW: Water quality surveillance manual.
99. Data provided by the Oman PAEW, 2014, for this report.
100. Annual Health Report, 2012
101. National Reproductive Health Survey 2008
102. WHO Global Survey on Maternal and Perinatal Health Research Group, 2010.
103. Belizán, et al., 2007.
104. WHO Global Survey on Maternal and Perinatal Health Research Group, 2010.
105. National Reproductive Health Survey 2008
106. The unmet need for family planning is the percentage of women of reproductive age, either married or in a union, who are not using any method of contraception, and report not wanting any more children or wanting to delay the birth of their next child (Extract from the meta-data on MDG 5. http://mdgs.un.org/unsd/mi/wiki/5-6-Unmet-need-for-family-planning.ashx).
107. National Reproductive Health Survey 2008
108. National Reproductive Health Survey 2008
109. WHO (2013): MDG 5: improve maternal health. Available at: http://www.who.int/topics/millennium_development_goals/maternal_health/en/ Accessed 20 May 2013

Chapter 5. Nutrition

110. WHO Nutrition Landscape Information System. http://apps.who.int/nutrition/landscape/help.aspx?menu=0&helpid=391&lang=EN
111. ElSayed and Al Shammkhi, 2009. Second PEM Survey
112. Victora, et al., 2008.
113. Black et al., 2013
114. World Bank. 2006.
115. Victora et al., 2010
116. Wamani, et al., 2007
117. Ramli, et al., 2009
118. Hoffman, et al., 2000
119. Hoffman, et al., 2000
120. Hoffman, et al., 2000.
121. G. Becker, 2012
122. G. Becker, 2012
123. UN Committee on the Rights of the Child, 2006.
124. Food Fortification Initiative. Available from: http://www.ffinetwork.org/regional_activity/middle_east.php
125. Locatelli-Rossi, 2008
126. MoH, 2005.
127. Black et al., 2013
128. Black et al., 2013
129. Victora et al., 2010
130. WHO, 2014a.
131. WHO, 2011.
132. Alasfoor et al., 2010

133. Alasfoor et al., 2010
134. Cretzle and Dubas, 1992.
135. Alasfoor et al., 2010
136. de Benoist 2007
137. Ministry of Health, 1996. National Genetic Blood Disorders Survey
138. Padmanabhan et al., 2001.
139. Ministry of Health et al., 2006. National Micronutrient Status and Fortified Food Coverage Survey 2004
140. UNICEF, 2006
141. Locatelli-Rossi, 2008
142. Ministry of Health, 2011 & 2012: Annual Health Reports
143. UNICEF, 2009.
144. Information from the Ministry of Health, August 2014.
145. Ministry of Health, 2005.
146. ElSayed, and Al Shammkhi, 2009. Second PEM Survey
147. Ministry of Health, 2012. Annual Health Report 2012.
148. Copenhagen Consensus, 2012
149. Scaling Up Nutrition, 2014.

Chapter 6. Early Childhood Development

150. UNESCO, 2006.
151. Barnett, 1995.
152. Pelto, et al., 1999
153. Young, 2009.
154. Victora et al., 2010
155. Pelto et al., 1999
156. Pelto et al., 1999
157. Pelto et al., 1999
158. Barnett, 1995.
159. Pelto et al., 1999
160. Young, 2009.
161. Ministry of Education data for this report.
162. Growth rate calculated from UNESCO statistics due to lack of other data on enrolment ratios for both public and private ECE. This is faster than the annual growth rate of 6.7 per cent given by Abu Taleb, 2013.
163. However, preprimary enrolment data is missing for the period 1999 to 2006, and 2010.
164. UNESCO Institute for Statistics
165. Ministry of Education and World Bank, 2012.
166. UNESCO Institute for Statistics
167. Abu Taleb, 2013.
168. Ministry of Education and World Bank, 2012.
169. Ministry of Education and World Bank, 2012.
170. Barnett, 1995..
171. Abu Taleb, 2013.
172. UNESCO, 2009.
173. Abdellatif., L., 2010
174. Al-Ameel, 2008.

175. Abu Taleb, 2013.
176. Kathem, et al., 2009a and 2009b
177. Kathem, et al., 2009c.
178. Ministry of Education and World Bank, 2012.
179. Ministry of Education and World Bank, 2012.
180. Calculated from UNESCO statistics for numbers of children enrolled in pre-primary education, public and private, all programmes.
181. Al-Suwaiegh, 2010.
182. Ministry of Education and World Bank, 2012.
183. Abu Taleb, 2013

Chapter 7. Education

184. The statistics used for this chapter come mainly from the Ministry of Education's Annual Educational Statistics Books, 2012/13 and 2011/12 and the Ministry of Education's Educational Indicators, 2010/11 and 2011/12.
185. Some children of primary school age might enter primary school early and advance to secondary school before they reach the official upper age limit of primary education. Calculation of the NER does not include those children, underestimating the number of children who actually receive a full course of primary education. To overcome this limitation, an adjusted net enrolment rate in primary education can be calculated as the number of children of official primary school age who are enrolled either in primary or secondary education expressed as a percentage of the total population of children of official primary school age (UNESCO definition).
186. General Census of Population, Housing and Establishments 2010.
187. UNESCO Institute of Statistics (before 2006)
188. Data provided by Ministry of Education
189. Ministry of Education and World Bank, 2012.
190. UNESCO Institute of Statistics
191. OECD 2013a.
192. UNESCO Institute of Statistics
193. UNESCO Institute of Statistics
194. Ministry of Education and World Bank, 2012.
195. OECD 2013a.
196. Ministry of Education, 2012. Educational Indicators 2011/12
197. Ministry of Education and World Bank, 2012.
198. Annual Educational Statistics Book, 2012/13
199. Data from Ministry of Education for this report
200. Ministry of Education, 2012. Educational Indicators 2011/12
201. Educational Indicators, 2011/12
202. Educational Indicators, 2010/11 and 2011/12
203. Educational Indicators, 2010/11 and 2011/12
204. To obtain the full picture of whether students are enrolled at the officially defined ages, the difference between GER and NER is required, rather than the difference between GER and ANER.
205. Educational Indicators, 2011/12
206. Educational Indicators, 2010/11 and 2011/12
207. Educational Indicators, 2010/11 and 2011/12
208. Recalculated from the Census 2010
209. Educational Indicators, 2010/11 and 2011/12 and UIS for earlier years.
210. MoE and NCSI: personal communication
211. Educational Indicators, 2010/11 and 2011/12

212. Educational Indicators, 2010/11 and 2011/12
213. Hamed and Hassan, 2012.
214. Promotion rate: This indicator is calculated by dividing number of students newly enrolled in a certain grade by number of those who were enrolled in the previous grade for the previous year (UNESCO and MoE definitions are similar). It Measures the efficiency of the educational system. The greater the number of students promoted, the more efficient the system.
215. Calculated from Educational Indicators, 2011/12
216. Educational Indicators, 2011/12
217. Ministry of Education and World Bank, 2012.
218. Ministry of Education and World Bank, 2012.
219. Ministry of Education, 2013. Educational Indicators 2012/13
220. The Progress in International Reading Literacy Study (PIRLS) is an international study of reading achievement in fourth graders. It is conducted by the International Association for the Evaluation of Educational Achievement (IEA).
221. The Trends in International Mathematics and Science Study (TIMSS) is an educational research study on student achievement in mathematics and science around the world. TIMSS is also established by the International Association for the Evaluation of Educational Achievement (IEA).
222. Subnational disparities for Oman in PIRLS and TIMSS are given at: World Inequality Database on Education (WIDE) by the EFA Global Monitoring Report, UNESCO.
223. World Inequality Database on Education (WIDE) by the EFA Global Monitoring Report, UNESCO. http://www.education-inequalities.org/countries/oman#?dimension=all&group=all&year=latest
224. Ministry of Education and World Bank, 2012
225. Provided by the Ministry of Education.
226. UNESCO Institute for Statistics. Gross enrolment ratio. Tertiary (ISCED 5 and 6). This is the enrolment in tertiary education (ISCED 5 and 6), regardless of age, expressed as a percentage of the total relevant population (male/female) of the five-year age group following on from secondary school leaving.
227. Oman Ministry of National Economy, 2008. Manpower Survey, and Al-Farsi, 2012.
228. Ministry of Education and World Bank, 2012

Chapter 8. Care and protection

229. General Census of Population, Housing and Establishments 2010.
230. UN Department of Economic and Social Affairs. Human functioning and disability.
231. European Agency for Development in Special Needs Education
232. ALDagheishi, H., 2011.
233. Washington Group on Disability Statistics
234. ALDagheishi, H., 2011.
235. UNICEF, 2010a
236. Information from Ministry of Social Development, 26-27 March 2014 meeting held between the Government of Oman and UNICEF, preparatory to the MTR of the Cooperation Programme between the Government of Oman and UNICEF (2012 – 2015).
237. UNICEF, 2010a
238. UNICEF, 2010a
239. Kazem and Youssef, 2010.
240. Ministry of Social Development, 2005.
241. General Census of Population, Housing and Establishments 2010.
242. From the above reports, Education Statistics Annuals and interviews with concerned officials, over 3,500 children/young people with disabilities are estimated to be receiving services from the following institutions or programmes:
    i. The Early Intervention Centre in Muscat
    ii. The Association for the Care of Disabled Children, with its base in Muscat and six centres throughout the country

iii. The Home for the Care of Disabled Children in Muscat
iv. Al Khawd Training Centre for the Disabled
v. Al Wafa voluntary social centres, with 17 centres in various regions of the country.
vi. Schools that provide Special Education for children with disability;
vii. Inclusive schools that cater for children with disability who can integrate with other children.

243. UNICEF, 2010a
244. Kazem, and Youssef, 2010.
245. Kazem, and Youssef, 2010.
246. Kazem, and Youssef, 2010.
247. Sheridan et al., 2013.
248. National Reproductive Health Survey 2008
249. National Reproductive Health Survey 2008
250. Kazem, and Youssef, 2010.
251. Kazem, and Youssef, 2010.
252. Data provided by DCDSC, Ministry of Health, April 2014 for this report.
253. El-Kak, 2011
254. Mid-2012 population, Statistical Yearbook 2013, NCSI.
255. National AIDS Programme 2012b.
256. National AIDS Programme 2012b.
257. El-Kak, 2011.
258. WHO, 2013b
259. Data provided by DCDSC, Ministry of Health, April 2014 for this report.
260. Those screened for HIV include:
    - expatriates seeking employment of residency in Oman; this mainly includes foreign labour migrants;
    - blood donors;
    - ANC clients;
    - TB and STI patients;
    - Pre-employment screening (nationals and expatriates)
    - Pre-marital screening
    - Food handlers (mainly expatriates)
    - Patients admitted to hospitals for invasive procedures and organ transplants
    - Prisons and those arrested by the police
    - Others, including army recruits and staff, scholarships etc. Source: National AIDS Programme, 2012a

    Source: National AIDS Programme, 2012a
261. National AIDS Programme, 2012a
262. National AIDS Programme 2012b.
263. Jaffer et al., 2001. KAP Survey of Secondary School Students
264. Abdou, et al., 2010. KAPB Survey on Lifestyle among Students in Higher Education Institutes 2008
265. National AIDS Programme 2012b.
266. National AIDS Programme, 2012a
267. National AIDS Programme, 2012a
268. National Reproductive Health Survey 2008
269. World Health Survey 2008
270. Ministry of Health 2012 Annual Health Report,
271. World Health Survey 2008
272. Ministry of Health Annual Health Report 2012

273. National Committee for Narcotics and Psychotropic Substances, Sultanate of Oman, 2012.
274. National Committee for Narcotics and Psychotropic Substances, Sultanate of Oman, 2012
275. WHO, 2013c. Tobacco Free Initiative
276. Al-Sharbati, et al., 2014.
277. West, 2011.
278. AbdEl-aziz et al., 2003. Global Youth Tobacco Survey
279. West, 2011
280. Abdou, et al., 2010. KAPB Survey on Lifestyle among Students in Higher Education Institutes 2008
281. Jaffer et al., 2001. KAP Survey of Secondary School Students
282. Abdou, et al., 2010. KAPB Survey on Lifestyle among Students in Higher Education Institutes 2008
283. Jaffer et al., 2001. KAP Survey of Secondary School Students
284. West, 2011
285. WHO, 2010a.
286. Hoffman, et al., 2000.
287. WHO, 2014b.
288. Afifi et al, 2006.
289. Afifi et al, 2006.
290. Abdou, et al., 2010. KAPB Survey on Lifestyle among Students in Higher Education Institutes 2008.
291. Al-Muzahmi, S. and Abdou, S. A.H., 2005. Oman Global School-based Student Health Survey 2005
292. Afifi et al, 2006.
293. UNICEF, 2010a.
294. Landgren, 2005.
295. Wulczyn et al., 2010.
296. UNICEF, 2010a.
297. UNICEF, 2010a.
298. UNICEF, 2010a.
299. UNICEF, 2010a.

SITUATION ANALYSIS OF CHILDREN AND WOMEN IN THE SULTANATE OF OMAN

A Rights-based Equity-Focused

المركز الوطني للإحصاء والمعلومات
تعزيز المعرفة
سلطنة عُمان

NATIONAL CENTRE FOR STATISTICS & INFORMATION
Enhancing Knowledge
SULTANATE OF OMAN

A Rights-based Equity-Focused

SITUATION ANALYSIS OF CHILDREN AND WOMEN IN THE SULTANATE OF OMAN

The Sultanate of Oman and UNICEF
Muscat, 01 April 2017