# Nutrition country profile

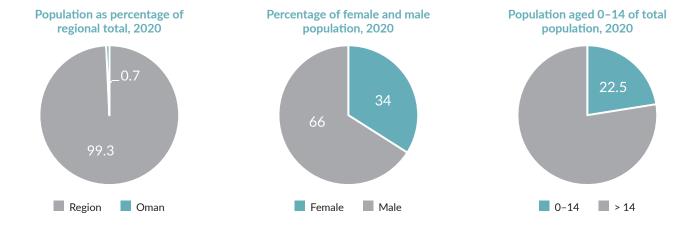
# Oman

REGIONAL OFFICE FOR THE Eastern Mediterranean

World Health

# Demographics

5 1	World Bank	Ministry of Health
Total population (2020)	5 106 622	4 602 777
Ratio of female to male in the population (2020)	66:34	102 males/100 females
Population aged 0–14 as percentage of total population (2020)	22.5	38.4
Life expectancy at birth (years) female/male (2019)/(2020)	80/76	78.3/73.6
Under-5 mortality rate (per 1000 live births) (2019)/(2020)	11	9.3
Gross domestic product per capita (current US\$) (2019)/(2020)	15 343	14 064

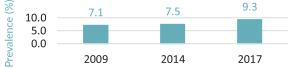


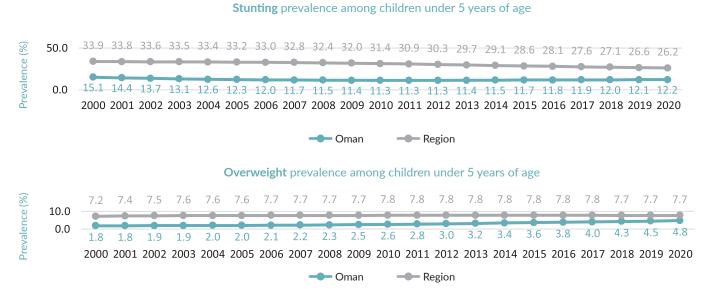
Source: The World Bank, Ministry of Health of Oman.

## **Child malnutrition**

According to the WHO Global Health Observatory, the prevalence of wasting in children under five in Oman increased from 7.1% in 2009 to 9.3% in 2017. The prevalence of stunting has decreased from 15.1% to 12.2% over the past two decades. During the same period, the prevalence of overweight in children under five has increased from 1.8% to 4.8%.







Source: WHO Global Health Observatory.

<sup>1</sup> Annual Health Report 2020. Muscat: Ministry of Health; 2020 (in Arabic and English) (https://www.moh.gov.om/documents/274609/6240456/ MOH+Annual+Report+2020/6d94c352-6a53-1e35-5e9a-f6fb5c8577d4, accessed 14 July 2022).

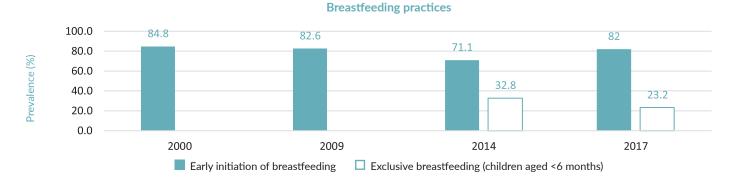


Note: The UNICEF/WHO/WB joint child malnutrition estimates for stunting and overweight are modelled at logit (log-odds) scale using a penalized longitudinal mixed-model with a heterogeneous error term. The country modelled estimates are generated using the JME country dataset, which uses the collection of national data sources. Due to this method, estimates may differ from official estimates of Member States (i.e., the stunting prevalence from a household survey for a given country in a given year is not reported as the prevalence for that country in that year; rather, it feeds into the modelled estimates). The methodology is described here: https://www.who.int/publications/i/item/9789240025257. Wasting is defined as a percent weight-forheight that is two or more standard deviations below the median. Stunting is defined as a percent height-for-age that is two or more standard deviations below the median.

According to the Oman National Nutrition Survey  $2017^2$ , the prevalence of stunting in children under five (% height-for-age <-2 SD) was 11.4% and the prevalence of overweight in children under five (% weight-for-height >+2 SD) was 4.2% in 2017.

## Infant and young child feeding

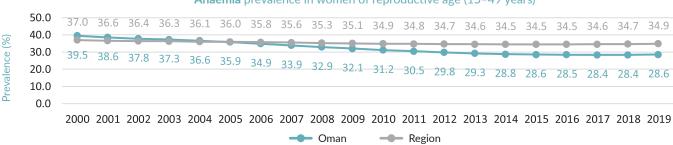
The prevalence of early initiation of breastfeeding (within one hour of birth) in Oman remained relatively steady between the years 2000 and 2017. The prevalence of exclusive breastfeeding decreased from 32.8% in 2014 to 23.2% in 2017.



Sources: UNICEF.

## Anaemia in women of reproductive age

The prevalence of anaemia in women of reproductive age (pregnant and non-pregnant women combined) decreased from 37.8% in 2000 to 29.1% in 2019.



### Anaemia prevalence in women of reproductive age (15–49 years)

Source: WHO Global Health Observatory.

Note: The WHO global anaemia estimates are derived from a hierarchical Bayesian mixture model that uses all available data to make estimates for each country and year. In the model, estimates for each country are informed by data from that country itself, if available, and by data from other countries, especially those in the same region. Due to this method, the estimates may differ from official estimates of Member States. The methodology is described here: https://cdn.who.int/media/docs/default-source/anaemia-in-women-and-children/hb-methods-for-gather.pdf?sfvrsn=da0fbb5f\_11 and here https:// pubmed.ncbi.nlm.nih.gov/25103581/.

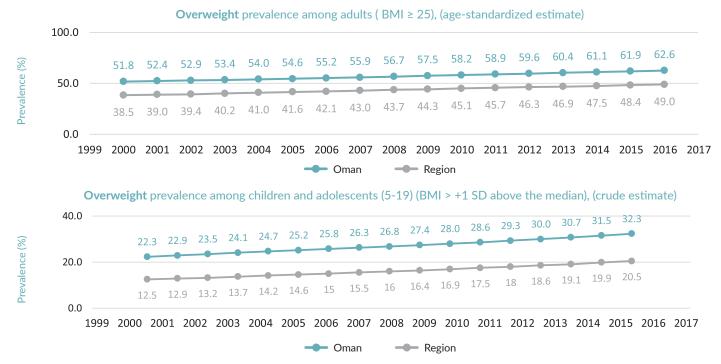
<sup>&</sup>lt;sup>2</sup> Oman National Nutrition Survey. Muscat: Ministry of Health; 2017 (https://groundworkhealth.org/wp-content/uploads/2020/04/ONNS\_Report\_2017.pdf, accessed

<sup>14</sup> July 2022).



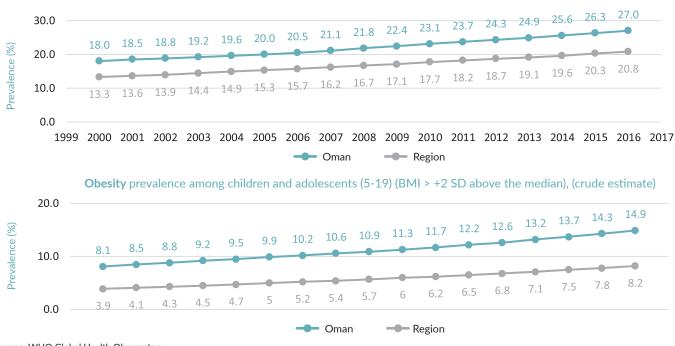
### Overweight and obesity

An increase (from 60.6 to 69.6%) in the prevalence of overweight among adults in Jordan has been recorded between the years 2000 to 2016. Also, the prevalence of overweight among children and adolescents aged 5–19 significantly rose from 22.8% in 2000 to 31% in 2016.



BMI = body mass index. (Overweight in adults is defined as a BMI of 25 or greater, and in children and adolescents as a BMI one or more standard deviations above the median. Obesity in adults is defined as a BMI of 30 or greater, and in children and adolescents as a BMI two or more standard deviations above the median.)

Obesity is the reported risk factor responsible for the greatest total number of disability-adjusted life years (DALYs) in Oman in 2019.<sup>3</sup> The prevalence of obesity among adults increased from 18% to 27% between 2000 and 2016. Similarly, the prevalence of obesity among children and adolescents aged 5–19 significantly increased between 2000 and 2016 from 8.1% to 14.9%.



**Obesity** prevalence among adults (BMI  $\geq$  30), (age-standardized estimate)

Sources: WHO Global Health Observatory.

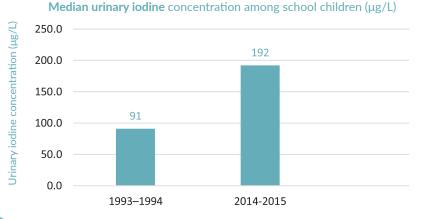
<sup>3</sup> Country profiles [website]. Seattle, WA: Institute for Health Metrics and Evaluation, University of Washington; 2021 (https://www.healthdata.org/results/country-profiles, accessed 11 July 2022).



Note: The WHO estimates for overweight and obesity are derived from a Bayesian hierarchical model that uses NCD-RisC database of population-based data. The model has a hierarchical structure in which estimates for each country and year are informed by its own data, if available, and by data from other years in the same country and from other countries, especially those in the same region with data for similar time periods. Due to this method, the estimates may differ from official estimates of Member States. The methodology is described here: https://pubmed.ncbi.nlm.nih.gov/29029897/.

### **Micronutrient status**

In 2017, the prevalence of vitamin A deficiency (serum retinol <0.70  $\mu$ mol/L) in Oman was 9.5% among preschool age children (children aged 6–59 months).<sup>4</sup> Conversely, the iodine intake in Oman rose to sufficient levels (defined as 100–299  $\mu$ g/L) after the Government decided to ban the import of non-iodized salt; the estimated median urinary iodine concentration among school children has markedly upregulated from 91  $\mu$ g/L in 1993–1994 to 192  $\mu$ g/L in 2014-2015.<sup>5, 6</sup>



Source: WHO Micronutrients Database. Vitamin and Mineral Nutrition Information System.

# Nutrition policies and strategies

### Key national programmes

Key national programmes		Date
Development of national nutrition strategy or action plan <sup>a, b</sup>	$\checkmark$	For 2020-2030
Plan of action for obesity prevention <sup>c, d</sup>	$\checkmark$	Since 2016
Strategy or plan of action on infant and young child feeding <sup>d</sup>	$\checkmark$	Since 2005
Code of marketing of breast milk substitutes <sup>a, e, f</sup>	$\checkmark$	Since 1998
Child growth monitoring <sup>c, d</sup>	$\checkmark$	Since 2005
School feeding programme <sup>e, f</sup>	$\checkmark$	Since 1996

School	feeding	programme <sup>e</sup>	s, I

Policies	Policy to reduce salt/sodium consumption <sup>a, d, g</sup>	Tax on sugar sweetened beverages <sup>h, i</sup>	Policy to limit trans-fatty acid intake <sup>b, j</sup>	Policy to reduce the impact of marketing of food to children <sup>c, d</sup>	Policy on salt iodization <sup>d, k</sup>	Front-of-pack nutrition labelling for food	Wheat flour fortification <sup>a, d, l</sup>
	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	2019 Mandatory	2019	2016	2008	1996 Mandatory		1996 Mandatory

 $\checkmark$  =Policy/programme implemented  $\checkmark$  =Policy/programme not implemented

<sup>a</sup> Policies in Oman: In: Global database on the Implementation of Nutrition Action [website]. Geneva: World Health Organization; 2022 (https://extranet.who.int/nutrition/gina/en/policies/1499, accessed 13 July 2022).

<sup>b</sup> Health Launches National Nutrition Strategy. Muscat: Ministry of Health; 2021 (https://www.moh.gov.om/en/-/--1678, accessed 13 July 2022).

<sup>c</sup> Programmes in Oman: In: Global database on the Implementation of Nutrition Action [website]. Geneva: World Health Organization; 2022 (https:// extranet.who.int/nutrition/gina/en/programmes/1499, accessed 6 July 2022).

<sup>d</sup> Global nutrition policy review 2016-2017: country progress in creating enabling policy environments for promoting healthy diets and nutrition. Geneva: World Health Organization; 2018 (https://www.who.int/publications/i/item/9789241514873, accessed 13 July 2022).

<sup>e</sup> Al Jawaldeh A, Sayed G. Implementation of the International Code of Marketing of Breastmilk Substitutes in the Eastern Mediterranean Region. East Mediterr Health J. 2018(1):25–32. doi:10.26719/2018.24.1.25.

<sup>f</sup> Marketing of breast milk substitutes: national implementation of the international code, status report 2020. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/9789240006010, accessed 6 July 2022).

<sup>g</sup> Al-Jawaldeh A A, et al. Salt reduction initiatives in the Eastern Mediterranean Region and evaluation of progress towards the 2025 Global Target: A systematic review. Nutrients. 2021;13(8):2676. doi:10.3390/nu13082676.

<sup>4</sup> Saad F, Rogers L, Doggui R, Al-Jawaldeh A. Assessment of vitamin A supplementation practices in countries of the Eastern Mediterranean Region: Evidence to Implementation. J Nutr Sci Vitaminol (Tokyo); 2021;67(1):1-12. doi:10.3177/jnsv.67.1.

<sup>5</sup> Doggui R, Al-Jawaldeh H, Al-Jawaldeh A. Trend of iodine status in the Eastern Mediterranean Region and impact of the universal salt iodization programs: a narrative review. Biol Trace Elem Res. 2020; 198, 390–402. doi.org/10.1007/s12011-020-02083-1.

<sup>6</sup> Global Scorecard of Iodine Nutrition 2014–2015, Ottawa: Iodine Global Network; 2015 (https://www.ign.org/cm\_data/Scorecard\_2015\_August\_26\_new\_intake.pdf, accessed 6 July 2022).



<sup>h</sup> Al-Jawaldeh A and Megally R. Impact evaluation of soft drink taxes as part of nutrition policies in Gulf Cooperation Council countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates [version 2; peer review: 1 approved, 1 not approved]. F1000Research 2021, 9:1287 doi:10.12688/ f1000research.27097.2.

<sup>1</sup> Al-Jawaldeh A, Hammerich A, Doggui R, Engesveen K, Lang K, McColl K. Implementation of WHO recommended policies and interventions on healthy diet in the countries of the Eastern Mediterranean Region: From policy to action. Nutrients; 2020;12(12):3700. doi:10.3390/nu12123700.

<sup>j</sup> Al-Jawaldeh A et al. A systematic review of trans fat reduction initiatives in the Eastern Mediterranean Region. Front Nutr. 2021;8:771492. doi:10.3389/ fnut.2021.771492.

<sup>k</sup> Doggui R, Al-Jawaldeh H, Al-Jawaldeh A. Trend of iodine status in the Eastern Mediterranean Region and impact of the universal salt iodization programs: a narrative review. Biol Trace Elem Res. 2020; 198, 390–402. doi.org/10.1007/s12011-020-02083-1.

<sup>1</sup>Al-Jawaldeh A. E. The regional assessment of the implementation of wheat flour fortification in the Eastern Mediterranean Region. Int J Sci Res Manag. 2019; 7(03), 28–37. doi:10.18535/ijsrm/v6i3.ft01.

### **Success stories**

#### Promoting sustainable food systems for nutrition in Oman

In Oman, a country that is faced with the double burden of malnutrition (i.e. the coexistence of overnutrition, in the form of overweight and obesity, with undernutrition, in the form of stunting and wasting), the Ministry of Health is working with other ministries and partners on a food system approach to promote sustainable food systems and healthy nutrition. The approach includes increasing local production and consumption of fruits, vegetables and fish, while also tackling issues such as sustainability and employment. Land has been allocated to citizens for the small-scale production of fruits and vegetables, using technological solutions to ensure production is nutrient and water efficient, and the creation of home and school gardens is being supported.

#### Success with wheat flour fortification in Oman

The fortification of wheat flour has been mandatory in Oman since 1996, and this has been associated with a reduction in the occurrence of spina bifida in the country. Spina bifida is a neurological anomaly (neural tube defect) associated with poor folate status in women before and during pregnancy. Strategies to improve the folate status of women of reproductive age include dietary diversification, provision of folate supplements and food fortification with folic acid. All flour produced in Oman is produced in industrial mills, and the programme of fortification with iron and folic acid covers 89% of the flour in the country. The annual incidence of spina bifida fluctuated between 2.34 and 4.03 per 1000 deliveries between 1991 and 1996 but fell sharply in 1997 to 2.11 per 1000 deliveries and the downward trend has continued, reaching 0.29 in 2006.

#### Political support to reinforce compliance with the International Code in health facilities

The Minister of Health of Oman personally boosted the implementation of the Omani Code of Marketing of Breast-milk Substitutes by gathering together the Directors of Health from all provinces in the Sultanate and advising them not to establish links between breast-milk substitute manufacturers or distributors and health facilities.

#### Launch of the National Nutrition Strategy

Oman has made considerable success in reducing the prevalence of various forms of malnutrition in the last decades. The National Nutrition survey conducted in 2017 provided a series of recommendations to improve the nutrition situation. To take these recommendations forward, and to implement the recommendations of the food system approach report (2019), a National Nutrition Strategy and framework of action for the period 2020–2030 was launched in December 2021. This strategy is based on multisectoral collaboration between all concerned stakeholders from ministries and international organizations. To guide the implementation of the national strategy, the framework of action is in line with the agreed Regional strategy on nutrition 2020–2030. Oman has strengthened action on nutrition to achieve food security, end all forms of malnutrition and improve nutrition throughout the life course by 2030.

#### Salt reduction in bread

The nutrition department has introduced a salt reduction plan to the community through targeting the amount of salt in bread as it is one of the most consumed foods in the community. The use of salt in bread has been gradually reduced in some of the bakeries in Oman since 2016, firstly by 10%, then 20% and in some cases a 30% reduction has been made. This was achieved through collaborative work with Ministry of Commerce, Industry and Investment Promotion and the Ministry of Interior. The Omani standard for bread was issued in May 2019 by the Ministry of Commerce, Industry and Investment Promotion and it requires the percentage of salt in bread not exceed 0.5% for Arabic bread and 1% for other types. This standard is obligatory for all bakeries.

Ministry of Health Website: https://www.moh.gov.om/en/

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