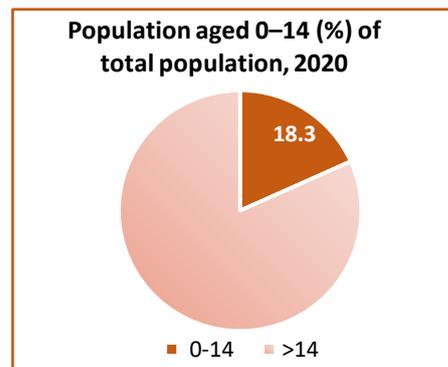
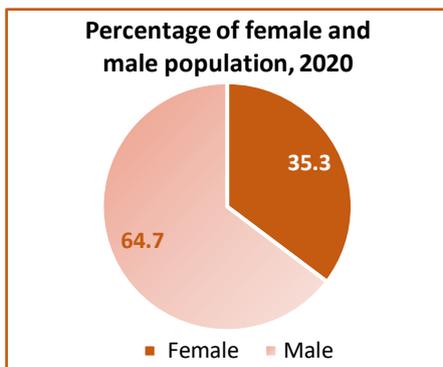
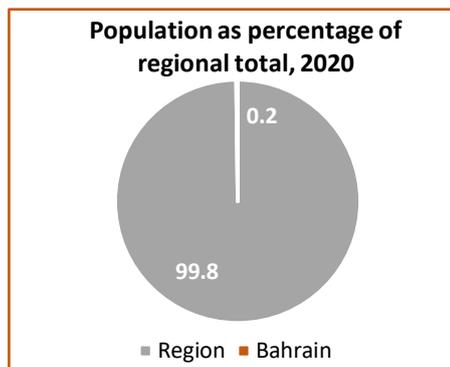


NUTRITION COUNTRY PROFILE

BAHRAIN

DEMOGRAPHICS

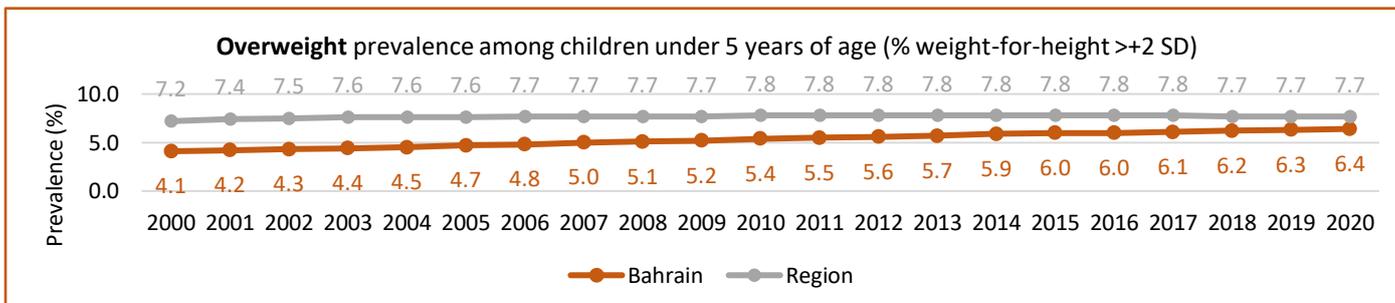
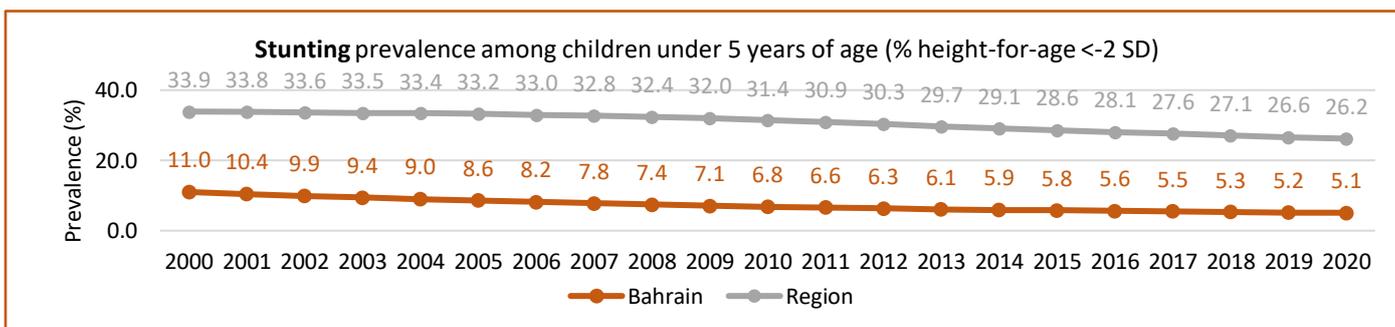
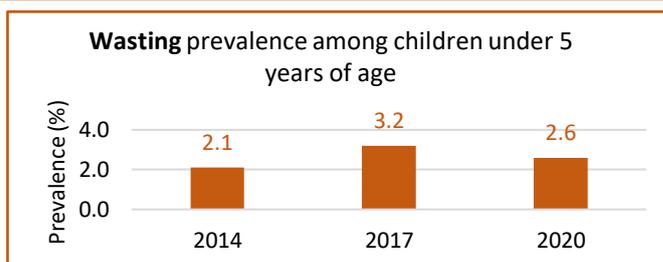
| | |
|---|-----------|
| Total population (2020) | 1 701 583 |
| Life expectancy at birth (years) female/male (2019) | 78/76 |
| Under-5 mortality rate (per 1000 live births) (2019) | 7 |
| Gross domestic product per capita (current US\$) (2019) | 23 443.4 |



Source: The World Bank.

CHILD MALNUTRITION

The prevalence of wasting in children under five in Bahrain has remained relatively low in recent years. In 2020, the wasting rate was 2.6%. The prevalence of stunting decreased from 11.0% to 5.1% over the past two decades, remaining significantly lower than the regional average. During the same period, the prevalence of overweight in children under 5 in Bahrain increased from 4.1% to 6.4%.

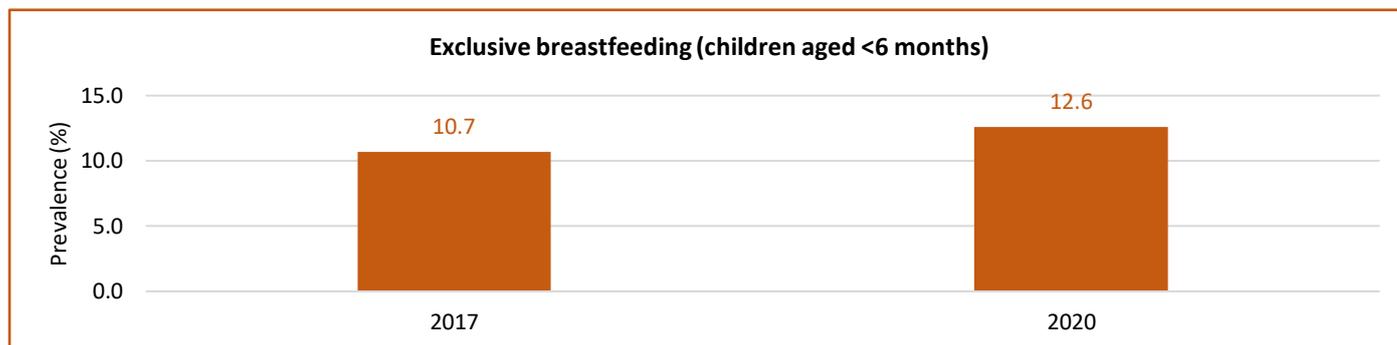


Sources: WHO Eastern Mediterranean Regional Health Observatory; WHO Global Health Observatory.

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-for-height 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. Overweight is defined as a percent weight-for-height that is two or more standard deviations above the median.

INFANT AND YOUNG CHILD FEEDING

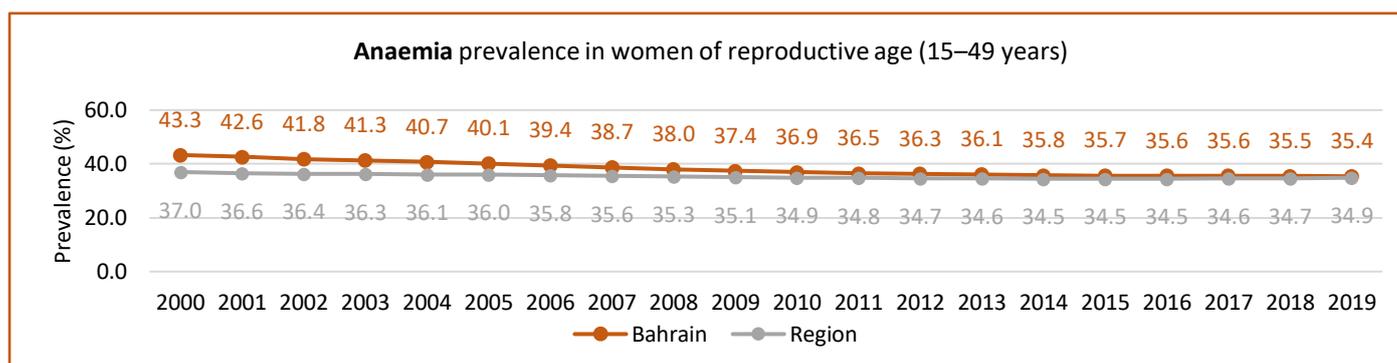
The prevalence of exclusive breastfeeding in children under six months of age in Bahrain increased slightly from 10.7% in 2017 to 12.6% in 2020.



Source: WHO Eastern Mediterranean Regional Health Observatory.

ANAEMIA IN WOMEN OF REPRODUCTIVE AGE

The prevalence of anaemia in women of reproductive age (pregnant and non-pregnant women combined) decreased from 43.3% in 2000 to 35.4% in 2019.

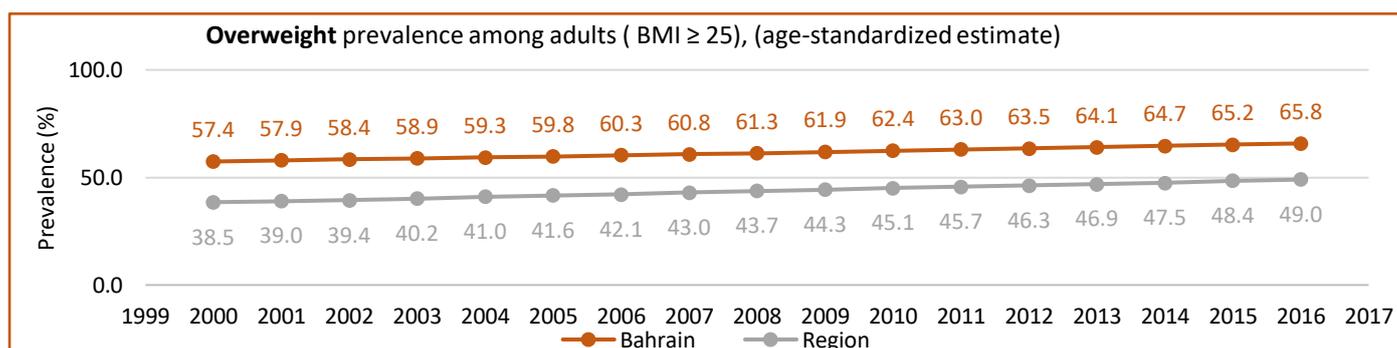


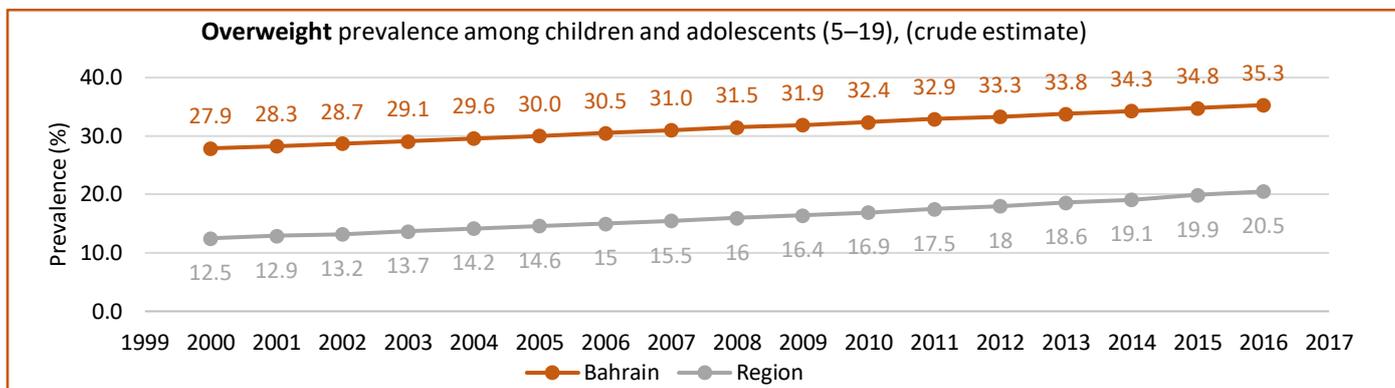
Source: WHO Global Health Observatory.

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/>.

OVERWEIGHT AND OBESITY

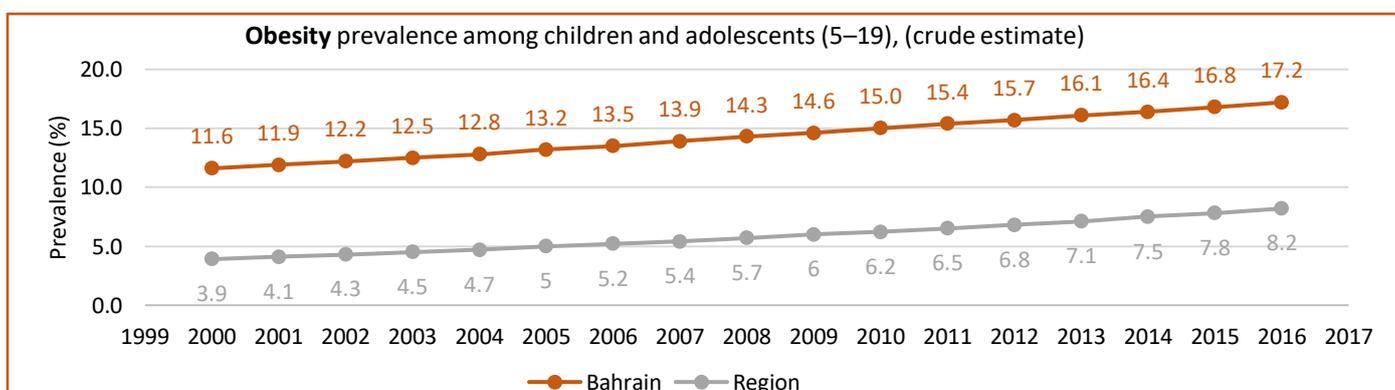
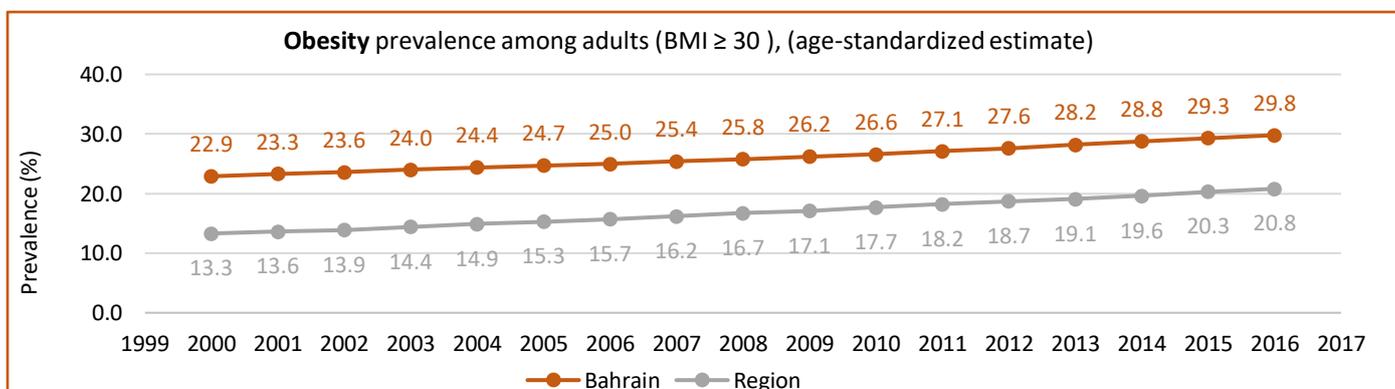
A significant increase in the prevalence of overweight among adults in Bahrain was recorded between 2000 and 2016 (from 57.4% to 65.8%). Also, the prevalence of overweight among children and adolescents aged 5–19 has risen from 27.9% in 2000 to 35.3% in 2016.





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 Bahrain in 2019.¹ The prevalence of obesity increased from 22.9% to 29.8% between 2000 and 2016. Similarly, the prevalence of obesity among children and adolescents aged 5–19 significantly increased between 2000 and 2016, from 11.6% to 17.2%.



Source: WHO Global Health Observatory; Institute for Health Metrics and Evaluation.

Note: The WHO estimates for overweight and obesity are derived from a Bayesian hierarchical model which 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/>.

Overweight and obesity according to the National Health Survey (2018)

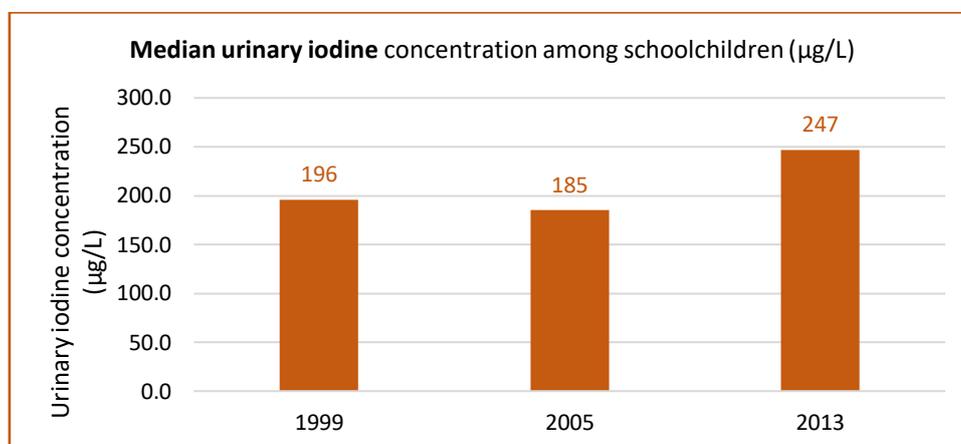
Data from the National Health Survey conducted in Bahrain 2018 revealed the prevalence of overweight (BMI ≥ 25-29.9) among adults to be 35.5% and that of obesity (BMI ≥ 30) to be 36.9%.

Source: Ministry of Health of Bahrain.

¹ 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).

MICRONUTRIENT STATUS

Iodine intake – determined by median urinary iodine concentration (UIC) – among school children in Bahrain was 196 µg/L in 1999, also an optimal iodine intake was recorded in 2005² (defined as 100-299 µg/L) when median UIC was 185 µg/L. In 2013, the median UIC was 247 µg/L.³



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

NUTRITION POLICIES AND STRATEGIES

| Key national programmes | | Date |
|--|---|--------------|
| Development of national nutrition strategy or action plan ^a | ✓ | 1995 |
| Plan of action for obesity prevention ^b | ✓ | Updated 2015 |
| Strategy or plan of action on infant and young child feeding ^{b, c} | ✓ | |
| Code of marketing of breast milk substitutes ^{d, e} | ✓ | Updated 2018 |
| Child growth monitoring ^{b, c, d} | ✓ | |
| School feeding programme ^b | ✓ | |

| Policies | Policy to reduce salt/sodium consumption ^{a, b, f} | Tax on sugar sweetened beverages ^{f, g} | Policy to limit trans-fatty acid intake ^{b, h} | Policy to reduce the impact of marketing of food to children ^{f, h} | Policy on salt iodization ⁱ | Front-of-pack Nutrition labelling for food | Wheat flour fortification ^{a, j} |
|----------|---|--|---|--|--|--|---|
| | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ |
| | 2018 | 2017 | 2016 | | 1994 | | 2003 Mandatory |

² 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:10.1007/s12011-020-02083-1.

³ 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).

| | | | | | | | |
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| | | | | | | | |
|--|--|--|--|--|--|--|--|

✓ =Policy/programme implemented x = Policy/programme not implemented

^a Policies in Bahrain: In: Global database on the Implementation of Nutrition Action [website]. Geneva: World Health Organization; 2022 (<https://extranet.who.int/nutrition/gina/en/policies/1380>, accessed 6 July 2022).

^b Programmes in Bahrain: In: Global database on the Implementation of Nutrition Action [website]. Geneva: World Health Organization; 2022 (<https://extranet.who.int/nutrition/gina/en/programmes/1380>, accessed 6 July 2022).

^c Global nutrition policy review 2009-2010: Maternal, infant and young child nutrition. Geneva: World Health Organization; 2010.

^c 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 6 July 2022).

^d 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.

^e 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 June 2022).

^f 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.

^g 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.

^h 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.

ⁱ 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:10.1007/s12011-020-02083-1.

^j 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/ijstrm/v6i3.ft01.

SUCCESS STORIES

Regulating marketing of breast-milk substitutes in Bahrain

Bahrain adopted an Emiri Decree concerning control on the use, marketing and promotion of breast-milk substitutes in 1995. The measures fully implement the provisions of the International Code of Marketing of Breast-milk Substitutes. A ministerial resolution was issued to reinforce the existing Decree and provide enforcement powers in 2018. The Nutrition Section Staff have been granted administrative powers to activate their monitoring role. National community support for breastfeeding and monitoring the implementation of the Decree No. 4/1995 and Resolution 7/2018 has been reformed by a ministerial decision.

Regulating the handling and marketing of energy drinks in Bahrain

In 2009, the Gulf Cooperation Council (GCC) Standardization Organization developed a technical regulation entitled recommendation of handling energy drinks, adopted by Bahrain in 2010, which specifies ingredients and labelling requirements. Bahrain imposed a 100% excise tax on energy drinks in 2017 to encourage individuals to stop consuming these drinks and in 2021 it placed more restrictions on the handling and marketing of these drinks to children under the age of 18, on their sale in restaurants, school canteens, health facilities and educational establishments, and on the necessity for them to be licensed by the competent authority before being marketed.

Eliminating trans-fats in Bahrain

Many bakeries in Bahrain voluntarily started to replace trans-fats with healthier fat alternatives in 2014. In 2015, Bahrain laid out a national strategy for reducing the consumption of trans-fats and saturated fats. The strategy included action plans and implementation steps to reduce the saturated fat content in the food supply. In 2016, the use of trans-fats in the food industry and local eateries was limited using recommendations provided by Bahrain's Ministry of Health. These included guidelines and some tips on trans-fat elimination. Restricting the maximum trans-fat content to 2% of the total oil or fat, and in other foods to 5% of the total fat content, including in ingredients sold to restaurants, was accomplished through developing the GSO 2483 standard in 2016. Awareness raising was performed through large media campaigns about sources of trans-fats, healthier alternatives and the association of trans-fats with noncommunicable diseases. Additionally, to facilitate the elimination of trans-fats and associated legal regulations, intensive workshops for food suppliers were conducted in 2019. In 2020, the Ministry of Health started to monitor the implementation of the trans-fat declaration on product labels.

Improving the nutritional quality of school canteen foods in Bahrain

In 2016, nutrition for school-aged children was designated a priority in Bahrain. A multisectoral higher-level committee released a healthy meal menu guideline based on WHO standards that included healthy preparation methods, lowering salt, sugar and trans-fat levels, and a list of foods to avoid in school canteens. Several training workshops were conducted in 2019 for food vendors on general dietary needs and healthy cooking techniques. Random visits to school canteens were made to analyse the foods and beverages served there. From 2022, all food providers were expected to follow the rules and will face penalties if they do not.

Flour fortification programme in Bahrain

The Ministry of Health of Bahrain launched a national programme to fortify flour with iron and folic acid in 2001. It was launched to prevent and control iron deficiency and anaemia among all age groups, especially women of reproductive age and children. In 2002, legislation to fortify flour with 60 ppm iron and 1.5 ppm folic acid was issued by the Ministry of Commerce and Industry. The Bahrain Flour Mills Company has complied with the legislation. Since 2001, the Ministry of Health has been regularly monitoring and evaluating the fortification programme by sampling and conducting laboratory analyses. The programme has had a positive impact on anaemia prevalence among all age groups. Over the past 18 years, the prevalence of anaemia among women of reproductive age has decreased from 51.3% to 35.4%. In 9-month-olds, it has decreased from 58.2% to 41%. In addition, the prevalence of neural tube defects has decreased from 25 per 10 000 live births in 2000 to < 5 per 10 000 live births in 2010.

Salt reduction in Bahrain

Bahrain was one of the first countries in the Region to implement policies on salt reduction, in compliance with WHO recommendations. The initial situation regarding salt intake among the population and salt levels in bread samples was mapped in 2013–2014. In 2015, a committee on the reduction of salt, sugar, and fat was established by the Nutrition Section in the Ministry of Health in cooperation with the Government and private sector. A ministerial resolution to reduce the amount of salt to a target of 5 g of salt per 1 kg of flour (equivalent to 0.5%) in traditional and European-style bakery products was issued by the Ministry of Health at the end of 2018. A monitoring mechanism was established, the latest results of which show that 14.6% of the examined samples reached the target and 49% almost reached the target, while in the previous assessment only 5.5% of the samples reached the target and 43.3% almost reached the target. An even greater commitment is being pursued, and therefore bakeries have been actively informed about the current salt target.

Tackling obesity: the identification, evaluation and treatment of obesity and overweight in adults and adolescents

In 2008, the first nutrition clinic was established within the existing primary health care facilities of the Ministry of Health as a response to the notable rise in obesity and overweight that was recorded in Bahrain in 2007, and by the year 2018, the Ministry of Health had established a total of five nutrition centres covering all regions. The nutrition centres are managed by the Nutrition Section, part of the Public Health Directorate of the Ministry of Health. The results of the 2018 Bahrain census revealed that 72.4% of citizens above 18 years of age from both genders are overweight or obese. Additionally, 14.7% citizens have type 2 diabetes, 33.6% have hypertension and 28% have cardiovascular diseases.

The increase in obese children and adolescents is well-known and results from the modern lifestyle that is characterized by lack of physical activity and over-consumption of fast foods. As a result, the Nutrition Section opened its nutrition clinics to children and harnessed all available capabilities and equipment in its centralized clinics spread across all governorates; this project was a direct result of the efforts put forth by the nutrition clinics

The nutrition clinics aim to: reduce and control the incidence of obesity and overweight; reduce the incidence of diseases connected to obesity such as cardiovascular diseases, atherosclerosis, diabetes, blood pressure and some cancers; increase the level of nutritional awareness among patients attending the nutrition clinics; improve incorrect nutritional behaviours and move towards correct nutritional behaviours among citizens; identify optimal daily serving sizes for most types of foods consumed in Bahraini society.

Designing healthy eating and lifestyle patterns by establishing Bahraini food-based dietary guidelines

In 2020, a WHO consultation visited Bahrain and discussed the procedure of establishing food-based dietary guidelines with the Nutrition Section of the Public Health Directorate of the Ministry of Health. The initial drafts of the food-based dietary guidelines aimed to help citizens and residents of Bahrain to adopt healthy eating habits and lifestyles using modern, scientific and facilitated approaches. The key nutritional and healthy messages have been tested, identified and formulated in Bahraini slang. These messages emphasize maintaining a healthy weight, increasing physical activity, eating a balanced diet, eating more fruit and

vegetables, switching to healthier animal proteins, drinking low-fat milk, choosing vegetarian alternatives to red and processed meat, paying attention to salt and sugar intakes, staying hydrated, considering safe food production, decreasing food waste and eating homemade foods.

Ministry of Health website: <https://www.moh.gov.bh/Services/Nutrition?lang=en>

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