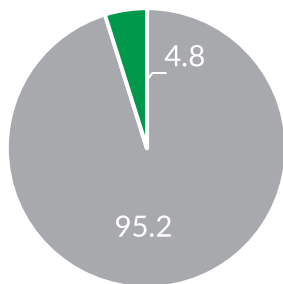


Saudi Arabia

Demographics

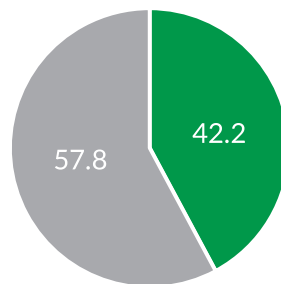
Total population (2019)	34 813 867
Life expectancy at birth (years) female/male (2019)	77/74
Under-5 mortality rate (per 1000 live births) (2020)	7
Gross domestic product per capita (current US\$) (2020)	20 110.3

Population as percentage of regional total, 2020



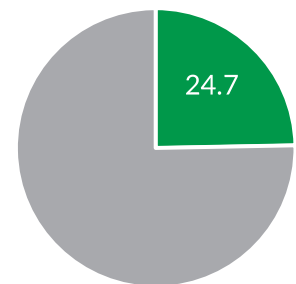
■ Region ■ Saudi Arabia

Percentage of female and male population, 2020



■ Female ■ Male

Population aged 0-14 of total population, 2020



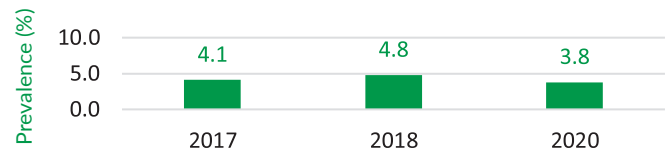
■ 0-14 ■ > 14

Source: The World Bank

Child malnutrition

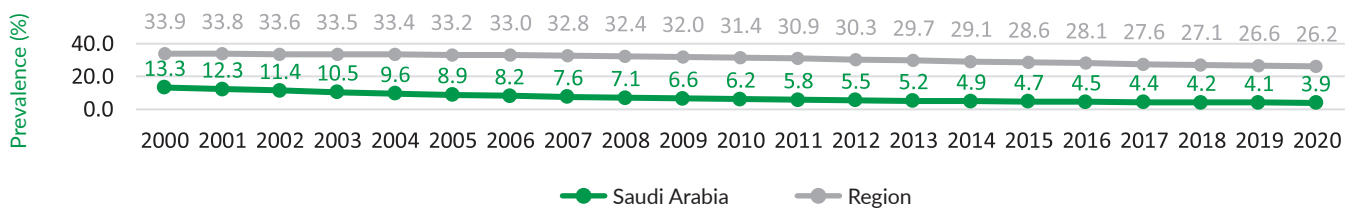
The most recent estimate for the prevalence of wasting in children under five in Saudi Arabia was 3.8% in 2020. The prevalence of stunting has decreased from 13.3% to 3.9% over the past two decades. Over the same period, the prevalence of overweight in children under five has increased from 3.1% to 7.6%, approaching the regional average.

Wasting prevalence among children under 5 years of age



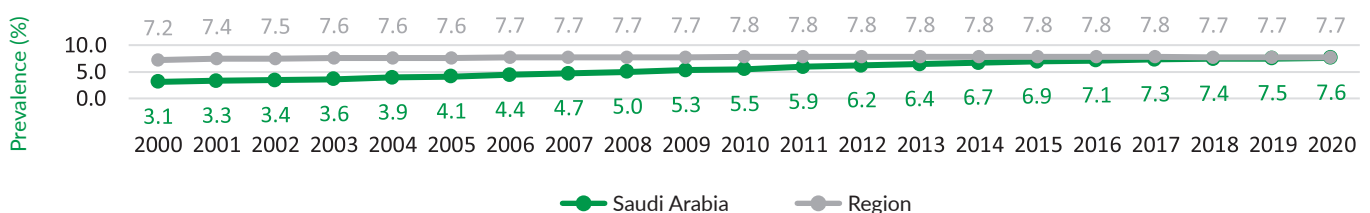
Source: WHO Eastern Mediterranean Regional Health Observatory.

Stunting prevalence among children under 5 years of age



● Saudi Arabia ● Region

Overweight prevalence among children under 5 years of age



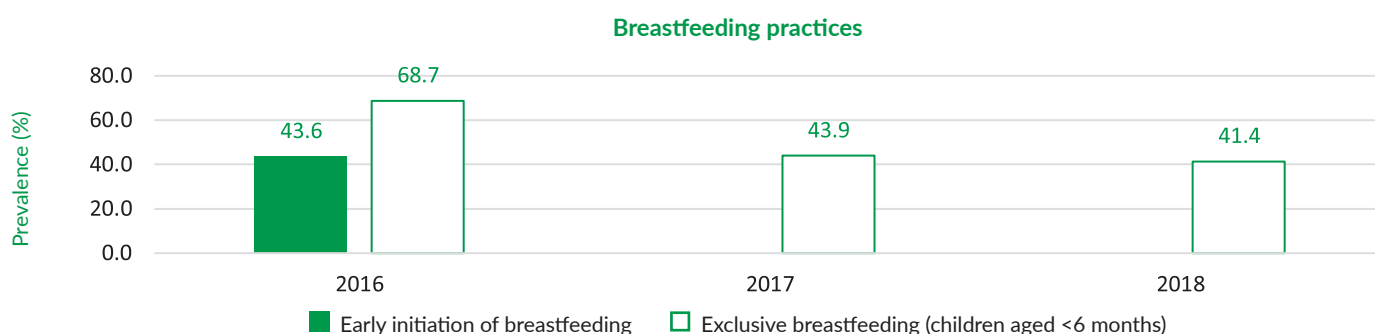
● Saudi Arabia ● Region

Source: 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

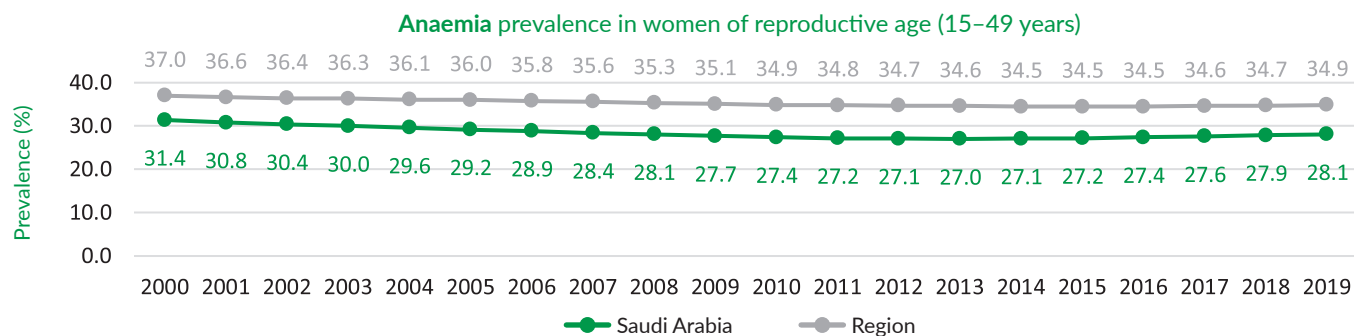
The prevalence of early initiation of breastfeeding in Saudi Arabia was 43.6% in 2016.¹ The prevalence of exclusive breastfeeding decreased from 68.7% in 2016 to 41.4% in 2018.²



Sources: WHO Eastern Mediterranean Regional Health Observatory, Ahmed et al.

Anaemia in women of reproductive age

The prevalence of anaemia in women of reproductive age (pregnant and non-pregnant women combined) decreased from 31.7% in 2000 to 27.5% 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/>.

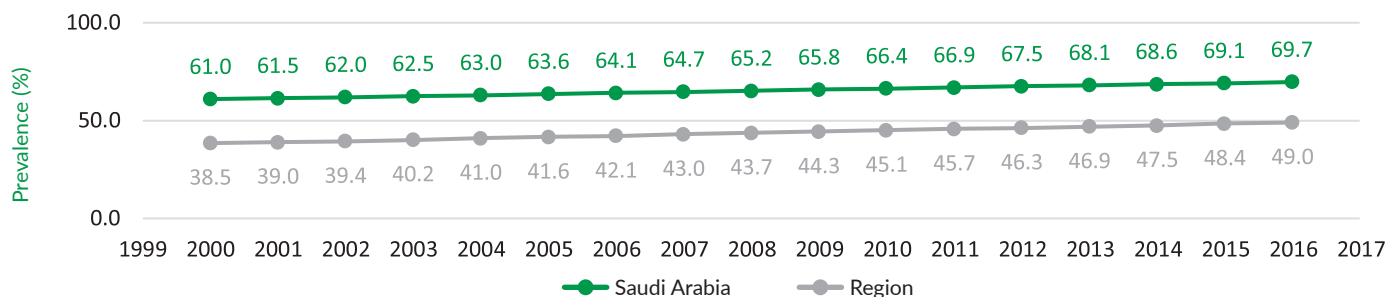
Overweight and obesity

A significant increase in the prevalence of overweight among adults in Saudi Arabia was recorded between the years 2000 and 2016 (from 61% to 69.7%). Also, the prevalence of overweight among children and adolescents aged 5–19 rose from 25.1% in 2000 to 35.6% in 2016.

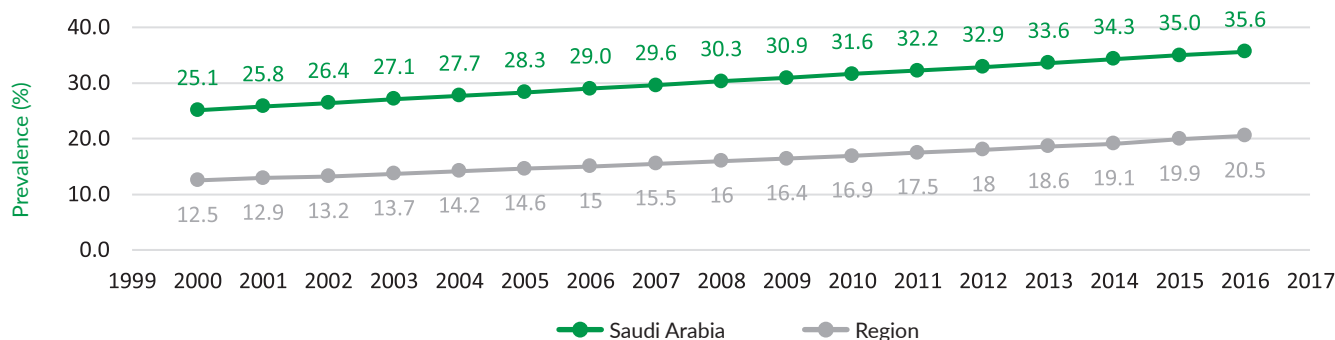
¹ Ahmed AE, Salih OA. Determinants of the early initiation of breastfeeding in the Kingdom of Saudi Arabia. *Int Breastfeed J.*; 2019;14:13. doi:10.1186/s13006-019-0207-z.

² WHO Eastern Mediterranean Regional Health Observatory. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022 (<https://rho.emro.who.int/index.php/Indicator/TermID/30>, accessed 18 July 2022).

Overweight prevalence among adults, (age-standardized estimate)



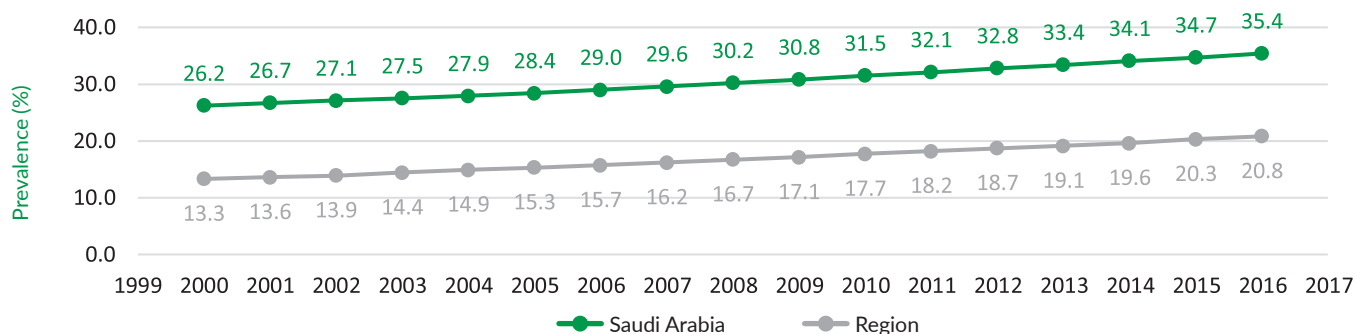
Overweight prevalence among children and adolescents (5–19), (crude estimate)



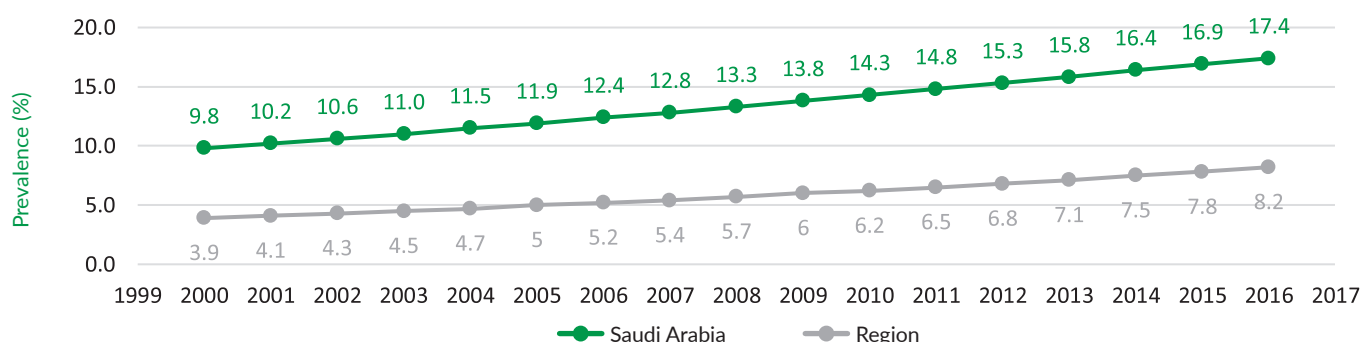
BMI = body mass index. (Overweight in adults is defined as a BMI of 25 or greater, and in children and adolescents as a BMI one or more standard deviations above the median. Obesity in adults is defined as a BMI of 30 or greater, and in children and adolescents as a BMI two or more standard deviations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

Obesity is the reported risk factor responsible for the greatest total number of disability-adjusted life years (DALYs) in Saudi Arabia in 2019.³ The prevalence of obesity increased from 26.2% to 35.4% between 2000 and 2016. Similarly, the prevalence of obesity among children and adolescents aged 5–19 significantly increased between 2000 and 2016 from 9.8% to 17.4%.

Obesity prevalence among adults (age-standardized estimate)



Obesity prevalence among children and adolescents (5–19), (crude estimate)



Source: The Global Observatory, Institute for Health Metrics and Evaluation.

³ 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, 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/>.

Micronutrient status

Iodine intake in Saudi Arabia determined by median urinary iodine concentration (UIC) is adequate (defined as 100–299 µg/L)⁴ as the estimated median UIC among school children was recorded as 133 µg/L in 2012.⁵

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	✓	For 2014–2025
Plan of action for obesity prevention ^{b, c}	✓	Updated 2015
Strategy or plan of action on infant and young child feeding ^{b, c}	✓	Updated 2020
Code of marketing of breast milk substitutes ^{a, c, d}	✓	Updated 2021
Child growth monitoring ^{b, c}	✓	Since 1990
School feeding programme ^{b, c}	✓	Updated 2020

Policies	Policy to reduce salt/sodium consumption ^{a, c, f}	Tax on sugar sweetened beverages ^{a, b, c, g}	Policy to limit trans-fatty acid intake ^{a, b, c, h}	Policy to reduce the impact of marketing of food to children ^{b, c}	Policy on salt iodization ^{c, i}	Front-of-pack nutrition labelling for food ^{a, c, j}	Wheat flour fortification ^{b, c, k}
	✓	✓	✓	✓	✓	✓	✓
	Updated 2021	2017–2019	2017–2020		Updated 2018	Updated 2018	Updated 2021

✓ =Policy/programme implemented ✗ =Policy/programme not implemented

^a Policies in Saudi Arabia: In: Global database on the Implementation of Nutrition Action [website]. Geneva: World Health Organization; 2022 (<https://extranet.who.int/nutrition/gina/en/policies/1585>, accessed 16 July 2022).

^b Programmes in Saudi Arabia: In: Global database on the Implementation of Nutrition Action [website]. Geneva: World Health Organization; 2022 (<https://extranet.who.int/nutrition/gina/en/programmes/1585>, accessed 16 July 2022).

^c WHO Eastern Mediterranean Regional Office database in collaboration with Saudi Food and Drug Authority (SFDA)

^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.

^f Al-Jawaldeh AA, 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.

^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, Rayner M, Julia C, Elmadfa I, Hammerich A, McColl K. Improving nutrition information in the Eastern Mediterranean Region: Implementation of front-of-pack nutrition labelling. Nutrients; 2020;12(2):330. doi:10.3390/nu12020330

^k 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/ijrsm/v6i3.ft01.

⁴ 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.

⁵ 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).

Success stories

Impact of carbonated and energy drink taxes in Saudi Arabia

Saudi Arabia levies a 50% tax on carbonated drinks and a 100% tax on energy drinks. These taxes were adopted for Gulf Cooperation Council countries in 2016 and Saudi Arabia became the first to implement the measure in June 2017. In addition, a 5% value added tax was added to the beverage tax in 2018. Since December 2019, a 50% tax has also been applied to other sugary drinks. Carbonated drink prices increased by 67% and annual purchases, in volume per capita, of carbonated and energy drinks reduced by 41% and 58%, respectively, in 2018 compared with 2016.⁶

Healthy food strategy

In 2013, the Saudi national health informatics survey conducted by the Ministry of Health revealed that almost 59.4% of the population are overweight (BMI \geq 25), and 28.7% of them are obese (BMI \geq 30)⁷. NCDs account accounted for 73% of total mortality (WHO, 2018). Therefore, in line with Saudi Arabia's vision for 2030 and in light of the WHO recommendations, the SFDA in collaboration with other governmental sectors has launched a Healthy Food Strategy in order to tackle the prevalence of NCDs. In 2017, regular multisectoral meetings resulted in a country roadmap to tackle the prevalence of NCDs. The SFDA has started working on different initiatives in order to promote public health, by setting different nutrition policies to reduce the amount of sugar, salt and fats in all food products. These policies include: (1) the labelling of food products, juices, nectar and fruit drinks; (2) the reduction of salt in food products by setting limits of salt for many food categories; (3) setting a limit of 1 g salt per 100 g in bread; (4) banning the use of partially hydrogenated oils (PHOs) in food manufacturing.

Furthermore, SFDA has enacted many nutritional policies for food establishments to enable consumers to select healthier choices when dining out, including: (1) Requiring calorie counts and allergens to be displayed on the menus of all food service establishments. (2) Requiring nutrition information and juice composition to be displayed in all food and drink service establishments.

Several educational campaigns have been launched by the SFDA, as a part of the healthy food strategy, to promote healthy diets to consumers. Measures included a voluntary pledge by the food industry as part of which 11 food companies have signed a voluntary commitment with the SFDA to reduce the amount of sugar, salt and fat in their food products on a yearly basis; an initiative to promote public health in the workplace in order to improve the nutritional status of the Saudi population; an initiative entitled My Fitness, My Meal which encourages food establishments (restaurants, cafes, etc.) to create a simple meal plan (600 calories for breakfast, 600 calories for lunch and 600 calories for dinner).⁸

Progress with trans-fatty acids

The use of trans-fat is a major public health risks, with consequences such as cardiovascular diseases, obesity and high blood pressure. This issue has become a matter of great concern in Saudi Arabia, and therefore a number of nutrition policies have been issued to prohibit its use in food products. The SFDA set up a four-phase legislative framework, which would ultimately prevent the use of PHOs in in food manufacturing. Phase 1 started in 2015; the SFDA issued trans-fat (TFA) labelling, which was implemented in September 2016. During phase 2, the SFDA has set limits of TFAs at 2% in fats and oils and 5% in other food products. These limits took effect in 2017. After a few months of implementation, the SFDA started collecting samples of prepackaged foods from different markets across the country to assess the compliance rate with the new regulation at the national level. The sampling report showed a high level of compliance (94.7%). This motivated the SFDA to collaborate with the private sector and sign a voluntary pledge to encourage the food industry to reformulate their food products with lower amounts of TFA (less than 1% of the product). Phase four was started by banning the use of PHOs from 1 January 2020. This made Saudi Arabia the 14th country in the world and the first in the Region to enforce this type of legislation. SFDA aspires to be a leading control authority at the international level, relying on science- and evidence-based methods to enhance public health.^{8, 9}

⁶ Alsukait R, Wilde P, Bleich S, Singh G, Folta S. Impact of Saudi Arabia's Sugary Drink Tax on Prices and Purchases (P10-066-19). *Curr Dev Nutr*. 2019;3(Suppl 1):nzz034.P10-066-19. doi: 10.1093/cdn/nzz034.P10-066-19.

⁷ Survey of Health Information in the kingdom of Saudi Arabia. Saudi Arabia: Ministry of Health; 2013 (<https://www.moh.gov.sa/Ministry/Statistics/Documents/Final%20book.pdf>).

⁸ Bin Sunaid FF, Al-Jawaldeh A, Almutairi MW, et al. Saudi Arabia's Healthy Food Strategy: Progress & Hurdles in the 2030 Road. *Nutrients*. 2021;13(7):2130. Published 2021 Jun 22. doi:10.3390/nu13072130.

⁹ Bin Sunaid FF, Al-Jawaldeh A, Almutairi MW, et al. Saudi Arabia's Healthy Food Strategy: Progress & Hurdles in the 2030 Road. *Nutrients*. 2021;13(7):2130. Published 2021 Jun 22. doi:10.3390/nu13072130.

Ministry of Health Website: <https://www.moh.gov.sa/en/Pages/default.aspx>

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