
Maternal, infant and young child nutrition

Comprehensive implementation plan on maternal, infant and young child nutrition: biennial report

Report by the Director-General

1. The report describes the progress made in carrying out the comprehensive implementation plan on maternal, infant and young child nutrition endorsed by the Health Assembly in resolution WHA65.6 (2012). It also provides information on the status of national measures to give effect to the International Code of Marketing of Breast-milk Substitutes, adopted in resolution WHA34.22 (1981) and updated through subsequent related Health Assembly resolutions, and describes the progress made in drawing up technical guidance on ending the inappropriate promotion of foods for infants and young children, as welcomed with appreciation by the Health Assembly in resolution WHA69.9 (2016).

PROGRESS MADE IN CARRYING OUT THE COMPREHENSIVE IMPLEMENTATION PLAN ON MATERNAL, INFANT AND YOUNG CHILD NUTRITION

2. **Global target 1 (stunting).** In 2012, a total of 174 million stunted children aged under 5 years worldwide were starting their lives at a disadvantage for growing to their full potential. By 2020, the total was 149 million, more than half of whom lived in Asia and two out of five in Africa.¹ In 2020, of the 155 countries with sufficient recent data to estimate progress, 53 were on track to reach the global target of 40% reduction in the number of stunted children by 2025 and 74 presented some progress towards that target.

3. **Global target 2 (anaemia).** New updates from 2019 on anaemia in women of reproductive age show that nearly one in three (29.9%) women of reproductive age globally were still affected by anaemia and no progress has been made since 2012 (28.5%). This translates to 571 million anaemic women worldwide. Wide variations exist between regions, with the prevalence in Africa being nearly three times higher than that in North America and Europe. The prevalence is particularly high in west Africa, at 51.8%, with little progress since 2012 (52.9%).

¹ United Nations Children's Fund (UNICEF), World Health Organization, International Bank for Reconstruction and Development/The World Bank. Levels and trends in child malnutrition: key findings of the 2021 edition of the joint child malnutrition estimates. Geneva: World Health Organization; 2021. (<https://apps.who.int/iris/handle/10665/341135>, accessed 15 November 2021).

4. **Global target 3 (low birth weight).** Between 2000 and 2015, WHO and UNICEF, together with academic institutions, updated the global, regional and national estimates of low birth weight.¹ One in seven live births, or 20.5 million (14.6%) babies globally, suffered from low birthweight in 2015, a slight decrease from 15.0% in 2012. Progress is slow, with an average annual reduction of only 1% in the period from 2010 to 2015, as opposed to the 2.74% required since 2012 to reach the ambitious target of a 30% reduction by 2025.

5. **Global target 4 (overweight).** By 2020, there were an estimated 39 million overweight children under the age of 5 years in the world, almost half of whom lived in Asia and more than one quarter in Africa. There has been a modest increase at the global level in two decades – 5.7% of all under-5-year-olds in 2020 compared with 5.4% in 2000. The increase has been persistent both in terms of prevalence and absolute numbers: there were 5.6 million more overweight children aged under 5 years in 2020 than in 2000.

6. **Global target 5 (exclusive breastfeeding).** Globally, 44% of infants under six months of age were exclusively breastfed in 2020 – up from 37% in 2012. Oceania (excluding Australia and New Zealand) demonstrated the highest levels of exclusive breastfeeding: 61.3%. More than two in five infants under six months of age in Africa (44.4%) and Asia (45.0%) were exclusively breastfed in 2020, compared with only one in three infants in North America (25.8%). Based on the latest survey estimates for the period 2014–2020, 48 countries have exclusive breastfeeding rates higher than the 50% target and 87 countries have rates below it. Of 96 countries with sufficient data to estimate current trends, 35 are on track to reach the proposed target by 2025, 28 present insufficient progress and 33 present no improvement or are worsening.

7. **Global target 6 (wasting).** In 2020, there were an estimated 45.4 million children aged under 5 years with wasting, of whom 13.6 million had severe wasting. Of these children, 70% lived in Asia and 27% in Africa. Worldwide, of the 100 countries with recent data, 57 have already reached or are on track to meet the 2025 target of reducing childhood wasting rates to below 5%, whereas 20 present insufficient progress and 23 show no improvement or worsening trends.

8. Current figures for malnutrition, particularly for stunting and wasting, are expected to be higher owing to the effects of the pandemic of coronavirus disease (COVID-19). Surveys carried out in 2020 and 2021 showed disruptions in essential nutrition and health services and increased food insecurity, mainly due to decreased purchasing power of families. The modelled impact of economic shocks and service disruptions shows that, by 2030, an additional 5-7 million children may become stunted and between 570 000 and 2.8 million wasted under a moderate effect scenario.² Overall, progress in the achievement of global nutrition targets has been slow. More encouraging is the increase in breastfeeding rates. Obesity continues to worsen.

¹ United Nations Children's Fund (UNICEF), World Health Organization (WHO). UNICEF–WHO Low birthweight estimates: Levels and trends 2000–2015. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/handle/10665/324783>, accessed 15 November 2021).

² FAO, IFAD, UNICEF, WFP, WHO. 2021. The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all. Rome: Food and Agriculture Organization; 2021 (<https://doi.org/10.4060/cb4474en>, accessed 15 November 2021).

Action 1: To create a supportive environment for the implementation of comprehensive food and nutrition policies

9. The policy environment for food and nutrition in 2020–2021 has been affected by the COVID-19 pandemic and the mitigating responses by governments and development organizations. In June 2020, the Secretary-General of the United Nations called for global mobilization to save lives and livelihoods, focusing attention where the risk is most acute, strengthening social protection systems for nutrition and transformation of the food system for a more inclusive, green and resilient recovery.¹ A Principals' call to action (UNICEF, FAO, WFP, WHO)² and a joint statement by ILO, FAO, IFAD and WHO³ on the impact of COVID-19 on people's livelihoods, their health and our food systems were published.

10. During the United Nations Decade of Action on Nutrition, the importance of dealing with food systems and environment for nutrition has increased. The United Nations Food Systems Summit 2021 (New York, 23 September 2021) provided an historic opportunity to use the power of food systems to drive recovery from the COVID-19 pandemic and put us back on track to achieve the Sustainable Development Goals. WHO promoted the inclusion of health and nutrition throughout the summit processes, serving as anchor of Action Track 2 which aimed to “shift to sustainable and healthy consumption patterns”. WHO hosted and supported dialogues on national, regional and global food systems; organized Health Talks supported by 125 speakers from more than 50 organizations; developed and disseminated a new narrative on the multiple pathways of impact of food systems on health;⁴ and supported the development of the School Meals Coalition and the coalition on Healthy Diets from Sustainable Food Systems for Children and All.

11. The 26th Conference of the Parties of the United Nations Framework Convention on Climate Change (Glasgow, 31 October–12 November 2021) included food production among the areas to act upon for the mitigation of climate change. The Green Climate Fund is committed to increasing funding to United Nations' Member States for agriculture and food security in order to reconfigure food systems and achieve low-emission diets.

12. Nutrition is increasingly being included on foreign policy agendas. At their summit (Rome, 29 June 2021), Ministers of Foreign Affairs and Development of the G20 committed themselves to enhancing efforts to end malnutrition in all its forms as expressed in the Matera Declaration on Food Security, Nutrition and Food Systems.⁵ These efforts include commitment to increasing social protection measures such as including school meals, local procurement, and mother and child nutrition programmes; catalytic investments for nutrition; strengthening local diversified value chains for safe,

¹ United Nations. Policy brief: the impact of COVID-19 on food security and nutrition. June 2020 (https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf, accessed 15 November 2021).

² Fore HH, Dongyu Q, Beasley DM, Ghebreyesus TA. Child malnutrition and COVID-19: the time to act is now. *Lancet*. 2020 Aug 22;396(10250):517-518. doi: 10.1016/S0140-6736(20)31648-2. Epub 2020 Jul 27. PMID: 32730742; PMCID: PMC7384790.

³ ILO, FAO, IFAD and WHO. Impact of COVID-19 on people's livelihoods, their health and our food systems: joint statement (<https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people%27s-livelihoods-their-health-and-our-food-systems>, accessed 15 November 2021).

⁴ WHO. Food systems delivering better health. Geneva: World Health Organization; 2021 (www.who.int/publications/i/item/9789240031814).

⁵ G20, Italy 2021. Matera Declaration on Food Security, Nutrition and Food Systems. A call to action in the time of the COVID-19 pandemic and beyond (<http://www.g20.utoronto.ca/2021/210629-matera-declaration.html>, accessed 28 December 2021).

fresh and nutritious food; and promoting a One Health approach through national policies and international action. The G20 health ministers at their summit (Rome, 5 and 6 September 2021) adopted the Declaration of the G20 Health Ministers,¹ which recognizes the need for intersectoral action to promote healthy lifestyles by improving access to safe and healthy diets from sustainable food systems, in line with the United Nations Decade of Action on Nutrition. The health ministers' declaration highlights the importance of tackling antimicrobial resistance and using the One Health approach, while acknowledging that more work needs to be done on ensuring appropriate breastfeeding for all babies.

13. Also in 2021 the Commission on Population and Development of the United Nations, in resolution E/CN.9/2021/L.5 on population, food security, nutrition and sustainable development, emphasized the urgent need for international cooperation to improve the sustainability of food systems to end malnutrition in all its forms.²

14. The Nutrition for Growth Summit convened by the Government of Japan, on 7 and 8 December 2021 in Tokyo, led to 396 new commitments from 66 countries (mostly limited resource countries), 51 civil society organizations, and 26 businesses, and to financial commitments for US\$ 27 billion.

15. As at September 2021, 180 WHO Member States had national nutrition policies and strategies in place (see also paragraph 17 below), 137 of which were multisectoral policies developed with the involvement of not only the health sector but also the food, agriculture and education sectors. A further 12 Member States have incorporated nutrition-related goals and policy actions into relevant sectoral strategies, such as those for health, food and agriculture or social protection, as well as in national development plans.

16. In 2020, organizations in the United Nations system established a new coordination and collaboration mechanism, named UN Nutrition, with a two-year rotating chair, currently held by WHO. UN Nutrition is working inclusively to develop a strategic plan for global and country level action for the period 2022–2030. It has launched two discussion papers focused on livestock³ and aquatic foods⁴ and facilitated consultations of the update of the work programme of the United Nations Decade of Action on Nutrition.

Action 2: To include all required effective health interventions with an impact on nutrition in national nutrition plans

17. Among the 180 WHO Member States with national nutrition policies, 151 have policies that cover action areas related to maternal, infant and young child nutrition, 147 cover nutrition in schools, 154 cover promotion of healthy diet and prevention of obesity and diet-related noncommunicable diseases, 139 cover vitamin and mineral nutrition, 91 cover acute malnutrition, and 77 cover nutrition and infectious disease.

¹ G20, Italy 2021. Declaration of the G20 Health Ministers, Rome 5–6 September 2021 (https://www.salute.gov.it/imgs/C_17_pagineAree_5459_8_file.pdf, accessed 28 December 2021).

² United Nations Economic and Social Council, Commission on Population and Development. Report on the fifty-fourth session (19–23 April 2021). Resolution 2021/1, Population, food security, nutrition and sustainable development (<https://undocs.org/en/E/2021/25>, accessed 30 November 2021).

³ UN nutrition. Livestock-derived foods and sustainable healthy diets 2021, June 2021 (https://www.unnutrition.org/wp-content/uploads/Livestock-Paper-EN_WEB.pdf, accessed 30 November 2021).

⁴ UN Nutrition. The role of aquatic foods in sustainable healthy diets. May 2021 (https://www.unnutrition.org/wp-content/uploads/FINAL-UN-Nutrition-Aquatic-foods-Paper_EN_.pdf, accessed 15 November 2021).

18. Integrating nutrition services into health systems is an effective, equitable and cost-effective approach to addressing malnutrition in all its forms. Unfortunately, coverage of essential nutrition actions¹ within primary health care delivery is low in most countries and lags far behind the coverage of health services not related to nutrition. For example, in an analysis of data from Demographic and Health Surveys in 35 countries, only a third (33.4%) of pregnant women receive iron and folic acid supplements even though two-thirds of them (66.6%) have at least four antenatal care visits.² Among children with diarrhoea, only 15% receive zinc supplementation whereas 49.2% receive oral rehydration solutions. Coverage of nutrition services at birth is generally low, with 66% of newborns weighed at birth and 55% of mothers receiving breastfeeding counselling.

19. Global momentum towards achieving universal health coverage creates new opportunities for preventing and treating malnutrition in all its forms. The World Bank has identified numerous nutrition interventions as highly cost-effective and recommended their inclusion in health priority packages.³ WHO's UHC Compendium, launched online in December 2020, contains 142 specific nutrition actions embedded in 63 interventions which are compiled in a nutrition module and integrated across multiple relevant health programme areas.⁴

20. A key theme of the scheduled Nutrition for Growth summit (see paragraph 12) is integrating nutrition into universal health coverage. WHO has outlined priorities for making ambitious and impactful commitments to mainstreaming nutrition in health systems through the six pillars of effective health systems: service delivery, workforce, financing, health products, information systems, and leadership and governance.⁵

21. The Secretariat has collaborated with five countries⁶ to identify the barriers to scaling up essential nutrition actions in primary health care and develop an action plan for removing them. Key lessons learned were that, in addition to the need for financing, lack of capacity and availability of trained health/nutrition staff to delivery services as well as weak monitoring and evaluation systems were the main bottlenecks to increasing coverage of nutrition interventions.

¹ Essential nutrition actions: mainstreaming nutrition throughout the life-course. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/bitstream/handle/10665/326261/9789241515856-eng.pdf?ua=1>).

² 2020 Global Nutrition Report (<https://globalnutritionreport.org/reports/2020-global-nutrition-report/>, accessed 15 November 2021).

³ Watkins DA, Jamison DT, Mills A et al. Universal health coverage and essential packages of care. In: Jamison DT, Gelband H et al. (eds). Disease control priorities: improving health and reducing poverty. 3rd edition. Washington, DC: The International Bank for Reconstruction and Development/The World Bank; 2017.

⁴ UHC Compendium: health interventions for universal health coverage. Geneva: World Health Organization; 2020 (<https://www.who.int/universal-health-coverage/compendium>, accessed 15 November 2021).

⁵ WHO. Mobilizing ambitious and impactful commitments for mainstreaming nutrition in health systems: nutrition in universal health coverage: global nutrition summit. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332221>, accessed 15 November 2021).

⁶ Ghana, Guatemala, Pakistan, Uzbekistan and Viet Nam.

Action 3: To stimulate development policies and programmes outside the health sector that recognize and include nutrition

22. In 2021, the Committee on World Food Security endorsed voluntary guidelines on food systems and nutrition¹ with the aim of supporting countries and their partners in operationalizing the recommendations of the Second International Conference on Nutrition (Rome, 19–21 November 2014), and underpinning the development of coordinated multisectoral national policies, laws, programmes and investment to enable safe and healthy diets for all.

23. Globally, enormous strides have been taken towards improving school food and nutrition, and school policies and programmes have the potential to tackle all forms of malnutrition among children and adolescents. In 147 WHO Member States actions to improve nutrition in schools have been incorporated into their national nutrition policies, with 88 having legislative or other measures to regulate the types of foods and beverages available in schools.

24. Although 79 Member States are implementing excise or special sales taxes for sugar-sweetened beverages at the national level, many such tax laws still do not cover all relevant sugar-sweetened beverages systematically (often not including sweetened milk drinks or fruit juices).

25. Regulatory measures are being taken to eliminate industrially-produced *trans*-fatty acids in foods in 56 Member States, in 43 of which recommended best practice policies have been implemented.² A further three Member States have also adopted best practice policy measures, but they are yet to be put into effect.

26. Mandatory measures to reduce sodium intake through reformulation, food procurement, front-of-pack or other interpretative labelling, marketing restriction or fiscal policies, in addition to mandatory declaration of sodium on pre-packaged food, are implemented in 45 Member States.³ Two of these Member States implement multiple mandatory measures and all sodium-related WHO Best Buys for the prevention and control of noncommunicable diseases.

Action 4: To provide sufficient human and financial resources for the implementation of nutrition interventions

27. Trained nutrition professionals work both in health facilities and at community level and may influence nutrition policies and design as well as the implementation of nutrition intervention programmes at various levels. In 2016–2017 the median density of nutrition professionals (including nutrition scientists, nutritional epidemiologists and public health nutritionists) was 2.2/100 000 people, with large discrepancies between regions and countries. This figure, however, does not cover all health workers trained in nutrition. Efforts have been made to update training packages (for example, on infant and young child nutrition), but training needs to be expanded.

¹ CFS Voluntary guidelines on food systems and nutrition (www.fao.org/fileadmin/templates/cfs/Docs2021/Documents/CFS_VGs_Food_Systems_and_Nutrition_Strategy_EN.pdf, accessed 16 November 2021).

² WHO. TFA country score card. Geneva: World Health Organization (<https://extranet.who.int/nutrition/gina/en/scorecard/TFA>, accessed 16 November 2021).

³ WHO. Sodium country score card. Geneva: World Health Organization (<https://extranet.who.int/nutrition/gina/en/scorecard/sodium>, accessed 16 November 2021).

28. Tracking of nutrition expenditures has been improved, and the results show that investment remains insufficient but is growing at a modest rate. Health accounts data from 2018 for 46 low- and lower-middle-income countries, taken from WHO's Global Health Expenditure Database, show a median domestic general government expenditures in the category of nutritional deficiencies of US\$ 0.30 per capita, which is the lowest among all disease categories.¹ In 25 countries that are associated with the Scaling up Nutrition Movement, an increase in relevant public expenditure has been documented but mainly for nutrition-sensitive interventions (agriculture; water, sanitation and hygiene; and social protection).²

29. Funding for tackling all forms of malnutrition constitutes less than 1% of all official development assistance and has declined annually since its peak in 2013. Nutrition-specific spending has been estimated at US\$ 1.12 billion for 2015.³ The 10 donors that signed the 2013 Nutrition for Growth Summit pledge of US\$ 19.6 billion by 2020 have disbursed US\$ 21.8 billion in 2013–2016 ahead of 2020.⁴ Despite this variable progress, the ambition of having an additional investment of US\$ 70 billion over 10 years to achieve the global targets for stunting, anaemia in women, exclusive breastfeeding and the scaling up of the treatment of severe wasting formulated in 2017 by the World Bank⁵ does not seem to have been met.

30. The development of investment cases for noncommunicable disease prevention and management supported by the United Nations Inter-agency Task Force on Prevention and Control of Non-communicable Diseases⁶ may support increased donor spending on obesity.

Action 5: To monitor and evaluate the implementation of policies and programmes

31. The joint WHO-UNICEF Technical Expert Advisory Group on Nutrition Monitoring released revised definitions and methods of measuring indicators for assessing infant and young child feeding practices⁷ including 17 recommended indicators. In the effort to identify or develop metrics for global monitoring of healthy diets the Advisory Group assessed existing concepts for diet quality measurements.

32. The United Nations Inter-agency and Expert Group on the Sustainable Development Goal Indicators agreed to include the prevalence of anaemia in women aged 15–49 years (by pregnancy

¹ WHO. Global Health Expenditure Database (<https://apps.who.int/nha/database/Home/Index/en>, accessed 16 November 2021).

² Scaling Up Nutrition. Tracking nutrition investments. SUN Movement Secretariat, 2018 (<https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/budget-analysis-2018/>, accessed 30 November 2021).

³ D'Alimonte M, Thacher E, LeMier R, Clift J. Tracking aid for the WHA nutrition targets: Global spending in 2015 and a roadmap to better data. Washington, DC: Results for Development; 2018 (www.r4d.org/wp-content/uploads/R4D-tracking-aid-to-WHA-nutrition-targets-April-2018_final.pdf, accessed 16 November 2021).

⁴ 2020 Global Nutrition Report: Action on equity to end malnutrition. Bristol, United Kingdom: Development Initiatives; 2020.

⁵ Shekar M, Kakietek J, Eberwein JD, Walters D. An Investment Framework for Nutrition Reaching the Global Targets for Stunting, Anemia, Breastfeeding, and Wasting. Washington DC: The World Bank; 2017 (<https://openknowledge.worldbank.org/handle/10986/26069>, accessed 16 November 2021).

⁶ UNDP, WHO. Non-communicable disease prevention and control: a guidance note for investment cases. New York: United Nations Development Programme; 2019.

⁷ WHO. Indicators for assessing infant and young child feeding practices: definitions and measurement methods. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/340706>, accessed 16 November 2021).

status) in indicator 2.2.3 of SDG target 2.2. For the first time, the Sustainable Development Report 2021 included data for this indicator.

33. The Global Nutrition Report launched its Nutrition Accountability Framework in June 2021, with the respective chapters being released in September 2021 followed by the 2021 Data Update Report in November 2021. The joint State of Food Security and Nutrition in the World report 2021, published in July 2021, presented the first global assessment of food insecurity and malnutrition for 2020 and offered some indication of what hunger might look like by 2030 in a scenario further complicated by the enduring effects of the COVID-19 pandemic.¹ It also included new estimates of the cost and affordability of healthy diets, which provide an important link between the food security and nutrition indicators and the analysis of their trends.

34. WHO is working with UNICEF and other partners to enhance national health management information systems in four countries in Africa (Côte d'Ivoire, Ethiopia, Uganda and Zambia) and one in South-east Asia (Lao People's Democratic Republic), including assessment of the functioning of existing information systems, integrating nutrition indicators and evaluating data quality during data collection.

35. WHO is also working with UNICEF to finalize core nutrition modules for the incorporation into the District Health information Software 2. Gaps remain to be filled on the analyses and uses of nutrition data from the routine information system (administrative), and WHO plans to develop corresponding guidance in the next WHO biennium plan (2022–2023). As part of the pilot of WHO's childhood obesity surveillance initiative to measure children under 5 years of age, a study protocol, questionnaire and implementation plan was developed in early 2020, for data collection in several countries in the European Region. The irruption of the pandemic of COVID-19, however, halted all efforts to collect data. Instead, therefore, the study concentrated on gathering data from existing sources in order to fill gaps.

PROGRESS IN IMPLEMENTING THE INTERNATIONAL CODE OF MARKETING OF BREAST-MILK SUBSTITUTES AND GUIDANCE ON ENDING THE INAPPROPRIATE PROMOTION OF FOODS FOR INFANTS AND YOUNG CHILDREN

36. The 40th anniversary of the adoption by the Thirty-fourth World Health Assembly of the International Code of Marketing of Breast-milk Substitutes was marked on 21 May 2021. The report published in 2020 on the status of implementation of the Code documented that in the preceding two years 10 Member States – Bahrain, Chad, Egypt, Lao People's Democratic Republic, Nigeria, Republic of Moldova, Saudi Arabia, Turkey, United Arab Emirates and Uzbekistan – had enacted new Code-related legislation or amended existing legal measures.² Tighter restrictions also came into effect in the European Union in 2020. Since the publication of the report, new Code legislation or regulations have been approved in Burkina Faso, Côte d'Ivoire, Ethiopia, Kenya, Mauritania, Oman, Sao Tome and Principe and Sierra Leone.

¹ FAO, IFAD, UNICEF, WFP, WHO. 2021. The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all. Rome: Food and Agriculture Organization; 2021 (<https://doi.org/10.4060/cb4474en>, accessed 16 November 2021).

² WHO. Marketing of breast-milk substitutes: national implementation of the international code, status report 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332183>, accessed 16 November 2021).

37. WHO collaborated with a global marketing firm to study the reach and influence of marketing on infant feeding attitudes in eight countries: Bangladesh, China, Mexico, Morocco, Nigeria, South Africa, the United Kingdom of Great Britain and Northern Ireland and Viet Nam.¹ The study demonstrated that marketing of formula milk is pervasive in most countries. Exposure to marketing was significantly related to more positive attitudes towards formula feeding among mothers and the perceived need for formula milks. Marketing of breast-milk substitutes diminishes the perceived value of breastfeeding and undermines women's confidence in their ability to breastfeed. Marketing plays on expectations and anxieties around feeding and positions formula milk as a better alternative to breast milk.

38. Health systems are major conduits for promoting breast-milk substitutes. The analysis of national legislation found that only 79 Member States have enacted legal measures that call for an overall prohibition of promotion of breast-milk substitutes in health facilities. Only 30 countries have measures that call for the full prohibition of all gifts or incentives to health workers for promoting such substitutes. In spite of the significant documented conflicts of interest created through the sponsorship of scientific and health professional association meetings, to date only 19 countries have prohibited such sponsorship by manufacturers of breast-milk substitutes. WHO has published a document with answers to frequently asked questions for healthcare workers to educate them on their responsibilities under the Code.²

39. In November 2020 PAHO convened virtual meetings on legislating the International Code of Marketing of Breast-milk Substitutes in Caribbean Countries for Latin American and Caribbean countries in order to increase awareness about the need for countries to strengthen domestic legislation so as to fulfil their obligations in implementing the International Code.

40. Manufacturers of breast-milk substitutes in some countries have capitalized on the COVID-19 pandemic to promote their brands and products. Examples include the distribution of free supplies of breast-milk substitutes in communities, brochures that position the manufacturer as an expert on protection against COVID-19 in babies, and videos that advise against breastfeeding among women infected with SARS-CoV-2. WHO has issued a variety of communication materials to reassure mothers of the safety of breastfeeding for mothers infected by SARS-CoV-2³ as well as guidance on vaccination against COVID-19 for lactating mothers.⁴

41. In November 2020, the Seventy-third World Health Assembly, in decision WHA73(26) on maternal, infant and young child nutrition, requested the Director-General to review current evidence and prepare a comprehensive report to understand the scope and impact of digital marketing strategies for the promotion of breast-milk substitutes to the Seventy-fifth World Health Assembly in 2022,

¹ Multi-country study examining the impact of breast-milk substitutes marketing on infant feeding decisions and practices (scheduled to be launched 3 February, 2022).

² WHO. The international code of marketing of breast-milk substitutes: frequently asked questions on the roles and responsibilities of health workers. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332170>, accessed 16 November 2021).

³ WHO. COVID-19 clinical management: living guidance, 25 January 2021. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/338882>, accessed 16 November 2021); WHO. Breastfeeding and COVID-19: scientific brief, 23 June 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332639>, accessed 16 November 2021); WHO. Frequently asked questions: COVID-19 vaccines and breastfeeding based on WHO interim recommendations, 12 August 2021. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/345208>, accessed 16 November 2021); WHO (<https://www.youtube.com/watch?v=OFGiy6t7k5E>).

⁴ WHO. Frequently asked questions: COVID-19 vaccines and breastfeeding based on WHO interim recommendations, 12 August 2021. Geneva: World Health Organization; 2021 (https://apps.who.int/iris/bitstream/handle/10665/345208/WHO-2019-nCoV-FAQ-Breast_feeding-Vaccines-2021.1-eng.pdf, accessed 16 November 2021).

through the Executive Board. Accordingly, the Secretariat created an external steering committee of subject matter experts to advise on the design and methodology of the report. The secretariat compiled information from a variety of existing reports and also commissioned new research to develop the report. The results of these analyses are summarized in the Annex.

42. WHO's draft nutrient profile model for commercially-available complementary foods marketed as suitable for infants and young children (aged 6–36 months) has been applied in multiple countries to assess the nutritional content and labelling aspects of these baby foods. Recently, studies were undertaken in Poland and the Russian Federation. Nearly half the products being sold were marketed as suitable for infants and young children aged <6 months. A worrying proportion of products included free sugars. In the Russian Federation, most products lacked information on sugar and salt content on the label. Kyrgyzstan and Turkey are presently conducting comparable studies to broaden the knowledge base in this area.

43. To advance the implementation of the Ten Steps to Successful Breastfeeding, WHO and UNICEF updated the Baby-friendly Hospital Initiative training course for maternity staff¹ and created tools² for assessing the competency of direct care providers to implement the Ten Steps. A manual on protecting, promoting and supporting breastfeeding of small, sick and preterm newborns has also been published.³

44. In 2020 and 2021, WHO and UNICEF used the occasion of World Breastfeeding Week to highlight the crucial role of skilled breastfeeding support to answer women's questions and challenges with breastfeeding. The newly published WHO/UNICEF guidance on implementation for breastfeeding counselling programmes⁴ advises managers and planners on steps to take to build a workforce, train staff, create systems for supervision and referral, secure financing and evaluate programme delivery.

ACTIONS BY THE EXECUTIVE BOARD

45. The Board is invited to note the report and its annex; it is further invited to consider the following draft decision:

The Executive Board, having considered the report of the Director-General on maternal, infant and young child nutrition,⁵ decided to recommend to the Seventy-fifth World Health Assembly the adoption of the following decision:

¹ WHO. Baby-friendly Hospital Initiative training course for maternity staff. Participants' manual, customization guide, and trainer's guide. Geneva: World Health Organization; 2020 (respectively: <https://apps.who.int/iris/handle/10665/333675>, <https://apps.who.int/iris/handle/10665/333673> and <https://apps.who.int/iris/handle/10665/333676>, accessed 16 November 2021).

² WHO. Competency verification toolkit: ensuring competency of direct care providers to implement the baby-friendly hospital initiative. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/333691>, accessed 16 November 2021).

³ WHO, UNICEF. Protecting, promoting and supporting breastfeeding: the baby-friendly hospital initiative for small, sick and preterm newborns. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/333686>, accessed 16 November 2021).

⁴ UNICEF, WHO. Implementation Guidance on Counselling Women to Improve Breastfeeding Practices. New York: United Nations Children's Fund; 2021 (<https://www.globalbreastfeedingcollective.org/reports/implementation-guidance-counselling-improve-breastfeeding-practices>, accessed 16 November 2021).

⁵ Document EB150/23.

The Seventy-fifth World Health Assembly, having considered the report of the Director-General on maternal, infant and young child nutrition, decided to request the Director-General:

- (1) to develop guidance for Member States on regulatory measures aimed at restricting the digital marketing of breastmilk substitutes, so as to ensure that existing and new regulations designed to implement the International Code of Marketing Breast-milk Substitutes and relevant Health Assembly resolutions subsequent to its adoption adequately address digital marketing practices;
- (2) to report on the performance of the task described in paragraph (1) to the Seventy-seventh World Health Assembly in May 2024.

ANNEX

**SCOPE AND IMPACT OF DIGITAL MARKETING
OF BREAST-MILK SUBSTITUTES****BACKGROUND**

1. Digital technologies are increasingly used for marketing food products throughout the world. Although the International Code of Marketing of Breast-milk Substitutes specifies that there should be no advertising or other form of promotion of breast-milk substitutes to the general public, the Code does not address many of the specific strategies used in digital marketing. The 2020 Code status report¹ highlighted the increasing use of digital platforms to promote the use of breast-milk substitutes. This report examines in greater depth the scope, techniques and impact of digital marketing strategies for the promotion of breast-milk substitutes.

2. This report was overseen by an external steering committee of subject matter experts from across WHO regions to advise on the design, methodology and analysis of research on digital marketing of breast-milk substitutes. The committee advised on what research was most relevant and reviewed the draft report for integrity.

3. The Secretariat used existing reports and also commissioned new research to support the report. A systematic review, also commissioned, of academic and grey literature identified 22 research papers, seven independently published reports, and 23 case-reports on the scope and impact of digital marketing strategies for the promotion of breast-milk substitutes.² WHO also commissioned an analysis of the extent to which existing legal measures that implement provisions of the Code capture digital marketing strategies. As part of a broader research portfolio on determinants of breastfeeding, WHO worked with a social media intelligence platform company to conduct an analysis of public online communications. This resulting analysis described the prevalence, origin, content and sentiment of postings related to breast-milk substitutes in 17 countries (representing 61% of global population and every WHO region) in 11 languages. The Secretariat also examined Code monitoring reports in individual countries conducted using the NetCode protocol, the Access to Nutrition Initiative indexes, and International Baby Food Action Network tools to identify the prevalence of exposure to digital marketing.

DEFINITIONS

4. *Digital marketing* is “promotional activity, delivered through a digital medium, that seeks to maximize impact through creative and/or analytical methods.”³ Digital marketing strategies for the promotion of breast-milk substitutes include industry-sponsored online social groups, individually targeted advertisements, paid blogs or vlogs, and discounted internet sales.

¹ WHO. Marketing of breast-milk substitutes: national implementation of the international code, status report 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332183>, accessed 16 November 2021).

² Jones A, Zhao J, Hendry M, Morelli G, Bhamick S. Digital marketing of breastmilk substitutes: systematic scoping review. The George Institute for Global Health: Newtown, Australia, 2021.

³ WHO. Tackling food marketing to children in a digital world: trans-disciplinary perspectives; 2016 (https://www.euro.who.int/__data/assets/pdf_file/0017/322226/Tackling-food-marketing-children-digital-world-trans-disciplinary-perspectives-en.pdf, accessed 26 November 2021).

5. *Digital media* may include social media platforms, video-sharing applications, search engines, company websites, messaging services and retailers' online advertising.

EXTENT OF DIGITAL MARKETING OF BMS

6. Digital marketing has become the primary means by which national and multinational manufacturers and distributors promote breast-milk substitute brands and products, representing as much as 70% of total advertising spend on these products. More than 80% of advertisements for breast-milk substitutes in Mexico and Indonesia are online. In China 40% of mothers and 32% in Viet Nam report seeing marketing for breast-milk substitutes on social media.¹

7. Digital marketing of breast-milk substitutes is insidious and pervasive. Between January and June 2021, the social media intelligence platform captured 419 000 posts specifically referencing a breast-milk substitute brand or product, generating 12.1 million engagement actions (i.e., like, share or comment). On average, breast-milk substitute manufacturer accounts post 46 times a month about breast- or formula-feeding and each of these posts will reach an average of 40 000 users.² Retailers similarly generate substantial original content directly promoting breast-milk substitutes.

8. Online marketing of breast-milk substitutes may be concentrated in countries or regions in which the potential to increase their uptake (market growth) is strong: principally countries where large populations are experiencing increased spending power.

MARKETING TECHNIQUES ENABLED BY DIGITAL MARKETING

9. In some ways, digital marketing simply applies traditional marketing approaches to new platforms. Televised video advertisements can be presented on an internet site; magazine print advertisements can appear in online articles; retail price reductions can be offered by online retailers. However, the emergence of digital media has created new, cost-effective and powerful channels for distributing promotions for breast-milk substitutes and generated opportunities to develop marketing techniques not possible in traditional media.

10. *Targeting.* Digital platforms make it possible to identify pregnant women and mothers with unprecedented precision. Algorithms powered by artificial intelligence gather and analyse the data women and mothers generate online, including demographic characteristics, friends, interests, lifestyle choices, political affiliations, mood or emotional state, concerns, purchasing preferences and behaviours. These data can be combined with information collected across multiple online platforms to generate highly-tailored and precisely-targeted advertising and promotional content that can be powerfully persuasive.

11. *Timely contacts.* Digital platforms also make it possible to identify and target women's most vulnerable moments in real time, facilitating instant contact with pregnant women, mothers and those who influence their feeding decisions. Companies manufacturing or marketing breast-milk substitutes can pay to have their content returned by search engines to people who submit queries on these topics, often with the opportunity to make an online purchase immediately. Content that appears to offer information personally tailored to meet mothers' concerns can be delivered at the very moment a woman

¹ Multi-country study examining the impact of BMS marketing on infant feeding decisions and practices. (to be launched 3 February, 2022).

² Digital Partners Switzerland SA. The use of social media and other digital approaches in the promotion of infant feeding practices. 2021.

seeks information or support for infant feeding. The content of these promotions typically presents a breast-milk substitute as the solution for challenging but normal infant behaviours like hunger, crying or digestive discomfort, which may be pathologized in order to promote breast-milk substitutes as a medical treatment.

12. *Use of influencers.* Social media create new and massive opportunities to enlist social media influencers to promote products without directly employing or contracting them. Companies and retailers of breast-milk substitutes enlist online influencers, including celebrities and popular social media account holders, to review and endorse breast-milk substitute products. Manufacturers may purchase influencer endorsements or offer to include their followers in special events, and offer gifts or product promotions, which influencers can use to attract new followers. Influencers can receive small payments or other incentives in return for purchases made by their followers. On average, each post by a branded influencer promoting breast-milk substitutes is seen by around 400 000 people and generates action from around 11 000 of them. The most effective influencers can reach several million users with a single post.

13. *User-generated promotion.* Breast-milk substitute companies also encourage established customers to work together to create advertising content, such as reviews of breast-milk substitutes or recommendations in response to others' queries about infant feeding and care. This approach allows for a two-way flow of communication in which advertising or promotional content gains credibility because it is shared with consumers by someone they know. This effect is even more powerful when the promotional content appears to be spontaneously created by a friend during natural conversations or in response to a request for help or support. Recommendations "from people I know" are the most trusted form of advertising globally.¹

14. *Virtual support groups.* Online social networks create opportunities for companies to learn from women and craft tailored messages in a personalized way. Companies manufacturing or marketing breast-milk substitutes leverage consumers' trust in one another by establishing communities of pregnant women and mothers, often organized around a baby's due date or birth month, and by targeting close contacts of pregnant women and mothers known to influence their feeding decisions. Virtual clubs for babies and mother-support groups create a sense of confidentiality among users and facilitate direct contact with baby food companies.

15. *Transnational marketing.* Digital marketing strategies for the promotion of breast-milk substitutes make implementation of the Code through national legislation or other instruments problematic. Digital content cannot be contained by geographical boundaries. Promotional content can be distributed digitally to consumers anywhere in the world and consumers can purchase products from retailers in countries other than their own.

INCLUSION IN NATIONAL LEGISLATION IMPLEMENTING THE CODE

16. An evaluation of national legislation on the International Code of Marketing of Breast-milk Substitutes found that only 37 of 194 countries (19%) explicitly mention marketing through the internet, digital or other electronic means. However, even without explicit mention, legislation that prohibits

¹ Nielsen. Global trust in advertising winning strategies for an evolving media landscape. 2015. (<https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/global-trust-in-advertising-report-sept-2015-1.pdf>, accessed 26 November 2021).

advertisements in general may be broad enough to cover advertisements on digital media. Likewise, prohibitions on sales devices used in retail would logically include online retailers.

17. It is less clear whether other types of promotions are captured by the Code or national measures designed to implement it. For example, social media influencers promoting breast-milk substitutes could be considered to be in violation of Article 5.1 of the Code or they could be viewed as individual mothers sharing their opinions on a product they have used. When companies marketing breast-milk substitutes participate in online social networks, this could be viewed as seeking direct or indirect contact with mothers (prohibited by Article 5.5 of the Code) or as simply making a digital space available for mothers to interact with one another. It is also not clear whether manufacturers and distributors of breast-milk substitutes can be held responsible for advertising content generated by the general public and mothers who are not employees or contractors of those companies.

18. Digital marketing strategies for the promotion of breast-milk substitutes also pose unique challenges for monitoring and enforcement. Advertisements, special sales or invitations that are not broadcast publicly but appear only on the screens of precisely identified users are difficult to detect. The origin of online messages is more difficult, and costly, to establish, making it challenging to hold the responsible party accountable. In addition, digital media platforms facilitate distribution of promotional content across national borders, making it difficult for national governments to hold manufacturers and distributors accountable for digital promotions of breast-milk substitutes.

SUMMARY

19. Digital marketing of breast-milk substitutes is ubiquitous and uses many new and innovative means and strategies that were not envisaged when the Code was written. Manufacturers and distributors use digital platforms to feed promotions of breast-milk substitutes directly to the screens of pregnant women and mothers, respond instantaneously to individual concerns, use respected influencers to shape mothers' decisions, generate "word of mouth" endorsements, and establish social media clubs. These low-cost and effective methods are known to increase their sales. Digital marketing presents new challenges for monitoring and enforcement of national legislation, particularly when the marketing originates outside of the country. It will be necessary to strengthen legislation, monitoring and enforcement strategies and transnational legal frameworks in order to protect breastfeeding and safeguard the health of mothers and babies.

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