Accelerating efforts for preventing micronutrient deficiencies and their consequences, including spina bifida and other neural tube defects, through safe and effective food fortification

The Executive Board, having considered the report by the Director-General, highlighting the need to accelerate progress in safe and effective food fortification,

Decided to recommend to the Seventy-sixth World Health Assembly the adoption of the following resolution:

The Seventy-sixth World Health Assembly,

Recalling resolutions WHA39.31 (1986) on prevention and control of iodine disorders; WHA45.33 (1992) on national strategies for prevention and control of micronutrient malnutrition; WHA58.24 (2005) on sustaining the elimination of iodine deficiency disorders; WHA65.6 (2012) on comprehensive implementation plan on maternal, infant and young child nutrition; and WHA68.19 (2015) on outcome of the Second International Conference on Nutrition, which promote food fortification as a mechanism to prevent micronutrient deficiencies and birth defects associated with nutritional deficiencies;

Recalling also resolution WHA63.17 (2010) on birth defects, which requested the Director-General to support Member States in developing national plans for implementation of effective interventions to prevent and manage birth defects within their national maternal, newborn and child health plan, and food fortification strategies, among others, for the prevention of birth defects, and promoting equitable access to such services; and urged Member States to increase coverage of effective prevention measures, including folic acid supplementation;

Recognizing that micronutrient deficiencies are a public health concern as they constitute a risk factor for many diseases, and they may lead to increasing morbidity and mortality rates;

1 Document EB152/24.
2 And supplementation strategies. According to the FAO Codex Alimentarium, for food fortification is understood, “...the addition of one or more essential nutrients to a food, whether or not it is normally contained in the food, for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups ...”. The Codex Alimentarius Commission (Guidelines for vitamin and mineral food supplements CAC/GL 55 – 2005) also defines vitamin and mineral food supplements as “sources in concentrated forms of those nutrients alone or in combinations, marketed in forms such as capsules, tablets, powders, solutions etc., that are designed to be taken in measured small-unit quantities but are not in a conventional food form and whose purpose is to supplement the intake of vitamins and/or minerals from the normal diet”.


and that the latest estimates indicate that 372 million preschool children and 1.2 billion women of reproductive age worldwide are at risk of at least one micronutrient deficiency;

Recognizing the primary role of healthy, balanced and diverse diets and sustainable food systems that help to reduce the prevalence of nutritional deficiencies, complemented with population strategies, such as food fortification, and/or supplementation, across the life cycle;

Recognizing that anaemia in 2019 globally affected 570 million women of reproductive age (29.9%), 31.9 million pregnant women (36.5%) and 269 million children 6 to 59 months of age (40%), worldwide, impairing their physical capacity and work performance and, when women were pregnant, increasing the risk of complications and maternal and neonatal mortality;

Recognizing that while the number of countries with adequate and safe iodine intake reached 118 in 2020, several countries still require increased efforts to ensure adequate iodine intake; that vitamin A deficiency in children 6 to 59 months of age remains a public health concern affecting 29% of them in 2013, putting them at increased risk of mortality; and that the lack of vitamin D exposes children to rickets and osteomalacia and adults to osteoporosis;

Concerned that surveys evaluating folate insufficiency among women of reproductive age show that this condition is highly prevalent more than 40%, increasing their probability of having babies with neural tube defects; and that an estimated 240 000 newborns worldwide die within 28 days of birth each year due to birth defects, that birth defects can lead to long-term disability, taking a significant toll on individuals, families, health systems and societies, and that nine out of 10 children born with a major birth defect are in low- and middle-income countries;

Noting the availability of new or updated guidance and tools to support Member States in the design, development, operation, evaluation and monitoring of their fortification programmes, including WHO guidelines on fortification of different products; a Manual for millers, regulators, and programme managers, and the Micronutrient survey manual and companion toolkit, among others;

Acknowledging the scientific evidence of the protective effect of fortifying foods with folic acid and other micronutrients of concern within populations, such as iron, vitamin A, zinc, calcium and vitamin D, when implemented as to not exceed Tolerable Upper Intake Levels; and recognizing that, according to national circumstances, safe and effective food fortification and/or supplementation policies, when adequately designed and implemented, can be a safe, proven and cost-effective intervention that improves micronutrient status and other health outcomes, including by preventing spina bifida and anencephaly;

Acknowledging the challenges that countries face to plan, implement, monitor and educate on food fortification programmes, upon a science-based risk–benefit assessment, as well as to assess the impact on the population of these measures,
1. URGES Member States,\(^1\) taking into account their national circumstances and capacities:

(1) to recognize the importance of, and promote, healthy and balanced diets, and nutritional education for all populations, including in regular health and promotion of maternal and child health programmes;

(2) to make decisions on food fortification with micronutrients and/or supplementation, including to prevent birth defects on the basis of public health needs and a risk–benefit assessment, using as vehicles foodstuffs considered most appropriate in the country, and carrying out regular monitoring;

(3) to conduct dialogues among government officials, health professionals and civil society on the importance of preventing micronutrient deficiencies and birth defects through the promotion of healthy diets, and safe and effective food fortification and/or supplementation policies, adequately designed and implemented;

(4) to build multisectoral collaborations among health ministries and national health authorities, agriculture, social protection, trade, development, the food and food processing industry, and other stakeholders to consider implementing safe and effective food fortification and/or supplementation policies;

(5) to consider further strengthening surveillance and national estimates of anaemia, neural tube defects and other birth defects to better monitor progress towards prevention and to ensure accountability for improved health outcomes;

(6) to establish systems for newborn screening diagnosis and early management of anaemia, neural tube defects and other birth defects in newborns and children under 5 years;

(7) to consider, in accordance with national circumstances, appropriate ways to strengthen financing mechanisms and other enhancements for food fortification and/or supplementation programmes to ensure quality implementation, capacity to monitor compliance, impact and regular reporting of programme performance, coverage, quality and evolution of the micronutrient status, including attention to consequences of intake, coverage and status;

(8) to share information, as appropriate and through WHO, within the framework of the report on implementation of this resolution, on the status of food fortification in each respective country and its impact on the population, including possible adverse effects;

2. REQUESTS the Director General:

(1) to continue providing normative evidence-based guidance and standards to Member States on food fortification and supplementation, with micronutrients and its implementation in appropriate vehicles, and the assessment of the micronutrient status and the causes of the deficiencies, based on the nutritional status of the population, in particular to prevent birth defects;

\(^1\) And, where applicable, regional economic integration organizations.
(2) to provide guidance on risk–benefit assessment, monitoring of compliance, and periodic evaluation of coverage and impact of the food fortification and supplementation programmes;

(3) to develop technical and quality assurance guidance for food fortification and, within available resources, for supplementation, to non-State actors who produce and process food; ensuring the establishment of quality assurance and quality control systems in accordance with national standards as well as governmental inspection and technical audit, auditing to enforce them; and to strengthen the existing quality infrastructure through capacity-building and experience sharing;

(4) to develop a report on the global status of food fortification and supplementation, and use it to identify global and national priorities to periodically evaluate that food fortification programmes adhere to WHO recommendations, including not to exceed the Tolerable Upper Intake Levels for each nutrient, to allow the adjustment and promotion of food fortification programmes towards 2030;

(5) to provide technical support to Member States to conduct needs and feasibility assessments, design fortification programmes, strengthen surveillance, to develop estimates on micronutrient deficiencies; and the prevention and management of neural tube and other birth defects;

(6) to report on the implementation of this resolution through biennial reports to the Health Assembly until 2030, beginning with the Seventy-ninth World Health Assembly, to be issued in 2026, 2028 and 2030, respectively.

Eleventh meeting, 3 February 2023

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