SCOPE AND PURPOSE

Strategies to combat nutritional deficiencies are varied and applied at various organizational and political levels. They include control of diseases, improvement of sanitation and quality of life, supplementation, food fortification, change of food habits, improvement of micronutrient content of staples crops through biofortification, nanotechnologies and nutritional education. Simultaneous micronutrient-delivery interventions pose several challenges in terms of safety as the target populations of different interventions may overlap, and thus these populations or individuals within these population groups may be at risk of excessive intake of certain micronutrients. This is principally relevant in stable settings, also called non-emergency settings, where multiple stakeholders (State and non-State actors) work jointly or separately delivering micronutrients through public health interventions, such as universal or targeted fortification of staple foods, provision of fortified complementary foods, or daily or intermittent micronutrient supplementation consumed alone or added onto prepared foods immediately before consumption (e.g. point-of-use fortification). Often times these interventions are framed within larger programmes that intersect in the populations they are targeting.

The need for a coordinated approach of the implementation of multiple co-existing interventions is clear in order to avoid the risk of excessive intake of vitamins and minerals. A situational analysis of such interventions and their contexts can provide a framework for more effective public health micronutrient interventions, particularly in low- and middle-income countries.

The excessive consumption of certain vitamins and minerals could have deleterious consequences on health and development of individuals and populations. The FAO/WHO Expert Consultation on Human Vitamin and Mineral Requirements held in Thailand in 1998 and published in 2004, review the concept of upper tolerable nutrient intake level or upper level (UL) as the “maximum intake from food, water and supplements that is unlikely to pose risk of adverse health effects from excess in almost all (97.5%) apparently healthy individuals in an age- and sex-specific population group”. The term tolerable upper intake level (UL) is also defined by the Institute of Medicine of the United States as “the highest level of nutrient intake that is likely to pose no risk of adverse health effects for almost all individuals in the general population. As intake increases above the UL, the risk of adverse effects increases”.

It is important to highlight that the UL is not a limit for excess or toxicity, but a level of security. Intakes between the recommended nutrient intake (RNI) and the UL should be sufficient to prevent deficiency while avoiding toxicity. ULs should be based on long-term exposure to all foods, including fortified or
biofortified items, any other intervention providing micronutrients or nutrition sensitive measures aimed to improve their bioavailability. For most nutrients no adverse effects are anticipated when they are consumed as foods because their absorption and/or excretion are regulated.

With a view of providing policy makers with the best available evidence to inform policies and programmes simultaneously providing micronutrients across the population or for specific population groups, the Evidence and Programme Guidance Unit of the Department of Nutrition for Health and Development of the World Health Organization is convening the technical consultation: ‘Risk of excessive intake of vitamins and minerals delivered through public health interventions – current practices and case studies’ to be held in Panamá City, Panamá on October 4-6, 2017. Existing evidence will be examined on the safety of the provision of micronutrients to vulnerable populations in settings where a combination of interventions include micronutrients, along with programmatic evidence of successful implementation experiences, best practices and lessons learnt. The consultation will draw on background papers and case studies that were commissioned through a public call for papers.

The outcome of this technical consultation will contribute to the Member States’ efforts to strengthen their health systems and provide them with a summary of technical considerations and lessons learnt which can be useful in the implementation of programmes delivering micronutrients. It will also contribute to the World Health Organization continuous activities for future normative work in this field.

OBJECTIVES

The objectives of the consultation are to:

(i) Examine the current estimates for the total intake of vitamins and minerals (e.g. calcium, folic acid, iodine, iron, vitamin A, vitamin D, and zinc) through the diet and by different interventions implemented simultaneously in order to predict risks of excessive intake of vitamins and minerals and potential adverse effects while focusing on experiences of micronutrients delivered through public health interventions;
(ii) Analyse national and subnational case studies of existing policies and programmes delivering vitamins and minerals through integrated interventions, particularly considering the risk of excessive intake of micronutrients;
(iii) Identify implementation considerations that can be useful to Member States when considering simultaneous interventions that deliver vitamins and minerals through public health interventions, evaluating the use of upper tolerable nutrient intake level (UL) as a reference level to not be exceeded by all interventions simultaneously applied at a particular moment.
(iv) Identify monitoring, evaluation and communication strategies for constant surveillance and information about initiation or termination of programs.

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