

16 October 2019

CCNFSDU41: Agenda Paper on NRVs-R for older infants and young children¹

ISDI comments on CCNFSDU41: Agenda Item 8

Recommendation 1

The age ranges for older infants and young children should be standardised throughout all relevant Codex texts as follows:

- **Older infants are aged from 6 months to not more than 12 months**
- **Young children are from the age of more than 12 months up to the age of 3 years (36 months)**

For the purposes of NRVs-R, this interpretation of when older infants become young children, is based on the point of differentiation being the end of the day on the 1st birthday.

If agreement on this is difficult to achieve, the current wording of the specific age boundaries in the Codex texts should continue to be used (even though these age boundaries are not exactly the same across all Codex FSDU texts, the meaning is generally understood).

ISDI Comment

ISDI believes that the definitions are already standardised in Codex FSDU Standards to the wording proposed in recommendation 1. ISDI recommends that the current approach used in these Codex texts is retained.

The only possible exception is the definition for young children in the Standard for Canned Baby Foods (CX 73-1981, amended in 2017). Currently the definition for young children in this standard does not include '(36 months)' at the end of the definition.

ISDI also supports the general feedback from the eWG that "*the issue of specific age range boundaries is of lower priority compared with other issues that require debate and are more directly related to the establishment of NRVs-R for older infants and young children*".

Recommendation 2

The NRVs-R for older infants and young children be located in the Guidelines on Nutrition Labelling and apply to FSDU.

Application of these NRVs-R to general foods require further discussion at plenary.

Note: While the majority of the eWG were in favour of applying these NRVs-R to general foods, a minority wanted these limited to FSDU only. One CM wanted application of NRVs-R to general foods for young children but not older infants.

ISDI Comment

ISDI supports the provision within recommendation 2 that NRVs-R for older infants and young children are located in the Guidelines on Nutrition Labelling (CAC/GL 2-1985, amended in 2017). In this regard, ISDI notes that the Standard for Canned Baby Foods predates the Guidelines on Nutrition Labelling. Therefore, it does not include a reference to these guidelines. ISDI recommends that a reference to the Guidelines on Nutrition Labelling is added to this Codex Standard if it is agreed that NRVs-R for older infants and young children are located in these Guidelines.

Concerning food categories, NRVs-R for older infants and young children should apply, ISDI would like to reemphasize that NRVs-R for older infants and young children are established for a target group/population and

¹ For the background information, please refer to CX/NFSDU 19/41/8.

not for specific products. The use of these NRVs-R to inform the composition and labelling of specific products and product categories is and should remain consequential.

At Codex level, foods targeting older infants and young children fall under the Foods for Special Dietary Uses (FSDU) category. These foods are specially processed or formulated to satisfy the particular dietary requirements of the intended age group. They also meet strict safety criteria.

In countries where foods intended for older infants and young children do not fall under FSDU category ISDI considers these NRVs-R may be used on the foodstuffs, which according to national or regional jurisdictions, are appropriate for this vulnerable population. This means that they must comply with all regulatory criteria (e.g. additives, heavy metals and pesticide residues...) applicable and have age appropriate texture, as appropriate, not to mislead parents and caregivers about product suitability and intended use.

Recommendation 3

The decision on whether these NRVs-R should be used to guide vitamin and mineral composition in the Guideline on Formulated Complementary Foods for Older Infants and Young Children, should be deferred until the General Principles are established.

This will also allow consideration of the potential use of these NRVs-R as reference criteria for the optional addition of vitamins and minerals in other relevant FSDU texts.

ISDI Comment

ISDI agrees to defer the decision on whether these NRVs-R should be used to guide vitamin and mineral composition in the Guidelines on Formulated Complementary Foods for Older Infants and Young Children (CAC/GL 8-1991, revised in 2013) until the General Principles are established.

However, ISDI would like to reiterate its position that NRVs-R for Older Infants and Young Children apply as reference criteria for optional vitamin and mineral composition in the Guidelines on Formulated Complementary Foods for Older Infants and Young Children.

ISDI considers that the purpose of setting NRV-Rs is to guide the composition of the specific products targeting this age group.

ISDI is also of the opinion that NRVs-R, should also apply as reference criteria for the optional addition of vitamins and minerals in the following Codex texts:

- Processed Cereal-Based Foods for Infants and Young Children (CODEX STAN 74-1981)
- Canned Baby Foods (CODEX STAN 73-1981)
- [Name of product] for young children as part of the Follow-up Formula Standard (CXS 156-1987, under revision), in conjunction with the other considerations listed within the Standard to guide optional addition

Rationale

Three Codex standards for FSDU permit vitamin and mineral addition. The list of substances approved for addition is stipulated in the Advisory Lists of Nutrient Compounds for Use in Foods for Special Dietary Uses intended for Infants and Young Children (CAC/GL 10-1979, revised in 2008). Development of age appropriate NRVs can help guide nutritionally meaningful optional vitamin & mineral addition.

For example;

a) Standard for processed Cereal-based Foods (PCBFs) (CODEX STAN 74-1981) for older infants and young children as well as the Standard on Canned Baby Foods (CODEX STAN 73-1981) set minimum limits on few micronutrients. That is the case for vitamin B1 in all PCBFs, vitamin A, D and Calcium in cereals, which are or have to be reconstituted with an added high protein food. The addition of all other micronutrients is considered as optional and compositional ranges are not specified by Codex for these. Targeting a proportion of age appropriate NRVs for

optional vitamin and mineral addition will help ensure nutritionally meaningful amounts are added to these fortified foods, and will be useful for this category. Where permitted, labelling with %NRV for vitamins and minerals on the product label will also help inform consumers.

b) [Name of product] for young children as part of the Follow-up Formula Standard (CXS 156-1987, under revision), defines both essential composition, and criteria for optional nutrient addition. Currently held at Step 7 (as of 2018) optional nutrient criteria has been defined, including that vitamin and mineral are chosen from Follow-up Formula for older infants levels, and also takes into account cow's milk levels. Once developed, age appropriate NRVs may also help further guide optional nutrient addition.

Adequate nutrition during the first years of infants' and young children's life is of extreme importance for ensuring short-term optimal growth and development, but also for building a strong foundation for healthy eating habits in later life. Indeed, most particularly the first three years of life are characterized by extraordinary changes, in terms of physical development, organ growth and maturation, personality as well as feeding skills.

These developmental changes determine specific nutritional needs in older infants and young children. They require adequate and nutritionally balanced feeding to support their rapid growth and development after the age of 6 months. To meet the age-specific nutritional needs of older infants and young children their diet must (WHO, 2009; Geliebter, 1988; Dewey, 2003; Butte, 2004):

- Be adequate and balanced for optimal growth, health and development,
- Include frequent consumption of nutrient dense foods: The biggest challenge for these populations is to be able to deliver a large amount of nutrients, in a small amount of food. Infants and young children have very high nutritional needs compared to adults per unit of body weight but have a very small gastric capacity, estimated at 30g/kg of body weight (around a third of that of an adult). Consequently, in order to achieve the necessary nutritional intakes, foods consumed by older infants and young children should be nutritionally dense (0,6-1,0 kcal/g) and served frequently (up to 5 times) during the day. Foods should provide a significant amount of vitamins and minerals as well as macronutrients.
- Provide a wide variety of healthy foods appropriate for older infants and young children.

Micronutrient malnutrition is affecting industrialized nations, but even more so the developing regions of the world. It is present in all age groups, but young children tend to be among those most at risk of developing micronutrient deficiencies. Most specifically, older infants and young children are vulnerable to micronutrient deficiencies due to their relative increased requirements for growth and development. Nutrition gaps and problem nutrients persist in infants and young children living in many developing regions (e.g. Africa, Asia and Latin America). Several nutritional surveys have allowed to identify several "problem nutrients" (i.e. nutrients present in insufficient intakes in infants' and young children's diets: Iron, zinc, and some B – complex vitamins (B6, riboflavin and niacin)) (WHO, 2006; Bruins, 2015; Dewey, 2003; Fahmida, 2016).

The addition of vitamins and minerals to processed foods can lead to relatively rapid improvements in the micronutrient intakes (WHO, 2006; Bruins, 2015):

- In many situations, the addition of micronutrients to foods for older infants and young children is a valid approach for reducing micronutrient malnutrition as part of a food-based approach when and where existing food supplies and limited access fail to provide adequate levels of the respective nutrients in the diet.
- With the increasing number of fortified foods that are available in the market place, there is the potential for parents to use products that are designed for adults for the whole family. This may cause a risk of nutrient over dosage in the diet of their older infants and young children.
- Indeed, when consumed in excessive amounts, some nutrients, such as vitamins A, D, C, E and B6, folate, niacin as well as zinc, calcium, iodine, iron, magnesium, selenium, sodium, phosphorus and chloride may present a safety or health risk (WHO, 2006).

Applying NRVs-R for older infants and young children as reference criteria for the composition of optional vitamins and minerals in these additional food categories will help to deliver nutritionally meaningful levels and address the

specific global inadequacies in the diet for these populations.

References

Bruins MJ, Mugambi G, Verkaik-Kloosterman J, Hoekstra J, Kraemer K, Osendarp S, Melse-Boonstra A, Gallagher AM, Verhagen H. Addressing the risk of inadequate and excessive micronutrient intakes: traditional versus new approaches to setting adequate and safe micronutrient levels in foods. *Food Nutr Res.* 2015 Jan 27;59:26020

Butte N, Cobb K, Dwyer J, Graney L, Heird W, Rickard K; American Dietetic Association; Gerber Products Company. The Start Healthy Feeding Guidelines for Infants and Toddlers. *J Am Diet Assoc.* 2004 Mar;104(3):442-54

Dewey, K. G. & Brown, K. H. Update on technical issues concerning complementary feeding of young children in developing countries and implications for intervention programs. *Food Nutr. Bull.* 2003, 24(1): 5–28

Geliebter A. Gastric distension and gastric capacity in relation to food intake in humans. *Physiol Behav* 1988; 44(4-5):665-668.

Fahmida U, Santika O. Development of complementary feeding recommendations for 12-23-month-old children from low and middle socio-economic status in West Java, Indonesia: contribution of fortified foods towards meeting the nutrient requirement. *Br J Nutr.* 2016 Jul;116 Suppl 1:S8-S15

WHO, 2006: Guidelines on food fortification with micronutrients/edited by Lindsay Allen et al.

WHO, 2009: Infant and young child feeding Model Chapter for textbooks for medical students and allied health professionals

Recommendation 4

NRVs-R for older infants and young children should be established in the Guidelines on Nutrition Labeling and be used as reference criteria by jurisdictions where such claims are permitted.

ISDI Comment

ISDI support recommendation 4.

ISDI would like to emphasize that NRVs-R for older infants and young children are established for a target group/population and not for specific products. Therefore, NRVs-R for older infants and young children should be used as a reference for criteria for nutrition and health claims in national legislation where permitted.

Recommendation 5

That NRVs-R for older infants and young children be established for all 13 vitamins (including folate instead of folic acid) and 9 minerals (excluding molybdenum).

ISDI Comment

ISDI support recommendation 5.

All the nutrients proposed in this recommendation are important. They will help inform nutritionally meaningful vitamin and mineral addition in standards that permit this, and from a labelling perspective, can help inform healthy food choices for complementary foods. ISDI notes this recommendation does not include the recommendation from CCNFSDU40 for three sets of NRV-Rs for older infants, young children and older infants and young children

combined. This is out of step with recommendation 6 which includes provision for NRV-R for combined group. It is ISDI's views that the number of sets of NRV-Rs established should be reviewed once actual values are known.

Recommendation 6

That an NRV-R be established for protein for older infants and young children separately and as a combined group.

ISDI Comment

ISDI supports recommendation 6.

The development of protein NRVs-R for this age range is important. Protein is a key nutrient for growth and development. Consistent with protein's inclusion in the adult NRV, ISDI supports an NRV being developed for protein for older infants and young children. It is important any NRVs are used appropriately and reflect the evidence from which they are based. It is important, for example, an NRV is not inferred as a UL.

The Codex adult protein NRV for example, was based on the WHO 2007 protein safe level multiplied by 'average body weight' i.e. protein requirements for maintenance, defined as nitrogen balance - in child calculations for the protein safe level, additional is provided for growth. WHO (2007) acknowledges that this definition of protein requirement based on nitrogen balance does not necessarily identify the optimal intake for health, which is less quantifiable. An upper safe protein level is not currently defined for adults or young children.

Recommendation 7

That the priority rankings provided by the eWG be used to inform and help direct the work when the General Principles are being established.

ISDI Comment

ISDI supports recommendation 7.

ISDI considers that nutrition and science should inform the NRVs-R discussion on priority rankings and that the consideration for vitamins and minerals present in standardised products at Codex Alimentarius should remain secondary, as NRVs-R are established for a target population and not for products.