

Piloting the establishment of globally applicable labelling Nutrient Reference Value-Requirements for older infants for 25 nutrients

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For older infants (6–12 months), complementary foods are required in addition to milk feeding to meet high nutritional needs during this period of rapid growth and development⁽¹⁾. Nutrient Reference Values for labelling which are based on requirements (NRVs-R), are scientifically derived recommended intake levels, important for guiding care givers towards wise food choices. However, globally established (Codex Alimentarius) NRVs-R only apply to the population aged 36 months and older. The aim of this study is to pilot the establishment of globally applicable labelling NRVs-R for older infants for 13 vitamins, 11 minerals and protein.

A 2021 Food and Agriculture Organisation (FAO) report analysed the methods used to establish Dietary Intake Reference Values (DIRVs) for older infants by FAO/World Health Organization (WHO) and six international Recognised Authoritative Scientific Bodies (RASBs). Methods were ranked as Category 1–3 based on highest to lowest scientific rigour⁽²⁾. A stepwise process was developed and revised based on feedback from two consultations with Codex Delegates⁽³⁾ which highlighted DIRVs established by FAO/WHO as the primary source due to global applicability. The revised stepwise process was applied to establish proposed NRVs-R for the nutrients under consideration. If FAO/WHO DIRVs were absent/of lower rigour, the median of higher ranked DIRVs from RASBs were selected as proposed NRVs-R after checking the upper levels (where available) were not exceeded.

The stepwise process was well received by Codex Delegates. Of all proposed NRVs-R, eight were derived using Category 1 ranking; thirteen using Category 2 ranking; and four using a combination of Category 2 and 3 rankings. Due to global applicability, FAO/WHO DIRVs were selected as the proposed NRVs-R for vitamin D, calcium, iron and protein (all derived using Category 1 scientific rigour). Category 2 DIRVs from FAO/WHO for thiamine, riboflavin, niacin, vitamin B6, folate and biotin, were selected due to being the same as the median of Category 2 RASBs DIRVs. DIRVs from the European Food Safety Authority were selected for vitamin A, vitamin C and iodine due to their Category 1 ranking. The stepwise process was adjusted for zinc to use the International Zinc Nutrition Consultative Group as the primary source. Proposed NRVs-R for vitamins B5 and K were established as the median of Category 2 DIRVs from FAO/WHO and RASBs. Where FAO/WHO DIRVs were absent (copper, phosphorous, sodium, potassium and manganese), or of lower ranking (selenium, magnesium, vitamins B12 and E) the median of Category 2 RASBs DIRVs were proposed as NRVs-R.

There is limited availability of the highest level of scientific rigour (Category 1) to underpin DIRVs for older infants. Future work should focus on more rigorous derivation, and globally applicable, DIRVs for older infants. Proposed NRVs-R may need adjustment for global variability in public health issues.

References

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