Proceedings of the Nutrition Society (2023), **82 (OCE4)**, E230 doi:10.1017/S0029665123003063

Irish Section Conference 2023, 14–16 June 2023, Understanding the role of sex and gender in nutrition research

Is it time to consider national iodine fortification in Ireland?

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In Ireland, dairy products are the main dietary sources of iodine due to the use of iodine as a sanitiser during the milking process[1,2]. Changing dietary habits in Ireland, such as dairy avoidance, may lead to an increase in inadequate iodine status. Currently, at European Union (EU) level, Maximum Safe Levels are being established for all vitamins and minerals provided by food supplements and fortified foods. This will limit the amount of dietary iodine available, which may affect those most at-risk for serious adverse health consequences of iodine deficiency. For example, iodine deficiency during pregnancy can negatively affect early brain development of the foetus, potentially leading to lower cognitive and motor performance in later life[3]. Although rare, consuming too much iodine can also lead to adverse health consequences thus excess intake also needs to be avoided. The aim of this study is to identify groups at-risk of insufficient dietary iodine intake and status in Ireland and to determine how this is addressed in other countries.

Using the most recent Total Diet Study[1], iodine sources in the Irish diet were investigated. A purposive search for Irish data on iodine intakes and status was conducted to identify population groups most at-risk of iodine deficiency and any associated factors. Iodine fortification programmes, both within the EU and globally, were examined to assess how iodine insufficiency is addressed in other countries. Finally, the World Health Organisation (WHO) guideline on fortification of salt with iodine[4] was examined to assess how this could align with Ireland's salt reduction programme.

The 2012–2014 Total Diet Study reported that milk and dairy products represent 73% of the food sources of iodine for adults and 85% for children [1]. Irish studies (n6) identify women of childbearing age, pregnant women, and young children as the population groups most at-risk of iodine insufficiency. Among adults, women of childbearing age have the lowest iodine intake and status[2], while during pregnancy, 55% of women have been reported to be iodine deficient during summer months[5]. Ireland is one of only five countries in the EU that does not have an iodine fortification policy. The WHO guideline detailed how iodine fortification of salt can be implemented at levels that prevent deficiency but do not provide too much, while also aligning with salt reduction programmes.

In conclusion, the need for an iodine food fortification policy in Ireland should be assessed. A more detailed assessment of iodine status in Ireland, with particular focus on at-risk population groups, is required. In addition, a detailed exploration of how the WHO guideline (4) can be developed into an appropriate and feasible approach for addressing iodine insufficiency in Ireland should be conducted.

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