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<th>Title</th>
<th>Preventing neural tube defects in Ireland</th>
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In a 2010 meta-analysis, it was shown to have the level of NTDs. However, to date, mandatory fortification has not been implemented in the European Union (EU). Following publication of the updated national audit, the FSAI in 2016 produced an Update Report on Folic Acid and the Prevention of Birth Defects in Ireland. It recommended implementation of one of two options on fortification:

1. Mandatory fortification of bread or flour, together with voluntary fortification and advice on supplementation;

2. Voluntary fortification together with advice on supplementation. Comparing option 2 with option 1, the report concluded that the evidence to support 2 reduc- tion in NTD rates was weaker.

An observational study of 587 women, presenting for antenatal care in Dublin, found that 35 per cent did not know that they had to take FA before becoming pregnant, and only half the women knew that the purpose of the FA was to pre- vent NTDs (Cawley et al, 2015). The women who were the least knowledgeable were those who were soci ally disadvantaged or who had recently arrived to live in Ireland.

Public campaigns
As there had been no recent public health campaigns about periconceptional FA, the all- island body SafeFoods has undertaken successful public campaigns over the past three years to build awareness about the benefits of FA supplemen- tation among women who may become pregnant, using social media communication channels.

Furthermore, the Department of Health has established a multidisciplinary folate acid policy group to advise the Minister on future policies on Implementation and fortification. The first report is due to be completed in Q4 this year. A recent study, supported by SafeFoods at the UCD Centre for Human Reproduction in the Coombe Women and Infants University Hospital, of 502 women presenting for antenatal care found that while 98 per cent were taking FA, only 44 per cent started before pregnancy (Cawley et al, Journal of Public Health).

If women taking the recommended 400µg daily over the counter-supplement were to achieve the optimum red blood cell folate of >400µg, associated with the preven- tion of NTDs, they needed to begin supplementation at least six weeks before conception (or four weeks before the first day of their last menstrual period). Women who initiated FA during pregnancy often did so only when their pregnancy test was positive and the neural tube had closed. Thus, a supplementation strategy will only work if all women who could become pregnant in the near future, whether intentionally or not, are taking FA supplementation. Women who intend to become pregnant in the near future should also start FA at least a month before trying to conceive.

EU guidelines
A recent review compared the guidelines on FA supplementation in 20 European countries (Cawley et al, 2015). Over half recommended that FA should be taken by women planning a pregnancy, and those recommended that FA should be taken by all women of childbearing age. The wording of the guidelines varied even within countries. There was also wide variation in the recommendations for high doses in women at increased risk of NTDs.

Four guidelines recommend starting FA four weeks before conception, but no guideline recommended starting before conception as suggested by recent pharmokinetic studies.

As mandatory fortification policies were published before 2000, it is evident they need to be updated to take the increasing mobility of young women between countries, public health initiatives to ensure fortification levels are consistent and standardised across Europe.

Implementing mandatory food fortification in Ireland will be challenging. Fortifying bread as a single method is not cost effective because most flour used in Ireland is milled in the UK. Fortification of food is also difficult to man- date because food and food ingredients are produced internationally and cross borders of glob- alisation of markets.

Mandatory fortification will probably require EU legislation. It will require national variation in the level of fortification, as well as vulnerable groups such as the elderly.

The optimum level of fortifi- cation needs to be agreed. It will involve monitoring of NTD rates, as well as other clinical outcomes, to assess the impact of fortification and fortification policies across the island.

Further research into the current fortifica- tion policies does have practical and cost implications that may have an impact on government wishes to keep food prices low.

However, failure to act may delay monitoring of NTD rates, as well as other clinical outcomes, to assess the impact of fortification and fortification policies across the island.

There are growing public health concerns at the lack of progress in reducing the prevalence of NTDs across Europe since the early 1990s (Morris et al, 2015). In the UK, the chief medical officers have endorsed mandatory FA food fortification on the island of Ireland we need, as a prior- ity, to update our current FA supplementation and fortifica- tion policies.

While revising the supra- mercial level of concern, that is the level of concern, there is no evidence that this is our own hands, review- ing data to also take into account that the area probably close govern- ments of the European countries, whether they are in the EU or not. This key public health chal- lenge needs to be addressed sooner rather than later and should also be part of any Brexit discussions.

References on request

Preventing neural tube defects in Ireland
Prof Michael Turner of the UCD Centre for Human Reproduction, Coombe Women and Infants University Hospital, wants the Government to concentrate on the cost implications of not bringing in mandatory folic acid food fortification for maternity, neonatal and rehabilitation services — rather than the implications the policy might have for food prices.