New Zealand Medical Association
Te Hauora mō ngā Iwi Katoa

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Rebecca Doonan
Adviser, Food Science
Ministry for Primary Industries
PO Box 2526
Wellington 6104

By email: Food.Policy@mpi.govt.nz

Folic Acid Fortification

Dear Rebecca

Thank you for inviting the New Zealand Medical Association (NZMA) to provide feedback on the above consultation. The NZMA is New Zealand's largest medical organisation, with more than 5,000 members from all areas of medicine. The NZMA aims to provide leadership of the medical profession, and to promote professional unity and values, and the health of all New Zealanders. We recognise the principles of te Tiriti o Waitangi and the special obligations to Māori, particularly to ensure equity and active protection. Current disparities in health outcomes between Māori and non-Māori are unacceptable. The NZMA is committed to advocating for policies in health and the social and wider determinants of health that urgently address these disparities and contribute to equity of health outcomes. Our submission has been informed by feedback from our Board and Advisory Councils.

The NZMA welcomes MPI's review of the current voluntary approach to folic acid fortification. We have previously advocated strongly for mandatory folic acid fortification.[1] We reiterate our support for mandatory folic acid fortification, a position which is consistent with the advice in a 2018 report by the Prime Minister's Chief Science Advisor and the Royal Society Te Apārangi.[2] There is categorical evidence that folic acid fortification reduces the prevalence of neural tube defect (NTD)-affected pregnancies, while there is no consistent evidence that folic acid fortification of food has any harmful health effects. We note that the report by the Chief Science Advisor and the Royal Society concluded: "*with respect to NTD reduction, the benefits to parents, child, family/whānau and society as a whole of introducing mandatory fortification of packaged bread outweighs any potential adverse effects*".

[1] NZMA. The future of folic acid fortification. Submission to MPI. 9 July 2012. Available at http://www.nzma.org.nz/__data/assets/pdf_file/0014/1625/sub_folicacid.pdf
[2] Office of the Prime Minister's Chief Science Advisor and the Royal Society Te Apārangi. The Health Benefits and Risks of Folic Acid Fortification of Food. June 2018. Available at https://www.pmcsa.org.nz/wp-content/uploads/The-health-benefits-and-risks-of-folic-acid-fortification-of-food.pdf

The rate of NTD-affected pregnancies in New Zealand (10.6 per 10,000 total births) is higher than comparable countries where mandatory fortification has been introduced, such as Australia (8.7 per 10,000 total births), Canada (8.6 per 10,000 total births) and the US (7 per 10,000 total births). Of particular interest is that in Australia, NTD rates fell by 14% post mandatory fortification in 2009 from 10.2 per 10,000 births to 8.7 per 10,000 births.[3]

We agree that the current voluntary approach to fortification in New Zealand is not increasing folate status adequately for the optimal reduction of NTDs. We note that in 2017, the volume of fortified packaged sliced bread was 38% and the average folic acid level of fortified bread sampled was 166 mcg per 100g of bread, less than the target level of 200 mcg per 100g of bread.[4] Accordingly, we are opposed to options 1 and 2 in the consultation document and believe that New Zealand must implement mandatory folic acid fortification.

Of the three options for mandatory fortification that are proposed, our preference is for option 3b (mandatory fortification of non-organic wheat flour used for making bread). We note that this would require bread-making wheat flour to be fortified at the flour mill as the wheat is milled, and understand that this is the approach that has been taken in Australia. We note that the health impact of this option is estimated at preventing 162 to 240 extra NTDs over 30 years while there would be a net savings of $32.2 to $54.6 million over 30 years. While this option would limit the choices to consumers wanting unfortified bread products to non-wheat and organic bread, our view is that this limitation is fully justified given the overwhelming population health benefits associated with reducing NTDs (and all its downstream impacts). These include benefits to children, parents, families / whānau, and wider society, as well as considerable economic benefits.

We are concerned that the cost-benefit analysis (CBA) by Sapere[5] referred to in the MPI discussion document underestimates the population benefits of fortification by counting just NTD-affected live births and fetal deaths (which by definition is fetal deaths at 20+ weeks gestation). As such, the cost-effectiveness estimates for fortification are too low / conservative. Notably, the CBA excludes induced terminations associated with NTD-affected pregnancies. MPI's supporting document gives a relatively high rate for induced terminations (29 per annum, on average, from 2011-2015, compared with 26 NTD-affected live births and 9 stillbirths per annum during the same period).[6] We contend that induced terminations associated with NTD-affected pregnancies should at least be considered in sensitivity analysis. The CBA also does not consider spontaneous miscarriages that are likely to be due to inadequate dietary folate. A member of our Specialist Advisory Council with expertise in epidemiology has used the Nurses Health Study II[7] to calculate that there are about 800 to 1,100 such spontaneous miscarriages each year in New Zealand.[8] This suggests there are 13 to 18 times as many cases of spontaneous

[3] New Zealand Food Safety. Folic acid fortification: technical supporting document. Technical Paper No: 2019/04.October 2019. Available at https://www.mpi.govt.nz/dmsdocument/37227-folic-acid-fortification-technical-supporting-document

[4] MPI. Voluntary Folic Acid Fortification. Monitoring and Evaluation Report. Technical Paper No: 2018/02. February 2018. Available at https://www.mpi.govt.nz/dmsdocument/27121-voluntary-folic-acid-fortification-monitoring-and-evaluation-report

[5] Moore D & Young M. Folic acid fortification: both society and individuals benefit. Sapere. October 2019. Available at https://www.mpi.govt.nz/dmsdocument/37230-folic-acid-fortification-both-society-and-individuals-benefit

[6] Gibbs M, et al. Folic acid fortification: technical supporting document. NZ Food Safety Technical Paper Np: 2019/04. October 2019. Available at https://www.mpi.govt.nz/dmsdocument/37227-folic-acid-fortification-technical-supporting-document

[7] Gaskins AJ, et al. Maternal prepregnancy folate intake and risk of spontaneous abortion and stillbirth. Obstet Gynecol. 2014 Jul;124(1):23-31. Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086728/

[8] Details of methodology and calculations can be supplied on request

miscarriages each year due to inadequate dietary folate as there are NTD-affected live births or fetal deaths, a serious new item to factor when considering the cost-effectiveness of fortification.

Of particular importance is the assessment that mandatory folic acid fortification would help reduce the inequities in NTD rates, particularly for women with less education, younger mothers and Māori women. Māori women have significantly more live NTD births than non-Māori women and would therefore benefit more from a mandatory approach.

Finally, we ask MPI to ensure that due weighting is given to organisational submissions in the analysis of responses to this consultation.

We hope our feedback is helpful and look forward to learning the outcome of this consultation.

Yours sincerely

Dr Kate Baddock
NZMA Chair