

9 July 2012

Food Policy Team
Biosecurity, Food and Animal Welfare Directorate
Ministry for Primary Industries
PO Box 2526
Wellington 6104
New Zealand

By email: folicacid@mpi.govt.nz

The future of folic acid fortification of bread in New Zealand

Thank you for the opportunity to submit on this proposal.

The New Zealand Medical Association (NZMA) is New Zealand's largest medical organisation and has a pan professional membership. Our members come from all disciplines within the medical profession and include specialists, general practitioners, doctors-in-training and medical students.

The NZMA aims to provide leadership of the medical profession, and promote:

- professional unity and values, and
- the health of all New Zealanders.

The key roles of the NZMA are to:

- provide advocacy on behalf of doctors and their patients
- provide support and services to members and their practices
- publish and maintain the Code of Ethics for the profession
- publish the New Zealand Medical Journal.

We note that the review considers the question of whether fortification of bread should be mandatory or voluntary. From a medical point of view the NZMA considers that there is good reason to support its being made mandatory.

- Women who are pregnant or who are intending to become pregnant need to consume more folic acid than the general population which is difficult to get from diet alone.
- When women consume increased levels of folic acid they reduce the risk of having a neural-tube defect (NTD) affected pregnancy¹. This is important as the result of an NTD can include anencephaly and spina bifida and can result in death or lifelong disabilities.

¹ De-Regil, L.M et al. "Effects and safety of periconceptional folate supplementation for preventing birth defects, Cochrane Database Syst Rev 2010, Oct 6; (10)(10): CD007950

- Although there is a good uptake of folic acid by pregnant women, it is equally important that folic acid be taken prior to conception and because women are either not aware of this, or because the pregnancy was unplanned the percentage of women consuming folic acid prior to conception is much lower².

The fortification of bread having a significant health benefit to pregnant women, the question then arises as to whether there would be any unintended consequences of fortifying bread with folic acid. As the Authority will be aware, the main concern that has been raised about mandatory fortification of bread is whether it causes cancer.

The NZMA has reviewed the literature on this and found – as did the Ministry for Primary Industries in its *Voluntary Folic Acid Fortification Monitoring and Evaluation Report* – that the evidence overwhelmingly suggested there was either no link, or no significant link, to increased cancer rates.

The NZMA advises that it has also considered the Cancer Society’s position statement on *Folate and Reducing Cancer Risk (March 2011)* which, after considering the evidence, states that the Cancer Society of New Zealand and Cancer Council Australia do not oppose mandatory fortification of foods with folic acid (although the position statement does advise that careful monitoring of emerging evidence is required.³) In its key messages the position statement says:

There is probable evidence that foods containing folate **reduce** the risk of pancreatic cancer and limited suggestive evidence that they reduce the risk of oesophageal and bowel cancer. Cohort studies suggest that a high dietary folate intake may **reduce** the risk of post-menopausal breast cancer, particularly for women with a family history of breast cancer.

There does not appear to be any significant association between folate intake and the risk of lung cancer, and limited evidence suggests there is no association between folate intake and ovarian, stomach and prostate cancer.

A small number of recent studies, while inconclusive, suggest that high doses of folic acid as a supplement may **promote** the progression of undiagnosed premalignant and malignant lesions of the bowel. While dietary folate (even from foods fortified with folic acid) may have no adverse effects, some studies suggest that the combined impact of folic acid from supplements and fortification could promote pre-existing adenomas.

There has been some suggestion in the literature that mandatory fortification with folic acid could mask vitamin B12 deficiency, leading to delays in appropriate treatment for vitamin B12 deficient individuals. In its 2009 submission on fortification of bread with folic acid the Paediatric Society of New Zealand noted the following⁴:

Deficiency of both B12 and folate can cause a megaloblastic anaemia in which red blood cells are larger than normal, while deficiency of B12 also

² “Awareness and Knowledge of Folate and Folic Acid – A Survey of New Zealand women of child-bearing age” New Zealand Food Safety Authority, March 2011 <http://www.foodsafety.govt.nz/elibrary/industry/folate-NZ-women.pdf>

³ Cancer Society of New Zealand, Position statement on folate and reducing cancer risk. March 2011. http://www.cancernz.org.nz/assets/files/info/Position%20Statements/2011/Folate_PositioningStatement_May2011.pdf

⁴ Paediatric Society of New Zealand, “Submission to the New Zealand Food Safety Authority on Proposed Amendment to the New Zealand Folic Acid Standard: NZFSA Public Discussion Paper; no.10/09”

causes neurological symptoms. If megaloblastic anaemia (or other symptoms suggestive of vitamin deficiency) is found then the cause needs to be identified by appropriate medical evaluation and laboratory investigations, which would include measurement of blood levels of both vitamins. Geriatricians do not regard this as a significant issue and would not recommend against folate supplementation.

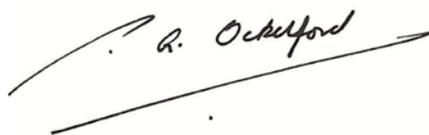
Therefore, from an evidence-based health perspective, the NZMA considers that the evidence overwhelmingly supports mandatory fortification of bread with folic acid. We endorse that view and support option 1: *Mandatory fortification from 30 September 2012 as defined in the current Standard with the possibility of delayed or phased – in commencement.*

The only argument the NZMA is aware of that has some merit is the increased cost this measure is likely to have on the industry and consumers. The NZMA notes that the Paediatric Society of New Zealand (PSNZ), in its 2009 submission, estimated the cost of mandatory fortification was between three and five cents per loaf⁵. While we acknowledge the impact on the consumer, and that this is particularly difficult given today's economic times, we also note that there is a significant public health trade off and long term savings to the public purse. Again we refer to PSNZ's 2009 submission which we support:

PSNZ also notes that the treatment of children and adults with neural tube defects has impacts on healthcare resources for other healthcare users. Many children with meningomyelocoele will require a ventriculoperitoneal shunt insertion for hydrocephalus. Half of all shunts fail within two years and require replacement. Each child with meningomyelocoele will require an average of five shunt revisions⁶. There are significant resource issues in the provision of neurosurgical services in New Zealand. Financial resource is only part of the issue. There are not enough paediatric neurosurgeons to meet demand. Mandatory fortification with folic acid, by reducing the number of infants born with neural tube defects, will ensure that other children requiring neurosurgical intervention can receive more timely surgery.

Having said the above, the NZMA does believe there should be an avenue for “conscientious objectors” to purchase folate free bread should they make that choice. While option two seems in our view to allow too great a percentage of bread to be folate free to obtain the health gains sought, perhaps the Government could consider mechanisms for allowing a limited supply of folate free bread into the market to meet this demand.

Yours sincerely

A handwritten signature in black ink, reading "Dr. Ockelford", with a long horizontal line extending to the right.

Dr Paul Ockelford
NZMA Chair

⁵ Above n 4.

⁶ Personal communication by author of PSNZ submission (above n 4) to Mr Andrew Law, Clinical Director, Paediatric Neurosurgery, Starship Children's Hospital, Auckland.