

# Submission Form

## Introduction

Folic acid is an essential B vitamin important for the healthy development of babies early in pregnancy. There is overwhelming evidence that consuming sufficient folic acid before conception and during early pregnancy can prevent many cases of neural tube defects (NTD) such as spina bifida.

New Zealand's rate of NTDs is higher than it could be, and Māori women have higher rates of affected live births than other groups. The financial, social, and emotional impact from these birth defects can be significant for many families, whānau, and communities across New Zealand.

MPI recognises the importance of this issue and is seeking feedback on whether the government should:

- continue with the current voluntary approach of fortifying up to 50% of packaged sliced bread
- ask industry to enhance the voluntary approach to fortify 80% of packaged sliced bread, or
- introduce mandatory fortification of bread, bread-making wheat flour, or all wheat flour.

There is no consistent evidence that folic acid, when fortified in food at the recommended level, has any harmful health effects.

All options would exclude organic products.

We are seeking your feedback on these options. Hearing the views of the public will help us understand the possible impacts of the proposals.

## Once you have completed this form

Email to: [Food.Policy@mpi.govt.nz](mailto:Food.Policy@mpi.govt.nz)

While we prefer email, you can also post your submission to:

Consultation: Folic Acid Fortification  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6104

**Submissions must be received no later than 5:00pm on 12 November 2019.**

## Submitter details:

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## Official Information Act 1982

All submissions are subject to the Official Information Act and can be released (along with personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

## **The problem**

The number of folic acid-sensitive NTD-affected pregnancies in New Zealand could be reduced if the blood folate levels of women of childbearing age was improved. Most women of childbearing age cannot get enough folate from natural food sources to ensure optimal blood folate levels for the prevention of NTDs.

Supplementation only works for women who plan their pregnancies and know about the importance of taking folic acid tablets during the critical period of at least one month before and for the three months following conception. Around 53% of New Zealand pregnancies are unplanned.

Some foods are voluntarily fortified with folic acid. This is not enough, however, to sufficiently reduce the risk of NTD-affected pregnancies across the New Zealand population.

### **1. DO YOU AGREE WITH THE PROBLEM AS STATED?**

- Agree.
- Disagree.
- Unsure.

Please explain why:

The Newborn Network of the Paediatric Society of New Zealand is a group of key health professionals promoting and supporting newborn services in New Zealand.

The aims and objectives of the Society are to stimulate interest in and to promote the scientific study of child health and Paediatrics in New Zealand, and to engage in all activities which, in the opinion of the Society, may be necessary from time to time in the interests of child health, and to engage in the following activities which promote the welfare of New Zealand children.

The Newborn Network, Paediatric Society strongly supports action to increase the intake of folic acid across the population of Aotearoa New Zealand with the aim of reducing the rate of neural tube defects (NTDs). NTDs are serious health problems, which are demonstrably reduced by the intake of adequate levels of folic acid during pregnancy. Reducing instances of neural tube defects is important for a number of reasons, including

- their inequitable impact on Māori
- the impact they have on the quality of life and overall wellbeing of sufferers
- the economic and emotional burden they place upon caregivers

The Newborn network, PSNZ believes mandatory fortification will be effective in reducing NTD pregnancy rates down from an estimated 12-14 per 10000 (70-90 per year in NZ) to the international “floor-level” seen in countries with mandatory fortification, such as USA and Canada, of 7-9/10000 (40-50). This would prevent approximately 30 Neural Tube Defect pregnancies per year.

NTDs have wide-ranging impacts upon children and their families. It affects their physical, emotional, social and sexual functioning<sup>1</sup>. People with NTDs require help with their basic daily functioning and suffer from a range of long term health problems including urinary tract infections, kidney stones mobility impairments and skin infections. This severely impacts on wellbeing and quality of life, which could be avoided by the intake of folic acid before and during pregnancy.

Diagnosis of NTDs often at 19-20 weeks gestation, cause great distress to parents/ whanau, who are presented with a range of options with a short time frame for a decision. The options include termination or stillbirth, or the significant emotional and financial investment and commitment to caring for a child with a NTD. We see the trauma and distress of families when their affected babies are admitted to Neonatal units across the country.

Children with NTDs are often affected by other conditions, which increases strain upon carers and contributes to a significant impact on the carers stress levels, mental health and a range of other negative influences. In economic terms, caregivers experience reduced income due to the additional time burden, which is further compounded by the substantial direct costs of medical treatment for a child with a NTD. These factors contribute to a lower quality of life and exemplify the importance of reducing the incidence of NTDs, by the simple measure of improving intake of folic acid across the population.

We agree that more than half of all pregnancies in New Zealand are unplanned. Unplanned pregnancies occur more frequently in the more disadvantaged sectors of the community, especially younger women including teenagers, and women in low socioeconomic groups. These women are more likely to have a diet low in naturally folate rich foods and less likely to be taking folic acid supplements. Therefore a public health approach is necessary to reach these women. Maori are disproportionately represented in many adverse health outcomes that reflect social disadvantage, and we agree with your focus in reducing ethnic disparities in health outcomes. We concur that mandatory fortification is likely to reduce disparity in NTD rates, as has occurred in Australia following mandatory fortification.

As noted in the discussion document provided by MPI, the New Zealand rate of NTDs is comparable to that of other countries who employ voluntary folic acid fortification, but significantly above that of countries who employ mandatory fortification. It has been conclusively proven that intake of

periconceptional folic acid has a significant impact on preventing NTDs, as established by numerous studies<sup>2</sup>

The time is right for an enduring decision to improve the outcomes for women and their babies in Aotearoa New Zealand.

## The objective of the review

The objective of this review is to increase the consumption of food containing folic acid by women of childbearing age, thereby reducing the number of NTD-affected pregnancies, while considering consumer choice, increasing equity of health outcomes, and minimising impacts on industry.

### 2. DO YOU AGREE WITH THE OBJECTIVE OF THE REVIEW?

- Agree.
- Disagree.
- Unsure.

Please explain why:

This review is very important given the lack of progress in preventing NTDs since the voluntary regime was put in place in 2012.

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<sup>1</sup> Rofail D, Maguire L. A Review of the Social, Psychological, and Economic Burdens Experienced by People with Spina Bifida and Their Caregivers. [Internet] *Neurol Ther.* 2013;2(1-2): 1-12. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4389032/>. Accessed 11 November 2019

<sup>2</sup> De-Regil L M, Peña-Rosas J P, Fernández-Gaxiola A C, Rayco-Solon P. Effects and safety of periconceptional folate supplementation for preventing birth defects. [Internet] *Cochrane Database Syst Rev.* 2010 12. Available from: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD007950.pub3/full>. Accessed 11 November 2019

## Option 1: Maintaining the status quo

Option 1 would involve continued voluntary support by large bread bakers through their Code of Practice. Their goal is to fortify up to 50% of their packaged sliced bread, by volume.

MPI has assessed option 1 against the criteria for health impacts, cost effectiveness, equity, consumer choice, and other impacts on pages 19 – 21 in the discussion paper.

### 3. DO YOU AGREE WITH THE ASSESSMENT OF THE STATUS QUO AGAINST THE CRITERIA?

- Agree.
- Disagree.
- Unsure.

Please explain why and provide any evidence you may have:

The Newborn Network of the PSNZ does NOT support the status quo. The newborn network agrees with your assessment that such an approach continues to lead to inadequate levels of prevention of NTDs, and fails to address health inequities through social disparities.

## Option 2: Asking industry to enhance voluntary fortification

Option 2 would involve asking industry (currently the large plant bakers) to voluntarily increase the volume of packaged sliced bread being fortified under the Code of Practice from the 2017 level of 38% to a new goal of 80%.

MPI has assessed option 2 against the criteria for health impacts, cost effectiveness, equity, consumer choice, and other impacts on pages 22 – 24 in the discussion paper.

### 4. DO YOU AGREE WITH THE ASSESSMENT OF THE ENHANCED VOLUNTARY FORTIFICATION OPTION AGAINST THE CRITERIA AND LIKELY IMPACTS?

- Agree.
- Disagree.
- Unsure.

Please explain why and provide any evidence you may have:

The Newborn Network PSNZ does NOT support this option.

Industry has struggled to reach the target of 50% in a voluntary regime is highly unlikely to be able to reach 80% under a further voluntary regime. The time taken to slowly increase percentage of breads fortified over a number of years equates to each year more babies being born with NTD that were preventable.

### **Option 3a: Mandatory fortification of non-organic bread**

Option 3a would see bread fortified with folic acid at the bread-making stage. It would apply to all non-organic bread products, and include bread made from cereals other than wheat (e.g. corn and rice bread).

The Australia New Zealand Food Standards Code would continue to permit the voluntary fortification of folic acid in other specified foods (such as breakfast cereals).

MPI has assessed option 3a against the criteria for health impacts, cost effectiveness, equity, consumer choice, and other impacts on pages 26 – 29 in the discussion paper.

#### **5. DO YOU AGREE WITH THE ASSESSMENT OF MANDATORY FOLIC ACID FORTIFICATION OF BREAD AGAINST THE CRITERIA AND LIKELY IMPACTS?**

- Agree.
- Disagree.
- Unsure.

Please explain why and provide any evidence you may have:

The newborn network, PSNZ does NOT support this option.

Although overall we supports mandatory fortification, options 3b and 3c provide a much more effective means of fortification. As noted in your report the ability of a very large number of small bakeries to implement this change is challenging, there would be high compliance costs in monitoring and a high likelihood of great variability in the amount of folic acid in fortified breads, with a high likelihood many would not actually be fortified effectively. Because of this variability the health gains are likely to be significantly less than for options 3b and 3c.

### **Option 3b: Mandatory fortification of non-organic bread-making wheat flour**

Under option 3b, all non-organic wheat flour for bread-making would be fortified with folic acid at the flour-milling stage. In general, folic acid is best added late in the milling process and at a point that ensures thorough and consistent mixing with the flour.

Cereals other than wheat that are processed into flour for bread-making purposes would not be required to be fortified with folic acid (such as rice).

Flour used for purposes other than bread making would not be required to be fortified.

The Australia New Zealand Food Standards Code would continue to permit the voluntary fortification of folic acid in other specified foods (such as breakfast cereals).

MPI has assessed option 3b against the criteria for health impacts, cost effectiveness, equity, consumer choice, and other impacts on pages 30 – 34 in the discussion paper.

#### **6. DO YOU AGREE WITH THE ASSESSMENT OF MANDATORY FOLIC ACID FORTIFICATION OF BREAD-MAKING WHEAT FLOUR AGAINST THE CRITERIA AND LIKELY IMPACTS?**

- Agree.
- Disagree.
- Unsure.

Please explain why and provide any evidence you may have:

Newborn Network PSNZ supports this option. It aligns NZ with Australia where substantial health benefits have been documented since mandatory fortification was introduced. It is much easier to implement and monitor compared to option 3a.

We believe that 3b, the mandatory fortification of all non-organic wheat flour for bread making, is the best approach. Due to its universal nature, this option would also work to reduce inequity in live births for Māori.

It is likely to provide substantial reduction in NTD rates which will bring NZ close to the optimal prevention rate.



### **Option 3c: Mandatory fortification of all non-organic wheat flour**

Option 3c would require the fortification of all non-organic wheat flour, whether milled in New Zealand or imported from overseas.

The Australia New Zealand Food Standards Code would continue to permit the voluntary fortification of folic acid in other specified foods (such as breakfast cereals).

MPI has assessed option 3c against the criteria for health impacts, cost effectiveness, equity, consumer choice, and other impacts on pages 35 – 39 in the discussion paper.

#### **7. DO YOU AGREE WITH THE ASSESSMENT OF MANDATORY FOLIC ACID FORTIFICATION OF NON-ORGANIC WHEAT FLOUR AGAINST THE CRITERIA AND LIKELY IMPACTS?**

- Agree.
- Disagree.
- Unsure.

Please explain why and provide any evidence you may have:

Newborn Network PSNZ also supports option 3c.

Option 3c, the mandatory fortification of all non-organic wheat flour for any purposes, is also supported as the reduction in NTDs achieved will greatly outweigh any risk associated with the overconsumption of folic acid.

We also wish to advocate for mandatory fortification of gluten-free flour, due to the significant number of consumers in Aotearoa New Zealand who follow gluten-free diets. While there is a lack of reliable information on the exact prevalence of gluten-free diets in Aotearoa New Zealand a significant proportion of people would not be consuming folic acid if fortification did not apply to gluten-free flour.

## Implementation

MPI provides information on the proposed approaches to implementation for the three options presented on pages 40 – 43 in the discussion paper.

### 8. DO YOU AGREE WITH THE APPROACH TO IMPLEMENTATION?

- Agree.
- Disagree.
- Unsure.

Please explain why and provide any evidence you may have. Note: if you are one of the businesses that could be affected, what do you estimate the increased costs to be?

## General comments

If you have any other general comments or suggestions for the *Folic acid fortification: Increasing folic acid availability in food* discussion paper, please let us know.

The Newborn Network strongly favours mandatory folic acid fortification in flour. It has been comprehensively shown across the world that mandatory fortification reduces the rate of NTDs, and the previous voluntary regime in Aotearoa New Zealand has failed to have a significant impact.

We believe that further changes within a voluntary regime are unlikely to achieve the goal of significantly reducing the rate of NTDs, and as such, it is imperative that a decision is made to introduce mandatory fortification.

The Newborn Network thanks the Ministry for Primary Industries for the opportunity to provide feedback on folic acid fortification. We would also like to note that we support the submission of the RACP and the wider Paediatric Society of New Zealand.