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The Royal Australasian College of Physicians' submission to the Ministry for Primary Industries

Folic acid fortification: Increasing folic acid availability in food

Introduction

The Royal Australasian College of Physicians (RACP) welcomes the opportunity to submit feedback to the Ministry for Primary Industries (MPI) on folic acid fortification.

The RACP works across more than 40 medical specialties to educate, innovate and advocate for excellence in health and medical care. Working with our senior members, the RACP trains the next generation of specialists, while playing a lead role in developing world best practice models of care. We also draw on the skills of our members, to develop policies that promote a healthier society. By working together, our members advance the interest of our profession, our patients and the broader community.

Key Points

The RACP 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

Background

Impact of neural tube defects

NTDs have wide-ranging impacts upon sufferers, including affecting their physical, emotional, social and sexual functioning[1]. People with NTDs often require help with their basic daily functioning and suffer from a range of long term health problems including urinary tract infections, kidney stones 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 are also likely to cause great distress in parents and caregivers, who are presented with a range of options including the grief of termination or stillbirth, or the significant emotional and financial investment and commitment to caring for a child with a NTD. 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 improving intake of folic acid.

Comparative rates of neural tube defects in Aotearoa New Zealand

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

[1] 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

periconceptional folic acid has a significant impact on preventing NTDs, as established by numerous studies[2] As such, there is a readily available blueprint, both for the impact of folic acid fortification, and for its implementation, which can be applied to reduce the rate of neural tube defects and improve health outcomes for women in Aotearoa New Zealand.

Inequitable impact on Māori

NTDs inequitably affect the births of Māori, and subsequently, the lives of their children[3]. This has a significant social impact, and mirrors trends found throughout the health system in Aotearoa New Zealand. Achieving equity by improving the rates of folic acid intake in Māori is a key argument for mandatory fortification, as this would maintain the equity focus, and the commitment to Te Tiriti o Waitangi laid out in recent major reports and plans such as the Waitangi Tribunal's Wai 2575 *Hauora* report and the New Zealand Cancer Action Plan 2019-29[4][5].

Preferred Option

The RACP is strongly in favour of 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, partially due to a failure to achieve the target of 50 per cent fortification by volume. 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 we move to mandatory fortification.

Of the options proposed in the consultation document, we believe that 3b, the mandatory fortification of all non-organic wheat flour for bread making, is the best approach. This approach avoids safety concerns associated with the overconsumption of folic acid by children, as noted in the consultation document. It also has the advantage of bringing us into step with other countries, such as Australia, who already add folic acid to wheat flour for bread making[6]. Due to its universal nature, this option would also work to reduce inequity in live births for Māori.

Despite this, we also support option 3c, the mandatory fortification of all non-organic what flour for any purposes, as the reduction in NTDs achieved will greatly outweigh any risk associated with the overconsumption of folic acid. Achieving a wide proliferation of folic acid consumption is the most important objective to be achieved, and mandatory fortification at the flour stage is the best vehicle to accomplish this. This option also retains the benefits of universal fortification, as noted in option 3b.

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[2] 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

[3] Ministry for Primary Industries. Voluntary Folic Acid Fortification Monitoring and Evaluation Report MPI Technical Paper No: 2018/02. [Internet] Wellington: Ministry for Primary Industries; 2018. Available from: https://www.mpi.govt.nz/dmsdocument/27121-voluntary-folic-acid-fortification-monitoring-and-evaluation-report. Accessed 11 November 2019

[4] Waitangi Tribunal. Hauora: Report into Stage One of the Health Services and Outcomes Kaupapa Inquiry. Wellington: Waitangi Tribunal; 2019. Available from https://www.waitangitribunal.govt.nz/inquiries/kaupapa-inquiries/health-services-and-outcomes-inquiry/. Accessed 11 November 2019

[5] Ministry of Health. New Zealand Cancer Action Plan 2019-2029. [Internet] Wellington: Ministry of Health; 2019. Available from https://www.health.govt.nz/system/files/documents/publications/new-zealand-cancer-action-plan-2019-2029.pdf. Accessed 11 November 2019

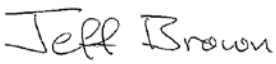
[6] Food Standards Australia New Zealand. Folic Acid Fortification. [Internet] Available from: http://www.foodstandards.gov.au/consumer/nutrition/folicmandatory/pages/default.aspx. Accessed 11 November 2019

We also note that it is important that mandatory fortification applies to 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, it is estimated that approximately one per cent of children have doctor diagnosed coeliac disease, with five per cent avoiding gluten[7]. This highlights the need for a comprehensive Aotearoa New Zealand nutrition survey, to truly ascertain what diets are being followed. Despite this, it is clear that a significant proportion of people would not be consuming folic acid if fortification did not apply to gluten-free flour.

Conclusion

The RACP 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 Paediatric Society of New Zealand, and we thank them for working with us in the development of our submission. To discuss this submission further, please contact the NZ Policy and Advocacy Unit at policy@racp.org.nz.

Nāku noa, nā



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[7] Tanpowpong P, Ingham T R, Lampshire P K, Kirchberg F F, Epton M J, Crane J, Camargo C A Jr. Coeliac disease and gluten avoidance in New Zealand children. [Internet] Arch Dis Child. 2012;97(1): 12-16. Available from: https://adc.bmj.com/content/97/1/12. Accessed 11 November 2019