

# Fortification of flour with folic acid

BPAS response to government consultation – September 2019

1. *Do you agree or disagree with the proposal for mandatory fortification of non-wholemeal wheat flour in the UK with folic acid to help prevent neural tube defects? Please explain your answer.*

**Agree.**

The British Pregnancy Advisory Service (BPAS) is a reproductive healthcare charity that, as part of our work, provides Terminations of Pregnancy on the grounds of Foetal Anomaly (TOPFA) for women who have received a diagnosis of a Neural Tube Defect.

The UK has one of the highest rates of neural tube defects in Europe, with around 1,000 pregnancies affected each year.

The latest Public Health England figures show that the rate of Neural Tube Defects was 13.7 per 10,000 live births in 2017 – or roughly 930 diagnoses a year in England and Wales, of which, the figures suggest, around 720 would end in TOPFA.

One of the most effective ways to reduce the incidence of these conditions is for women to take folic acid before they conceive, yet a comprehensive 2014 study showed that fewer than one in three women in the UK take folic acid prior to conceiving, a figure which has fallen since 2001. The shortfall in folic acid consumption is particularly pronounced among young women and women from BAME backgrounds – putting them at disproportionate risk of a foetal anomaly diagnosis.

Current guidance and focus on independent supplementation with folic acid for women of childbearing age is therefore ineffective in preventing neural tube defects in wanted pregnancies.

To reduce the prevalence of foetal anomaly diagnoses because of Neural Tube Defects, and enable women to make their own decisions about their pregnancy – wanted or not – BPAS has long campaigned for the mandatory fortification of flour with folic acid.

Mandatory fortification is also supported by the Independent Scientific Advisory Committee on Nutrition (SACN), the Food Standards Agency, the Royal College of Obstetricians and Gynaecologists (RCOG), the Royal College of Midwives (RCM), and the Royal College of Paediatrics and Child Health (RCPCH).

2. *Which of the following do you think mandatory fortification of folic acid should apply to? Please choose one.*
  - a. Just non-wholemeal wheat flour in the UK (the most commonly used type)
  - b. Just non-wholemeal wheat flour used to make bread in the UK
  - c. All flour in the UK, including wholemeal and other grains
  - d. All flour in the UK and other non-wheat products such as ‘gluten free’**
  - e. There are no products that should have mandatory fortification with folic acid
  
3. *Are there any alternative ways of helping reduce the number of neural tube defects that you may prefer, other than our proposal for mandatory fortification of flour with folic acid?*

**No.**

Current guidance and focus on independent supplementation with folic acid for women of childbearing age is ineffective in preventing neural tube defects in wanted pregnancies.

This is the case not only in the UK but also around the world. As a result, we see that internationally, mandatory fortification has a positive impact on reducing the prevalence of diagnoses of Neural Tube Defects.

In the USA, mandatory fortification was introduced in 1998 and there was an 'immediate and stable' 28% reduction in prevalence of NTDs.

Internationally, a systematic review and meta-analysis of 300 studies reported that the prevalence of spina bifida was lower in regions with mandatory rather than voluntary fortification (35 per 100,000 live births, stillbirths, and terminations of pregnancy compared to 52 per 100,000).

Only 55% of pregnancies in Great Britain are planned, which means that even if women are aware of guidance around folic acid, they are unlikely to be able to take the appropriate amount of folic acid before the point in pregnancy when the spinal cord, brain, and central nervous system finish developing c. 23 days post-conception (c.5 weeks' gestation).

The effect is particularly pronounced among young women where only 6% of women who became pregnant under the age of 20 take folic acid supplements before pregnancy – compared to 40% of women aged over 35.

4. *Are there any particular groups or individuals that might be negatively affected by mandatory fortification of flour with folic acid, or miss out on the benefits? This question is not about the effect on businesses.*

The decision taken on which products to fortify have the potential to exclude some women from the benefits of folic acid fortification.

Bpas believes that mandatory fortification should be applied to as wide a proportion of flours in the UK as possible to ensure that women (prior to conception or during pregnancy) with particular dietary needs or preferences are not excluded from the beneficial impact of increased folic acid.

The National Association of British and Irish Flour Millers (NABIM) have indicated that up to 40% of UK flour production does not fall within the narrow description of 'non-wholemeal wheat flour' – meaning fortification of only this flour would not have the broadest public health impact.

The Federation of Bakers say that while white bread has 25µg of folic acid per 100g, wholemeal bread has only 40µg. By contrast, the stochastic modelling by Food Standards Scotland considers fortifications only above 200µg per 100g. There is simply not enough naturally-occurring folate in wholemeal flour to justify its exclusion from fortification.

Figures from 2018 also suggest that around 1 in 10 people in the UK try to avoid gluten and wheat altogether, with gluten free products accounting for a 27 percent rise in 'free from' purchases in the year to 2018. Figures on the prevalence of gluten intolerance and coeliac disease also show that women are disproportionately affected. Exclusion of

gluten free flours from fortification therefore risks leaving a sizeable minority of women unable to avail themselves of the benefits of fortification.

We are also aware of concerns that folic acid fortification may 'mask' B12 deficiency, which occurs in 1-5 per 100,000 people, particularly in the elderly, with an increased risk of negative sequelae. It is clear that this concern is based on testing for B12 which falls short of the recommendations of the British Committee for Standards in Haematology, published in 2014, which makes clear that serum cobalamin is an inadequate diagnostic tool for B12 deficiency and supplementary tests of either plasma tHcy or plasma MMA should be used in addition. The standardised use of these tests would dramatically reduce the likelihood of any negative impact on individuals who may be suffering from pernicious anaemia.

5. *How could we make sure these groups or individuals are supported or not affected negatively?*

Fortification should be introduced for all forms of flour.

6. *Are there any businesses that might be negatively affected by mandatory fortification of flour with folic acid, or miss out on the benefits?*

n/a

7. *How could we make sure these businesses are supported or not affected negatively?*

n/a

8. *If the fortification of flour with folic acid is made mandatory, do you agree or disagree that there should be limits on voluntary fortification of other food products and/or supplements with folic acid? Please give reasons for your answer.*

**Disagree.**

Proposals for levels of fortification in flour, as evaluated by Food Standards Scotland's Stochastic Review, show a very low level of people who would exceed the current recommended maximum limit of folic acid. Fortification of 200µg without capping would account for no more than 0.6% of the general population compared to a 0.4% baseline.

At the same time, between 15% and 22% of women of reproductive age would remain below the RNI for folic acid – a figure which increases with capping.

Voluntary fortification should continue to be allowed to enable women to consume adequate amounts of folic acid as part of their daily diet.

9. *Do you agree or disagree with the provisional cost/benefit analysis outlined in the impact assessment?*

n/a

10. *Can you provide any additional evidence to inform the impact assessment?*

n/a

11. *What are the practical issues that need to be thought about for mandatory fortification with folic acid?*

n/a

12. *Are there any further trade implications for industry that need to be considered?*

n/a

13. *Are there any effects on small businesses and medium businesses that need to be considered?*

n/a

## **Contact**

Rachael Clarke  
Public Affairs and Advocacy Manager  
British Pregnancy Advisory Service  
020 7061 3379  
[rachael.clarke@bpas.org](mailto:rachael.clarke@bpas.org)