



Supporting Healthier Communities Through Fortified Corn Masa Products

Neural tube defects & the importance of folic acid

Background

Neural tube defects (NTDs) are severe birth defects of the brain and spine which can result in severe disability, miscarriage, or infant death. Folic acid, the man-made form of vitamin B9, is crucial for preventing NTDs.

Since 1998, the FDA has mandated folic acid fortification of enriched cereal grains,¹ reducing NTD cases by about 1,300 annually.² Despite these efforts, Hispanic women in the U.S. continue to experience higher rates of NTDs than any other subpopulation.² In 2016, the FDA approved the voluntary fortification of corn masa flour, with the goal of providing a fortified staple to reduce this disparity.³ Unfortunately, industry uptake has been low, with only 5.8% of corn masa products currently fortified.⁴

Bridging Nutrition & Prevention



NTDs and Folic Acid

NTDs are severe birth defects of the brain and spine such as spina bifida and anencephaly. Getting 400 mcg of folic acid intake before and during early pregnancy can prevent up to 70% of NTDs.⁵



Disparities in NTD Rates

U.S. Hispanics experience a 19% higher risk of NTDs than non-Hispanic White or Black women.⁶ There has been no significant change in NTD rates in the Hispanic population since voluntary fortification was allowed.⁷



Fortification Gaps

Adoption of voluntary corn masa fortification is limited. The main corn masa product currently fortified is corn masa flour, with very few ready-made products such as tortillas and tostadas containing folic acid.

References:

(1) Food and Drug Administration. [Food Standards: Amendment of Standards of Identity for Enriched Grain Products to Require Addition of Folic Acid](#). (1996). (2) Williams et al. (2015). (3) Food and Drug Administration. [Food Additives Permitted for Direct Addition to Food for Human Consumption: Folic Acid](#). (2016). (4) Food Fortification Initiative. [Corn Masa in the US: Supply Chain, Market, and Fortification](#). (2024). (5) Prevention of neural tube defects: results of the Medical Research Council Vitamin Study. MRC Vitamin Study Research Group. (1991). (6) Stallings et al. (2024). (7) Wang et al. (2024). (8) Hamner et al. (2012). (9) Grosse et al. (2016).

Fortified Corn Masa: A staple for prevention

Potential health impact

- An estimated 422,000 Hispanic women could achieve adequate folate status due to corn masa fortification.⁸
- Fortification could prevent an estimated 127 NTDs annually among Latinas whose sole folic acid source is fortified foods.⁷

Economic benefits

- The lifetime cost of spina bifida is about \$792,000. Fortification saves the U.S. approximately \$603 million annually, excluding caregiver costs.⁹

What you can do

- Public health professionals play a crucial role in promoting the benefits of folic acid:
 - Educate community leaders and members about the benefits of folic acid and fortified products.
 - Use social media, community events, and educational materials to spread awareness. See 'More info' section for materials.
 - Inform corn masa manufacturers and grocery store owners of the impact they can make by producing and selling fortified masa products.

More info:



Contact us:



info@ffinetwork.org



<https://www.ffinetwork.org>