



Faces Of Anemia

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Malawi photo from istockphoto



Food Fortification Initiative
Enhancing Grains for Healthier Lives



Children

- Iron-deficiency anemia affects 114.7 million children worldwide
- It impairs physical and cognitive development which later in life limits earning potential





Women

- Iron-deficiency anemia affects:
 - 16.2 million pregnant women
 - 243.2 million non-pregnant women of child-bearing age

*If women of reproductive age
with anemia related to iron
deficiency stood head to toe,
they could reach the moon
and circle it.*



Distance to the moon and around it is 395,317 kilometers. If 243,187,000 women, each 1.65 meters tall (5.41 feet), stood head to toe, that would be 401,259 kilometers.

Number of women with anemia related to iron deficiency calculated from World Health Organization, *The Global Prevalence of Anemia* in 2011, published by in 2015.

http://www.who.int/nutrition/publications/micronutrients/global_prevalence_anaemia_2011/en/

Photo from NASA Earth Observatory on Flickr



Consequences of anemia

- Causes debilitating fatigue
- Reduces work capacity and lower national gross domestic product (GDP)
- Contributes to 20% of all maternal deaths



Nigeria photo from istockphoto

I couldn't climb a flight of stairs.



I felt dizzy and on the verge of fainting when I was pregnant.

I couldn't do my work.



It was like having jet lag.

I couldn't run to catch a bus.



I always fell asleep in class.

I thought it was normal fatigue.

I had to quit the cross country team.



It was astonishing to learn that many of my friends, colleagues, and neighbors had experienced anemia at some point, and this in Switzerland; a country of abundance. It is time to give a face to anemia worldwide!

- Peter Böhni, *Managing Director EPFL Innovation Satellite and Head Corporate Technology Value Nutrition for Bühler AG, and member of the Food Fortification Initiative Executive Management Team*



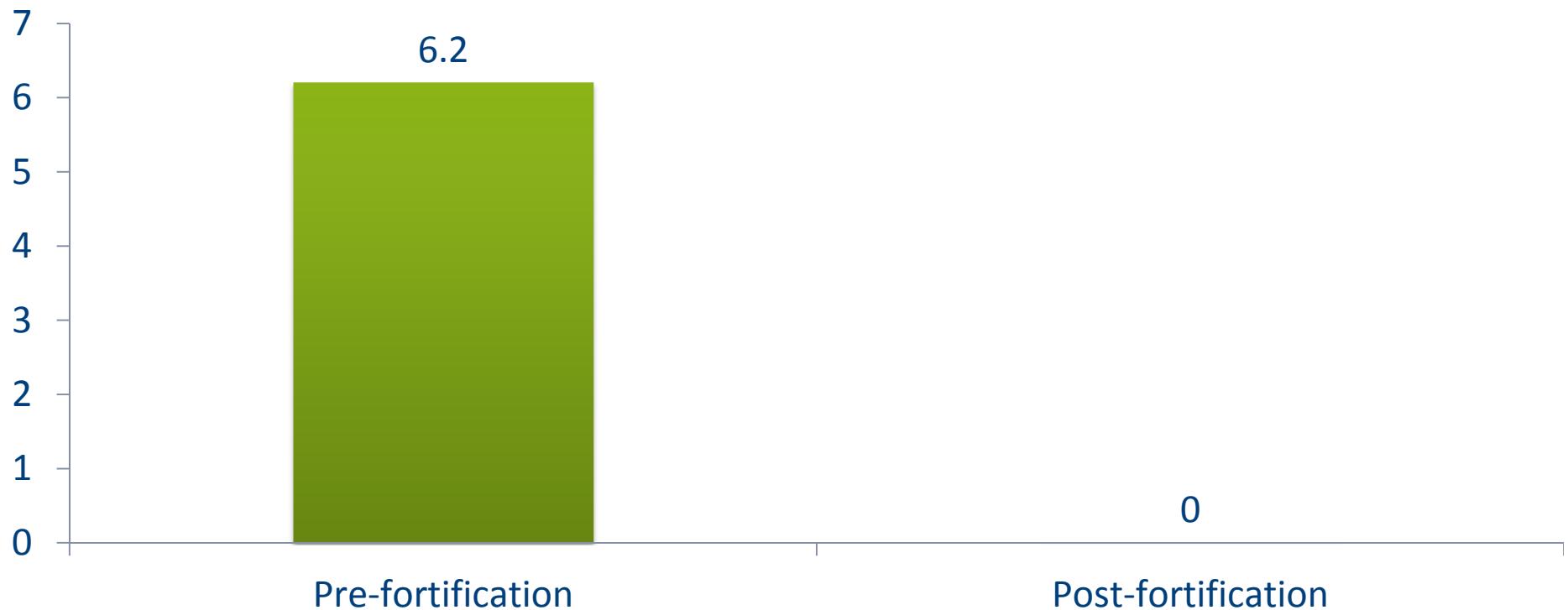


Does fortifying flour with iron help?



Fortification reduced iron-deficiency anemia in Costa Rica

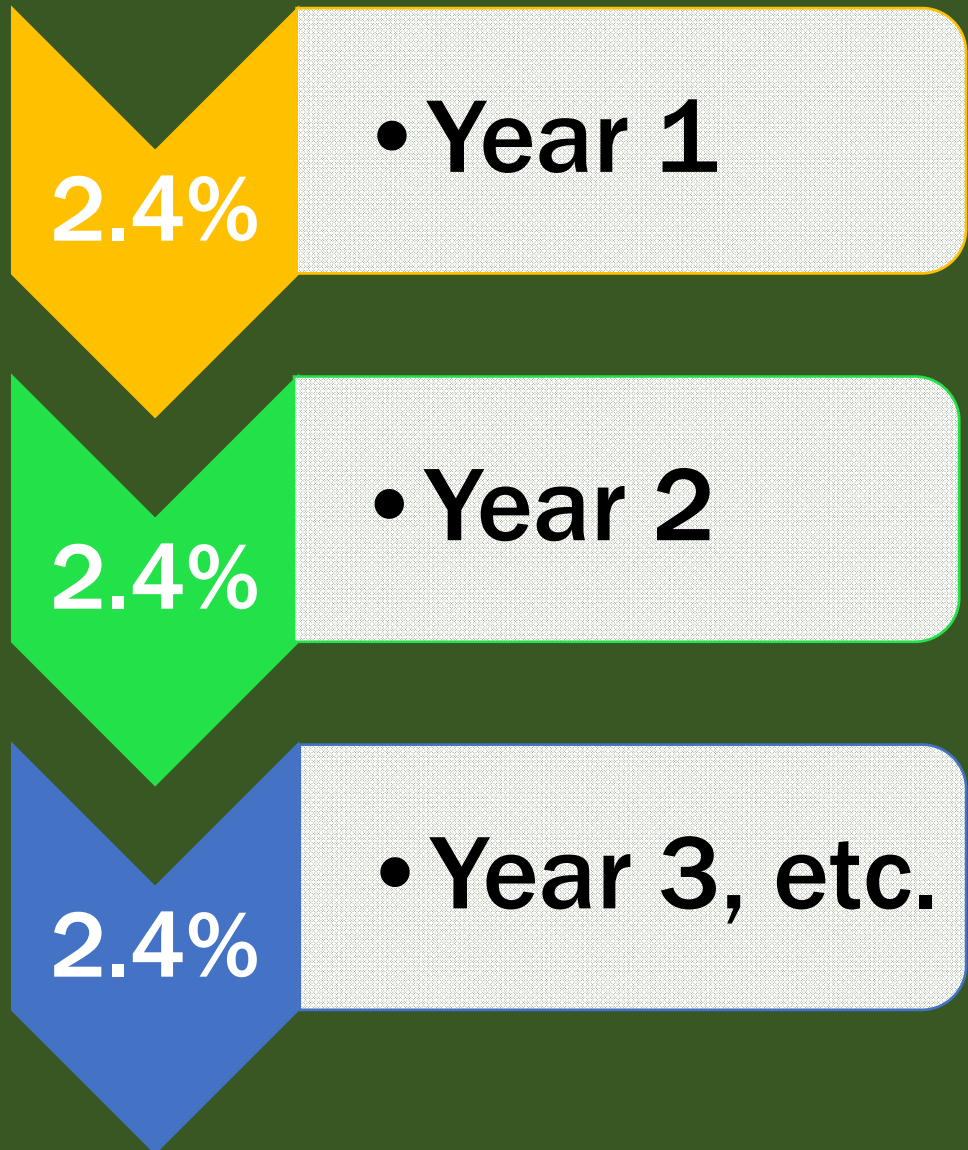
Prevalence of Iron-deficiency Anemia in Children 1-7 Years



Wheat flour, maize flour, powdered milk and liquid milk fortified with iron

Martorell 2015

Each year of flour fortification is associated with a 2.4% decrease in anemia.



Barkley, J., Wheeler, K., and Pachón, H. Anaemia prevalence may be reduced among countries that fortify flour. [British Journal of Nutrition](#). 2015. 114, pp 265-273. doi:10.1017/S0007114515001646.



Successful iron fortification programs:

- ✓ Are well implemented and monitored
- ✓ Optimize coverage and consumption
- ✓ Use recommended iron compounds and concentrations

Food Fortification Initiative. Iron Fortification Programs and Iron Status. Atlanta, USA: FFI, 2015.

http://www.ffinetwork.org/why_fortify/documents/Iron_fortification_summary.pdf