



# Faces Of Anemia

## Afidra Ronald



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.

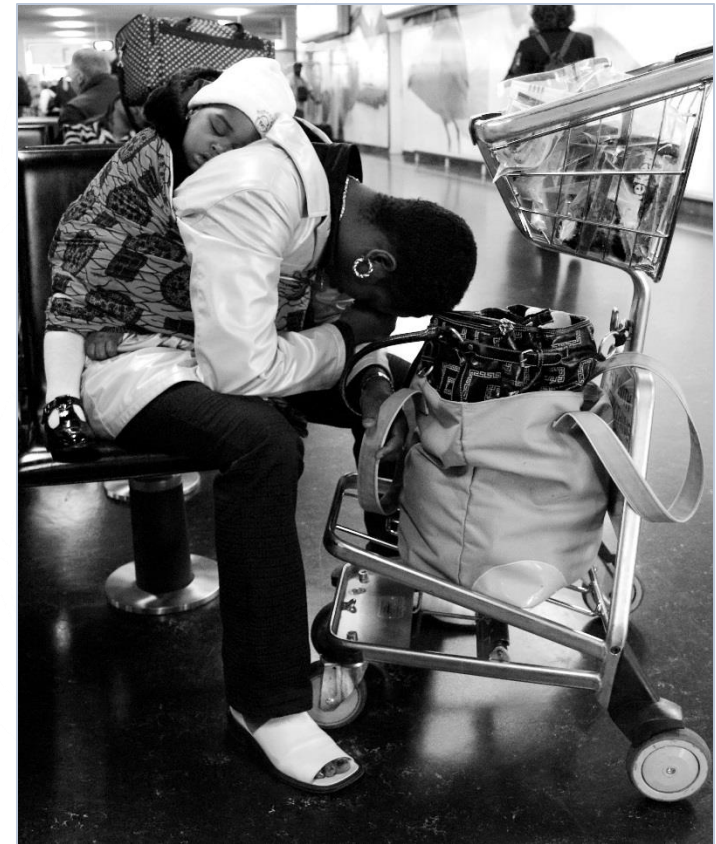
[http://www.who.int/nutrition/publications/micronutrients/global\\_prevalence\\_anaemia\\_2011/en/](http://www.who.int/nutrition/publications/micronutrients/global_prevalence_anaemia_2011/en/)

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*



A large, light blue background graphic featuring a globe with a grid of latitude and longitude lines. A stylized leaf or grain stalk is positioned above the globe, extending from the top left towards the center. The entire graphic is semi-transparent and serves as a backdrop for the text.

**Does fortifying flour with  
iron help?**





# Fiji's Success with Wheat Flour Fortification

*Reduction in prevalence of iron, folate and zinc deficiency and anemia in women of child bearing age*

Deficiency	2004 (Before fortification) %	2010 (After fortification) %
Iron	22.9	7.9
Folate	8.1	1.0
Zinc	39.3	0.0
Anemia	40.3	27.6

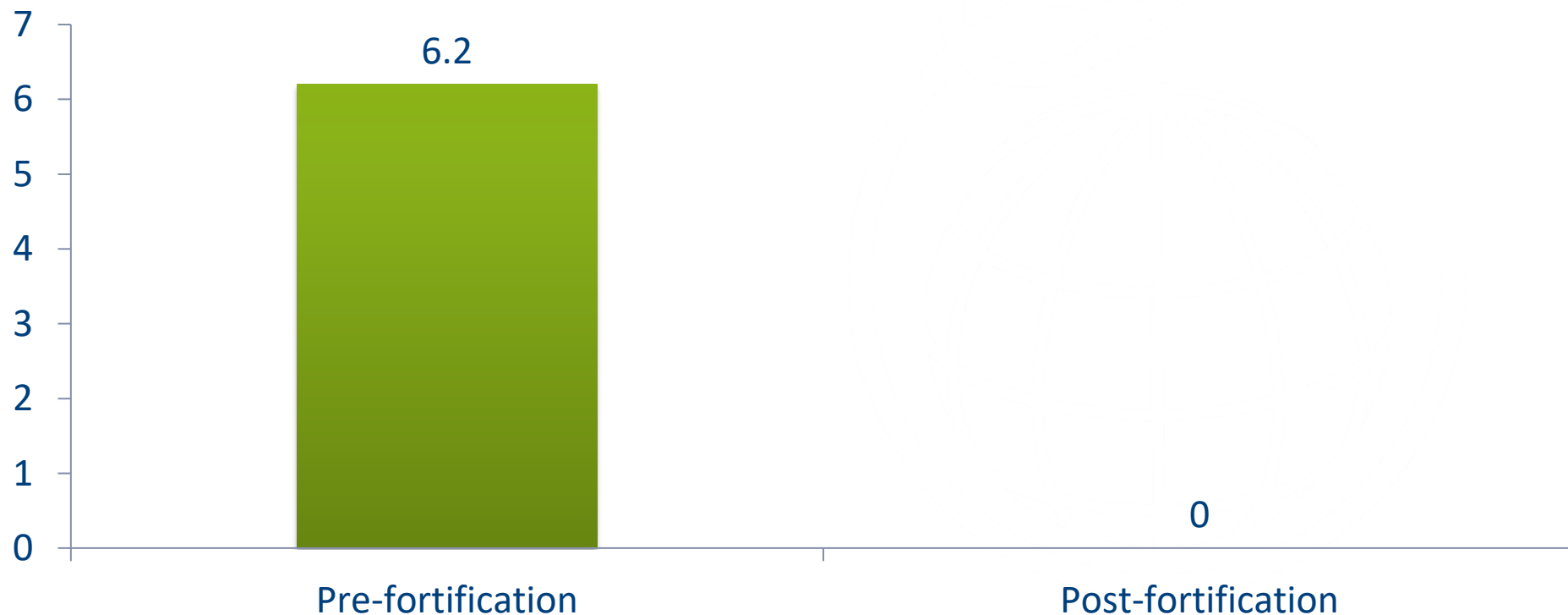


Fiji photo from the Australia Department of Foreign Affairs and Trade on Flickr.

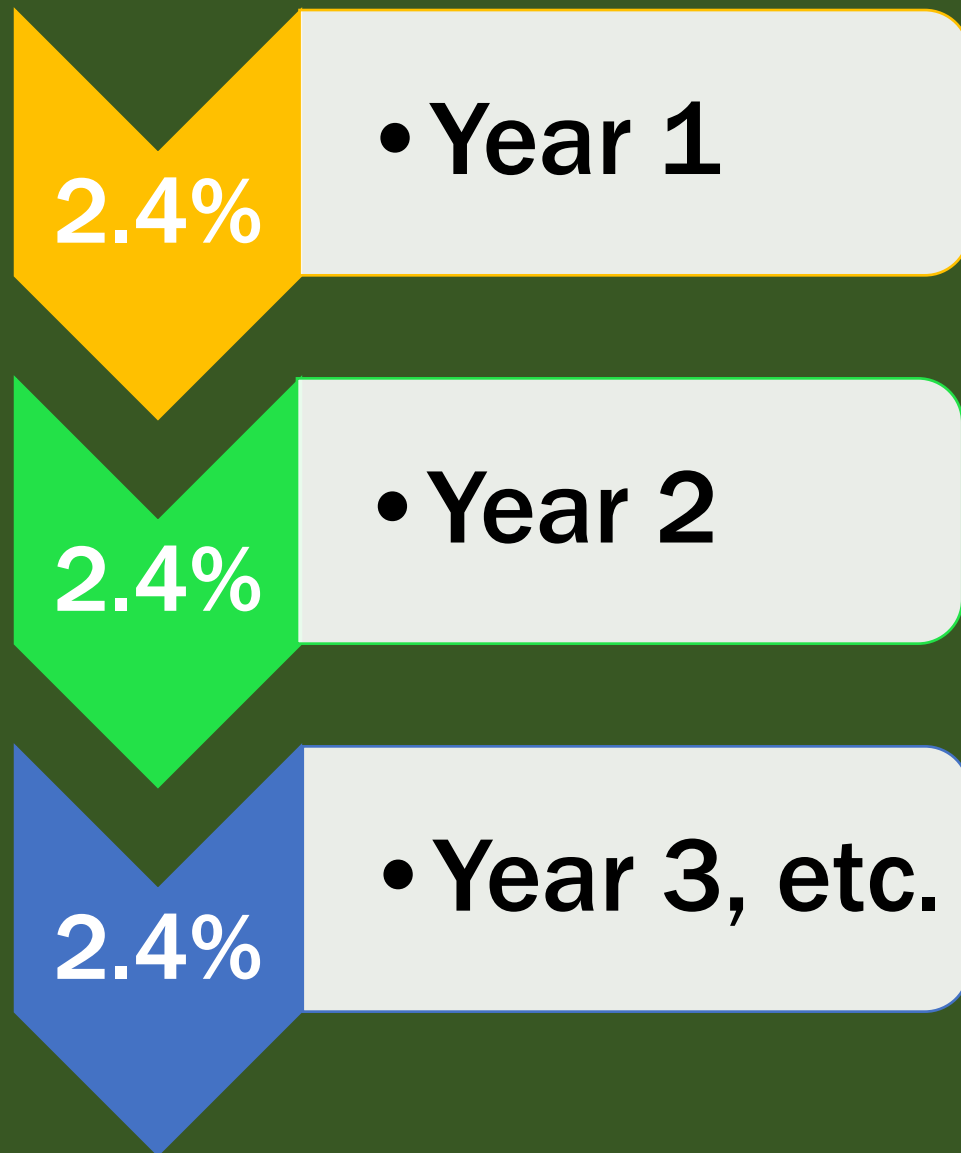


# Fortification reduced iron-deficiency anemia in Costa Rica

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



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





# Successful iron fortification programs:

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

istockphoto

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

[http://www.ffinetwork.org/why\\_fortify/documents/Iron\\_fortification\\_summary.pdf](http://www.ffinetwork.org/why_fortify/documents/Iron_fortification_summary.pdf)