





In pregnancy, infections are a key cause of anemia and can be prevented by sleeping under a bednet and taking intermittent preventive treatment (IPTp) for malaria and deworming pills.



In pregnancy, anemia can be prevented by taking iron folic acid (IFA) supplements.

In 2014, 60% of pregnant women in Ghana consumed 90 or more IFA tablets

In 2014, 68% of pregnant women received 2+ doses of IPTp to prevent malaria during pregnancy

For infants, young children, and mothers, delayed cord clamping, sleeping under a bednet, exclusive breastfeeding, and birth spacing reduce the risk of becoming anemic.



of infants in Ghana are exclusively breastfed during the first six months after birth (2014)

In 2014, 59% of children 6-23 months of age consumed foods rich in iron\*

For young children, continued breastfeeding and adequate complementary feeding (including micronutrients), preventing and treating malaria, and taking deworming pills can prevent anemia and promote healthy growth.



In adolescence, IFA supplements and deworming pills help prevent anemia. Family planning delays the age at first birth.

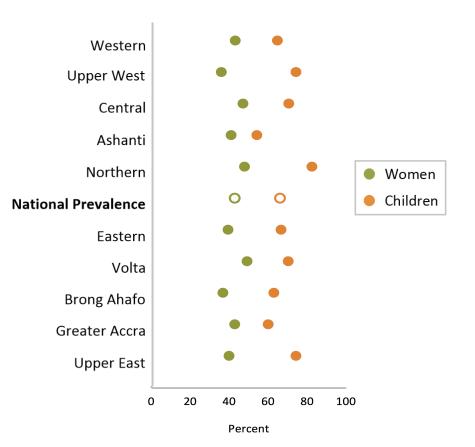
More than half (62%) of married adolescent girls expressed an unmet need for family planning (2014)

\*Includes meat (including organ meat), fish, poultry, and eggs

Anemia has substantial negative effects on the health and economic wellbeing of nations and communities. Children with anemia experience irrevocable cognitive and developmental delays and exhibit decreased worker productivity as adults. Globally, maternal anemia increases the risk of pre-term delivery and low birth weight, and iron-deficiency anemia underlies 115,000 maternal deaths and 591,000 perinatal deaths each year.<sup>2</sup>

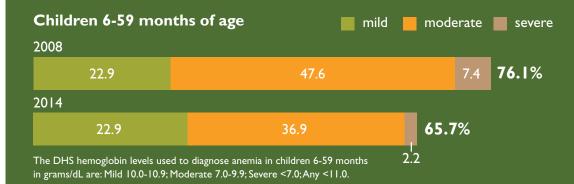
## Prevalence of anemia among children 6-59 months and women 15-49 years, by region

Source: Ghana DHS 2014

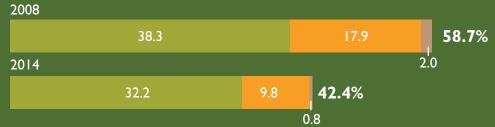


I. Walker, S. P., T. D. Wachs, J. M. Gardner, B. Lozoff, G. A. Wasserman, E. Pollitt, and J. A. Carter. 2007. "Child development: risk factors for adverse outcomes in developing countries." Lancet, 369(9556): 145-157.

### Trends in the prevalence of anemia in Ghana



### Women 15-49 years of age



The DHS hemoglobin levels used to diagnose anemia in non-pregnant women 15-49 years of age in grams/dL are: Mild 10.0-11.9; Moderate 7.0-9.9; Severe < 7.0; Any < 12.0.

### Status of Policies or Strategies to Support Reductions in Anemia\*

- ☑ IFA for pregnant women ✓ Long-lasting insecticidal nets (LLINs) for household use ☑ IFA for women of reproductive age ✓ Indoor residual spraying ☑ IFA for adolescent girls ✓ National policy on sanitation ✓ Iron and/or folic acid fortification ☑ IPTp for pregnant women legislation Malaria diagnosis and treatment ✓ Delayed cord clamping ☑ Deworming for children Dietary diversity for complementary Deworming for pregnant women Breastfeeding
- policy pending
- policy in place missing documentation

Evidence-informed WHO guidance can be found here: http://www.who.int/elena/en/

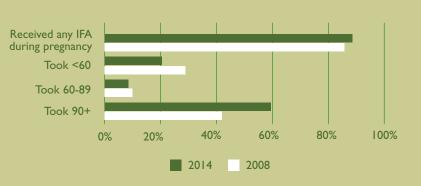
<sup>2.</sup> Stoltzfus, R. J., L. Mullany, and R. E. Black. 2004. "Iron Deficiency Anemia." In Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors. M. Ezzati, A. D. Lopez, A. Rodgers, and C. J. L. Murray, eds. Geneva: World Health Organization.

<sup>\*</sup>Information from the Global database on the Implementation of Nutrition Action (GINA) (https://extranet.who.int/nutrition/gina/en) or country documentation. The status of policies and strategies have been identified to the best of our knowledge. Revisions and updates are welcome.

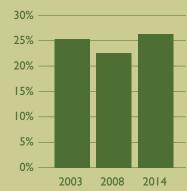
## Anemia is a Preventable Condition—Simple Interventions Can Have a Huge Impact

### Increase iron uptake and stores

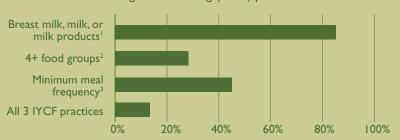
IFA supplementation among pregnant women has increased between 2008 and 2014



Contraception use stagnated among married women from 2003 to 2014



Few children 6-23 months old were fed according to 3 key Infant and Young Child Feeding (IYCF) practices in 2014



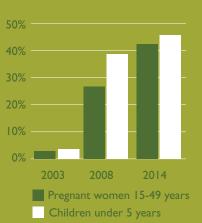
- <sup>1</sup> Continued breastfeeding, or feeding of milk/milk products to non-breastfed children
- <sup>2</sup> Feeding children solid foods from the minimum number of food groups
- <sup>3</sup> Feeding children solid foods the minimum number of times





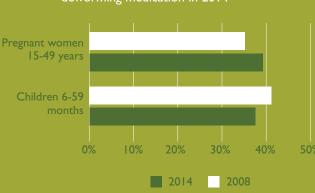
### **Reduce iron losses and infection**

Insecticide-treated mosquito net (ITN) use increased from 2003 to 2014\*



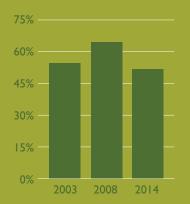
\*Percentage who slept under an ITN the night before the survey



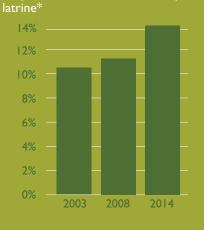


\*Deworming medication given in past 6 months for children and during last pregnancy for women

# Exclusive breastfeeding of children <6 months has decreased from 2008 to 2014



Very few households have an improved



\*Definition of 'improved latrine' has changed slightly across years. See Demographic and Health Surveys.

## Multiple Sectors Play a Role in Anemia Prevention and Treatment

Stunting and anemia share similar risk factors and are responsive to many of the same interventions

### Agriculture

- Increase income and reduce poverty
- Production of biofortified and iron-rich crops
  - Small livestock/poultry
    - Dietary diversity

### Health

- Iron supplementation
  - Deworming
- Breastfeeding and complementary feeding
  - Family planning
- Malaria prevention and treatment
- Delayed cord clamping

### Water and Sanitation

- Improved latrines
  - Handwashing
- Access to clean water
- Livestock management
  - Infectious disease prevention

#### **Data Sources:**

Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro. 2009. Ghana Demographic and Health Survey 2008. Accra, Ghana: GSS, GHS, and ICF Macro.

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### **Education**

- Female literacy
- Health education
- Hygiene education
- Family planning education
- Nutrition education

www.spring-nutrition.org