



# NEPAL

## National Anemia Profile



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**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.



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



**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.



**In 2011, 56%** of pregnant women in Nepal consumed 90 or more IFA tablets

**55%** of women received deworming medication during their last pregnancy (2011)

**70%** of infants in Nepal are exclusively breastfed during the first six months after birth (2011)

**In 2011, 24%** of children 6-23 months of age consumed foods rich in iron\*

**More than one in four (28%)** married adolescent girls expressed an unmet need for family planning (2011)

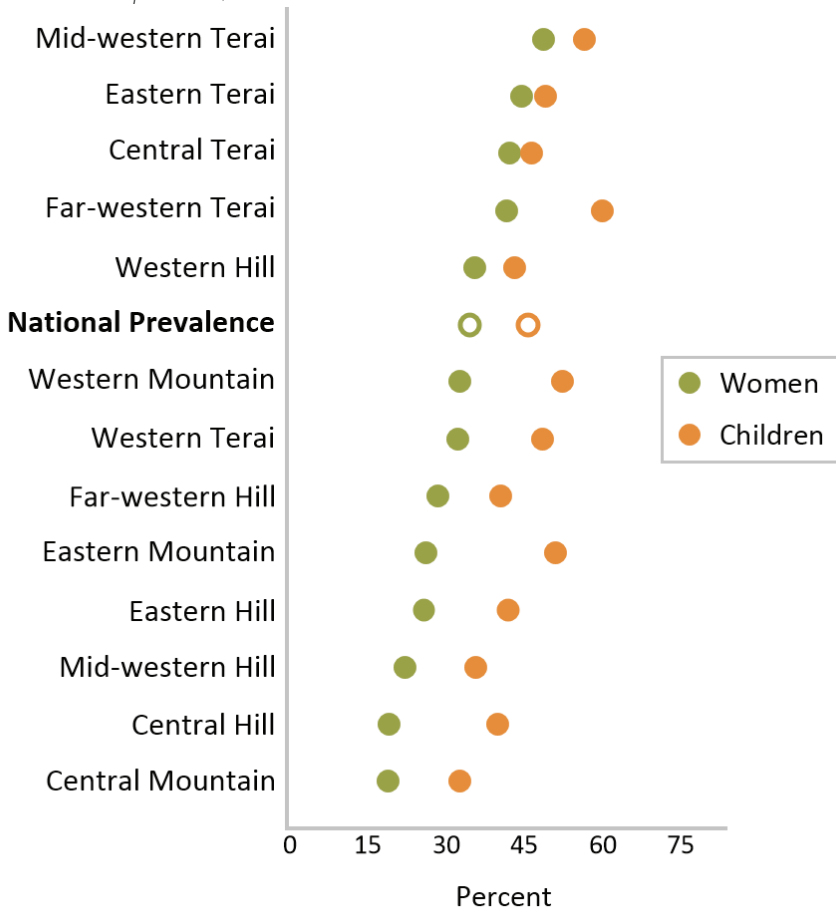
\*Includes meat (including organ meat)

**A multisectoral approach to prevent anemia will save lives and improve the wellbeing of mothers, infants, and children**

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.<sup>1</sup> 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 subregion

Source: Nepal DHS, 2011



1. 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.

2. 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.

### Trends in the prevalence of anemia in Nepal

#### Children 6-59 months of age

■ mild ■ moderate ■ severe



The DHS hemoglobin levels used to diagnose anemia in children 6-59 months in grams/dL are: Mild 10.0-10.9; Moderate 7.0-9.9; Severe <7.0; Any <11.0.

#### 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\*

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> IFA for pregnant women                           | <input checked="" type="checkbox"/> Long-lasting insecticidal nets (LLINs) for household use |
| <input checked="" type="checkbox"/> IFA for women of reproductive age                | <input checked="" type="checkbox"/> Indoor residual spraying                                 |
| <input checked="" type="checkbox"/> IFA for adolescent girls                         | <input checked="" type="checkbox"/> National policy on sanitation                            |
| <input checked="" type="checkbox"/> Iron and/or folic acid fortification legislation | N/A IPTp for pregnant women <sup>1</sup>   |
| <input checked="" type="checkbox"/> Delayed cord clamping                            | <input checked="" type="checkbox"/> Malaria diagnosis and treatment                          |
| <input checked="" type="checkbox"/> Dietary diversity for complementary feeding      | <input checked="" type="checkbox"/> Deworming for children                                   |
| <input type="checkbox"/> Micronutrient powders for children                          | <input checked="" type="checkbox"/> Deworming for pregnant women                             |
|  | <input checked="" type="checkbox"/> Breastfeeding  |
- 
- |   |  |
|---|--|
| <input checked="" type="checkbox"/> no policy       | <input type="checkbox"/> policy pending        |
| <input checked="" type="checkbox"/> policy in place | <input type="checkbox"/> missing documentation |

\*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.

<sup>1</sup>Not part of national malaria strategy due to low prevalence of malaria during pregnancy.

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

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

## Increase iron uptake and stores

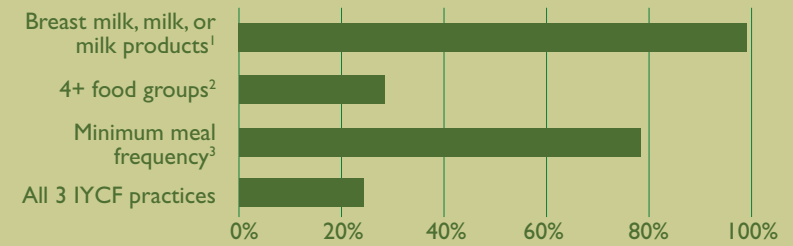
IFA supplementation among pregnant women increased from 2006 to 2011



Contraception use modestly increased from 2001 to 2011



Few children 6-23 months old were fed according to 3 key Infant and Young Child Feeding (IYCF) practices in 2011

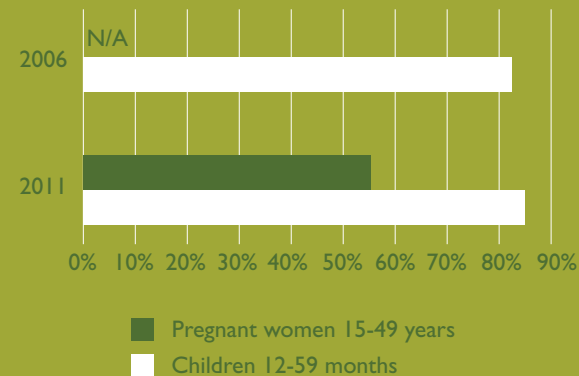


- <sup>1</sup> Continued breastfeeding, or feeding of milk/milk products to non-breastfed children
- <sup>2</sup> Feeding children solid foods, semi-solid foods, and milk products from the minimum number of food groups
- <sup>3</sup> Feeding children solid foods, semi-solid foods, and milk products the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



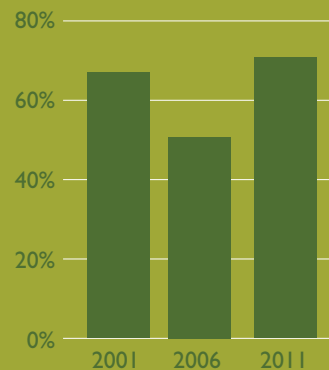
## Reduce iron losses and infection

The majority of children and women received deworming medication in 2011\*

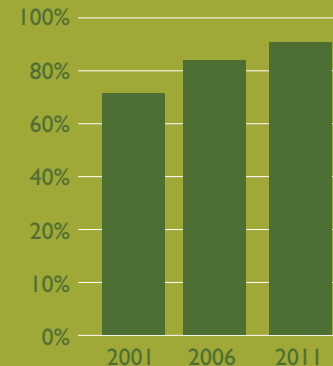


\*Deworming medication given in past 6 months for children and during last pregnancy for women

Exclusive breastfeeding of children <6 months has not changed since 2001

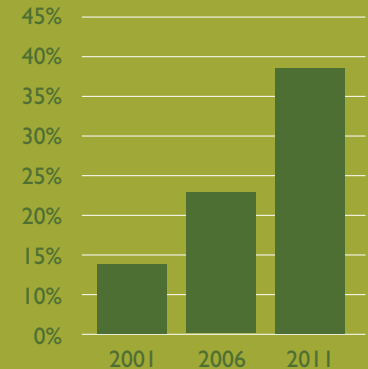


The majority of households in Nepal have access to an improved source of drinking water\*



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

The percentage of households with an improved latrine/toilet has steadily increased since 2001\*



\*Definition of 'improved latrine/toilet' 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 complimentary 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

## Education

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

### Data Sources:

Ministry of Health and Population (MOHP) [Nepal], New ERA, and ICF International Inc. 2012. Nepal Demographic and Health Survey 2011. Kathmandu, Nepal; Ministry of Health and Population, New ERA, and ICF International, Calverton, Maryland.

Ministry of Health and Population (MOHP) [Nepal], New ERA, and Macro International Inc. 2007. Nepal Demographic and Health Survey 2006. Kathmandu, Nepal; Ministry of Health and Population, New ERA, and Macro International Inc.

Ministry of Health [Nepal], New ERA, and ORC Macro. 2002. Nepal Demographic and Health Survey 2001. Calverton, Maryland, USA: Family Health Division, Ministry of Health; New ERA; and ORC Macro.

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