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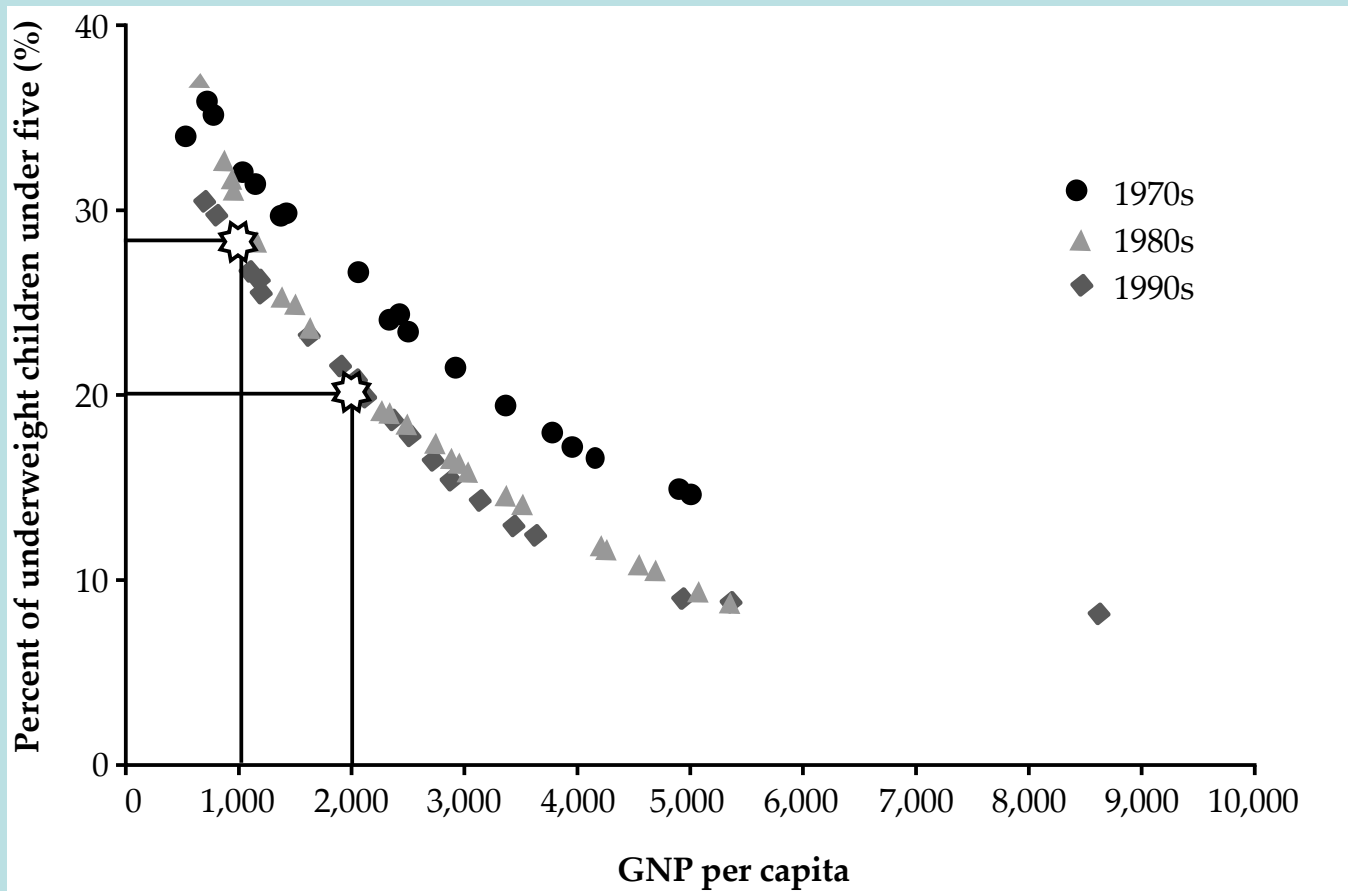


Maternal Undernutrition: Implementing Effective Solutions

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Africa's Health in 2010

Woodrow Wilson Center
December 15, 2010

Countries with the lowest GNP per capita have the highest levels of undernutrition



Source: Haddad et al, 2002, IFPRI FCND Disc Paper 137.

Social Determinants of Undernutrition

Basic causes

- Social, economic and political context
- Lack of capital: financial, human, physical, social & natural

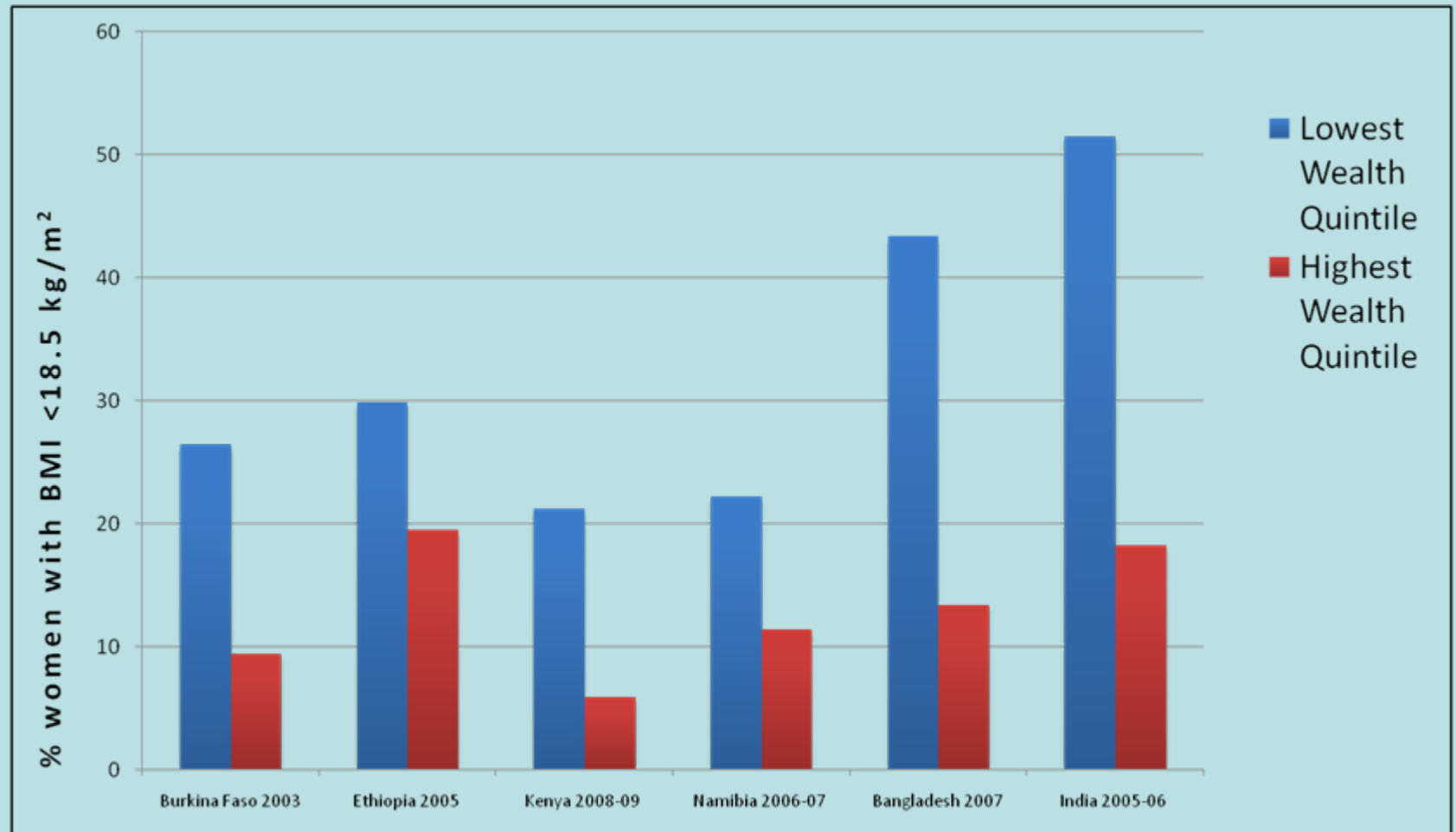
Underlying causes

- Income poverty: employment, self-employment, dwelling, assets, remittances, pensions etc.

Immediate causes

- Inadequate dietary intake
- Disease

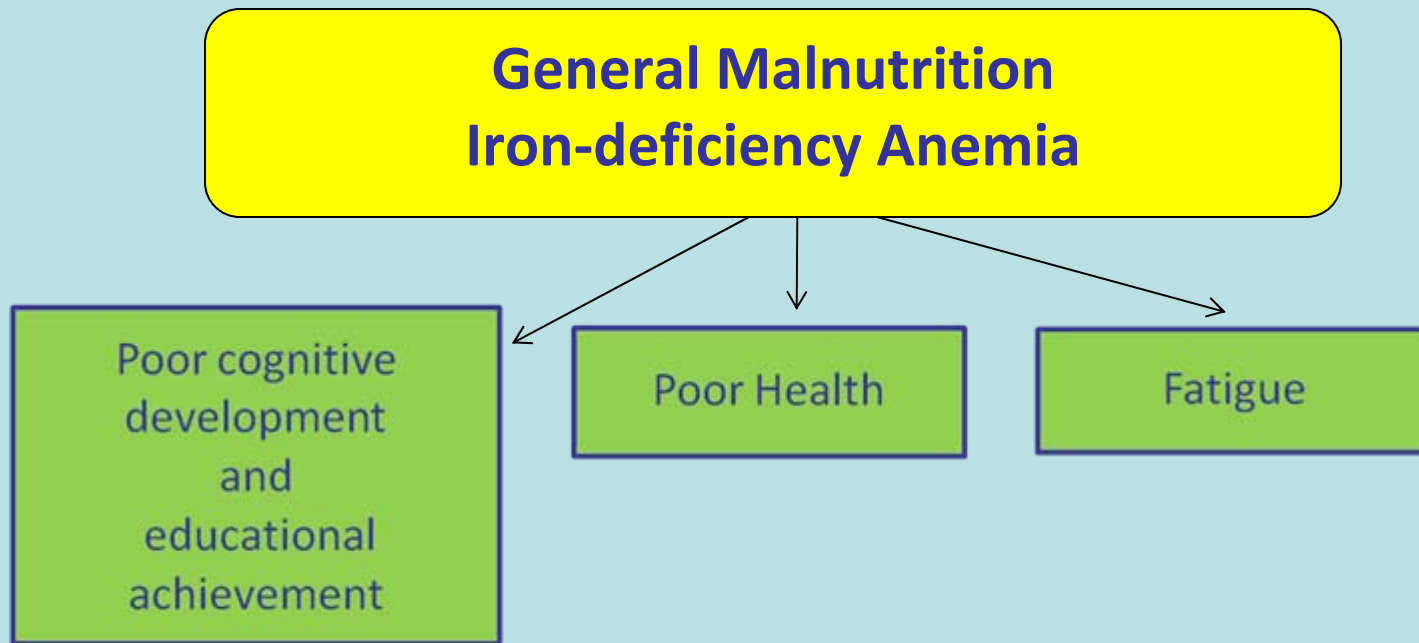
Proportion of undernourished women is higher in the lowest wealth quintile



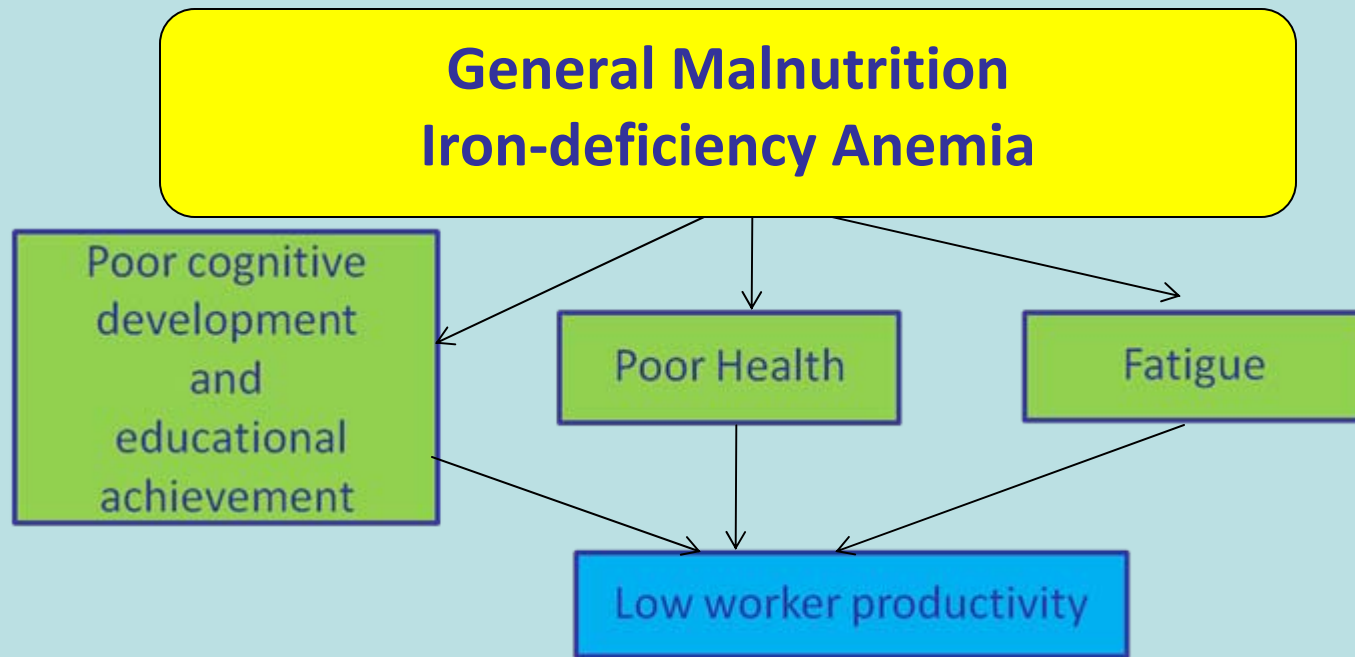
Source: Africa's Health in 2010 Project (AED), December 2010; graph is based on findings published in DHS country reports.

Why is this the case?

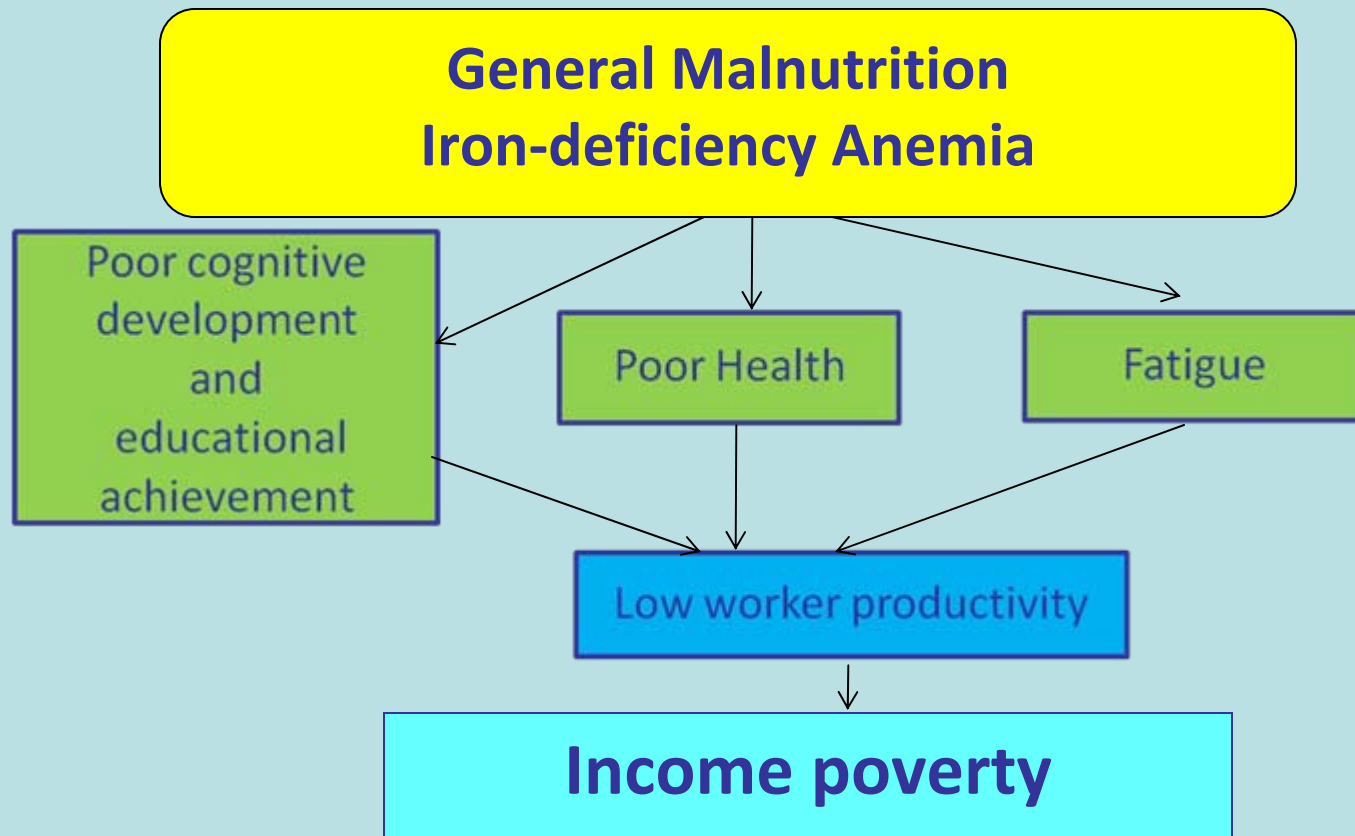
Vicious Cycle of Malnutrition & Poverty



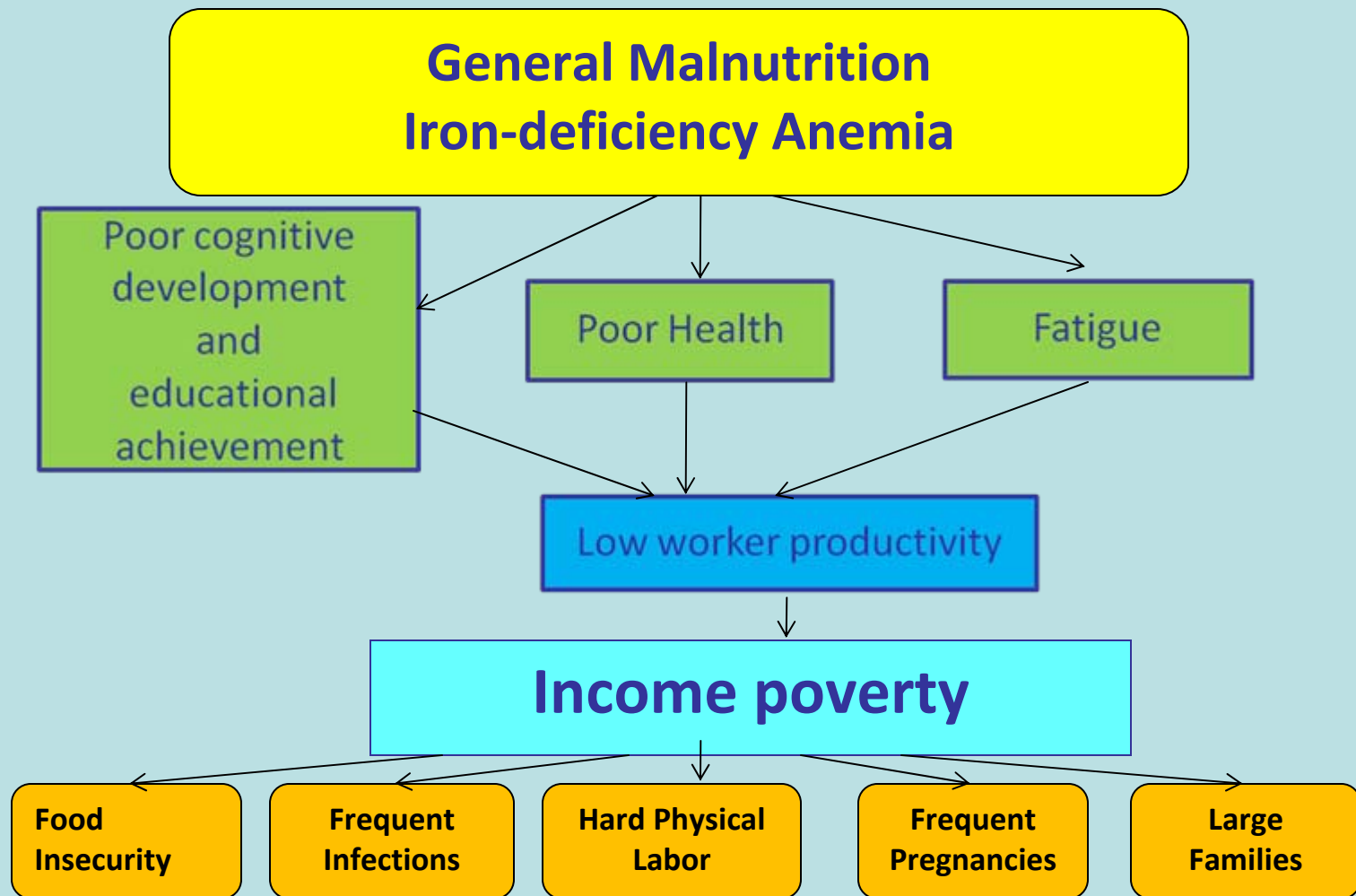
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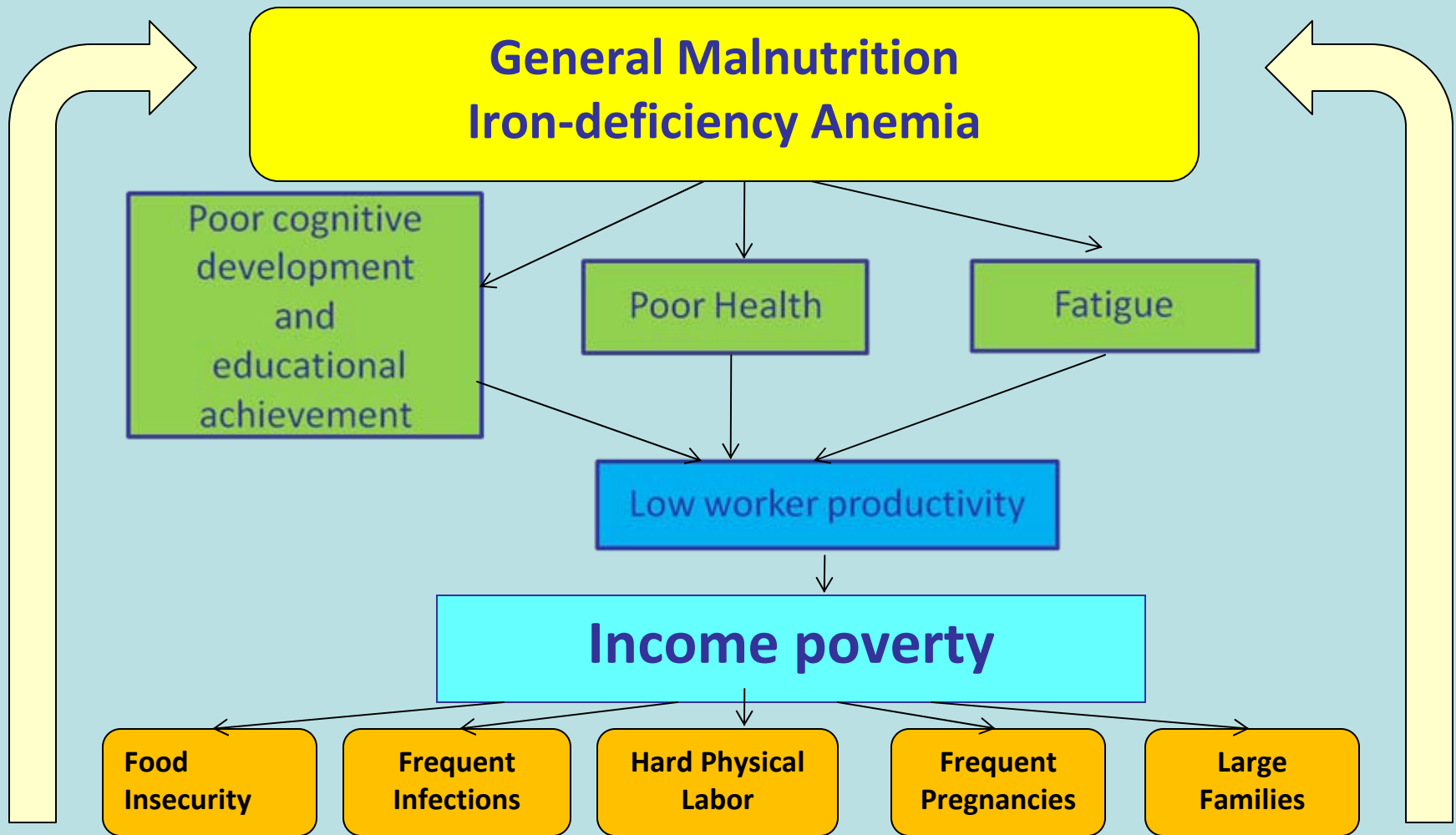
Vicious Cycle of Malnutrition & Poverty



Vicious Cycle of Malnutrition & Poverty



Vicious Cycle of Malnutrition & Poverty



Source: Modified from Repositioning Nutrition as Central to Development, World Bank, 2007.

**Why focus on
undernutrition of
women?**

Why Women?

Productive roles –
half a country's workforce

Reproductive roles –
giving life to the next generation

Improving these roles gives an opportunity to
break the vicious malnutrition-poverty cycle

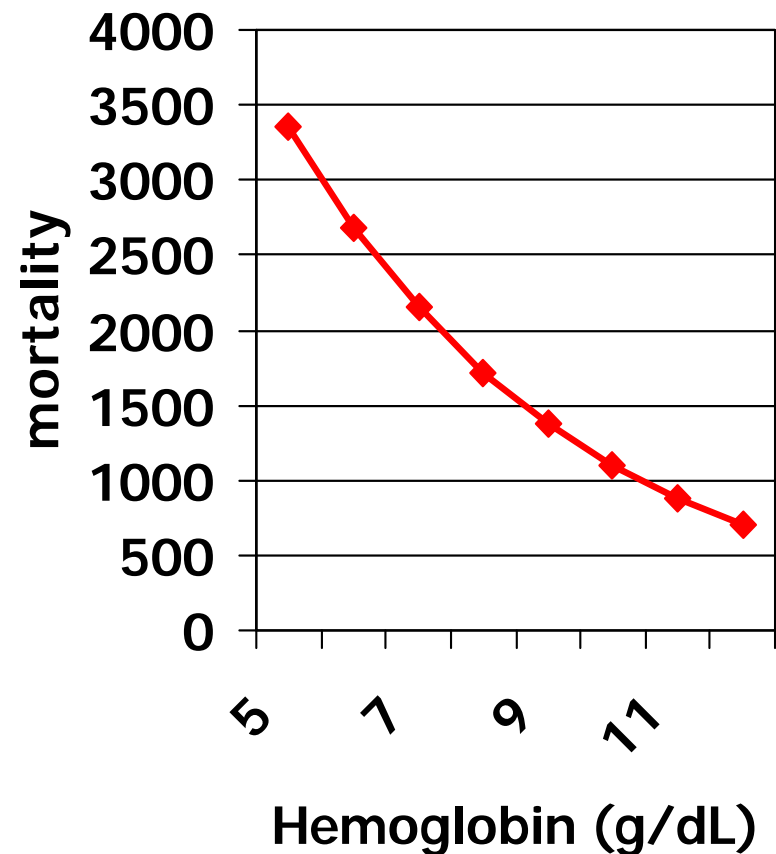
Undernutrition affects 6 MDGs

<i>Goal</i>	<i>Nutrition effect</i>
Goal 1: Eradicate extreme poverty and hunger	Undernutrition erodes human capital through irreversible and intergenerational effects on cognitive and physical development.
Goal 2: Achieve universal primary education	Undernutrition affects the chances that a child will go to school, stay in school, and perform well.
Goal 3: Promote gender equality and empower women	Undernutrition limits a child's development, schooling, later empowering work and leadership opportunities.
Goal 4: Reduce child mortality	Undernutrition underlies most child deaths and the burden of disease in the developing world.
Goal 5: Improve maternal health	Undernutrition underlies much of the maternal mortality and morbidity in the developing world.
Goal 6: Combat HIV/AIDS, malaria, and other diseases	Undernutrition may increase risk of HIV transmission, compromise ART, and hasten onset of AIDS. It increases the chances of TB infection and disease, and reduces malarial survival rates.

Moderate anemia increases risk of maternal mortality, not just severe

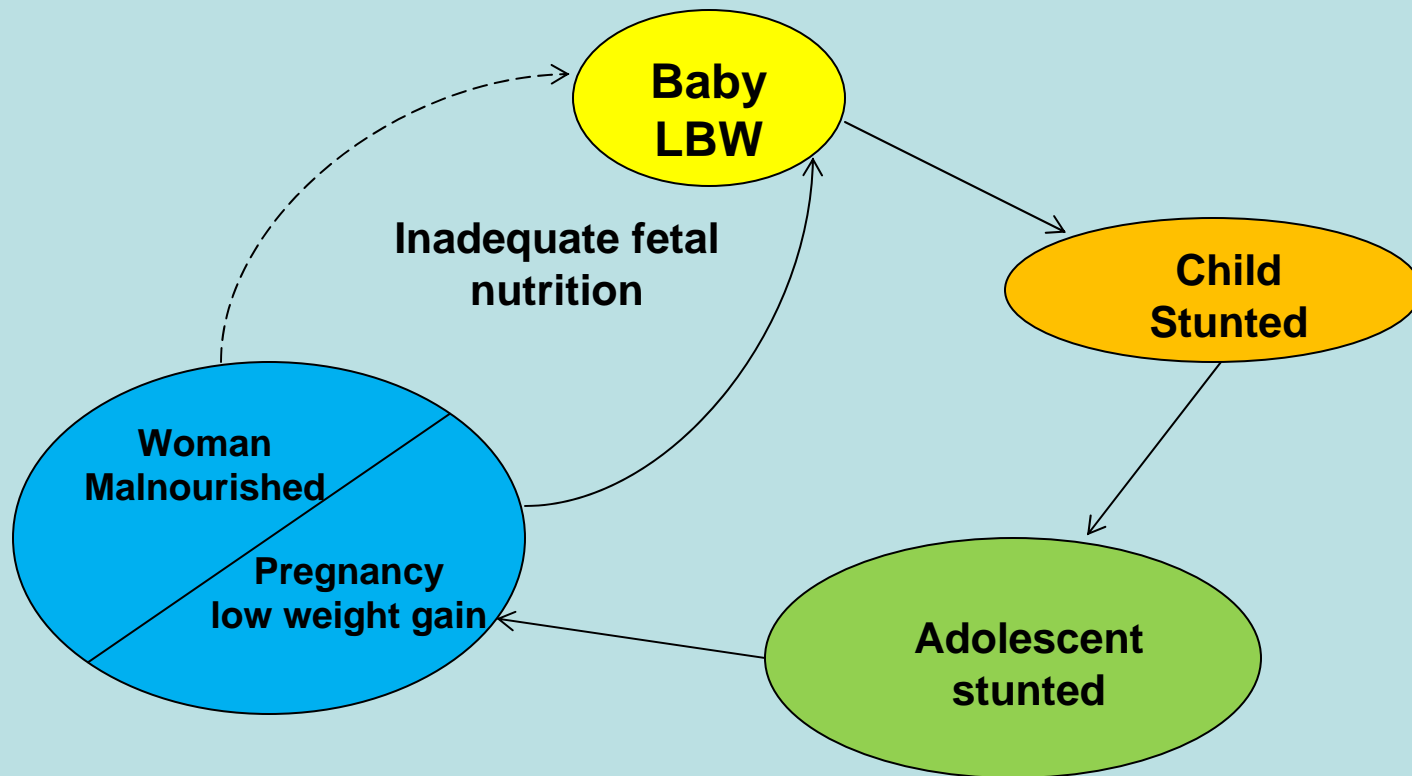
- The risk relationship is continuous. It's not only about severe anemia
- Decrease in mortality risk for each 1 g/dL increase in pregnancy hemoglobin.

Sources: Caulfield and Black, 2002, Lancet, Global Burden of Disease; Stoltzfus et al. Ch 3, Comparative Quantification of Health Risks

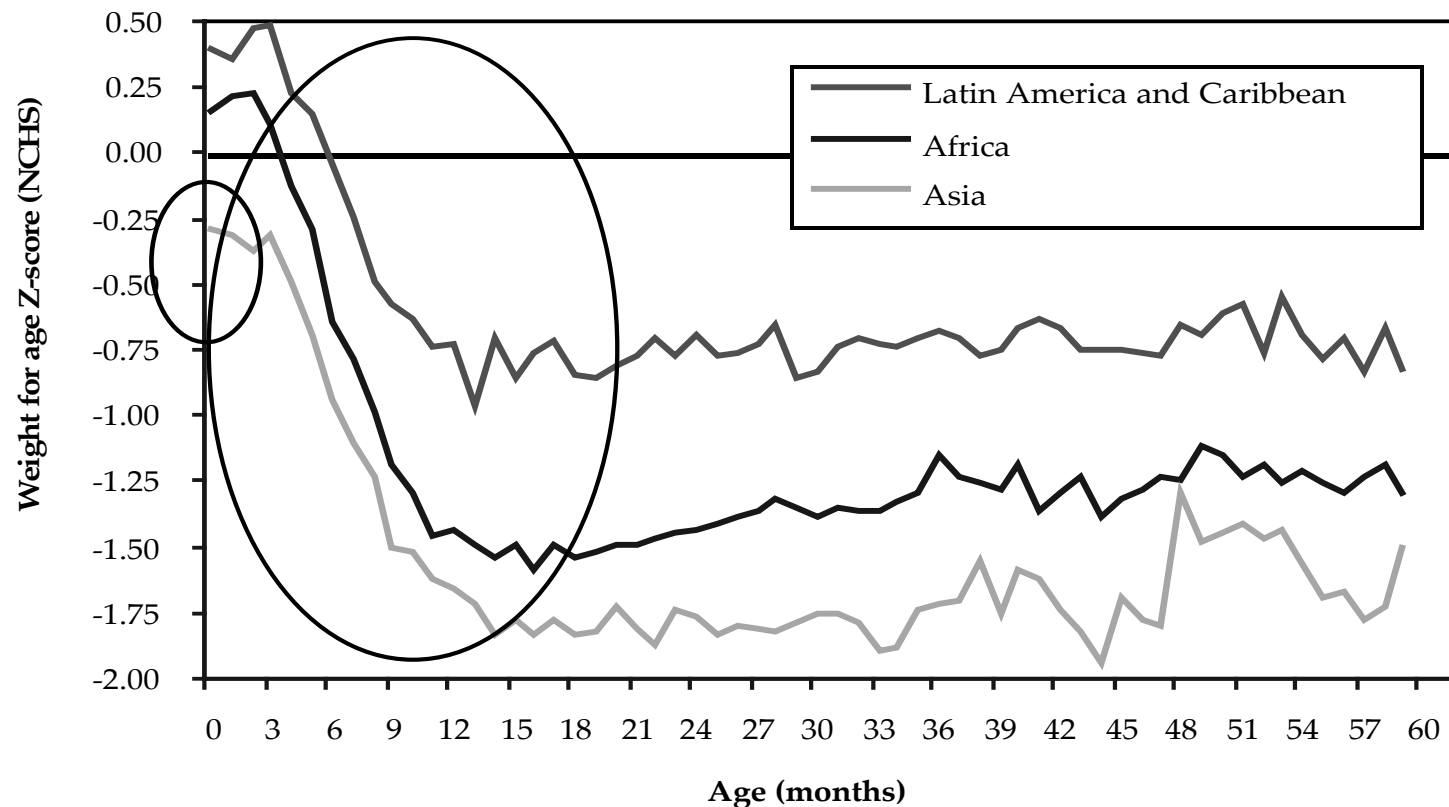


**When can we make a
difference?**

Window of opportunity is pregnancy and 1st two years of child's life (1000 days)



Window of opportunity for children is especially 0-24 months

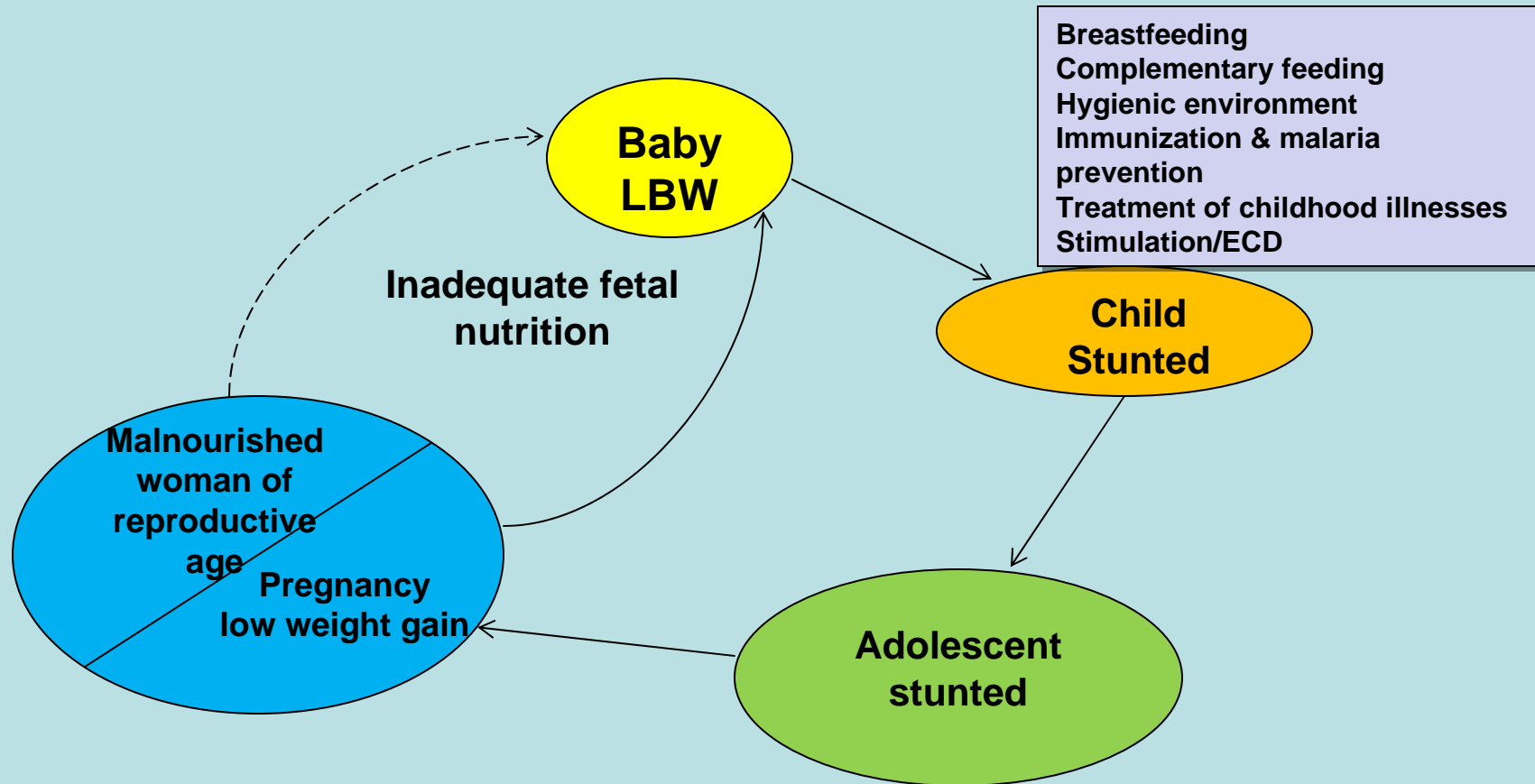


Implications for the Development Community

Undernutrition affects 6 MDGs

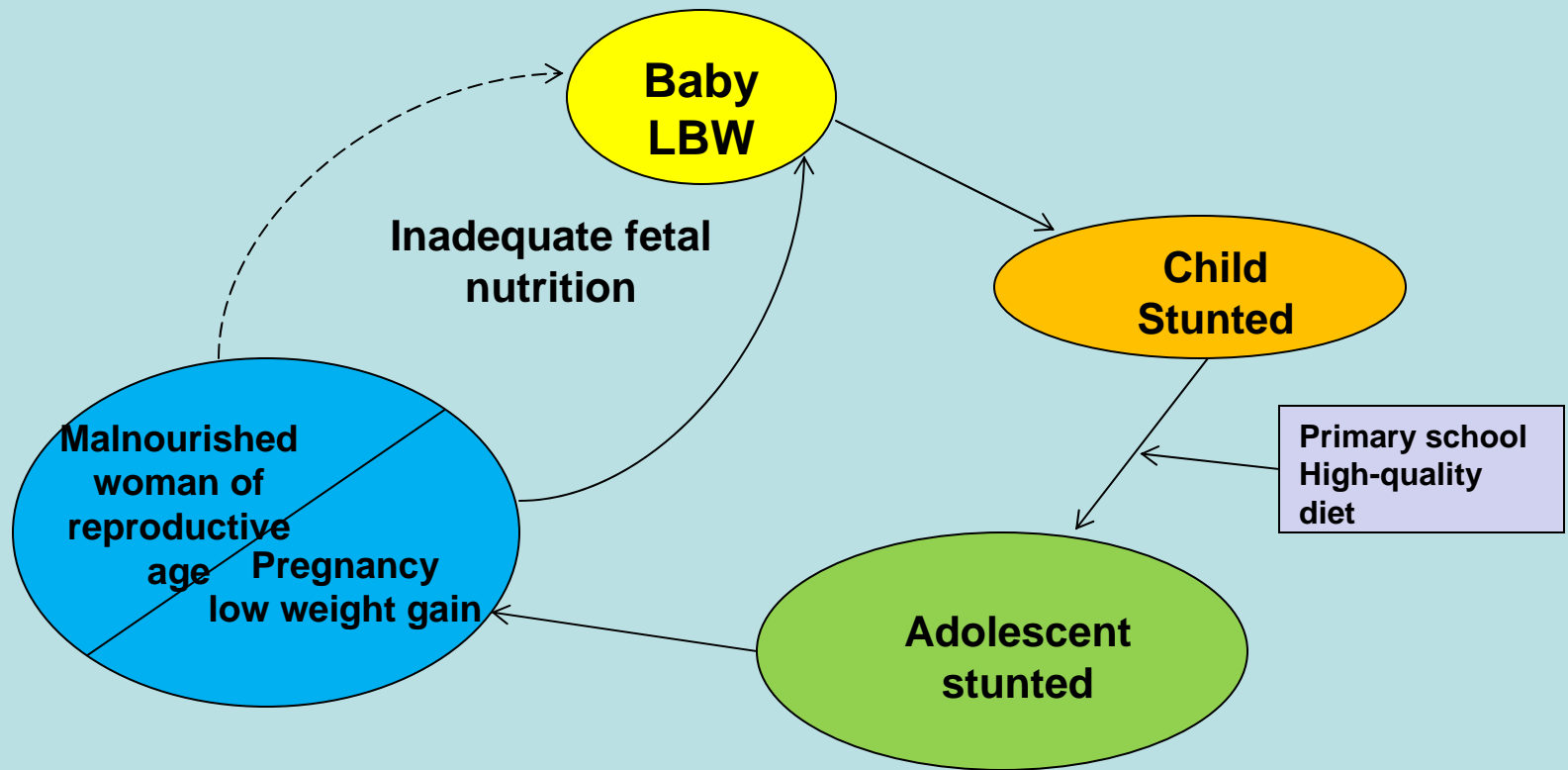
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Window of opportunity is pregnancy and 1st two years of child's life (1000 days)



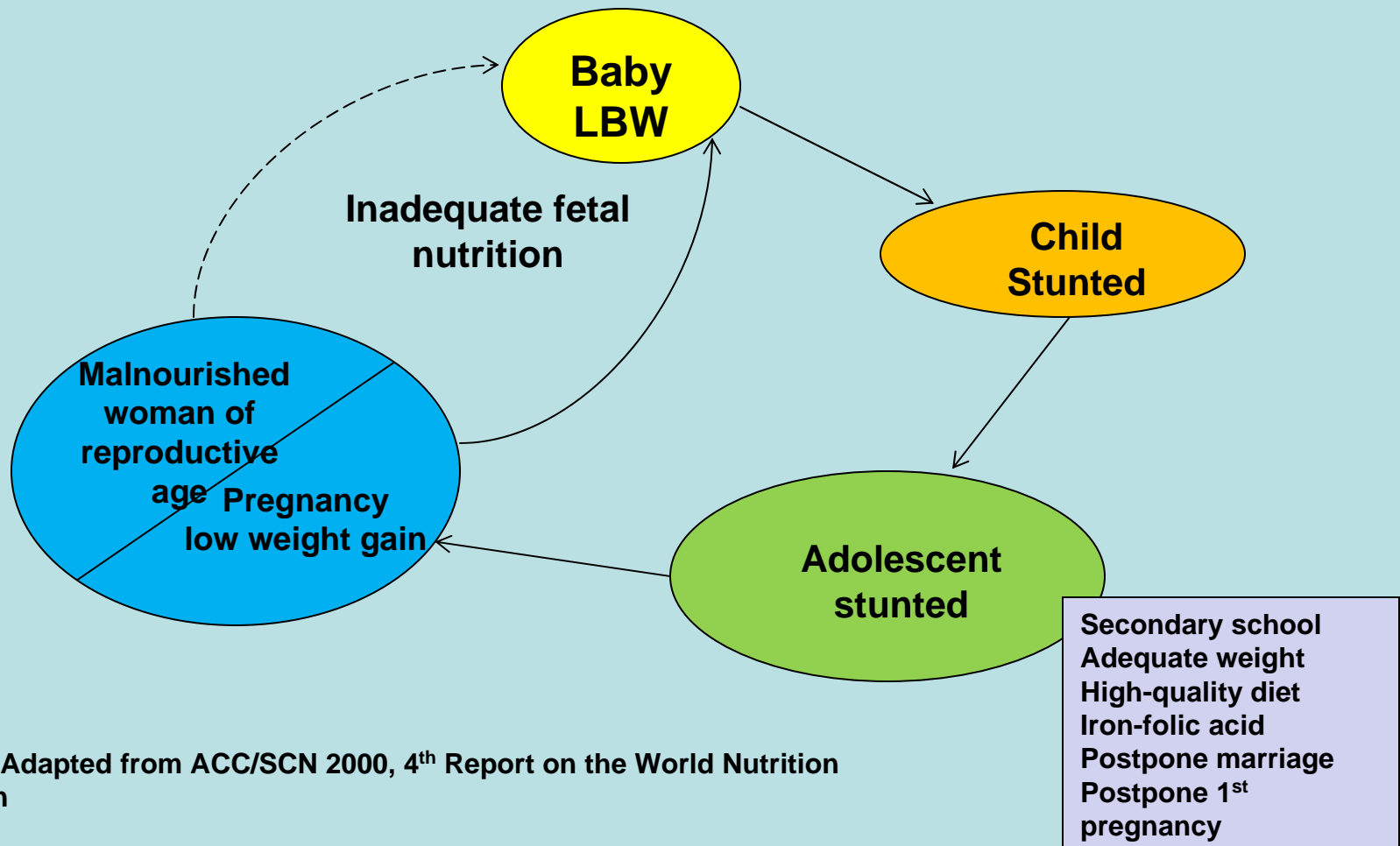
Source: Adapted from ACC/SCN 2000, 4th Report on the World Nutrition Situation

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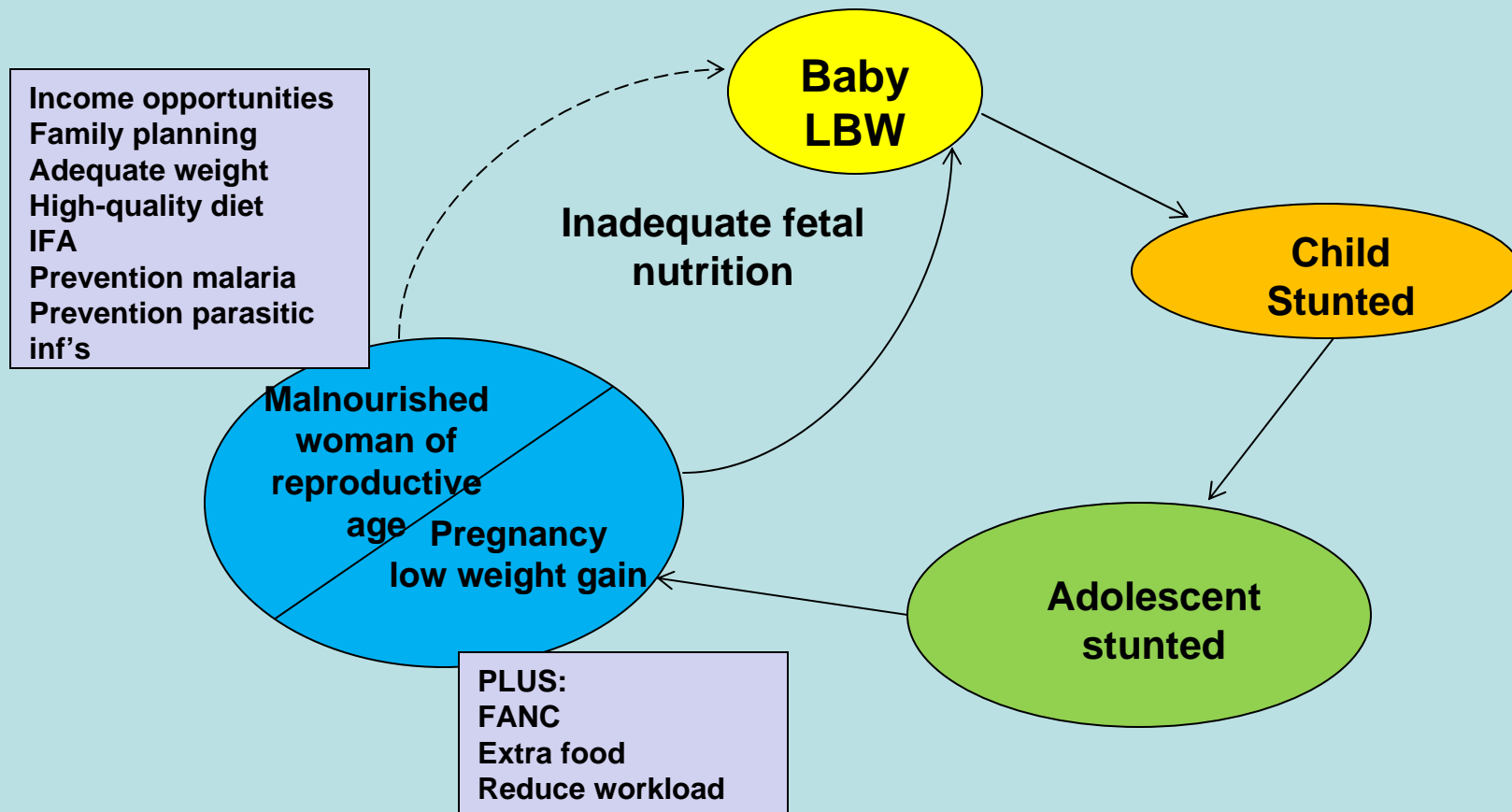
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Window of opportunity is pregnancy and 1st two years of child's life (1000 days)



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Basic Anemia Package

- Ideally linked with:
 - Tetanus immunization
 - Screening for risk factors
 - Prep for early EBF
 - Prep for newborn care

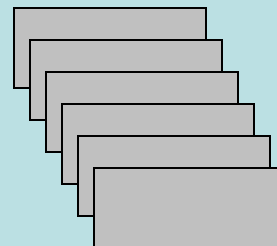
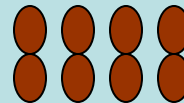
Malaria Control
IPT p + ITN



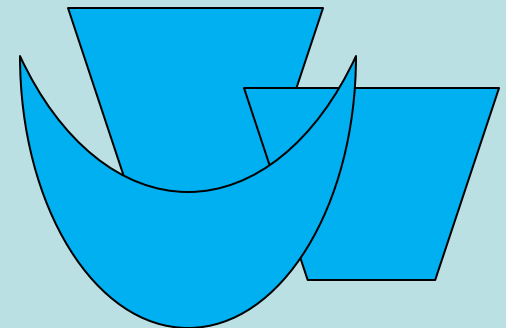
Deworming
Medicine



Iron Folic
Acid Tablets



Extra food
for mother



Countries with improved nutrition: What did they do?

Stimulated economic growth & implemented targeted social, health and nutrition programs and safety nets

China – broad economic reforms, agriculture production

Thailand – multisectoral approach

Brazil – Zero Hunger Program, employment, agrarian reform

Mexico – PROGRESA/Oportunidades, cash transfers for education, health, and nutrition

Malawi also experiencing malnutrition reductions, though a low-income country

Malawi: Case Study

- Endemic poverty & malnutrition: 53% of maternal deaths due to anemia in 2004
- Why? Vertical & ad hoc projects, no on-going programs
- Response?
 - Conducive policy environment, emphasis on agric production
 - Nutrition secretariat in Office of President (+ HIV+ Agric)
 - Coordinated government response + PPP
- Impact? MDHS: Child stunting reduced from 48% in 2004 → 36% in 2009 (Micronutrient Survey)
 - Women's undernut (prev of BMI <18.5) low at 4%
- Correlates?
 - Economic growth increased from 2.3% 2003 → 9.7% in 2008
 - Poverty reduced from 65% in 2004 → 45% in 2007

Challenges of Integration: Malawi

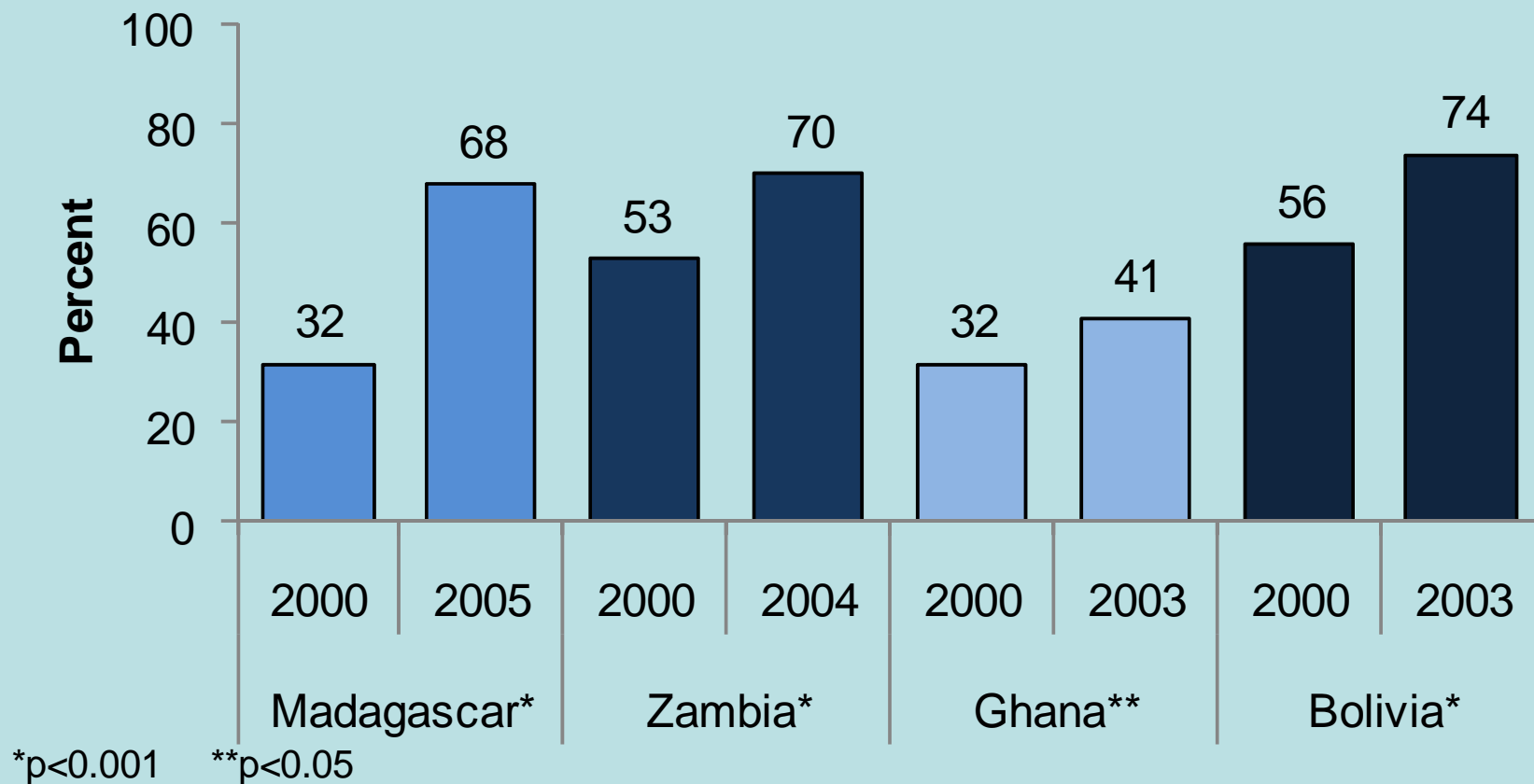
- Keeping stakeholders & partners engaged & committed: changing & competing priorities/focus
- Low institutional & human capacity (quantity/quality) - sectoral nutrition coordinators not available at Local Council level
- Low resource allocation in some sectors
- Project-oriented programs: limited coverage & short term, though demonstrate some good practices
- District & community level coordination still weak

LINKAGES breastfeeding promotion – large scale program

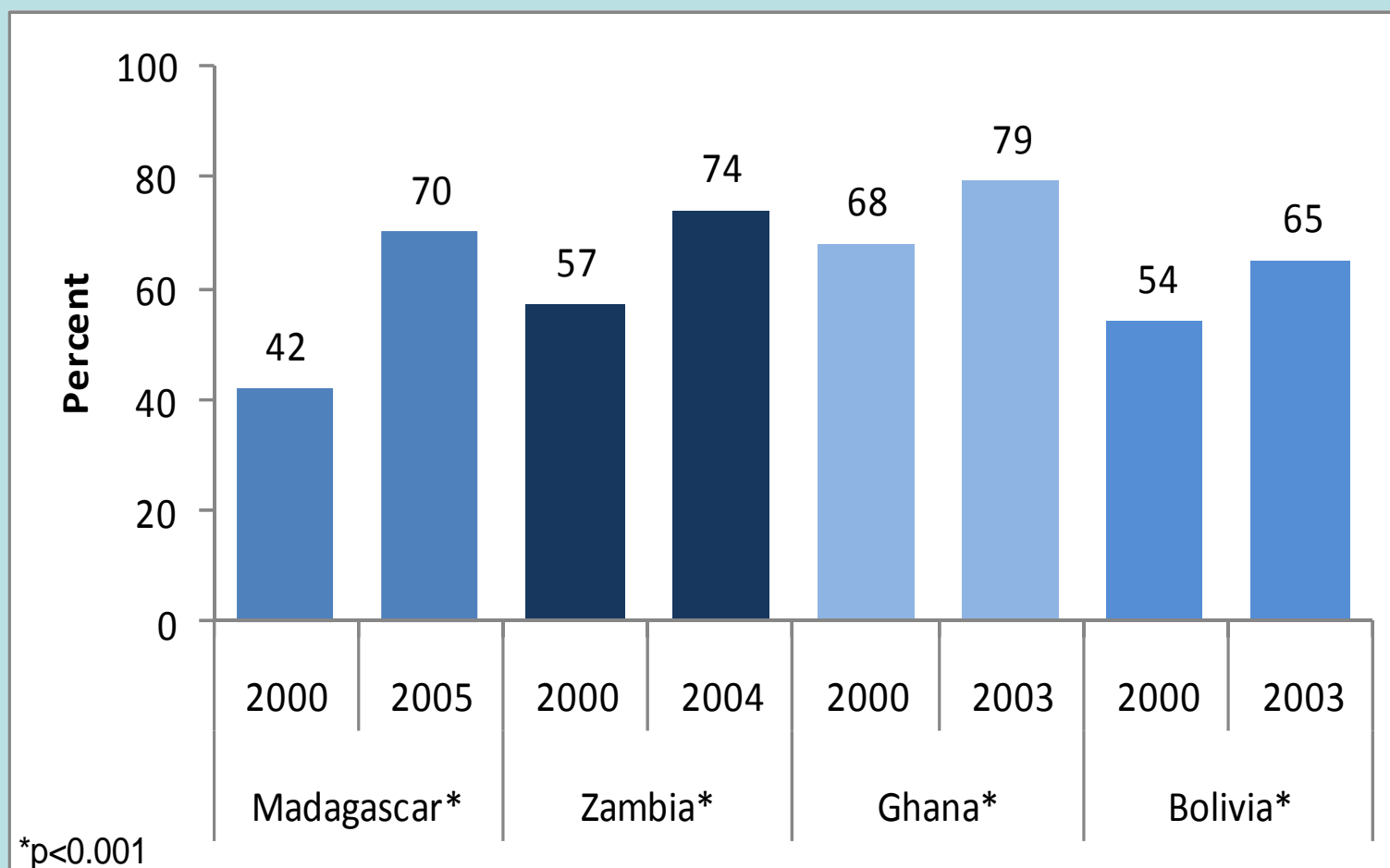
Country (population)	Project catchment population	Catchment area
Madagascar (18 million)	6.3 million	23 districts in 2 of 6 provinces
Zambia (11 million)	1 million	54 sites in 6 districts
Ghana (21 million)	3.5 million	Communities in 31 districts in 7 of 10 regions
Bolivia (9 million)	1 million	153 districts throughout the country
Jordan (5.3 million)	1 million	All (351) MCH centers throughout the country

Timely initiation of breastfeeding rates increased

(within 1 hour of delivery)



Exclusive breastfeeding rates increased (infants 0 – 6 months)



Examples of targeted interventions with high-coverage successes globally

- Salt iodization
 - A fortification method
 - Highly cost-effective
 - Sustainable with govt oversight of iodine levels in salt
- Vitamin A supplementation
 - 2x yearly distribution of capsules through health system
 - Highly cost-effective
 - But donor-funded
- Breastfeeding promotion
 - Behavior change method
 - Moderately cost-effective
 - Should be sustainable if social norm has changed

Recommendations

- Promote universal primary and secondary education, especially for girls
- Economic strengthening: put a gender and equity lens on social and economic programs to improve their effectiveness
- Invest in infrastructure to reduce women's and girls' time burdens (electricity, transport, water & sanitation)

Recommendations

- Postpone age of marriage and age of 1st pregnancy
- Provide direct nutrition and health interventions
 - Promote and implement at scale, interventions listed above including the experiences from countries that have made progress
 - Scaling up nutrition (SUN)
 - Strengthen health systems for delivery of proven interventions

Conclusions

- Maternal undernutrition is undeniably linked to poverty
- Multiple factors contribute to maternal undernutrition
- A multisectoral approach is required to effectively reduce maternal undernutrition:
 - Health systems response: direct nutrition and health services
 - A range of social and economic programs
- Country promising examples show it can be reduced
- Government leadership & partnerships with the private sector critical

Acknowledgements

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Thank you!