

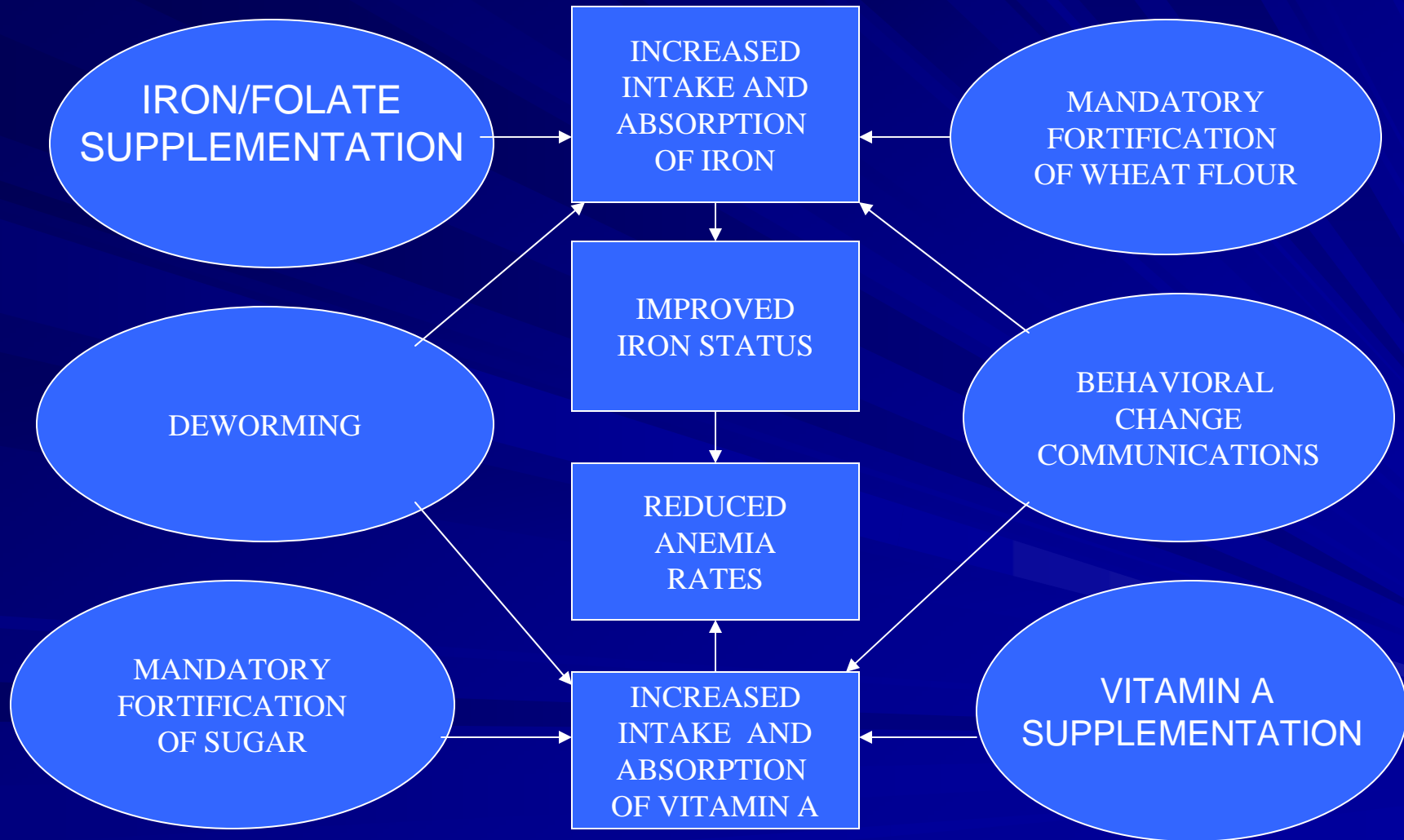
Integrated Approach to Anemia Control in Nicaragua

Erick Boy, MD, Ph.D.

The Micronutrient Initiative

Istanbul April 17, 2007

Integrated Approach to VAD and Anemia Control in Nicaragua

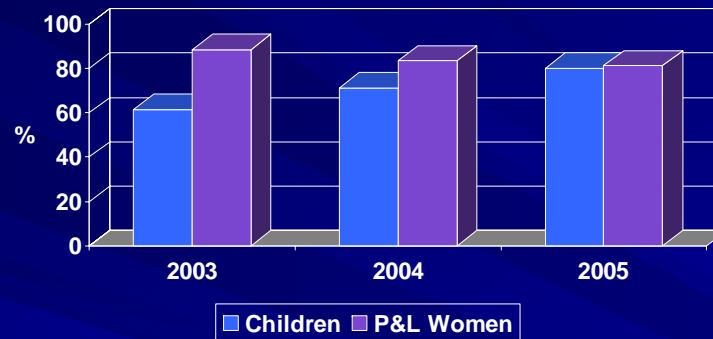


Logistics

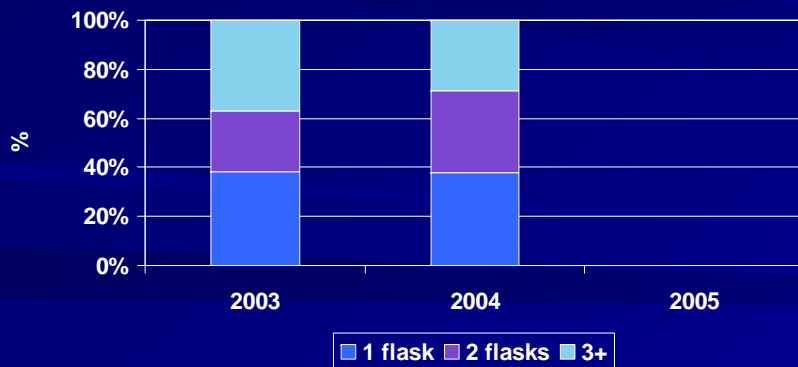
- Repeated assessments of system (1998, 2000, 2001, 2005) with corrective follow-up actions
- Standard procedures and training: 2005
- CHVs (“brigadistas”):
 - constant supply (periodic retrieval of stock from health facility) for reliable delivery at community level
 - Demand creation: comes with counseling role & monitoring compliance

Coverage of Iron Interventions: Supplementation

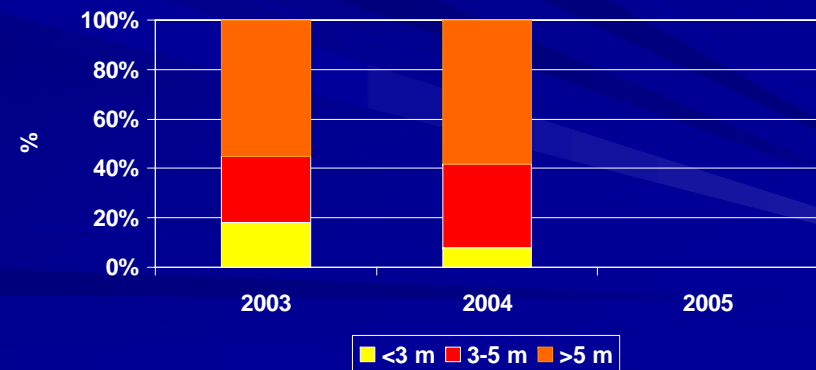
Women and Children: supplementation coverage



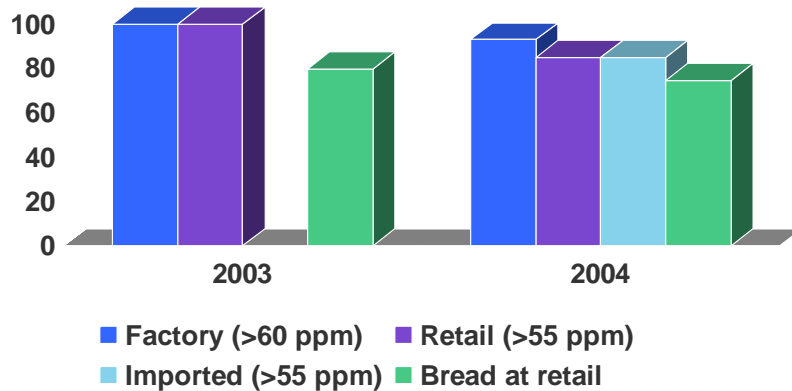
Children: # of flasks of iron in last 12 months



Women: Months of Supplementation



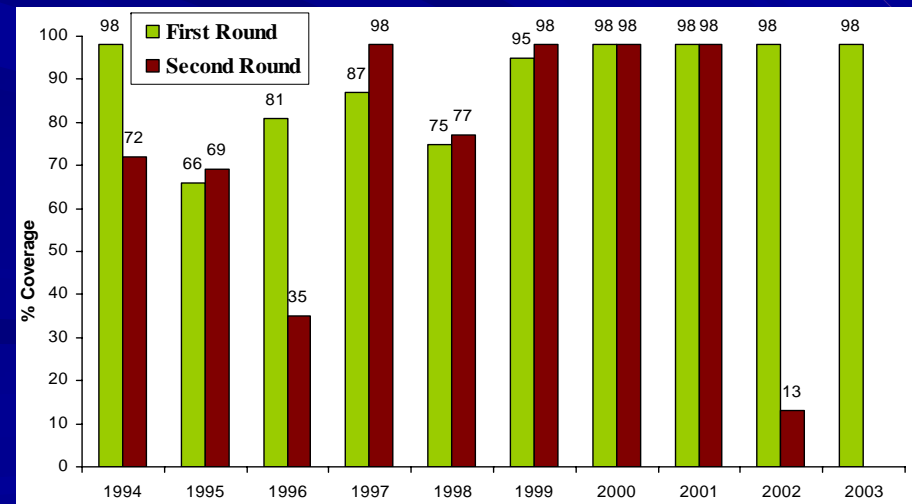
Wheat Flour & Bread Fortification Levels: 2003-2005



Fortification of Wheat Flour & Bread complies with regulations but low consumption by most vulnerable: rural poor

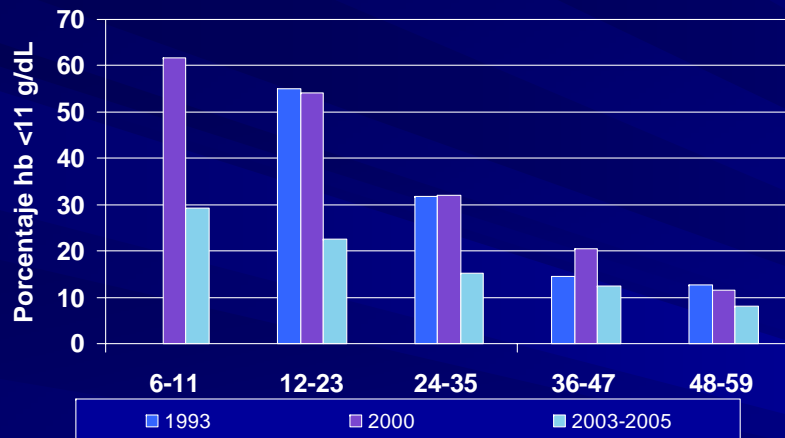
Coverage of anthelmintic medications in children 2-4 years: 1994-2003

Deworming carried out consistently with high coverage over time

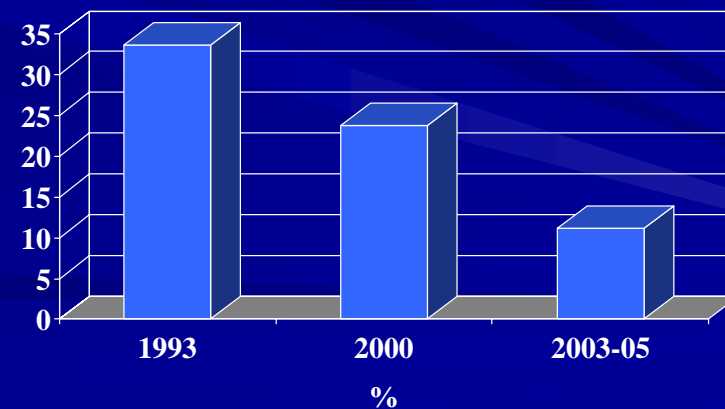


Decreasing Prevalence of Anemia in children and non pregnant women: 1993-2005

Prevalence of anemia in children by age group



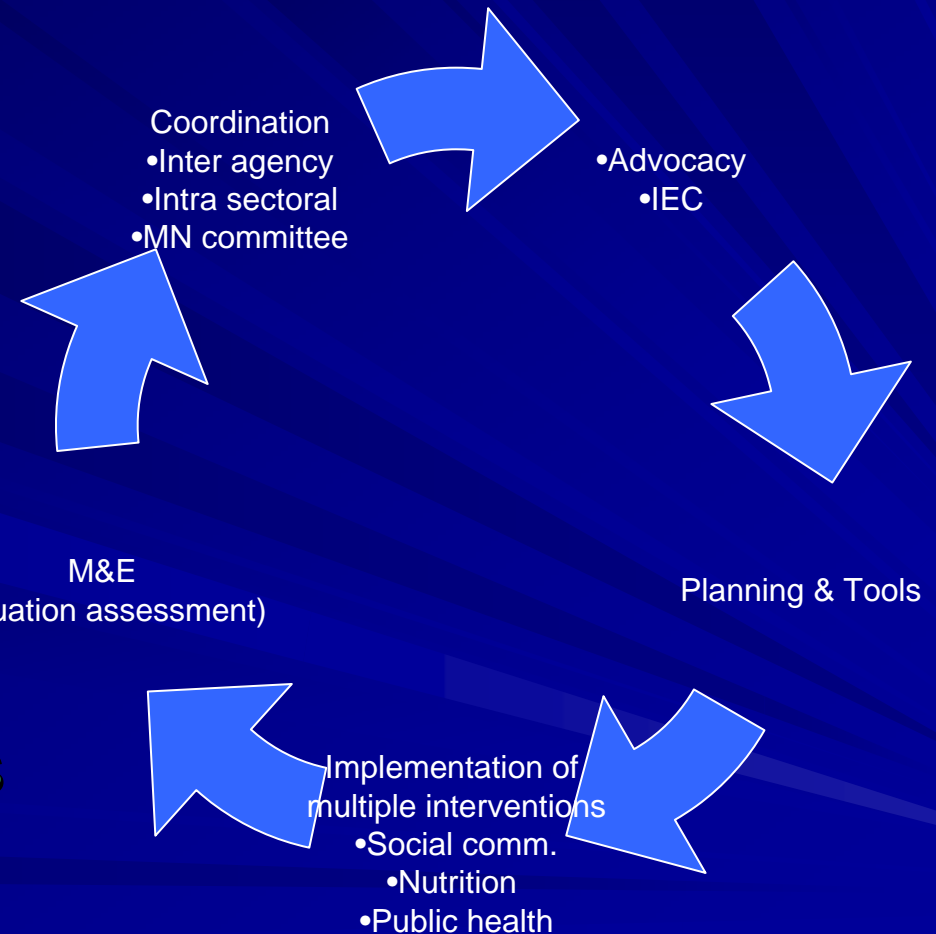
Anemia in WCBA over time



Attribution of Effectiveness

- Feasibility analysis
- Chronology postulate

■ Public Health Interventions increased coverage: family planning, ANC, ORT, sanitation, deworming, malaria is not an issue



Lessons Learned

- **Success in addressing anemia appears to be most likely when a multi-pronged integrated approach is adopted to address the main causes of anemia.**
- **Pilot/demonstration projects to address operational constraints are extremely useful.**
- **Existence of a strong health infrastructure, effective health delivery services and community support is a plus.**
- **Program ownership by health districts and local units is a sound basis for institutional sustainability.**

Lessons Learned continued

- **A functional management / logistics system for supplements is critical.**
- **Food industry commitment is critical for maintenance of high quality and coverage of food fortification.**
- **Monitoring and evaluation (M&E) systems provide important information for decision making.**
- **Effective international cooperation and coordination facilitates rational use of external resources.**