Abstract of a major presentation at the
International Conference

Forging Effective Strategies to Combat Iron Deficiency

Atlanta, GA USA
7-9 May 2001

Organized and sponsored by:
ILSI Center for Health Promotion
Centers for Disease Control and Prevention
Emory University
Micronutrient Initiative

(Additional information and publications from this Conference can be found at the website of the International Life Sciences Institute (http://www.ilsi.org/)

Combating Iron Deficiency: Priorities for Africa

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Africa presents special challenges in the development of strategies to combat iron deficiency. The continent straddles the equator and has a vast range of climate, vegetation and economic development. In many countries, political instability seriously hampers advocacy programs and distorts national priorities. Information on the prevalence of iron deficiency in much of Africa is very patchy. Efforts to gather this information are frustrated by the high prevalence of inflammatory disorders and other non-nutritional causes of anemia. In addition, a lack of resources precludes the use of sophisticated diagnostic measurements. Virtually all the information on anemia in African countries is derived from small studies usually involving single villages or small districts and simple methodology. Accepting the patchy nature of the data, there is evidence that anemia is more common in coastal regions, where the prevalence may reach 80%, and becomes less common in the interior and in countries further south (20%-30 %). This geographic variation probably reflects factors such as the prevalence of malaria and hookworm and socioeconomic factors. However, the fact that anemia is most common in pre-school children and pregnant women suggests that iron deficiency remains a major underlying cause of anemia in Africa. Evidence from individual studies indicates that about half of the cases of anaemia, even in pregnant women, can be attributed to iron deficiency. As the AIDS epidemic continues to gain momentum in Africa, particularly in southern Africa, the prevalence of anemia is likely to rise. Whether preexisting iron deficiency anaemia affects the morbidity or pathogenesis of AIDS related anaemia remains to be determined. In Africa, traditional strategies aimed at combating iron deficiency anaemia (supplementation and fortification) are likely to have less impact on the prevalence of anaemia because of the multifactorial aetiology of anaemia. A holistic approach is needed with attention being given simultaneously to other micronutrients, particularly vitamin A, and to the control of diseases such as HIV infection, malaria and hookworm in appropriate areas. While none of these strategies will be truly effective without the elimination of poverty as a major contributing factor, and probably the most important factor separating the iron-replete developed world from the iron-deficient third world, the effect of combating iron deficiency in overcoming poverty should not be underestimated.