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Forging Effective Strategies to Combat Iron Deficiency

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Iron Supplementation for Women: Step Child or Crown Prince?

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Anemia prevalence has remained unacceptably high in pregnant women worldwide, despite the fact that most antenatal care (ANC) programs recommend iron for pregnant women. It has been suggested that ANC anemia control programs are ineffective because women won't take iron tablets because of side effects, the other causes of anemia (i.e., parasitic infections) are not addressed, and that inaccurate cutoffs make it difficult to detect a change in anemia. However, on closer examination, are ANC anemia programs actually operational? In order for these programs to be effective three major components need to be present: the recommended number of iron tablets need to reach pregnant women; tablets need to be delivered to women where they are working and living; and the behavioral barriers that keep women from taking the iron tablets they receive need to be addressed.

It is suggested that, like vitamin A deficiency, until 80% of pregnant women are taking the recommended number of iron tablets, there will be no worldwide reduction in anemia. From recent Demographic and Health Surveys few countries are reaching this level of coverage. In Tanzania (1999), only 44% of women are receiving iron supplements, in Eritrea (1996/97) only 29.5% are receiving iron tablets, and in Yemen only 20.7% are receiving them. Coverage is higher in Ghana (1998), Indonesia (1997), and Philippines (1998) where three-quarters of women are receiving iron during pregnancy, although it should be noted that these figures reflect women receiving *any* pills and not the recommended number of iron pills. In fact, DHS has collected information on women receiving the recommended number of iron tablets in pregnancy in only Indonesia (1997) where 24% of women are receiving the recommended number (90+) of iron tablets and in India (1998/99) where 47.5% of women are receiving a 3- month supply of iron tablets or syrup.

Figures from DHS surveys suggest that ANC may not be the best place to deliver iron tablets because ANC use is often late or infrequent, making it impossible for women to obtain and take the recommended number of tablets. In addition, an analysis of DHS anemia prevalence and iron pill-taking by proxies for income shows that anemia prevalence is highest in the poorest income quintile compared to the richest quintile and the proportion of women taking the recommended number of iron tablets is lowest in the poorest group compared to the highest group. Therefore, to effectively reach women, and particularly the women who need iron the most, alternate delivery channels need to be found and may include places of work, private sector drug sellers and markets, and community networks (women's groups, religious leaders). At the same time, ANC coverage and quality needs to be improved since there are a number of other health reasons, besides reducing anemia, for women to obtain health care and counseling in pregnancy. Thailand, for example, improved coverage of ANC over the last 15 years and as a result has significantly reduced anemia prevalence over the same period.

Community volunteers identify pregnant women early and encourage their frequent use of ANC where women are provided with adequate supplies of iron tablets and effective messages to ensure they take iron tablets.

To focus on the facilitators and barriers to taking iron tablets, the USAID-funded MotherCare and OMNI projects, with assistance from the Manoff Group, conducted qualitative research in eight countries (Bolivia, Burkina Faso, Guatemala, Honduras, India, Indonesia, Malawi and Pakistan) on women's and other key informants' perceptions toward anemia and taking iron tablets. In all countries, but Honduras, women did not know the medical term for anemia; however, in most countries, there were local terms that reflected the symptoms of anemia (e.g., weakness, fatigue, weak, low or not enough blood). Causes of these symptoms were poor diet, hard work or eating last in the family. Iron tablets were prescribed to about half of the women, but the women were never informed about what they were for. Only one-third of the women who took iron tablets experienced side effects, and only about one-tenth of the women stopped taking iron tablets because of side effects. Most women said they liked taking iron tablets because they felt stronger and had more energy. The main reasons the women did not continue to take the iron tablets were that supplies were inadequate, they forgot to take them or they were concerned about taking iron for too long because it was seen as a medication, which should not be taken during pregnancy. In addition, the benefit of feeling better after taking iron also worked against taking iron over the course of pregnancy because women felt they were better or cured and no longer needed to take iron. There were some fears that taking iron over a long period of time would cause a big baby or too much blood, which would make delivery more difficult.

Reducing anemia prevalence in women of reproductive age is also important, although it was recommended to first concentrate on pregnant women and children age 6-24 months and phase in programs for other groups as resources become available. Postpartum women, women about to be married and adolescent girls all have high physiologic needs for iron, and these time points may be convenient for introducing and sustaining pill taking.

Finally, a challenge was given to stop treating iron like a "stepchild" to other micronutrients and emphasize its importance to good health so that it receives the attention and resources given to iodine and vitamin A. Only if we take this bold action can we hope to effectively improve existing programs and reduce anemia during pregnancy.