

## THE PROJECT OF TURKEY AS IRON Prevention of Anemia in Infants

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Turkey approved to participate in the decisions to reduce the problems of micro-nutrient deficiencies with the all participating countries, at the World Children Summit (1990), the International Nutrition Conference (1992) and the Millennium Development Goals (2000). The Economic analysis indicate that the iron deficiency anemia would be prevented with low cost.

Five basic implementation have a important place in the prevention of the iron deficiency anemia. These implementations are respectively as follows;

- Determining the prevalence of anemia,
- Nutrition training,
- Giving iron supplementary,
- Controlling of viral, bacterial and parasitic diseases,
- Activities such as food fortification with iron.

Providing iron supplementation is an effective way in the prevention and control of the problem, and for this reason in accordance with WHO recommendations, it has been decided giving iron supplementary should be free of charge for all infants born in our country below 1 year of age.

"Turkey As Iron" program started in April 2004 and has been carrying out throughout the country within the scope of the reasons and the following objectives:

### Objectives

1. Initiation of breastfeeding immediately after birth and "exclusively" breast milk in the first 6 months.
2. Giving appropriate and sufficient complementary foods after 6 months while continuing breastfeeding up to the age of two years
3. Informing pregnant women about iron deficiency
4. Providing iron supplementation for prophylaxis and treatment of infants
5. Monitoring and evaluations should be done.

### Goals

1. To provide prophylactic iron supplementation for all infants from 4 to 12 months,
2. At the end of the program to reduce the prevalence of iron deficiency in children to 10%,
3. To treat infants who diagnosed with anemia.

The program involves the whole society -all health institutions affiliated to the Ministry where child health services are offered throughout the country and the families and also the media-

### Strategies

Even though the etiology of anemia and the treatment/prevention methods are commonly known, anemia is still a very common problem, so it is necessary to implement the following strategies. The Program is envisaged by carrying out in line with the strategies specified by the Ministry of Health General Directorate of MCHFP.

- Promoting, supporting and sustain of breast-feeding and providing exclusive breastfeeding infants for first 6 months,
- Developing complementary feeding practices, preparing food-based nutrition guidelines in this context and updating of existing ones,

\* After 6 months beginning of complementary feeding on time especially with iron-rich foods, (ensuring consumption of meat, eggs, fish, legumes, green vegetables and especially vegetables and fruits rich in vitamin C)

\* Continuing breastfeeding up to 2 years with appropriate complementary foods.

\* Improving the consumption of iron-rich traditional foods (use of molasses as a sweetener instead of sugar)

- Increasing the knowledge of 6 months-6 years old children's parents about nutrition and by this way ensuring protection of children from anemia.

- Giving essential information about nutrition and anemia to the parents of this age group and supporting iron intake by nutrients.

- Prevention of other nutrient deficiencies leading to anemia,  
- Giving up-to-date information to health workers about infant and children's nutrition, monitoring and evaluation of growth by training course and materials.

- Provide training to health workers and families and revising the society's incorrect knowledge, attitudes and behaviors about feeding,

- Provide training to families in general and personal hygiene and sanitation,

- Ensuring the doctors -working in primary health care facilities-participate in actively on mothers and pregnant women's training,

- As informing mothers and pregnant women about nutrition, and also giving iron supplements to children, making measurements hemoglobin, hematocrit blood level for considered necessary children and starting iron treatment, distribution of brochures, posters and so on.

- Ensuring to offer adequate consultancy service for mothers and pregnant women and create awareness to make infants healthier by these activities,

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- Providing the program publicly take part in priorities, developing promotion methods, for the prevention of anemia raising awareness about the proper nutrition implementations through the media.

- Ensuring coordination of the program with other programs (family planning, promotion of breast-feeding, preservation and promotion of breastfeeding, reproductive health, IMCI-Integrated Management of Childhood Illness, safe motherhood, etc)

- Developing of monitoring and evaluation methods and carrying out the studies to determine the situation, in order to increase the sustainability and the effectiveness of the program.

- Fortification of essential foods with iron through national food fortification studies.

- Providing of monitoring in specific periods and re-evaluation of infant's anemia (The references of anemia for 6-60 months children and pregnant women is Hb 11 g/dL and Hct is below 33%, WHO/UNICEF, 1997).

#### Iron Supplementation

The iron form used in supplementation and treatment applications for children is iron drop. The valid principles in the implementation of iron supplementation are as follows:

- Initiation of drops for all infants from 4-12 months for iron supplementation (10 mg / daily dose, and once a day for a period at least 5 months),

- Beginning of iron supplementation to premature or under 2500 g infants, if it wasn't initiated before 2nd month (2 mg/kg/daily dose once a day for a period at least 5 months).

- Prescription of iron supplements to each infant who suspected by palmar paleness and diagnosed anemia by the measurement of Hb and Hct in 4-24 month (3 mg/kg/daily dose and once a day for a period 3 months).

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Years	Number of Infants provided Iron Supplementation
2004	731.844
2005	849.117
2006	1.058.122
2007	1.063.316
2008	1.333.155
2009	1.240.839
2010*	841.750
<b>Totaly</b>	<b>7.118.143</b>

\* 2010 first 9 months

- Following-up infants to whom prophylactic iron is applied, after 9 months of the drug initiation. If the infant diagnosed with anemia it should be referred, if not ensuring continue to prophylaxis.

- Following-up infants after 1 month of the drug initiation to whom treating for anemia. If the anemia still diagnosed the infant should be referred, if not ensuring to continue the treatment.

- Providing of urgent referral of every infant and children whose identified Hb value is lower than 7 g and Hct value lower than 21%.

In the scope of the program 7.118.143 children have benefited from iron supplementation. According to the Iron Survey conducted in 2006 and ending in 2007, iron deficiency was determined 7.8%. Before this project the prevalence of iron deficiency was reported as 50% among infants in Turkey (16).

The prevalence of iron deficiency anemia was reported between 15.2% and 62.5 % in some local studies. However, it did not represent the whole country. Iron deficiency anemia was estimated about 48 to 75 percent of anemias among infants (16,17).

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