

National Anemia Control Strategy

(For Women and Children)

Let us administer iron tablets to pregnant women

And save from anemia

Government of Nepal

Ministry of Health and Population

Department of Health Services

Child Health Division

Nutrition Programme, 2064




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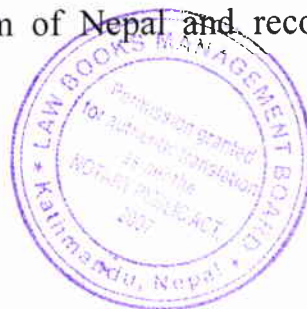
Background

Adverse effects caused to nutrition and health condition from anemia inhibits the physical growth and mental development of children and also increases the maternal mortality rate. Anemia during pregnancy affects the growth of infant, results in the birth of an underweight child, premature birth of a child and depreciation of the disease resisting capacity of both infant and mother. In addition, anemia gives rise to problems such as depreciation in working capacity, decrease in production capacity and capacity to care.

Anemia is found as a serious public health problem in Nepal. Micro nutrition Study of 1991 disclosed that a total of 68 per cent women in Nepal have suffered from anemia. But according to the Nepal Demographic Health Survey of 2006, this number decreased to 34 per cent. Two of every four pregnant women suffer from anemia. As per another fact found by that study, anemia was found on 78 per cent of children of before school age group; and it is 48 per cent as per NDns 2006. Anemia was found on 90 per cent of infants of age group of 6 and 11 months; and it went down to 82 per cent as per NDns 2006, while infants make physical and mental development at a faster rate during this age.

Causes of anemia are complex. Out of the causes, iron deficient food is considered to be a major one. Moreover, infection of parasite, malaria, kalazar and lack of other micro-nutritional elements in food are the causes of anemia.

The Government of Nepal, Ministry of Health and Population, has taken anemia as a most serious problem of Nepal and recognized the task of



reducing its rate as a challenge. For this, common efforts should be made from all sectors. It is necessary to include the task of reducing the rate of anemia in pregnant women in priority and prepare and enforce a strategy of identifying anemia in small age children and make proper arrangements for its prevention. This booklet present an outline of the strategy prepared to control anemia in Nepal.

Goal:

To keep on reducing the rate of anemia in women and children in Nepal.

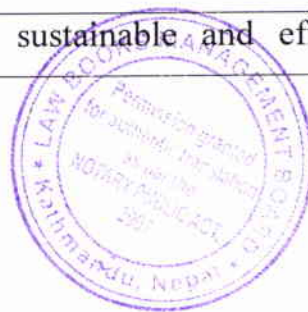
Objectives:

1. To increase the distribution of iron tablets to pregnant women (coverage) and compliance (completion of dosage and period).
2. To control infection of parasites (worms, malaria and kalazar) on women and children.
3. To control the deficiency of vitamin A on women and children.
4. To identify the possibility of iron fortification in proper food stuffs to be produced by large and small industries to fulfill iron element and enforce programs to that end.
5. To promote various kinds of foods and food stuffs with more iron content in order to obtain bio-available iron.
6. To encourage maternity services to bring improvement in nutrition and health of mothers and their infants.
7. To identify and enforce effective measures to improve anemia in children, adolescent girls and women of reproductive age.



8. To develop a systematic method for the monitoring and evaluation of programs to be launched for anemia control.

Objective 1	To increase the distribution of iron tablets to pregnant women (coverage) and compliance (completion of dosage and period).
Policies	<p>a. To ensure the availability of iron tablets in health institutions and village clinics</p> <ul style="list-style-type: none"> • To strengthen the distribution system of iron tablets • To strengthen the distribution of iron tablets and reporting procedure in coordination with the District Health/Public Health, Supply Management Division, Family Health Service and other relevant bodies • To monitoring regular supplies
	<p>b. To raise awareness about the importance of anemia during pregnancy and iron tablets and increase the demand for iron tablets in coordination with the concerned programs</p> <ul style="list-style-type: none"> • To encourage the launching of information, education and communication campaign (IEC Campaign) through mass media such as radio and television, at the national level • To integrate nutrition education and publicity related activities into the services to be provided under the health services and promote these activities through village clinics and community based organizations.
	c. To develop a sustainable and effective system for



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	<p>increasing the access of iron tablets at the village and community levels</p> <ul style="list-style-type: none"> • To distribute by repacking iron tablets into smaller packets • To identify community based structures for the effective and regular distribution of iron tablets through women health volunteers, trained birth attendants and community motivators for pregnant women and women who have delivered babies. • To make reliable the distribution of iron tablets in village clinics through health workers and women health volunteers.
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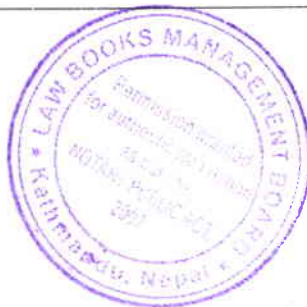
Note Bene:

During pregnancy, the need for iron content is higher for the physical growth and development of infants. But it is difficult for most Nepalese women to meet even minimum supply of iron content from food. Consequently, it is almost impossible to reserve adequate quantity of iron content in body. So, the distribution of iron tablets has been launched as a major program to prevent the problem of anemia and fulfill the need of iron content during pregnancy. There is a risk of having neural tube defects and anemia in newly born babies due to the deficiency of folic acid. In view of these facts, a policy has been made that pregnant women should take a total of 225 iron/folic acid tablets at the rate of one tablet per day from the fourth month of pregnancy to 45 days after the delivery.



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Objective 2	To control infection of parasites (worms, malaria and kalazar) on women and children.
Policies	<p>a. To encourage the control of worms, malaria and kalazar in pregnant women and children</p> <ul style="list-style-type: none"> • To formulate a clear and long-term action plan for coordination of safe supply and distribution of drugs to control parasites, preparation of working procedures for trainings and taking measures in coordination with relevant organizations • To expand to all districts the half-yearly worm drug distribution program to be organized jointly with the national vitamin A program for children of 1-5 year group • To initiate the worm control program for administering one tablet worm drug to pregnant women from the fourth month of pregnancy in order to increase the use of iron/folet tablets
	<p>b. To promote the malaria and kalazar prevention and control programs</p> <ul style="list-style-type: none"> • To make coordination with the malaria and kalazar prevention and control programs
	<p>c. To encourage measures to raise public awareness about improvement in habits, sanitation, drinking water and health related matters to control parasites, in collaboration with concerned bodies/sectors</p>



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Note Bene:

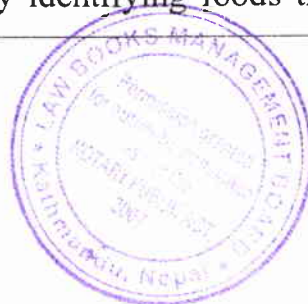
In Nepal, the infection of parasites is a main public health problem in pregnant women and children. The fact that hook worm is a main cause of anemia is well-known, which plays a role in further enhancing the deficiency of iron content. Therefore, any public health program targeting the problem of anemia should focus specially on the control of parasites.

Objective 3	To control the deficiency of vitamin A on women and children.
Policies	a. To promote vitamin A program for pregnant women and children

Note Bene:

According to the fact found from studies on communicable diseases, the rate of anemia in developing countries is higher in the group with vitamin A deficiency. It is already proved that vitamin A plays an important role in preventing anemia and decreasing the infant mortality rate. So, programs controlling the deficiency of vitamin A are essential to decrease the rate of anemia in women and children in Nepal.

Objective 4	To identify the possibility of iron fortification in proper food stuffs to be produced by large and small industries to fulfill iron element and enforce programs to that end
Policies	a. Based on various studies and researches already conducted, to test and operate iron fortification programs by identifying foods that are appropriate for



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	iron mixture and mixing technology
	b. To prepare a comprehensive and systematic plan for the production and distribution of food stuffs with iron content
	c. To conduct further researches for mixing iron content with appropriate food stuffs at the community level <ul style="list-style-type: none"> • To conduct feasibility study about mixing of iron (iron fortification) at the community level • To conduct feasibility study for mixing iron with additional diet (Litto etc.) of children at the community level
	d. To formulate required policies and plans to succeed the act of making food with iron content <ul style="list-style-type: none"> • To raise public awareness among the policy makers, food industries and consumers about the importance of making food with iron content • To mix iron with food stuffs such as wheat flour and Maida and make amendment to the Food Regulation to make such mixture compulsory • To establish a monitoring system to ensure the quality of food stuffs with iron mixture

Note Bene:

Making food stuffs with iron is a most effective long-term measure, which can reach persons of all age groups. It is necessary that appropriate food



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stuffs should be identified and iron mixed with such stuff taking into consideration of the anemia affected groups in Nepal such as women of reproductive age especially pregnant women and children below five years of age.

Objective 5	To promote various kinds of foods and food stuffs with more iron content in order to obtain bio-available iron.
Policies	<p>a. To standardize and expand nutrition education in order to raise awareness about non-vegetarian and vegetarian foods that are rich in iron content</p> <ul style="list-style-type: none"> • To develop and produce appropriate information, education and communication materials (IEC Materials) at the local level
	b. To encourage improvement in daily food habit taking into account of food stuffs that are rich in iron content and bio-available iron.
	c. To publicize the concept of gender equity for access to and control of food stuffs

Note Bene:

In a developing country, food related initiative alone may not be a complete policy to address the problem of anemia because in such a country it vegetation based food stuffs available at the local level are the source of iron content. Body cannot well consume the iron content available in vegetation. In order to bring about improvement in the situation of nutrition, special focus and encouragement should be given on and to measures designed to improve food habit, making these measures long-term ones. Efforts to




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include various kinds of food stuffs available at the local level in daily food stuffs for improving the situation of nutrition of women and children and resolving the problem of anemia in Nepal will also be important for the fulfillment of the other nutritional contents/elements.

Objective 6	To encourage maternity services to bring improvement in nutrition and health of women and their infants.
Policies	<p>a. To raise awareness about the importance of taking additional food and lessening workload in order to improve the condition of nutrition of women during pregnancy</p> <ul style="list-style-type: none"> • To identify collaboration in any gender related programs in order to raise awareness on both women and men • To encourage the publicity related activities in each region in order to disseminate education relating to nutrition and health of women
	<p>b. To encourage the increase of age of giving birth to the first child to save mothers from the risk of malnutrition, to deliver safe babies and maintain birth intervals.</p> <ul style="list-style-type: none"> • To maintain coordination with family planning programs.
	c. To prepare an action plan for provisions of identifying and treating women who are at the risk of high anemia.
	d. To incorporate and consolidate the reproductive health coordination committee and the relevant programs
	e. To keep on improving the knowledge of health workers



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	at all levels from time to time.
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Note:

Lack of reservoir of adequate iron content at the time of birth of low weight babies is considered to be a major cause of anemia in small age. So, in order to prevent the birth of babies with low weight, it is essential to improve in the nutritional condition of mothers, lessen their workload and avoid severe anemia during pregnancy. Inadequate food and increased workload are also major causes of anemia during pregnancy. More energy and other nutritional elements are required for pregnant women also for the growth and development of infants conceived.

Objective 7	To identify and enforce effective measures to improve anemia in children, adolescent girls and women of reproductive age.
Policies	a. To carry out necessary research on anemia and encourage for research on the same.
	b. To review the possibility of extending the distribution of iron/follet tablets to the groups at risk such as small children, adolescents and women of reproductive age, in addition to pregnant women.
	c. To do research and study in order to identify effective programs to avoid iron deficiency in small children, adolescents and women of reproductive age.



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Note:

The World Health Organization has suggested for the use of iron tablets by small children, adolescents and women of reproductive age who live in areas which high possibility of having anemia. Therefore, in places where the community-based iron tablets distribution system is improved, distribution of iron tablets can be made to these communities through this system or other measures can also be taken.

Objective 8	To develop a systematic method for the monitoring and evaluation of programs to be launched for anemia control.
Policies	a. To strengthen the HIMS and LMIS to ensure and update regular monitoring, evaluation and reporting of programs launched in various areas.
	b. To make periodic surveys and evaluate the effectiveness of programs and identify the places with priority and launch necessary programs.
	c. To enhance the capacity of concerned workers monitoring and evaluating anemia control programs.
	d. To develop the capacity of health institutions to check hemoglobin so that they can identify anemia.

Note:

Monitoring is an important aspect in any public health program. In fact, the monitoring system should be simple at all levels. It is a must that it contains all kinds of indicators (supplement, supply, coverage, compliance,



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consumption, attitude and behavior change). If proper examination or appraisal of a program is made, its success or failure can be identified. Therefore, those who are responsible for the management of any program should be always ready to appraise the program, exchange experiences, put forward problems, if any, explore solutions to the problems and disseminate the facts found.



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Annex

Dosage and period of iron/folic acid tablets prescribed for pregnant women
(National protocol)

Dosage: 600 milligram iron plus folic acid one tablet a day

Period: From the fourth month of pregnancy up to 45 days after delivery

Treatment chart of iron tablets for the treatment of severe anemia

Age group	Dosage	Period
Less than two years	25 milligram iron plus 400 micro gram follet	3 months
2-12 years	600 milligram iron plus 400 micro gram follet	3 months
Adolescents and adults and who have delivered baby	120 milligram iron plus 400 micro gram follet	3 months

-After the completion of the dosage of three-month treatment, pregnant women and infants should pay attention to prevent aspects.

-Children who suffer from severe malnutrition such as Kwashiorkor and Marasmus should be considered to have suffered from severe anemia. However, iron tablets should be continued until children develop appetite and increase weight gradually.



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