Operational Guideline
for
Implementation of the Package of Nutrition Interventions for Adolescents at Secondary Schools
2019

National Nutrition Services
Institute of Public Health Nutrition,
Directorate General of Health Services
Ministry of Health & Family Welfare

Contents

Topics **page**

Abbreviations

BBS	Bangladesh Bureau of Statistics
CDC	Communicable Disease Control
DGHS	Directorate General of Health Services
DHS	Demographic Health Services
DPHE	Department of Public Health Engineering
DSHE	Directorate of Secondary and Higher Education
HA	Health Assistant
IFA	Iron Folic Acid
IPHN	Institute of Public Health Nutrition
NNS	National Nutrition Services
SMC	School Management Committee
UHFPO	Upazila Health & Family Planning Officer
USEO	Upazila secondary Education Officer
WIFA	Weekly Iron Folic Acid

Acknowledgment

Preface

Introduction

More than one-fifth of the total population of Bangladesh is adolescents between the ages of 10 and 19 years, which accounts for approximately 36 million (BBS, 2015) [1]. According to recent analyses of nutrition indicators on adolescent girls 15-19 yrs from DHS 2014, the status of nutrition among adolescents in Bangladesh is unsatisfactory. Stunting (HAZ<-2SD) among girls in the age group 15-19 years is high both urban (34.5%) and rural (39.9%) areas. Anaemia in rural adolescent girls is as high as 40% and around 36% in urban areas[2].

Nutrition has a profound impact on the current and future health of adolescent boys and girls. A sustainable healthy diet and healthy eating practices during adolescence have the potential to limit any nutritional deficits and linear-growth faltering generated during the first decade of life and may limit harmful behaviour contributing to the epidemic of noncommunicable diseases in adulthood. Investing in adolescent nutrition brings triple dividends: better health for adolescents now, improved well-being and productivity in their future adult life and reduced health risks for their children. Assuring optimal nutrition among adolescents requires coordinated actions across multiple sectors.

Considering severity of malnutrition situation among adolescents the National Strategy for Adolescent Health 2017-2030 and the Second National Plan of Action for Nutrition (NPAN2) highlight a number of evidence-based interventions for improving adolescent nutrition such as: mainstreaming nutrition education; promoting dietary diversity; micronutrient supplementation; deworming; preventing child marriage; community-based nutrition awareness; physical activity; food supplementation and nutrition counseling.

The purpose of the operational guideline is to provide guidance for implementation of the package of nutrition interventions to improve nutritional status among adolescent girls and boys aged 10-19 years in Bangladesh, using the school platform linking with community platform. It will be used by the adolescent peer leaders under the guidance of school teachers of the secondary schools,

[1] MoHFW (2016). National Strategy for Adolescent Health 2017-2030. Dhaka: Ministry of Health and Family Welfare (MoHFW), Government of Bangladesh. http://coastbd.net/wp-content/uploads/2017/07/National-Strategy-for-Adolescent-Health-2017-2030-Final-Full-Book-21-06-17.pdf

[2] Adolescent Nutrition 2000-2017: DHS Data on Adolescents age 15-19

related managers and service providers from Directorate General of Health Services (DGHS), Directorate of Secondary and Higher Education (DSHE) Directorate General of Family Planning (DGFP) and interested NGOs/CBOs all of whom are implementing adolescent nutrition interventions using school platforms. The Institute of Public Health Nutrition (IPHN) under Directorate General of Health Services (DGHS) and Directorate of Secondary and Higher Education (DSHE) will steer and coordinate the process, provide technical and stewardship efforts and ensure implementation of nutrition services at secondary schools.

Section 1

Goal, Objective, Specific Objectives

1 Goal, Objective, Specific Objectives

1.1. Goal

To ensure access to the nutrition services among adolescent girls and boys attending secondary schools

1.2. Objective

To provide guidance for joint implementation of sustainable and quality nutrition interventions for reduction of undernutrition, control of anaemia and obesity among adolescent boys and girls attending classes 6 to 10th at secondary schools in all divisions in Bangladesh.

1.3. Specific Objectives

- Ensure that all adolescent boys and girls in 6 to 10th standards of secondary schools are receiving package of adolescent nutrition interventions as per definition
- Aware the adolescent boys and girls of the correct dietary practices for increasing micronutrient intake for physical and mental growth
- Ensure that all adolescent girls (menstruating girls age between 10-19 yrs) are given weekly iron-folic acid supplements (WIFS) throughout the school or calendar year on a fixed day
- Ensure that all adolescent boys and girls are receiving Albendazole twice a year for de-worming
- Ensure implement of interventions to inform adolescent girls and boys, in combination with interventions to influence family and community norms, to delay the age of marriage among girls under 18 years of age
- Ensure incorporation of Vigorous-intensity physical activities such as aerobic, karate, local games, including those that strengthen muscle and bone, at least three times per week.
- Establish system for record keeping and monitoring the process of implementation of nutrition interventions at schools in order to improve quality and efficiency of the services
- Establish referral linkage between secondary schools and health facilities to manage malnourished cases whom requires medical attention such as acute malnutrition, anaemia

Section 2

Strategy for Implementation of Package of Nutrition Interventions

2 Strategy for Implementation of Package of Nutrition Interventions

School based nutrition interventions will require multi-sectorial engagement with defined roles and responsibilities. This operational guideline is explaining the strategies which are necessary for effective coordination among relevant directorates, departments, institutes for implementation of nutrition interventions at secondary schools. This guideline is also a reference tools and should be followed and used by all relevant program staff and partner, starting from program design and planning to implementation, monitoring and reporting of nutrition interventions in secondary schools. The guideline follows the following action-oriented processes for implementing the nutrition interventions in the secondary schools in Bangladesh.

2.1. Establish Multi-Sectoral Coordination (National and Sub-national level)

2.1.1 National Level Coordination

The planning and implementation of the nutrition interventions for adolescents at secondary schools will be done through an effective coordination among the two main responsible Institutes and Directorates under two different ministries; National Nutrition Services (NNS) of Institute of Public Health Nutrition (IPHN) under Directorate General of Health Services (DGHS) and Directorate of Secondary and Higher Education (DSHE).

The national level nodal agency for adolescent nutrition program implementation is the National Nutrition Services, Directorate General of Health Services are responsible for developing all technical documents such as guideline, tools, IEC materials, ensuring nutrition supplies, monitoring and evaluation (M&E) for coverage and quality nutrition services etc.

The Directorate of Secondary and Higher Education (DSHE) is the national nodal agency to provide guidance, directives and monitoring the secondary schools authorities for any interventions and capacity development.

The Department of Public Health Engineering (DPHE) is the national nodal agency to provide support for school block to ensure water sanitation and hygiene at schools.

Since 2017, Communicable Disease Control (CDC) under Directorate General of Health Services, MOHFW has started implementation of deworming week twice in a year for secondary school students in coordination with Directorate of Secondary and Higher Education (DSHE) under Ministry of Education.

Apart from the government departments of different ministries, other stakeholders such as national and international NGOs, development partners should be coordinated together for the implementation of nutrition interventions at secondary schools

For proper coordination among all stakeholders including the Government agencies following activities will be conducted at national level;

- Quarterly coordination meeting between two national level nodal agencies; Institute of Public Health Nutrition (IPHN) and Directorate of Secondary and Higher Education (DSHE) including international and national NGOs implementing adolescent nutrition interventions at secondary schools. This meeting will be chaired by Director General, DGHS and Director General, DSHE in each alternative quarter to reflect highest coordination.
- Bi-annual progress review meeting with sub-national level nodal agencies and school authorities

2.1.2 Sub-national level coordination

Functional involvement of district and upazila level authorities from DGHS, DSHE will coordinate together and development joint workplan to ensure technical and logistics supports to the secondary schools for implementation of package of nutrition interventions for adolescents. District Civil Surgeon Office and District Education office will be responsible together for planning, capacity development of services providers including nodal teachers, adolescent peer leaders and orientation of School Management Committee (SMC) members, ensure engagement of district and sub-district offices of Department of Public Health engineering (DPHE) for WASH

activities supporting nutrition interventions at schools. District Civil Surgeon Office and District Education office will also develop and implement supportive supervision and reporting from schools to national level.

Recommended activities under the sub-national level coordination:

- Bi-monthly coordination meeting between Civil Surgeon office, District Education Office and district office of DPHE to discuss progress and supports for nutrition interventions at secondary schools
- Planning and implementation of capacity development trainings for health and family planning managers and service providers, Upazila Secondary Education Officers (USEOs), school teachers, and orientation program for local government authorities and School Management Committee (SMC) Members on adolescent nutrition interventions
- Arrange logistics (IEC materials, training modules, SBCC materials, reporting forms, registers etc) and nutrition supplies (Iron folic acid tablets, Albendazol tablets)
- Implement monitoring and supportive supervision
- Collection and compilation of implementation reports from implementing schools and share with national level

2.2. Engagement of School Management Committee

The School Management Committee (SMC) will be notified and orientated about implementation of package of nutrition interventions at the beginning of the program planning and implementation by the District Education Office and Civil Surgeon Office. SMC will provide support for yearlong implementation and periodical nutrition activities (such as Nutrition Fair, debate and essay competition etc) at schools.

2.3 Functioning Student/Adolescent Clubs at Secondary School

2.3.1 Formation of Student/Adolescent club

Student/Adolescent club is the key core group involving students to implement package of nutrition interventions for adolescent boys and girls at secondary schools. Each school will consider following recommended rules for formation of a Student/Adolescent club

- Student/Adolescent club consist of 30 students (6 students from each class VI-X). The girls' and boys' ratio will be 50:50
- 2 Peer Leaders (1 female and 1 male for co-education) will be selected from the club members whom will work with respective Guide Teachers (both female or both male for singular education).
- 30 club members will work as Peer Educators for all students of their respective classes.
- All student of the school will participate in the nutrition activities
- Peer Leaders and Club members will be changed each year to give opportunity to the more students and also replace the graduated students from class Ten.
- 2 teachers will act as Guide teachers to guide club members for implementation of nutrition interventions at school
- Peer-educators will report to Peer Leaders and the Peer Leaders will report to Guide Teachers for the update on implementation of nutrition interventions

The selection of student/Adolescent club members will follow the criteria of: acceptance by all/majority of students; interest of individual students to take part responsibility for nutrition education and services at the schools; willingness of the students to implement nutrition education and services at the school; leadership quality and skills to mobilize and organize other students, club activities; public speaking skills and skills on cultural activities

2.3.2 Function of Student/Adolescent club

- School will allocate a class room for club functions, which will be safe place for adolescent girls
- Once in a week (Thursday), club members will meet together for one hour for the club activities
- Each Thursday, Peer Leaders / Peer Educators will discuss and learn on one important nutrition issue among themselves and prepare outline to communicate with other students
- Each Sunday or any day of the week at particular time Peer Leaders / Peer Educators will discuss their knowledge on particular issues on nutrition to all students of the class as per guideline supported by Guide teachers
- Distribute relevant nutrition materials among all student of each respective classes
- Perform activities as per plan and motivate students to participate in the club activities
- Ensure participation and attendance of irregular members
- Maintain an attendance register for the club members (Peer Leaders and Peer Educators)
- Maintain a register for students of their respective classes with bi-annual record of measure of weight and height
- Maintain a register for IFA distribution for girls and Deworming for all students under the guidance of Guide teachers
- Peer Leaders / Peer Educators will coordinate with community adolescent clubs and disseminate their knowledge on nutrition among the community adolescent club members
- Peer Leaders / Peer Educators will also act as a changing agent of the family food behaviour/practices and act as a role model for the other out-off schools adolescent girls and boys

2.3.3 Materials required for Student/Adolescent Club

The School Management Committee and teachers will ensure the following materials with supports from IPHN and DSHE through district health and education offices;

- Booklets, training modules, flip chart, other different types of IEC materials developed and approved by national authorities
- Registers and Reporting books etc
- Games items, Cultural materials such as music equipment, cultural dresses etc
- Measuring scales (weight and height) and Height /weight chart to monitor nutrition status at schools

2.4 Formation of Advisory Committee on Nutrition at Secondary School

An advisory committee will be formed in comprising with Chair of SMC, Head Teacher, Guide Teachers, Physical Education Teacher (where exist), Local Female Counselor of Union Parishad, Family Planning Inspector, Assistant Health Inspector/Health Assistant, and two parents (1 female and 1 male).

2.5 Defining Roles and Responsibilities of Multi-sectoral Actors

2.5.1 Roles and Responsibility of Advisory Committee

- Overall monitoring of implementation of the package of nutrition interventions at schools
- Ensure regular coordination with GOB departments at district and sub-district level including office of health services and office of DSHE
- Ensure all logistics and supplies are available for nutrition interventions
- Ensure parents are oriented on benefits of package of nutrition interventions implemented at schools

- Ensure documentation and record keeping as per guideline
- Ensure coordination and engagement of district and sub-district offices of Department of Public Health engineering (DPHE) for WASH activities supporting nutrition interventions at school
- Timeliness of the submission of monthly reports
- Support and ensure removal of institutional barriers/bottleneck if any for implementation of package of nutrition interventions at school

2.5.2 Roles and Responsibility of Head Teacher/Principal

- Designate two teachers as the Guide teachers for nutrition interventions
- Ensure specific place for Students/Adolescent Club activities and separate time for Nutrition Education Session under regular class routine
- Ensure orientation of other class teachers, schools' students and SMC members about package of nutrition interventions at secondary schools
- Ensure necessary logistic and nutrition supplies for the nutrition interventions at school
- Ensure provision of safe drinking water

2.5.3 Roles and Responsibility of Guide Teachers

- Formation and supervise the club functions
- Planning for implementation of nutrition interventions at school
- Guide Peer Leaders for review meeting in each quarter.
- Orient, support and supervise to the Peer leaders on Record keeping and Reporting
- Support to the Peer leaders/ Club members preparing session on specific nutrition topic for all students through class room knowledge sharing sessions
- Ensure Methodology of nutrition education at classroom session and nutrition education at clubs
- Ensure systematic implementation of Nutrition interventions other than nutrition education such as deworming, WIFS supplementation, promotion of preventing child marriage, physical activities

- Monitor and report Sanitation, safe water and hygiene activities and how to create demand to SMC for installation of facilities
- Establish referral mechanism for malnourished/anemic children whom need medical care to health centers

2.5.4 Roles and Responsibility of Health Assistant (HA)

- Mobilize support from School Management Committee for implementation of package of nutrition interventions as per requirement
- Assist school to form Student/Adolescent club and selection of club members
- Orient/provide training to Guide Teachers, Peer Leaders and Peer educators
- Ensure logistic and nutrition supplies (IFA tablets, Albendazole tables, IEC materials etc) to the schools under his/her supervision area
- Ensure Recording and Reporting of WIFA, Deworming, nutrition education session at school
- Support to develop referral linkage between school and health facility for managing acutely malnourished boys/girls, anemia whom require medical care
- Support for organizing Nutrition Fair in the school (engage other allied departments)
- Conduct periodical monitoring visit for monitoring the nutrition intervention
- Collect and compile monthly reports from the schools under his/her supervision and share with Civil Surgeon through Upazila Health and Family Planning Officers
- Coordinate with Upazila Secondary Education Officer to implement package of nutrition intervention at school

2.5.5 Roles and Responsibility of Upazila Secondary Education Officer (USEO)

- Coordinate with Head Teachers and SMC to form school clubs, selection of Guide Teachers
- Support and take part in orientation/training to SMC members, Head Teachers, Guide Teachers, Peer Leaders and Peer Educators
- Support School organizing Nutrition Fair in the school (engage other allied departments)
- Supervise school regularly for monitoring the package of nutrition intervention at schools
- Coordinate with district and Upazila heath offices to implement the package of nutrition interventions at schools and functioning reporting system
- Coordinate with sub-district offices of Department of Public Health engineering (DPHE) for WASH activities supporting nutrition interventions at school

2.6 Capacity development of the Multi-sectoral Actors

In order to operationalization of the package of nutrition intervention at secondary schools, a fundamental first step is awareness, orientation and comprehensive training for the multi-sectoral actors whom are involved at different level and different institute based on their roles in program implementation. Institute of Public Health Nutrition and Directorate of Secondary and Higher Education will play vital role to ensure right skills and capacity among service providers and managers. Following capacity development programs are recommended to enhance knowledge on adolescent nutrition interventions and its implementation.

- ***Developed Master Trainers*** on adolescent nutrition program implementation at schools and communities. IPHN will select Master trainers from the Government Institutes as well as national and international organizations who has mandate to implement and support nutrition interventions for adolescent boys and girls. IPHN will organize Training of the Trainers (TOT) for Master Trainers who will facilitate training/orientations for managers and service providers on the package of nutrition interventions for adolescent.

- ***Orientation program*** for the District Health Managers, Upazila Health and Family Planning Officers, Deputy Director Family Planning, District and Upazila Secondary Education Officers, School Management Committee members and Head Teachers. This

program will be organized under the technical support from IPHN with facilitation support from DSHE. Master Trainers will facilitate the orientation program for managers and service providers. Approved Adolescent nutrition training module will be used as resource document for this program and also introduce all government endorsed IEC materials for program use. This orientation program will focus on quality program implementation and establish and functioning of the monitoring and reporting system.

- ***Training for Guide Teachers*** This training program should be conducted once in a years at Upazila level jointly by the USEOs and UHFPOs or nominated Medical Officers. Training Modules on adolescent nutrition, IEC materials, booklet for teachers etc are the key resources for this training program.

- ***Comprehensive training for the Student/Adolescent Club members*** This training program will be conducted by the Guide Teachers once in a year with support from the resource persons from the Upazila offices of the health and education sectors or Master Trainers from national level. Booklets on different issues, IEC materials, Entertainment Education Materials etc will be used for the training of Student/Adolescent Club Members.

- ***Orientation for all students*** This orientation program is necessary for sensitization to the students for active participation in the Student/Adolescent Club activities. This is recommended to organize once at the beginning of the school calendar year.

- ***Orientation for parents*** on nutrition will be organized once at the beginning of the school calendar year. This should be part of parents meeting.

- ***Refresher training for the Student/Adolescent Club members*** Biannual refresher training or problem-solving workshops can be organized based on the unresolved queries raised by the students during class room sessions or introduction of new materials, interventions etc. Guide teachers will conduct this refresher training with support the resource persons from the Upazila offices of the health and education sectors.

Section 3

Package of Nutrition Interventions for Adolescents at Secondary Schools

3 Package of Nutrition Interventions for Adolescents at Secondary Schools

The Adolescent Nutrition Guideline (NNS, IPHN 2018)3 outlined 8 issues, which are: Adolescence and puberty, adolescent nutrition status, food and nutrition of adolescents, problems of malnutrition and prevention, safe food and water, personal hygiene, child marriage, and care during pregnancy including care of neonates. The existing WHO [4] evidence-informed interventions and policies relevant to adolescent nutrition were grouped into eight main actions, which are: promoting healthy diets; providing additional micronutrients through fortification of staple foods and targeted supplementation; managing acute malnutrition; preventing adolescent pregnancy and poor reproductive outcomes; promoting preconception and antenatal nutrition; providing access to safe environment and hygiene; promoting physical activity; and disease prevention and management.

Package of adolescent nutrition interventions at secondary schools in Bangladesh has been defined as following interventions which are feasible to implement, monitor and scale up at secondary schools.

- Nutrition education promoting dietary diversity
- Weekly Iron Folic Acid (WIFA) Supplementation at schools
- Deworming
- Preventing child marriage and
- Promoting physical activities
- Referral of malnourished cases whom requires medical attention

[3] Adolescent Nutrition Guideline (NNS, IPHN 2018), Directorate General Health Services, Government of Bangladesh
[4] World Health Organization 2018 Guideline: implementing effective actions for improving adolescent nutrition https://apps.who.int/iris/bitstream/handle/10665/260297/9789241513708-eng.pdf

3.1 Nutrition Education promoting dietary diversity

The most immediate cause of under nutrition in Bangladesh remains inadequate dietary intake of nutrient rich foods. While current nationally representative data among adolescents in Bangladesh is still scarce, a study conducted in 1998 showed that among urban school girls in Bangladesh, only 9 percent and 17 percent met the Recommended Dietary Allowance (RDA) for energy and protein, respectively (Ahmed et al., 1998). Gender based discrimination is widely recognized as a primary underlying cause of under nutrition in Bangladesh (Sen and Hook, 2012). Recent data (FSNSP, 2013) shows that, in times of food scarcity, women are the first to deliberately sacrifice their own food intake in order for other household members to have enough food.

Adolescence is a timely period for the adoption and consolidation of sound dietary habits. Adolescents are usually open to new ideas; they show curiosity and interest. Many habits acquired during adolescence will last a lifetime. Furthermore, with increasing age, adolescents' personal choices and preferences gain priority over eating habits acquired in the family, and they have progressively more control over what they eat, when and where (Thomas 1991; Shepherd and Dennison, 1996; Spear 1996). Improving adolescents' nutrition behaviours is an investment in adult health.

The Guide teacher along with Peer Leaders will prepare a quarterly Nutrition education session plan for all classes and accordingly conduct weekly preparatory session on Nutrition Education for the Peers Educators at Student/Adolescent clubs during club time on Thursday. Peer leaders and Peer Educators along with Guide Teachers will conduct weekly Nutrition Education sessions in their respective classes on a pre-selected topic. To complete one cycle, needs 3 months, which will be repeated 4 times throughout the year. The Student/Adolescent Club members will decide when and how many issues they will discuss in the classroom nutrition education sessions.

Nutrition Education sessions will follow multiple methodologies; presentation and discussion, quiz, debate, games, entertainment education using booklets, multimedia etc.

Not limited but following topics will get priority under the nutrition education;

- My nutrition needs
- Eat Right and Nutritious Food: Balanced Diet
- Control of iron and other micronutrient deficiencies

- Practicing hygiene
- Importance of preventing obesity
- Healthy Life style for a health living
- Consequences of early marriage

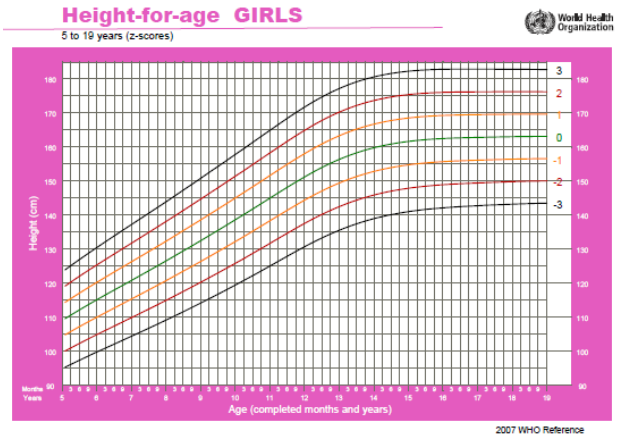
3.2 Weight and Height Monitoring

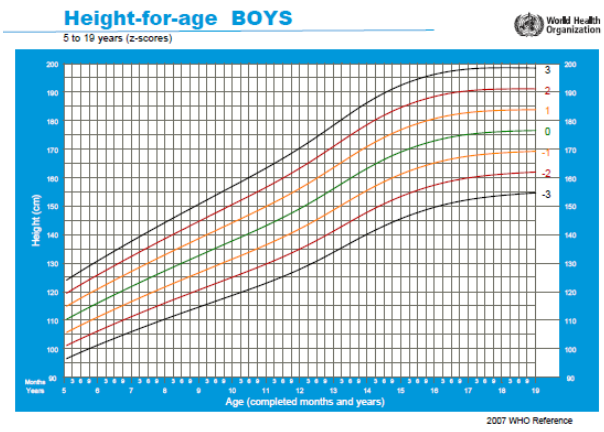
Adolescence is a period of rapid growth: up to 45% of skeletal growth takes place and 15 to 25% of adult height is achieved during adolescence (Rees and Christine, 1989). During the growth spurt of adolescence, up to 37% of total bone mass may be accumulated (Key and Key, 1994). Nutrition influences growth and development throughout infancy, childhood and adolescence; it is, however, during the period of adolescence that nutrient needs are the greatest (Lifshitz, Tarim and Smith, 1993).

Over 80% of adolescent growth (attained weight and height) is completed in early adolescence (10-15 years). The growth spurt of adolescence has been seen as a period of potential interest for catching up growth deficit of childhood. This adolescent growth spurt is also associated with cognitive, emotional and hormonal changes. The girl begins her adolescent growth spurt at an average of about 10 years and grows at peak velocity at about 12 years. The boy starts his adolescent growth spurt around 12 years of age and in a year or two overtakes the girl. The girl attains her adult height at about 16 years, the boy at 18 years.

It is important to measure height of the school boys and girls to understand their growth in terms of height which they need to achieve during adolescent period.

Measuring Height





- Adolescent Peer Leaders/ Peer Educators will receive training to measure the height of adolescent boys and girls.
- One height measuring tap will be place in a suitable place on the wall, so any students can measure their height.

- At the beginning of the school calendar year Peer Leaders/ Peer Educator will arrange height measuring session in a particular week and invite all students in a systematic manner for their height measurement.
- Height of all students will be recorded in a register and also plotted on the chart to understand the physical growth of all students attending the secondary schools.
- This exercise will also repeat after six-month interval to know the progress of physical growth of the adolescent boys and girls and also understand effect of nutrition interventions among adolescents attending secondary schools.

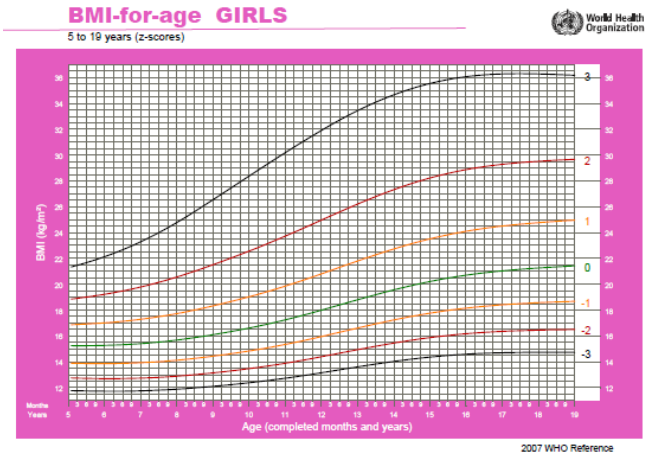
Body Mass Index (BMI)

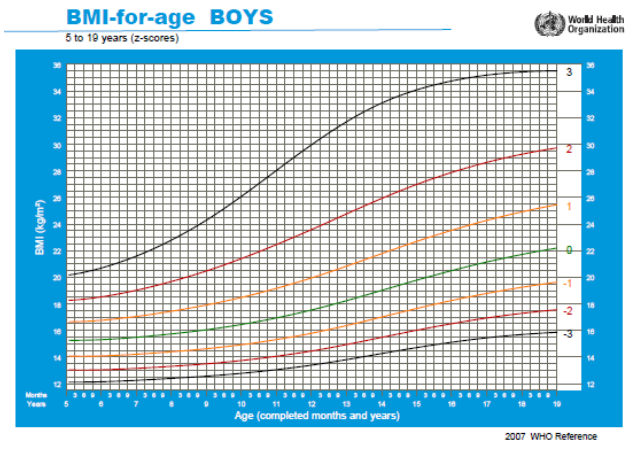
Thinness, and overweight and obesity were characterized using BMI-for-age based on the WHO adolescent growth standards (de Onis et al. 2007).

Calculating BMI

$$\text{Body Mass Index (BMI)} = \frac{\text{Weight (in kg)}}{\text{Height (in meter)}}$$

In similar way weight and Body Mass Index (BMI) of the all student will be recorded in a register book and plotted in the charts twice in a year





3.3 Weekly Iron Folic Acid Supplementation (WIFA) at school

The need for iron increases with rapid growth and expansion of blood volume and muscle mass. As boys gain lean body mass at a faster rate than girls, they require more iron than girls. The onset of menstruation imposes additional needs for girls. Adolescents should be encouraged to consume iron rich foods. Iron is found in food: those foods that have the highest and most absorbable iron content are red meat and liver. Iron can also be found in green leafy vegetables, banana, beans, papaya, lentils, wheat, and molasses. However, it is often hard to get enough iron in food if the diet is not varied. Iron supplements prevent adolescents from becoming anemic, they increase the body's immunity and enhance cognitive development, and school performance. Since iron cannot be stored in large quantities in the body, like vitamin A, iron needs to be consumed regularly and thus iron supplementation should also be given regularly specially to the adolescent girls.

According to the WHO Guideline "Intermittent iron and folic acid supplementation in menstruating women 2011", The Ministry of Health and Family Welfare has taken initiatives to start the Weekly Iron and Folic Acid Supplementation (WIFS) Programme at secondary schools to meet the challenge of high prevalence and incidence of anaemia amongst adolescent girls in Bangladesh. The ultimate goals of the WIFA program is reduce prevalence of anaemia among adolescent girls aged 10-19 years.

Target groups: adolescent girls in 6th to 10th class enrolled in government/government aided/municipal schools, and out of school adolescent girls.

Intervention: Administration of supervised iron folic acid (6o mg elemental iron and 400 µg folic acid) among adolescent girls in 6^{th} to 10^{th} class in a fixed day preferably Thursday during morning assembly.

Administrator: Each class teachers of each classes will be administrated IFA supplementation among their girl students with support from Guide Teachers, Peer Leaders and Peer Educators.

Key consideration during implementation of WIFA:

- Encourage to the students to practice breakfast each day special attention to Thursday. No adolescent girls will receive IFA supplementation without breakfast
- Guide teachers will orient other teachers and students regarding WIFS programme.
- Orient students on how to fill Individual Compliance cards

- Involve class teachers to ensure supervision during ingestion of IFA tablets by adolescent girls enrolled in classes 6th to 10th
- Ensure provision of safe drinking water for IFA tablet consumption
- If the student is absent on Thursday or missed-out on the consumption of the IFA tablet, give IFA tablet on next contact within Sunday/Monday of the next week. The next week IFA supplementation will be given on fixed day Thursday only.
- Continue weekly IFA supplementation in an adolescent with significant anaemia till the time she is tested for hemoglobin level in health facility and started on treatment of anemia
- Before the school closes for vacations, the students should be given the requisite number of IFA tablets for consumption during the holidays under parental supervision. After vacations, teachers will check empty IFA tablet strips to confirm intake.
- Students should be oriented properly about side effects during nutrition education session. The possible side effects are black stools, nausea and vomiting can occur in few cases, but side effects are often transitory and the frequency of side-effects of WIFS is much lower than with daily doses. Also, side effects decrease over time.
- Teachers should inform girls about benefits of IFA supplementation such as:

- **Improved concentration in school, and school performance**
- **Feeling stronger and less tired**
- **Increased energy levels and output in day to day work**
- **Increased appetite**
- **Improved overall capacity to work and earn**
- **Better sleep**
- **Improved skin appearance**
- **Regularization of menstruation**
- **Building pre-pregnancy health**

Estimation of Requirement and storage of IFA tablets

- Guide Teachers are responsible to estimate and submit request to HA and ensure supplies.
- Guide teachers with store the IFA and maintain register
- Annual supplies of IFA tablets should be stored in a clean, dry and dust free area away from the direct sunlight
- The Guide teacher (s) for each school will estimate annual requirements for IFA tablets.

Estimation of IFA Tablets

- IFA tablets for the year = 52 x Total number of students (only girls) in 6-10th standards /year. An additional 20 % stock as buffer to be added.

- After calculation of the estimate, the Head Teacher of the school will submit the IFA requirement request to the UHFPO through HA in the form prescribed below
- UHFPO in coordination with Civil Surgeon Office will arrange supply of IFA for this program

Stock Requirement under WIFS Programme
Name of School:
Address of School:
Total Number of Adolescent Girls:
Annual requirement is for the year 2020:
Total IFA tablets required for the next three months:
WIFA distribution Period: month to month , year
Signature (Guide Teacher 1) Signature (Guide Teacher 2) Signature: Head Teacher/ Principal

Monitoring and Reporting:

- The Guide Teachers and Class Teachers will be responsible for overseeing that the compliance card is filled correctly
- IFA administration Information will be entered each week in the register (Annex 1)by Peer Leaders / Peer Educators of the respective classes (6^{th} to 10^{th} classes) under the supervision of the Class Teachers

- At the end of the month, the Class teacher will need to compile the information on the number of girls who have taken 4/5 IFA tablets per month (5 tablets in case of 5 weeks in a month).
- In case of girls who are not able to consume 4 IFA tablets in a month the reason for non-compliance is to be mentioned in the remarks column of the format and will be compiled in school report
- Class Teachers will compile monthly data by classes under the supervision of the Guide Teachers.
- The Guide Teachers would consolidate all the information from the class reporting formats on the monthly school-reporting format (Annex 2) and submit it to the school Head Teacher.
- Head Teacher will review the information in the monthly school reporting format, counter sign it and submit it to the offices of Health and Education at Upazila level monthly manually to till e-reporting system is established linking with DHIS2.
- The Head Teacher will also send a copy of this monthly school report to the Advisory Committee on Nutrition (ACN).

Annex 1: Class Monthly Register

Name of School:								**Class:**	**Month/Year:**
Sl. No.	**Name of the Students**	**Total number of Girls:**						Reason for noncompliance (less than 4 IFA tablets per month)	Identified for moderate/ severe anaemia
		1st week Date	2nd week Date	3rd week Date	4th week Date	5th week Date	Consumed 4/5 IFA tablets per month		
Topic of monthly NHE session		Total number of Girls consumed 4/5 IFA tablets per month						Number of noncompliant	
		Total number of Girls not consumed 4 IFA tablets per month						Number of Referral cases	
		Total IFA distributed							
								Name of Class Teacher	**Signature**

Annex 2: Monthly School Report

Division:		**District:**	**Upazila:**
Village:		**Month/Year**	
Name of the school:		**C lasses in school: 6th/7th/8th/9th/10th (tick)**	
No. of 6-10th class Girls students:		**Total:**	
Supply Details			
		IFA tablets	
Date of Supply to school			
Quantity received by school			
Date of expiry of tablet			
Opening stock for month			
Population covered in reporting month			
Girls students given 4/5 IFA tablets in reporting month			
Total IFA tablets consumed by girl students in reporting month			
Balance IFA tablets at school			
Number of non-compliant girl students *(consumed less than 4 tablets in month)*			
Students with moderate/severe anaemia	**Identified**		
	Referred		
Topic of Nutrition Health education sessions conducted in the reporting month by nodal teacher			
Compliance rate (percentage of students received is less than 4 tablets in the month)			
Remarks on any side-effects/adverse reactions			
Guide Teacher 1	**Guide Teacher 2**	**Head Teacher**	
Name:	**Name:**	**Name:**	

3.4 Deworming

In Bangladesh, worm infections are widespread, especially in rural areas due to poor personal hygiene and unsanitary environmental conditions. Intestinal worms are parasitic organisms, which reside in the human intestine, and affect the absorption of nutrients needed for growing, learning and staying healthy. There are several types of worms, for example roundworm, hookworm, threadworm and tapeworm, but roundworms and hookworms are the most prevalent among school-aged children in Bangladesh. Deworming kills the worms and if done regularly prevents children from building heavy worm loads, which have more severe consequences on their health and education. Deworming is a safe, easy and cheap intervention: the most commonly used drug, Albendazole, is bio-chemically proved to be a safe, single administration drug.

In 2017, Communicable Disease Control (CDC) under Directorate General of Health Services, MOHFW has started implementation of deworming week twice in a year for secondary school students (Boys and Girls) in coordination with Directorate of Secondary School Education under Ministry of Education. The program was fixed the two months for deworming week. First dose of Albendazole (400 mg) tablet has been scheduled in April and the second dose should be given by October /six months after the first dose. Each year before starting the week, CDC provides orientation to the all Education Officers, Health Service Providers, FP workers and Teachers on the deworming week implementation.

3.5 Preventing Child Marriage

3.6 Referral of malnourished cases whom requires medical attention