

Policy Brief

Integrated Nutrition Messages for Schools

- Malnutrition affects a little over fourth of schoolchildren in different forms, with marked implications for their nutrition, cognitive and physical development.
- School textbooks are key tools for disseminating information across a wide range of knowledge domains, including information on food and nutrition issues.
- Field based evidence points to inadequate knowledge on matters about food and nutrition, especially with reference to lifestyle, hygiene, and healthy diets, among students and parents.
- Messages that are simple, concise, and integrated, can enable better understanding and application of the knowledge by the students in their daily life.
- Policies should encourage integrated nutrition messages to be incorporated in the visible pages of school textbooks or its covers to reinforce knowledge, foster good habits, and pave the way for healthy food behaviour for improved nutrition.

Why are integrated nutrition messages critical for the schoolchildren?

Malnutrition and micronutrient deficiencies are prevalent among schoolchildren in Bangladesh, causing poor school performance and compromised nutritional and health outcomes. Available estimates corroborate the prevailing double burden of malnutrition, both in girls and boys (Figures 1 and 2).

Figure 1: Nutritional status among adolescents (age 10-18 years) in Bangladesh (Source: NNS 2018-19; unpublished data)

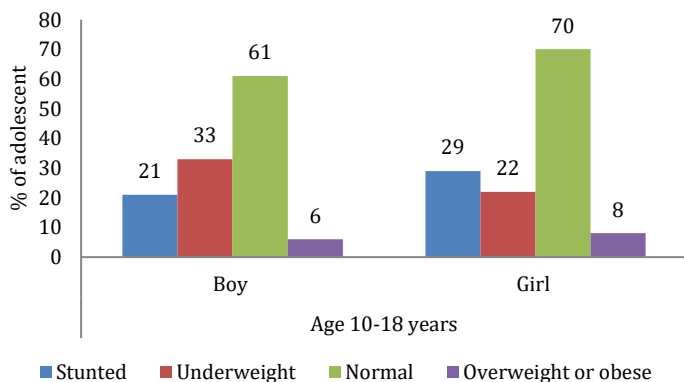
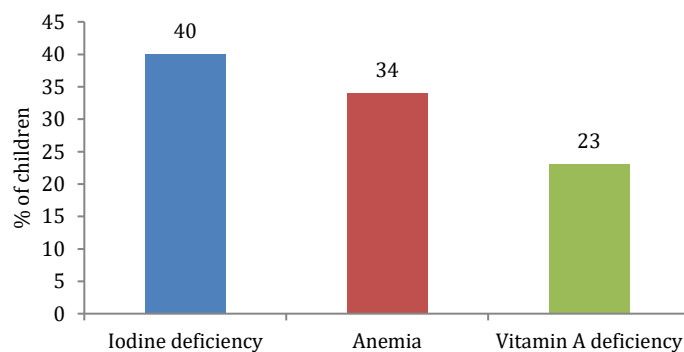


Figure 2: Micronutrient deficiency among school aged children (age 6-14 years) in Bangladesh (Source: National Micronutrient Status Survey 2011-12)



The school environment offers promising opportunities to communicate integrated nutrition messages to groups of students, parents, teachers, and the larger population. Nutrition education can improve knowledge, behaviour and practices, with optimal nutrition effects. Healthy diets and nutrition are also influenced by hygienic practices, adequate physical activity and a healthy environment. Educational messages thus should be bundled into a package for motivating school children to adopt healthy food behaviour and lifestyles.

Simple, easy, and culturally appropriate integrated nutrition messages

In order to develop integrated nutrition messages in one frame for school students, a review of school textbooks and curricula of different grades on Home Science, Science, Agriculture Studies, Physical Education and Health, Bangladesh and Global Studies, Biology, and English for Today, was conducted by the BRAC James P Grant School of Public Health, BRAC University. Findings revealed that textbooks had abundant information on healthy diet, nutrition, hygiene and sanitation, environment, and physical exercise. However, the facts were scattered in different chapters of the textbooks, and the information was not available in a concise and condensed form, accessible in one book that was commonly used by the students. Opinions obtained through key informant interviews reiterated the need to develop integrated nutrition messages for the students according to their grade levels. Furthermore, a knowledge assessment survey of both students and their mothers on six thematic domains such as, healthy diets, nutrition, immunity, sanitation and hygiene practice, environment and lifestyle, reinforced the need to consolidate such a set of integrated messages.

These findings helped to develop sets of integrated nutrition messages for three cohorts of school students: pre-primary-class 2; classes 3-7; and classes 8-10. In-depth interviews, comprehension and aesthetics tests among the students, mothers, and schoolteachers, helped to assess their extent of understanding, and enabled eliciting views on the pictorial and narrative messages. Input from a Technical Advisory Committee (TAC) comprising a group of experts from relevant ministries of the government, UN agencies, non-governmental organizations (NGOs), academic and research institutes, subsequently contributed to improvement of the messages (Box1).

Box 1: Integrated nutrition messages for three different groups of students

Pre-primary to class-2

- I eat nutritious food
- I eat at least five food groups daily
- I eat home made food
- I wash fresh fruits and vegetables before eating
- I wash my hands with soap after defecation and before meal
- I brush my teeth after breakfast and dinner
- I always wear shoes or sandals
- I cover my face during coughing and sneezing
- I take part in sports everyday
- I sleep 9-10 hrs at night
- I plant trees

Classes 3 to 7

- I eat nutritious food
- I eat at least five food groups daily
- I eat home made food
- If I stay healthy
 - My productivity will increase
 - My attention to study will increase
 - I will be disease free
- I wash fresh fruits and vegetables before eating
- I do not eat junk foods
- I wash my hands with soap after defecation and before meal
- I brush my teeth after breakfast and before dinner
- I take bath daily
- My clothes are washed daily
- I do not spit here and there
- I participate in sports regularly
- I sleep 8-9 hrs at night
- I keep clean my home and surroundings
- I plant vegetables and flower plants in the open space or in the tub

Classes 8 to 10

- I eat at least five food groups out of ten food groups for keeping body healthy and energetic, enhancing my intelligence, and protecting from germs
- I eat one group of energy boosting food with two groups of foods for growth and repairing decay and two groups of foods for increasing immunity
- I do not eat junk foods
- I wash my hands with soap after defecation and before meal
- I brush my teeth after breakfast and dinner
- I always wear shoes or sandals
- I trim my nails regularly
- I wash my clothes daily
- To stay healthy physically and mentally-
 - I participate in sports regularly
 - I go to sleep same time at night
 - I sleep 7-8 hrs at night
- I keep clean my home and surroundings
- I plant vegetables and flower plants in the open space or in the tub

In the pictorial illustrations, the globally recommended ten food groups for dietary diversity and functions of foods were creatively illustrated on a plate. Besides images and key messages on taking at least five food groups daily, having safe and hygienic foods, drinking adequate water, brushing teeth, wearing sandals, participating in sports, and washing hands before having meals and after defecation, keeping the house clean and planting trees were also presented. The messages were validated by using the trials of improved practices (TIPs) methodology across different grade levels. Findings confirmed that the messages were simple and feasible for dissemination among the students of different grades and would help enhance their integrated knowledge and practices on nutrition.

What can Policy makers do?

Several measures can be adopted to influence actions on behaviour change communication on nutrition for schoolchildren:

- The leadership and commitment of the Ministry of Food towards this action research enabled the initiative to be coordinated with the Ministry of Education, especially the National Curriculum Text Book Board.

This coordinated initiative will seek to endorse and publish the newly framed integrated nutrition messages on visible pages of the textbooks or its covers. The messages can be an effective tool in enhancing nutrition knowledge and for improving food behaviour and diets among the larger masses of the population, notably the students.

- The messages could be shared through digital media, posters, cartoons, and other web-based platforms across schools. The National Nutrition Services, Ministry of Health and Family Welfare, Department of Agricultural Extension, Ministry of Agriculture, various service delivery platforms and extension services, NGOs and UN agencies can appropriately disseminate these messages.

Promoting healthy food behaviour and lifestyles among students is vital for a healthy, bright, and productive future in Bangladesh.

This fact sheet presents policy recommendations of a research study undertaken by *BRAC James P Grant School of Public Health, BRAC University*, with support under the Research Grants Scheme (RGS) of the Meeting the Undernutrition Challenge (MUCH) project. MUCH is implemented in collaboration with the Food Planning and Monitoring Unit of the Ministry of Food with technical support from the Food and Agriculture Organization of the United Nations (FAO).

MUCH is financially supported by the European Union (EU) and the United States Agency for International Development (USAID). The opinions expressed in this fact sheet are attributed to the research team and do not necessarily reflect those of the Government of Bangladesh, FAO, EU or USAID. For further information and comments: fpmu.gov.bd, Food Planning and Monitoring Unit (FPMU), Ministry of Food, Khaddya Bhaban, 16 Abdul Ghani Road, Dhaka-1000, Bangladesh