

Reporting Handbook
Covering Nutrition

Reporting Handbook Covering Nutrition



This journalists handbook is made possible by the generous support of the American people through the support of the U.S. Agency for International Development (USAID) Office of Health, Infectious Diseases, and Nutrition, Bureau for Global Health, and USAID/Bangladesh under terms of Cooperative Agreement No. AID-OAA-A-12-00005, through the Food and Nutrition Technical Assistance III (FANTA) Project, managed by FHI 360.

The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.

©Management and Resources Development Initiative (MRDI)

Published on February 2014

ISBN : 978-984-33-6594-1

Design & Printing : Transparent

Management and Resources Development Initiative (MRDI)

8/19 Sir Syed Road (3rd floor),

Block-A, Mohammadpur, Dhaka-1207, Bangladesh.

Tel: +88 02 9134717, 9137147, Fax: +88 02 9134717, 9134147 Ext- 111

E-mail : info@mrdivd.org, Website : www.mrdibd.org

Content

Abbreviations and Acronyms	i
Preface	iii
Why is it important for journalists to report on nutrition?	1
Who is reporting on nutrition?	7
What is being published on nutrition?	9
Some common mistakes	15
• Lack of iodine in the salt produced in Jhalokathi	16
• 30% of newborns have low birth weight	20
• Premature birth is one of the biggest factors behind newborn mortality	24
• Undertaking steps to ensure unadulterated food	28
• Organizers of nutrition corner in Keshopbur in trouble	29
• Workshop in Durgapur for Pushtikona for children	31
• Field test of vitamin-enriched rice delayed: Scientists wait for approval from regulators	32
What are nutrition and malnutrition?	37
• What is nutrition?	38
• What is malnutrition?	39
• Why should undernutrition/malnutrition be of concern in Bangladesh? What are the consequences?	41
• What causes undernutrition/malnutrition?	42
• What is the difference between undernutrition and hunger?	43
• How is Bangladesh's progress in nutrition measured?	43
• What are some key terms associated with measuring undernutrition in Bangladesh?	44

The state of nutrition in Bangladesh	49
• Nutrition and the life cycle: Who is affected?	58
• Undernutrition in children under 2	59
• Undernutrition in children under 5	61
• Undernutrition in adolescence	63
• Undernutrition in pregnancy and the postpartum period	65
Nutrition initiatives	67
• Direct interventions in nutrition	69
• Indirect interventions for nutrition	75
What the government is doing	79
• Pakistan era	80
• Bangladesh era	81
• Bangladesh Integrated Nutrition Project	82
• National Nutrition Project	83
• National Nutrition Service (NNS):	84
• To be added to the mainstream	87
• Multisectoral initiative	87
Using numbers	91
• Nutrition condition of children under the age of 5	92
Looking for subjects to report on	99
• Organizers faced protest at the opening program of Keshobpur Nutrition Corner	103
• Workshop in name only, not in activities	103
• Institute of Public Health Nutrition: Small in size, big in corruption	106
Journalist ethics	111
Annex	115
• Annex A. References	116
• Annex B. Nutrition Glossary	119
• Annex C. Nutrition-Related Contact Details	145
• Annex D. Breast Milk Substitute Code	153

Abbreviations and Acronyms

BBS	Bangladesh Bureau of Statistics
BCC	Behavior Change Communication
BDHS	Bangladesh Demographic and Health Survey
BGMEA	Bangladesh Garments Manufacturer and Export Association
BINP	Bangladesh Integrated Nutrition Project
BMI	Body Mass Index
BMS	Breast Milk Substitution
BNNC	Bangladesh National Nutrition Council
CBHC	Community-Based Health Care
CMAM	Community-Based Management of Acute Malnutrition
CSB	Corn-Soy Blend
dL	deciliter(s)
FANTA	Food and Technical Assistance III Project
FAO	Food and Agriculture Organization of the United Nations
FWV	Family Welfare Visitor
g	Gram(s)
GAIN	Global Alliance for Improved Nutrition
GMP	Growth Monitoring and Promotion
HSM	Hospital Services Management
IPHN	Institute of Public Health Nutrition
IU	International Unit(s)
IYCF	Infant and Young Child Feeding
kcal	Kilocalorie(s)
kg	Kilogram(s)
km	Kilometer(s)
L	Liter(s)

LBW	Low Birth Weight
MCH	Maternal and Child Health
MCRAH	Maternal, Child, Reproductive, and Adolescent Health
ml	Milliliter(s)
MNCAH	Maternal, Neonatal, Child, and Adolescent Health
MOHFW	Ministry of Health and Family Welfare
MOLE	Ministry of Labour and Employment
MRDI	Management and Resources Development Initiative
NCHS	National Center for Health Statistics
NGO	Nongovernmental Organization
NIPORT	National Institute of Population Research and Training
NNP	National Nutrition Project
NNS	National Nutrition Service
OP	Operation Plan
ORS	Oral Rehydration Salts
RUSF	Ready-to-Use Supplementary Food
RUTF	Ready-to-Use Therapeutic Food
SACMO	Sub Assistant Community Medical Officer
SAM	Severe Acute Malnutrition
SD	Standard Deviation(s)
SUN	Scaling Up Nutrition
U.S.	United States
UHFPO	Upazila Health and Family Planning Officer
UIC	Urinary Iodine Concentration
USAID	U.S. Agency for International Development
VGD	Vulnerable Group Development
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization

Preface

Improving nutrition in Bangladesh is essential to the country's progress. Of the 15 million children under 5 years of age in Bangladesh, approximately 6.2 million (41%) suffer from chronic malnutrition. These malnourished children have an increased risk of mortality, illness, and infections; delayed development; cognitive deficits; poorer school performance; and fewer years in school. The mortality rate for children under 5 in Bangladesh is 53 per 1,000 live births nearly 45% of these child deaths are attributable to various forms of malnutrition. Malnutrition undermines human capital and economic productivity and can limit progress in achieving at least six of the eight Millennium Development Goals and the World Health Assembly targets. Improving nutrition in Bangladesh can significantly reduce child mortality, improve children's school performance, and result in greater economic productivity for the nation.

When it comes to raising awareness of and strengthening advocacy for maternal and child malnutrition issues in Bangladesh, the role of the media is critical. With the support of the U.S. Agency for International Development (USAID) and USAID/Bangladesh, Management and Resources Development Initiative (MRDI) in partnership with the Food and Nutrition Technical Assistance III Project (FANTA) has implemented an initiative to build capacity among journalists to produce comprehensive and investigative reports on nutrition.

To effectively report on an issue like nutrition, it is important for journalists to understand nutrition issues, become familiar with nutrition terminology, and develop the ability to analyze data. Journalists' familiarity with these issues will enable them to adequately cover nutrition issues in mass media based on technical literature, nutrition-related articles, and interviews with nutrition experts. This handbook for reporters/journalists has been written with this aim in mind.

In addition to journalists' social responsibility, there are several other arguments in favor of journalists reporting on nutrition:

- Promoting accountability and good governance for nutrition
- Providing oversight of government activities on nutrition and reporting on coordination between ministries
- Promoting the rights of Bangladeshi citizens, particularly children
- Raising awareness among the public and the nation's constituents on the nutrition situation and implications of this situation
- Creating demand for services in nutrition

We hope that this handbook will be instrumental in assisting reporters who cover nutrition issues. The topics covered in the handbook were selected by an expert after analyzing reports published in the mass media and through consultations with journalists. The outline of the book was drawn up based on this analysis. A separate panel of experts, including media specialists, reviewed the outline and gave their feedback. The handbook took final form through this consultative process.

The handbook analyzes a selection of media reports. These reports were not included based on their importance or quality. They are included as examples. The deficiencies and limitations of the selected examples along with some suggestions have been given at the end of the reports. Journalists who use this handbook may find them useful.

Shishir Moral, Special Correspondent, *Prothom Alo* wrote this handbook with dedication and care. He has our sincere gratitude.

Those who have helped give the book a final shape through their expert advice and feedback include Kavita Sethuraman, Senior MCHN Advisor, FANTA; Tara Kovach, MCHN Social and Behavior Change Technical Advisor, FANTA; Sukanta Gupta Alak, Joint Editor, Desh TV; Monira Parveen, PhD, Nutrition Programme Officer, UN World Food Program; Shahnaz Munni, News Editor, ATN Bangla; Reaz Ahmed, Assignment Editor, *The Daily Star*; Belal Uddin, Head of Advocacy and Policy Affairs, Alive and Thrive; and Taskeen Chowdhury, MCHN Specialist - Training, FANTA/Bangladesh. We would like to wholeheartedly thank them.

The original handbook was written in Bangla by Shishir Moral, Special Correspondent, *Prothom Alo*. Syed Zain Al Mahmud, Staff Correspondent, *The Wall Street Journal*, Dhaka translated it into English. FANTA headquarters provided some feedback and input on the text, which has been incorporated into the English version with some change in chronology and format. As a result, the text of the Bangla and English versions has some differences, but there is no conflict of information.

Dr. Ferdousi Begum, Country Manager of FANTA/Bangladesh, provided us with advice and support through the stages of compiling and publishing this book; we remain grateful to her for the contribution. The staff of MRDI worked tirelessly to publish this handbook and have our sincere thanks.

We are grateful to USAID, FANTA, and FHI360 for their support and assistance in making this handbook a reality.



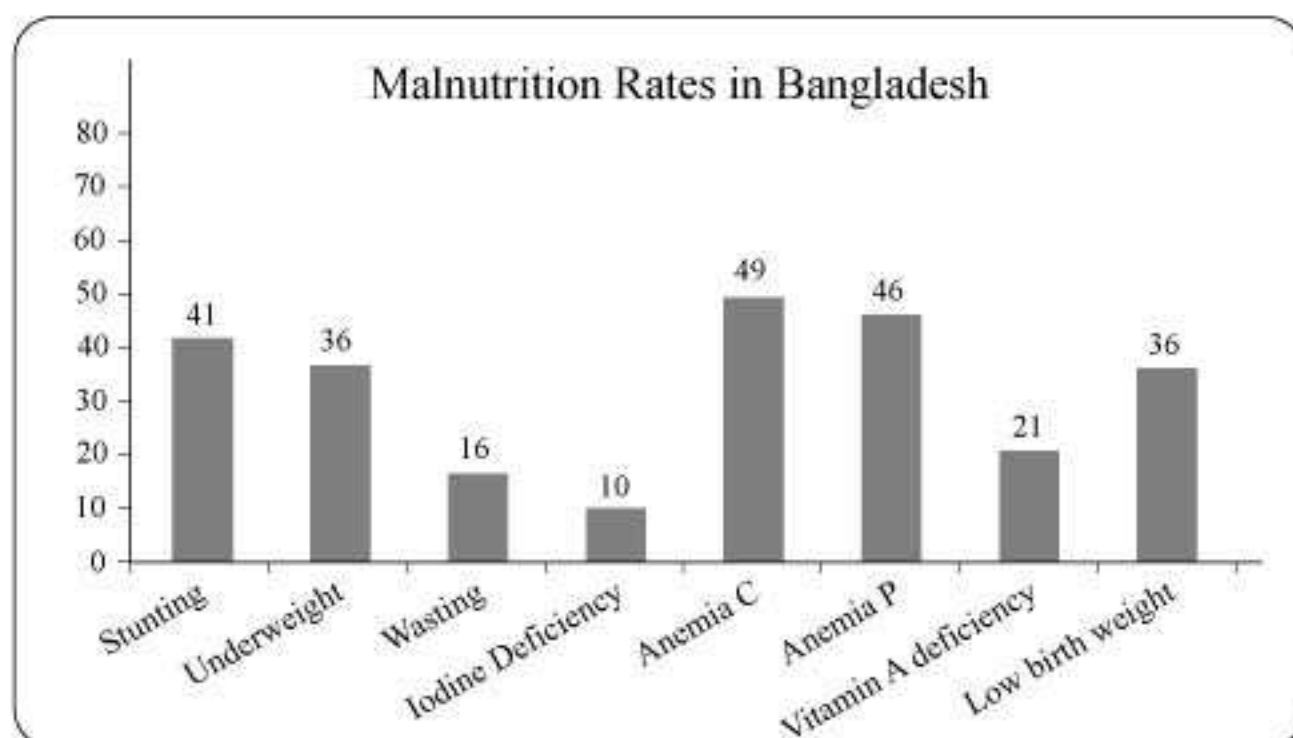
1

Why is it important for journalists to report on nutrition?

Why is it important for journalists to report on nutrition?

Today in Bangladesh more than 40% of children under 5 are malnourished. Compared to other health indicators for Bangladesh that have greatly improved, malnutrition in Bangladesh remains a persistent problem. Malnutrition in Bangladesh affects poor families disproportionately more than wealthy families: 54% of poor children are malnourished. But even among wealthy families, 26% of children under the age of 5 are malnourished. Children in Bangladesh are simply not getting the right quantity and quality of nutritious foods they need to grow (National Institute of Population Research and Training [NIPORT] et al. 2009).

Figure 1. Malnutrition rates in Bangladesh



Sources: NIPORT et al. 2013; Bangladesh Bureau of Statistics (BBS) and UNICEF 2005.

So why does this matter?

- Malnutrition in young children increases their risk of death: Nearly half of all child deaths in Bangladesh today are attributable to malnutrition.
- Malnourished children perform worse in school. Malnutrition in childhood impairs physical growth and cognitive development.
 - ✓ In young childhood, a malnourished child learns to sit, stand, and walk later than his or her well-nourished peers.
 - ✓ Malnourished children also enroll in school later, have more days out of school due to illness, perform worse in school, and complete fewer years of schooling.
 - ✓ Because of this, malnourished children become adults who earn less compared to their well-nourished and better-educated peers. Malnutrition undermines human capital.
- Over the next 10 years, with no additional investment or effort to prevent and treat malnutrition at the community level, the number of infant and child deaths will exceed 1.5 million. And the economic productivity losses for the country over this period of time would exceed 140,000 crore Taka (Howlader et al. 2012).

But malnutrition is preventable and treatable.
The children of Bangladesh can be free of all forms
of malnutrition if we act now.

- Over the next 10 years, investing in nutrition and expanding access to quality nutrition services at the community level would reduce malnutrition, saving the lives of more than 500,000 children under the age of 5 and improving the school performance and quality of life of countless more. Specifically, reducing malnutrition would (Howlader et al. 2012):

- ✓ Save 230,000 infants by reducing low birth weight (LBW).
 - ✓ Save 160,000 lives by preventing chronic malnutrition (stunting).
 - ✓ Save 150,000 lives by preventing and treating acute malnutrition (wasting).
 - ✓ Save more than 50,000 children by decreasing vitamin A deficiency.
 - ✓ Save more than 150,000 infants and 6,000 mothers by decreasing maternal anemia.
 - ✓ Prevent permanent brain damage in about 2 million children and increase the average child's IQ by 13.5 points by preventing iodine deficiency.
- The economic productivity gains of such investment would also exceed 70,000 crore Taka by 2021 (Howlader et al. 2012).
 - According to the Copenhagen Consensus, for a country like Bangladesh, nutrition is a 'best' investment; for every \$1 spent on nutrition, there is a \$30 return in health and economic benefits.

How can you, as media, help?

As media professionals, you decide what is news and what is reported on. Reporting on the nutrition situation of Bangladesh is important and you can play an important role.

- Nutrition is an issue of personal interest to readers and viewers. Media reporting on nutrition can reach more audience segments and expand readership and viewership.
- The media can raise public awareness about the importance of nutrition in Bangladesh. Every family looks to their children as their future, and every parent wants her or his child to have the best start in life.

Report on nutrition services and products that are available and on why and how families should access them.

- The media also has an important role to play as a voice for the public and civil society and in this role the media can hold government and nongovernment institutions accountable for improving the nutrition situation of Bangladesh, promoting good governance for nutrition. More than 40% of children under 5 are malnourished in Bangladesh, and yet there are no comprehensive nutrition services available throughout the country; it's time for us to ask "why?"



2

Who is reporting
on nutrition?

Who is reporting on nutrition?

Newspapers publish a variety of articles on nutrition including reports and editorials. Articles by nutritionists on what should be eaten during Ramadan are usually published before or during the month. Nutritionists and experts regularly write articles that address diabetic patients with recommendations and advice on what they should eat. These experts also write about food value, the chemical composition of foods, and the benefits of fruits and vegetables. Very few of these articles mention the sources of this information. In addition, there are often a lot of unfamiliar words, phrases, and acronyms in these articles that most readers do not understand, e.g., 'SAM'(severe acute malnutrition); 'LBW' (low birth weight); and 'genetically modified food,' to name a few.

Agriculturists, economist and intellectuals regularly state their opinion on food security issues. Their theories and articles all indicate, even indirectly, that unless there is food security, the risk of malnutrition will increase.



3

What is being published in
newspapers on nutrition?

What is being published in newspapers on nutrition?

Relatively little is published in newspapers when it comes to research/investigative pieces on nutrition; papers generally focus on event-based reports and news. This is called event-based reporting and includes nutrition-based news conferences, seminars, workshops, research results sharing workshops, ratification of laws in the cabinet, passing of laws in parliament, roundtable conferences, and so forth. Reporters are 'assigned' to such events, and subsequently 'cover' them. In some cases, reports are prepared from the circulars sent by the event organizers, which are then printed in newspapers the next day.

Newspapers also regularly cover certain other events, including Vitamin A Plus Campaigns, National Inoculation Day, World Breastfeeding Week, Safe Motherhood Day, World Health Day, Global Handwashing Day, World Pneumonia Day, and many other similar days and weeks. Myriad meetings, seminars, and roundtable conferences are held in health ministries, United Nations offices, and private organizations to observe these days/weeks. Assigned health reporters cover these events, and the following day their reports about them are printed in the newspapers. Newspapers are full of these kinds of reports, but if these events were not pre-announced, health reporters would not know about them and there would be no reports.

Still, very few reporters write about nutrition-related issues, for example, child development, stunting, breastfeeding, vitamin deficiency, LBW, health concerns of adolescent girls, maternity leave, and food security. Instead, these issues are addressed in the writings of nutritionists, specialized physicians, pediatricians, and others interested in health.

Journalists do regularly cover the issues of food safety and adulteration on their own initiative because there is a lot of discussion in civil society and in government about them. The opinions and thoughts of people from various professions and walks of life are being published on these subjects as well. Scientists are providing data on the harmful effects of the chemicals used. Doctors are writing about the effects of these chemicals on the human body. Some are pointing out the weaknesses in the government regulations that are related to this. Surprisingly, however, food safety is rarely discussed among nutritionists.

Journalists also regularly cover the legislative process, from drafting legislation to approving laws in the cabinet to passing laws in the parliament, journalists provide significant (some would say too detailed) coverage of the various phases related to nutrition legislation. In addition, many editorials have been written about nutrition-related legislation.

Other articles, written by nutrition specialists, cover such topics as the benefits of mother's milk and procedures for breastfeeding of infants, but alongside readers can find baseless articles on substitutes for mother's milk, purportedly written by pediatricians.

MRDI and FHI360 published both a baseline (2013) and follow-up (2014) media monitoring report that tracked media news reports and other articles (editorials, Op-Eds, features) published in newspapers.

The baseline media monitoring report covered 6 months (January-June 2013) and reviewed nutrition related reports that had been published in 10 national dailies (Ittefaq, Janokontho, Jugantor, KalerKantho, Naya Diganta, ProthomAlo, Shamokal, New Age, The Daily Star, and The Independent) and 2 local daily newspapers (Gramer Kagoj, Jessore; and ShonarDesh, Rajshahi).

During these 6 months, 299 reports and articles were published in newspapers. Of these 299 reports, 200 were authored by reporters; 80 were written by physicians, nutritionists, or others interested in health; and 17 were editorials. From the 200 articles written by reporters, most of them (161) were event-based reporting. If these

events did not take place or if no one announced them, it is unlikely that these reports would have been written. Only 39 were investigative articles. From this study, we can conclude that only 24% of the health- and nutrition-related articles were written as a result of reporters' own initiatives. It also suggests that directives from these reporters' editors and requests from individuals and organizations also played a role. For example, nearly all newspapers reported on events organized for World Breastfeeding Week and Safe Motherhood Day.

The topics covered in these articles/reports included micronutrients (30), child nutrition (25), child development/growth (21), malnutrition (20), health care (19), child health (17), baby's health while in the womb (15), breast milk feeding (15), and vitamin deficiency (15), to name a few, but very little was reported or written on other important nutrition-related issues, e.g., LBW, supplementary food, food availability, complementary feeding, and health concerns of adolescent girls. An increased awareness of these issues is essential to lower the rates of malnutrition in Bangladesh.

The baseline media monitoring report also assessed the clarity and readability of the articles. Criteria for determining the clarity of news coverage included consistency of information; accuracy of information analysis; and correctness in the use of nutrition data, sources, and figures. Criteria for determining the readability of news coverage included simplicity of language, sentence structure, limited use of jargon, and conciseness of sentences. The assessment revealed that 82 of the articles/reports were not clear or compelling to read.

MRDI also carried out follow-up media monitoring during the time period when FANTA and MRDI conducted trainings with media. The same 12 newspapers were selected for the study. Articles and reports from February 15, 2013 to October 15, 2013 were analyzed. Altogether, there were 1,129 reports and other articles published in that time period—a dramatic increase in coverage. According to members of the media, this increase occurred because of the enhanced capacity of reporters to cover nutrition and because reporters advocated for the benefits of reporting on nutrition issues with their newsroom leaders.

Even with this increase, the monitoring exercises showed that reporters are writing very little about the important nutrition issues. Reporters carry out their responsibilities based mainly on a 'beat' (a topic they are assigned to cover). The health beat is divided into three main categories: health, nutrition, and population. Before newspaper readers can understand the importance of nutrition, there needs to be a discussion about the important role that journalists can play to raise awareness about the situation.

Newspapers usually publish what readers want and what readers are interested in. The more interested readers are in a topic, the more importance newspapers place in publishing stories about that topic. Obviously, if readers are not interested in the stories in a newspaper, they will not buy it. Newspapers are commodities and their first duty is to meet the needs of their readers. At the same time, newspapers print a lot of things that are not in demand from the readers, and newspapers do have a social responsibility to objectively report the news, whether or not readers have expressed interest in it.

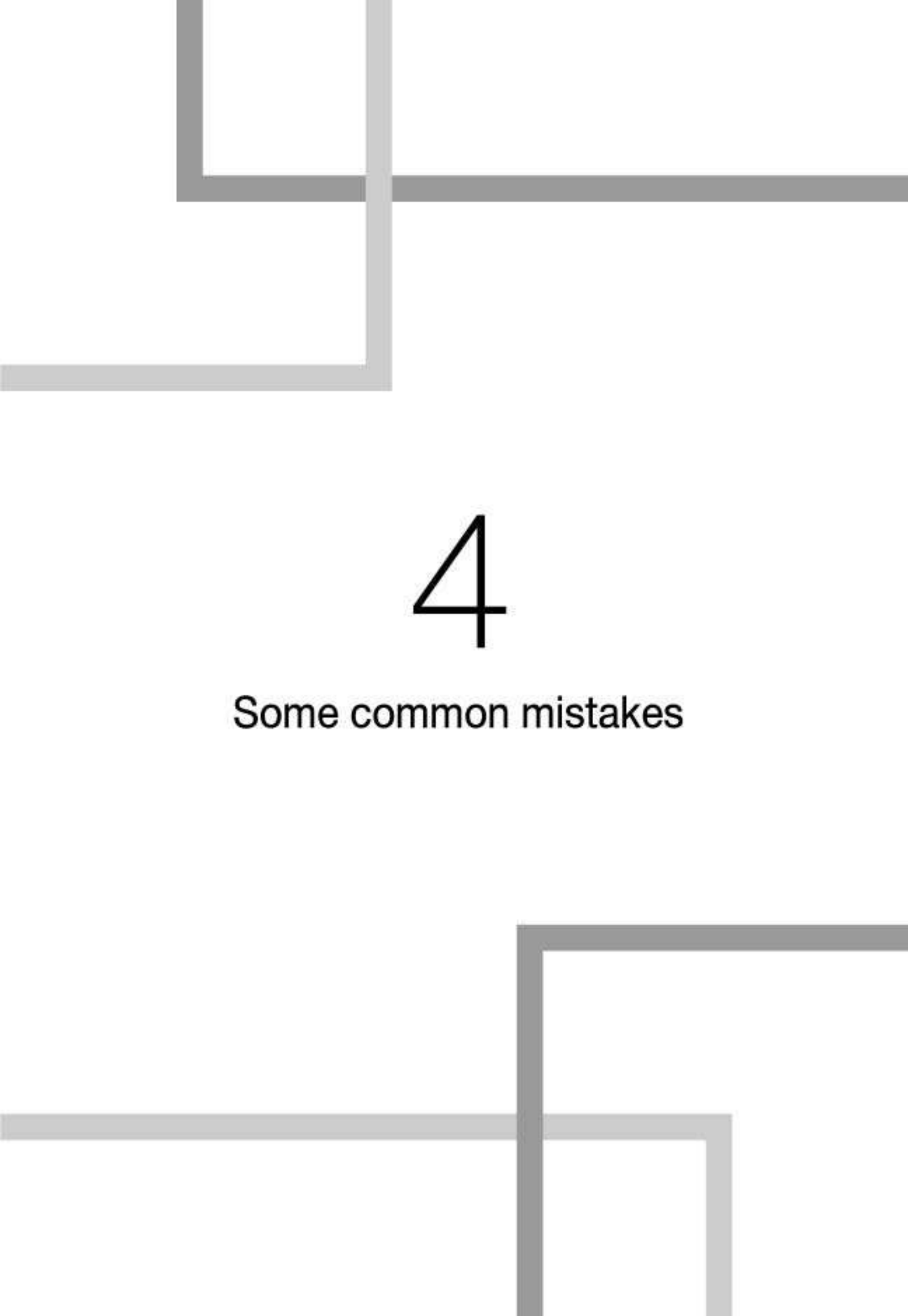
Discussions with journalists have revealed that they are typically not aware of research on which subjects readers are interest in. In June 2009, the daily Prothom Alo conducted a poll of its readers; 780 readers aged 15 and up from Dhaka, Chittagong, Rajshahi, Khulna, and Rangpur where polled. Readers' preferred topics were ranked in the following order: politics, international affairs, corruption, crime, entertainment, education, law and order, rural news, health, science and technology, editorials, economy/industry/business, gender, culture, religion, human rights, literature, environment, and tourism. According to Prothom Alo readers, the topic of health is the ninth most important topic.

The importance of a newspaper attaches to nutrition is dependent on how important the topic of health is to the newspaper. If health is considered important, nutrition will be too. If newspaper management gives importance to nutrition, reporters will not be able to ignore it.

In addition, the government has limited activities in and allocated funds for nutrition. This limited emphasis on the part of the

government often signals that nutrition is not a significant priority. As a result, reporters get very little new information from the government on nutrition. There are only a few research activities and surveys conducted on nutrition in the country, which results in multiple reporters using the same information in their reports.

However, reporters need to develop a skill set that enables them to report factually and to report stories on nutrition with a human element. In part, this depends on training, in part on experience, and in part on journalists' own initiatives to learn and better understand the facts about nutrition and health issues so that they can accurately represent them in their reporting.



4

Some common mistakes

Some common mistakes

Not everything printed in newspapers is accurate. Some mistakes are made when there is a fundamental lack of understanding of the subject matter. Some mistakes are made when attention is not paid during collection of data and writing the report. Stories can contain errors when a reporter finds a subject difficult to understand. The risk of errors lessens when reporters follow the principles of journalism and understand the premises of the report. If reporters are careful and follow the principles of journalism, these mistakes can be avoided.

The next section presents examples of newspaper reports from national and local dailies. Most of these reports have some form of limitation or error or both. Readers who have questions while reading the article might not be able to find the answers. This handbook does not discuss writing techniques; instead, it tries to find some of those answers, which, had they been present in the reports, would have made them more complete reports.

Lack of iodine in the salt produced in Jhalokathi

Most of the salt produced in the mills of Jhalokathi does not have the right amount of iodine. This is evident through the monthly experimental sample report on iodized salt. Except for in a few mills, iodine is mixed with salt through manual spraying. There have been a lot of complaints that lab authorities have always been duly 'managed' by mill owners and have never taken any legal steps to tackle such irregularities. Accordingly, there have been a lot of symptoms

of iodine deficiency diseases in people. People's health is in danger. The lab authorities of MI (Micronutrient Initiative) and CIDD (Control of Iodine Deficiency Disorder) have the responsibility of testing for iodine.

In June 2013 CIDD labs and Jhalokathi BSCIC took samples of salt from 10 of the mills to test for iodine level. It was found that in the salt sample of four of the mills there was 14 PPM on the low end and 54 PPM of iodine on the high side, a level that is extremely harmful for the human body. Authorities said ideally iodine content in salt must have 30 PPM on the low end and about 50 PPM on the high end. Iodine is not being mixed in salt in the right quantity due to the increase in the price of iodine and non-usage of SIP machines in most of the mills. Under these circumstances, the question arises how the iodine tolerance level of the other six mills has been reported in this test report. In this regard, Mr. Nirod Bhushon Das, manager of Messrs. Gaji Salt Industries, said that initially the government provided iodine completely free of cost, but is now selling it at 4000 taka/kg through BSCIC. Using such expensive iodine neutralizes any profits. However, one of the workers in the mill who sprays iodine manually said, 'Our main problem is power failure/load shedding. Hence, we have no choice but to spray manually in order to deliver the goods quickly. This results in the iodine not being properly mixed in the salt as it would have been had a machine been used. We have no choice but to do whatever our boss tells us.'

When asked what the damage is if sufficient iodine is not mixed with salt, Zakirul Islam of Jhalokathi BSCIC lab said that 1 kg of salt requires 90 g of iodine. But mixing more or less than this amount may cause vomiting, heartburn, skin disease, insomnia, and even liver cancer. A BSCIC source said a number of mobile courts have been set up through the initiatives of BSCIC and district administration in order to ensure the right amount of iodine is mixed in salt. Last year four mill owners were penalized BDT 12000 for not mixing iodine into the salt in the right ratio.

The source stated that in order to combat iodine deficiency the government has distributed to each of the mills an iodized mixture machine (ICP)-completely free of charge-each which is worth six lakh taka. However, due to power failures, it is not possible to run this machine most of the times. Exacerbating the fact that there has been a significant increase in the price of iodine, the president of the Salt Mill Owners Association of Jhalokathi said that, 'even though we have free machines, the high cost of iodine prevents many from using it. Manual spraying requires less iodine than machines.'

Jhalokathi BSCIC inspector Motahar Hossain said, 'In many mills manual spraying prevents the proper mixture of iodine with salt.' That is why the June report shows that the aforementioned mills do not have the right PPM in their salt. When asked why there is manual spraying when there is a SIP machine, he said it is because 'a lot of the times there is no electricity and other times the machine does not work properly. That is why some do not use it.' Ashrafuzzaman, the director of Jhalokathi BSCIC, said, 'We are trying to encourage the mill owners to use the SIP machines. But there are still some owners who continue with manual spraying and end up with either high or low levels of iodine PPM in the salt.'

If the reporters reported about the following subject or issues, the report would have been more substantial.

1. How many salt mills or factories are there in Jhalokathi? Are there any factories where iodine is not mixed in salt at all?
2. How many factories use machines and how many use manual techniques to mix iodine in salt?
3. Who are the laboratory authorities? What are the complaints against them? What does the word 'manage' mean? Each reader

might have a different understanding of this word. What meaning does the reporter want to convey?

4. What is iodine actually? What are the problems that are caused by iodine deficiency? What is the source of iodine? Why must iodine be present in salt? The answers to these questions can be found by using the Internet and accessing the World Health Organization (WHO) website.

5. What does 'PPM' mean?

6. Are MI and CIDD government institutions? What do these organizations do?

7. The sample test results of the remaining six mills were been mentioned. Why not? What did the authorities say?

8. What is the work of the SIP machine? How is iodine mixed with salt by this machine?

9. How much salt can be mixed with 1 kg of iodine? Does the price of salt vary because of this?

10. Is it a crime not to mix iodine in salt? Are there any laws about this? What does the law or regulation say?

11. Where is the CIDD lab/test center: Dhaka or Jhalokathi? Who has accused them of being 'managed'?

12. It is imperative to know about CIDD's opinion about the complaint.

13. Why is the government providing SIP machines to these mills free of charge?

14. What organization or entity is authorized to mete out punishment if iodine has not been mixed with salt? What is its opinion on this matter?

If the reporter had gotten answers to these questions and included them in the report, the salient points of the report would have come across more clearly and readers would have received explicit and unambiguous information.

30% of newborns have low birth weight

Sherpur is a terminal district. On one side are the 'chars' or islands and on the other side are hilly areas. That is why the inhabitants there have low income. This results in pregnant women not getting sufficient food. On top of that there are a lot of superstitions. Here nearly one in every three mothers is delivering a low birth weight infant. This results in children not developing properly as they grow up. Their intelligence is also hampered; 40% of those mothers delivering low weight babies are victims of malnutrition. This information is gathered through exhaustive research, analysis of information derived from public and private organizations and through the information provided by relevant officials and experts. However, specialists believe that an increase in mass awareness of nutrition-related information and joint public-private initiatives in adopting and implementing practical programs will lead to an improvement in the current situation.

Dr. Md. Mostafizur Rahman, medical officer of the Mother and Child Welfare Clinic of Sherpur, said, in the language of medical science, infants born within the weight range of 2.5-3.5 kg are termed as standard or normal weight. An infant born less than 2.5 kg is termed a 'low birth weight' infant. He said a healthy person needs 2200-2400 calories of food on a daily basis. Pregnant women need many more calories than that. While pregnant, women need 20%-30% more calories. For this, nutrient-rich food is necessary.

Looking into Sherpur hospital's childbirth history data for the last 2.5 years in the gynecology department, it can be seen that low birth weight babies were born through both C section and normal delivery. From January to September 2013, 345 infants were born in this hospital. Among those births there were 105 babies with low birth weight, which means at birth these babies

weighed less than 2.5 kg. In 2012, 152 out of 543 babies born in this hospital had low birth weight. In 2011, 138 out of 390 babies were born with low birth weight. In the last 2.5 years, 152 of these infants died during delivery.

Gynecologist and obstetrician Dr. Nargis Begum, who is also the ex-deputy director of the Sherpur family planning department, said that a lot of pregnant women here are delivering low birth weight babies. There are a lot of reasons for this, including child marriages and the resulting early-age pregnancies, premature babies, anemia, and pregnant women whose water breaks prematurely. And, of course, nutrition is undoubtedly an important factor in these issues.

In a nutrition survey carried out by BRAC, a nongovernmental development organization, it was seen that 36% of children have low birth weight due to malnutrition and 41% of children become malformed while growing up. Additionally, 13.6 million people in this country are suffering from malnutrition. The survey says that in order to save people from malnutrition, everyone has to be made aware about nutrition and social security programs need to be strengthened.

Dr. Tahmid Ahmed, director of the icddr, b Center For Nutrition and Food Security, said that for people in the age groups of housewives in Kona and Lima, 2200-2400 calories of food is required on a daily basis. During pregnancy, they require 20%-25% more calories. But during their pregnancies, they actually received only 1500-1700 calories from the food they ate. This negatively affected the children in their wombs. She said, 'Infants with low birth weight are more susceptible to diseases. But additional care and special attention to these children's diet after birth will ensure that the effects of malnutrition are countered. 'To fulfill the nutrition requirements of pregnant women in Sherpur, 21 pregnant women from each of 52 unions were given 350 taka as maternity allowance for a period of two years. The distribution of this allowance started in 2011. In the current year, under the 'Health, Nutrition and Population'

project, BRAC is starting its nutrition situation improvement program in Sherpur, according to the district representative of BRAC Ataur Rahman.

The medical officer at the Sherpur Mother and Child Welfare Clinic, Dr. Md. Mostafizur Rahman, said, 'At the time of birth a child should weigh at least 2.5 kg. A newborn's weight decreases slightly in the next 10 days. But in the 10 days after that, if the baby gets breastfed and if the mother eats nutritious food, the child will have a daily 10 g increase in its weight. This is the standard.'

Incident 1: In West Bel Toile village in Jhinaigati, the wife of Shahjahan Mia, Mollika Begum, gave birth to a baby boy on 13 August. He weighed 2.3 kg at birth. After nearly one month, on 10 September, he was weighed again and his weight was 2.75 kg. When his mother was asked about his increase in weight from the time of his birth, she said, 'I did not measure the weight of my other two children, a boy and a girl. This time my child was born in a maternity center, that's why we measured his weight.'

Incident 2: In the village of NondirJote, Chor Mochariya Union, Sherpur, Liton Bidash's wife, Kona Bidash, gave birth on 7 August. The baby's weight was 2.1 kg. On 8 September, the infant was weighed again and weighed 2.8 kg. Kona does not know how much a child should ideally weigh at birth and how much the weight should be after one month.

Incident 3: In Bagher Chor gram, Chor Union, Shodor, Lima Begum(19), wife of bus driver Mofizul Huq, gave birth to her first child on 8 August. The child, who was born in the Sherpur Mother and Child Welfare Clinic, weighed 1.2 kg and died within eight hours of being born. The mother Lima Begum could not accept the death of her firstborn. She was crying continuously. She had no idea why her child weighed so little at the time of birth.

There are quite a few unsubstantiated statements in and other problems with this report.

1. Places with 'chars' or islands on one side and hilly areas on the other indicate inhabitants here have low income: There are no logical reasons behind this premise.
2. Superstition is mentioned. But there is no clear mention of any particular superstition.
3. A child's physical and mental development are hampered by being a LBW infant. Even if a child is born with normal weight, a child can still grow up with physical or mental abnormalities. There is no logical correlation given between LBW infants and children's physical and mental development.
4. Is the Mother and Child Welfare Clinic in Sherpur a government clinic?
5. If the statistics are analyzed, it will be seen that 12% of infants with LBW died immediately after being born.
6. This report mentions a BRAC survey. Mentioning the name and timeline of the survey was imperative. In that survey, it was found that 36% of newborns have LBW in Bangladesh. This means the condition in Sherpur was better than the national average. This should have been mentioned in the report.
7. In that BRAC survey, it was said that 41% of children grow up to be handicapped. There must be some mistake on the part of the reporter, for there has been no statistics on malformed or handicapped children heard of before.
8. In order to combat malnutrition the report mentions some programs in the Women's Bureau in Sherpur. Whether the program has any bearing or has contributed anything significant in combating malnutrition could have been mentioned in the report.

9. It could have been mentioned in the report whether the mothers who give birth to infants with low weight get any advice from the hospital afterwards or not.

The following report can be compared with the aforementioned report.

***Premature birth is one of the biggest factors
behind newborn mortality***

An elderly female relative of Pinky Begum is rushing with her newborn from the delivery room to the newborn unit in Dhaka Medical College Hospital. It is 15 December, 3:30 in the afternoon. Her family members are waiting outside with baited breath. After around 10 minutes, the old lady comes back with the now-dead infant clasped to her bosom.

After talking to the relatives of Pinky, it was discovered that the infant was born before its time. Specialists say that any child that is born before spending 37 weeks in the womb is called a preterm baby. Such infants cannot develop properly in the womb and their weight is low.

Md. Altaf Hossain, the organizer of sub-programs for the government program for children's health (Integrated Management of Childhood Illness or IMCI), said that 11% all the newborns who die soon after they are born have low birth weight. It is imperative that infants weighing less than 1800 g be admitted to hospitals. A lot of babies are born weighing less than 1500 g. The risk of mortality is high for them.

Experts say that Bangladesh has the highest rate of premature babies with low birth weight. It is imperative to keep these infants alive in order to reach the goal of reducing the infant mortality rate.

Why is there a mortality risk? Sanjay Kumar De, a professor in Bangobondhu Sheikh Mujib Medical University (BSMSU) and chief instructor for the 'Helping Babies Breathe' program, said

that the limbs of premature babies are not fully formed. They do not have the required body heat. As they are unable to suckle milk properly, the food goes to their lungs instead of their stomach. Consequently, the infant can no longer breathe.

Doctors say that premature babies have very low resistance to diseases. A particular limb may be infected in cases of babies born at their due time, but premature babies have infection that spreads all over their bodies (septicemia). They are also highly susceptible to jaundice.

A research study of the American Academy of Pediatrics, conducted by researcher Naila Zaman Chowdhury on all babies admitted to Dhaka Children's Hospital from December 1998 to July 2003, found that a lot of premature babies have breathing problems.

Why are there premature babies? More than one research study has shown that women who are under 18 and over 40 years of age are more likely to give birth to premature babies.

In one of these research studies, conducted by the Gynecology and Obstetrician Department of Washington University ('Preventing Preterm Birth and Neonatal Mortality: Exploring the Epidemiology, Causes and Interventions'), it was seen that one of the chief reasons for preterm birth was infections in the mother's body. The study said that in 50% of cases, the infection caused a baby to be born before spending 28 weeks in the mother's womb. Malaria and malaria-induced anemia, infections leading to swelling of the womb, syphilis, eclampsia, excessive hard work on part of the mother and pollution all lead to preterm babies.

In research conducted by the United States Centers for Disease Control(CDC) in the U.S. and Dublin, Ireland, it was seen that the birth rate of preterm babies was reduced by 25% after banning the smoking of cigarettes before and after entering the workplace. The CDC said that there preterm births may be due to unmonitored blood pressure and diabetes.

Obstetrics and gynecology specialist Bayesh Bhuiyan said that the biggest reasons for premature birth are malnutrition and excessive hard work. He said the uterus of mothers who are suffering from malnutrition cannot hold onto their babies for 37 weeks. Additionally, those mothers who are involved in physically intensive work have a lot of rapid contractions in their uterus, which can lead to babies being born prematurely.

Nutritionist S K Rai said that women suffering from malnutrition have weak uteruses. On the other hand, there is a strong correlation between malnutrition and infection. So the rate of giving birth to premature babies is high for mothers suffering from malnutrition.

Child care situation: According to the UN's findings from 'State of the World's Children 2011,' 22 of every 1000 live births are premature babies with low birth weight. Eleven percent of babies die as a result of premature birth and low weight, and 34% die due to infection. Half of the babies that die from infections are premature. One of the biggest reasons of stillbirth is being born prematurely.

According to the 2009 national health plan for newborns, any infant born less than 34 weeks old and weighing less than 1800 g should be admitted to the hospital. But forget the upazila health centers; even the district hospitals do not have the right resources to take care of these babies.

In the newborn unit of Dhaka Medical College, even though there are 4 incubators and 21 beds, there are no ventilators to artificially help with respiratory systems. The director of the hospital, Shahidul Huq Mollik, said, 'On average, if there are 20 births in the hospital, at least 5 newborns need additional care. In December, a lady named Menara Begum said her grandchild had to be taken elsewhere since there are no ventilators in the hospital.

There are 18 beds for children in BSMMU. There is a separate unit for newborns in Dhaka Children's Hospital.

Government officials said that government initiatives to save premature babies are limited to making mothers aware or raising mother's awareness about this issue. Attempts are being made to popularize the 'kangaroo mother care' system under the IMCI project. In this method, the mother is told to clasp her infant to her bare chest in order to increase the child's body temperature.

In this report we get to see a few new facts.

1. We generally do not get to see such detailed and analytical pieces on a specific topic on malnutrition.
2. In order to establish facts and opinions stated in this report, findings from the research periodicals of several internationally acknowledged research centers have been referred to, which makes the report stronger.
3. At the same time, opinions and statements of the leading child physicians, nutritionists, and obstetricians of the country have also been included.
4. There a lot of new facts and the follow-up activities are given as well. Readers get to learn about new facts and will be educated by the report.
5. Many have complained that the report is too lengthy. Perhaps it could have been more succinct.
6. Three research studies have been mentioned in the report. However, mentioning their names and time lines might have been considered.

Undertaking steps to ensure unadulterated food

Environment leaders have called on the government to ensure purity in food and to combat the various social diseases brought on by adulterated food.

Yesterday, environment leaders formed a human chain in front of the city's Charukola Institute with a slogan 'strong measures needed to ensure pure food for public health and economy.' The gathering was arranged by the Save the Environment (Poribesh Bacha or PoBa) program.

The leaders in the human chain said eating these chemically adulterated fruits and vegetables may lead to asthma, gastric problems, damage to the liver, and even fatal diseases like cancer. Chemically preserved foods harm children most of all, and pregnant women give birth to malformed babies. Among participants in the human chain were PoBa's editor Hafizur Rahman, program officer Artik Morshed, chairman of Greenmind Society Mair Hasan, director of BRTC Md. Mahbubul Huq, Professor Brojendro Debnath, and garosto college of economics Moonmoon Promukh.

While writing this report, the reporter should have been more careful and attentive.

1. At the beginning of this report there was mention of combating 'social disease.' What is that? Is there actually any such thing?
2. What is meant by 'environment leaders'? Are the ones who were mentioned actually leaders?
3. The third paragraph says 'these fruits and vegetables.' However, there was no mention of fruits or vegetables before this paragraph. Therefore, 'these' should not have been written.

4. In the same paragraph, 'fatal diseases' was mentioned. What does this word 'fatal' mean?

5. At the end of this report, the names and identities of certain people are mentioned. There are some mistakes in this regard. Before someone is identified on paper, it is a reporter's primary responsibility to do due diligence.

Organizers of nutrition corner in Keshopbur in trouble

In the health complex of Keshopbur upazila, a nutrition corner has been set up. On Wednesday morning, a discussion forum was held to inaugurate it. But when the authorities finished the program, somehow, haphazardly, within 10 minutes, pandemonium broke out among the audience members.

Eyewitnesses say that on Wednesday a program was arranged to inaugurate the nutrition corner set up in the hospital. The papilla chairman, vice-chairman, UP chairman, district executive officer, various senior officers, and journalists were invited to the event. Papilla health officer Dr. Abdus Samad announced the conclusion of the program within 10 minutes, without following any rules or regulations and by simply handing out 700 taka and a snack packet to each of the invitees. This resulted in Mongolkot UP chairman Monowar Hossain raising objection to the fact that he could not speak about nutrition. The health officer was then in an awkward situation. On the other hand, even though around 50 people were supposed to be invited, only 20 or so people were actually invited. The event was shown on paper only, and there were allegations of fund misappropriation. In response, Dr. Samad said that the meeting had to be concluded quickly due to brevity of time.

There are a lot of important topics and mistakes in this report.

1. The organizers of Institute of Public Health Nutrition said that they had no directives to officially inaugurate the opening of the nutrition corner. Then what was the program or event about?
2. This is a very important report. This clearly indicates that there are a lot of irregularities and corruption regarding nutrition of the root level.
3. What is a 'nutrition corner'? Who manages the nutrition corner? What sort of benefit will people get from this corner? These questions should have been answered.
4. It should have been clearer here what 'haphazard' event took place.
5. What was the objective of this discussion forum? How were the guests invited? Who said that 50 people were supposed to be invited?
6. Who made the accusation of fund misappropriation?
7. There is indication of fund misappropriation through other programs by showing the calculations on paper only. The specific programs and their dates should have been mentioned.
8. Inaugurating the nutrition corner is an important piece of work. That upazila health officer talked about not having sufficient time on his hands. Did he actually have any other work that day?

Workshop in Durgapur for Pushtikona for children

As part of the collaboration of the Sprinkles Program and the BRAC Health, Nutrition and Population program, a workshop has been arranged in Durgapur in the BRAC office for the fathers of children aged 6 months to 5 years. Amar Halder, district officer of BRAC's Health, Nutrition and Population program, chaired the workshop. The workshop was also attended by Durgapur upazila health and family planning officer Dr. S F M Khairul Ataturk, district BRAC representative AKM Jahebul Islam, district officer Nilufa Akhter Jahan, and area manager Nurul Islam.

We often see reports like this. But why are these mistakes made?

1. In the heading, 'pushtikona' is mentioned. There is no description of this in the report. What is this 'pushtikona'?
2. At the beginning, the Sprinkles Program is mentioned. What program is this, and what is its work? What is the relationship with BRAC?
3. When was this workshop held? What was the objective of this workshop?
4. Why are only the fathers invited? Why were the mothers not invited?
5. How many fathers were present in this workshop? Were they given any honorarium?
6. What were the topics of discussion in this workshop?

Field test of vitamin-enriched rice delayed: Scientists wait for approval from regulators

Regulators' foot-dragging has failed scientists in field-testing Vitamin A-enriched rice, better known as "Golden Rice".

A year passed by since the researchers sought approval for a "confined field trial" on Golden Rice but they are still to get a response.

As a result, the plant breeders at Bangladesh Rice Research Institute (BRRI), who have been trying to develop a Vitamin A-enriched rice variety suitable for Bangladesh's agro-ecological climate, missed out one growing season (Boro) and now fear missing out the next season too.

Golden Rice, widely acclaimed for its perceived potential to fight Vitamin A deficiency (VAD) in expecting mothers and children, successfully went through greenhouse trial process at the BRRI early last year.

Then in September, the researchers sought approval from the biosafety regulators to do the field trial in a controlled-environment within the BRRI facilities before advancing into production phase but to no effect so far.

Starting the greenhouse trial around the same time as the BRRI, the Philippines' national rice research institute - Phil Rice - has advanced two steps ahead by already completing confined field trial and multi-location field trials, thanks to pro-active regulatory support in that country.

Golden Rice is a "transgenic" crop, and special approval from the biosafety authorities is a prerequisite for conducting field trials on such crops.

Something is described as transgenic when genes from a different species are transferred to a plant or animal by using genetic engineering technique to increase its vigour.

"We've conducted greenhouse trials long ago and are still waiting for approval for conducting confined field trial," said Dr Helal Uddin Ahmed, who heads the plant breeding division of the state-run BRRI.

Helal said they found very good results from greenhouse trial as the yield potential of Golden Rice turned out to be as good as that of Brri Dhan-29, the country's most productive Boro rice variety.

BRRI plant breeding division's Chief Scientific Officer Dr Alamgir Hossain told ..., "We applied for confined field trial of Golden Rice in September, 2012, hoping to go for the trial in Boro season (Nov-Dec last)." But they are now worried whether they would be able to do so even in the upcoming Boro season if the approval is not given in time.

Officials concerned said the BRRI application has gone through several scrutiny processes at the Ministry of Agriculture, and Bangladesh Agricultural Research Council (BARC) since September last and has been lying with the Ministry of Environment for several months now.

Reached over the phone, BARC Executive Chairman Dr Wais Kabir confirmed forwarding the council's approving view to the agriculture ministry long ago, and said the ministry also paved the way for Golden Rice trial. "It's now lying with the environment ministry," he added.

But the National Committee on Biosafety (NCB), headed by the environment secretary, is yet to take up the issue. In Bangladesh, the environment ministry is responsible for implementing the Cartagena Protocol on Bio-safety and the NCB is the authority for ensuring safe management of modern biotechnological development.

Mohammed Solaiman Haider, who acts as the NCB member-secretary, however, told this correspondent that the environment ministry received the petition only three/four months ago.

"We'll soon hold a meeting of the NCB and discuss the Golden Rice trial issue, among other things," said Solaiman, a deputy director of the Department of Environment.

Asked, Prof Dr M Imdadul Hoque, dean of biological sciences faculty at Dhaka University, and a member of the Bio-safety Core Committee (BCC), an auxiliary body of the NCB, said that a working paper is in the process of being placed at the next NCB meeting for approval of Golden Rice trial.

The transgenic technology in rice was first applied by Prof Ingo Potrykus, then at the Institute for Plant Sciences of the Swiss Federal Institute of Technology, and Prof Peter Beyer of the University of Freiburg, Germany. Their insertion of beta carotene-enriched gene from daffodil to rice drew world attention back in the late '90s, and the rice became known as Golden Rice because of the grains' golden colour.

After years of research and experiments, the IRRI found that transfer of beta carotene gene to rice from corn was more rewarding than that from daffodil.

On April 13, 2011, Seattle-based Bill and Melinda Gates Foundation sanctioned a grant of over \$10 million to the IRRI to fund, develop and evaluate Golden Rice varieties for Bangladesh and the Philippines. The Foundation expects that Golden Rice variety of BRRI Dhan-29 will be ready for regulatory approval by 2015.

Bangladesh's most productive rice variety - BRRI Dhan-29 - along with an IRRI variety, - IR-64- and a Filipino variety, RC-28, has gone through the process in which these were genetically engineered to contain more corn gene responsible for producing beta carotene, a source of vitamin A.

The IRRI says that globally about 6,70,000 children die every year and another 3,50,000 go blind because of vitamin A deficiency.

According to the World Health Organisation (WHO), global database on vitamin A deficiency, one in every five pre-school children in Bangladesh is vitamin A-deficient, and 23.7 percent of expecting mothers are affected by vitamin A deficiency.

Once released commercially, BRRI breeder Alamgir said, consumption of only 150 gram of Golden Rice a day would provide half of the recommended daily allowance (RDA) of Vitamin A for an adult. This is expected to revolutionise fighting vitamin A deficiency in the mostly rice-eating Asian countries where the poor have limited access to Vitamin A sources other than rice..

In reports where there are issues of science and debate, one must be very careful.

1. The steps of introducing a new variety of rice should have been explained.
2. A lot was written in support of Golden Rice, but there are no mentions of opposing views. That should have been included for objectivity and fairness.
3. The article doesn't make clear why and where the trial got stuck.
4. There are two aspects of micronutrient-rich rice: the process of developing these varieties and whether they would be as beneficial as advertised. These aspects should have been touched on.



5

What are nutrition and
malnutrition?

What are nutrition and malnutrition?

The leading nutritionists, researchers, and intellectuals, and various government officials of Bangladesh use the Bengali term 'pushti' as the equivalent of the English word 'nutrition.' Good nutrition or 'pushti' depends on people consuming a balanced diet that consists of fruits and vegetables that are rich in vitamins and minerals; meat, eggs, poultry, fish, and dairy that are rich in protein; lentils and dry beans that are rich in protein and carbohydrates; oils that are rich in fat; and rice and other staples that are rich in carbohydrates. Consuming all of these foods regularly contributes to good nutrition or 'pushti.'

In Bangladesh, however, many people, particularly mothers and children, do not get enough to eat, and they do not regularly get the variety of foods they need for a balanced diet and good nutrition. As a result, nearly 4 of every 10 mothers who are poor are malnourished. Similarly, among children under the age of 5, more than 40% are malnourished (NIPORT et al. 2009).

What is nutrition?

Nutrition is the process of consuming and eating food, breaking it down in the digestive tract into small parts, and absorbing these parts for use or storage. Food is made up of nutrients grouped according to their function in the body: carbohydrates and fats provide energy; protein builds the bodies' tissues and muscles; and vitamins and minerals (also known as micronutrients) help fight diseases, among other things. The body needs items from all three of these food groups in the right amounts to grow well and stay healthy.

What is malnutrition?

Malnutrition is a condition that occurs when people do not eat enough food, eat the wrong types of food, or eat more food than the body requires. There are several forms of malnutrition that fall into three broad categories: undernutrition, overnutrition, and deficiencies of vitamins and minerals (deficiencies in micronutrients like iron, iodine, and vitamin A). Each form of malnutrition carries different risks. For example, undernutrition and certain vitamin and mineral (micronutrient) deficiencies carry an increased risk of death and illness, particularly in infants and young children.

Undernutrition occurs when the body does not get the right amount and type of nutrients it requires to maintain health. In children, undernutrition is manifested by being short compared to healthy children of the same age and sex, a condition known as chronic malnutrition or stunting; by having low weight for his or her height, known as acute malnutrition or wasting; or having low weight for his or her age, known as underweight. Nutrition experts in Bangladesh use the terms undernutrition and malnutrition interchangeably, because in Bangladesh overnutrition is not as big a problem as undernutrition. In many parts of this handbook, the terms undernutrition and malnutrition are used interchangeably.

Chronic malnutrition (stunting) is a result of a prolonged lack of an adequate amount or variety of food and/or repeated infections that reduce appetite and that do not allow the body to absorb nutrients and minerals from food. Chronic malnutrition develops in young children over several months or years. The reason nutrition experts consider chronic malnutrition to be a useful indicator is that it shows the long-term impact of poor nutrition. In Bangladesh, chronic malnutrition begins very early in the life of young infants. By 4-6 months of age, an infant who is not well nourished and is sick very often does not gain enough weight and, over time, does not grow well. When a child's height is too short for his or her age, it is called stunting. By the time a child is 2 years old, the impact of chronic malnutrition

(stunting) on his or her growth is permanent and irreversible. The Bangladesh Demographic and Health Survey (BDHS) conducted in 2011 (NIPORT et al. 2013) found that 41% of all children under 5 years of age have chronic malnutrition (stunting).

Acute malnutrition (wasting) is a result of a sudden lack of an adequate amount or variety of food or a severe or repeated infection. There are two grades of severity for acute malnutrition (wasting): Moderate acute malnutrition (moderate wasting) is a result of immediate food insecurity and infection; severe acute malnutrition (SAM) (severe wasting) is the severest form of malnutrition. Severe acute malnutrition (severe wasting) is the most severe form of malnutrition, and children who have severe acute malnutrition are nine times more likely to die than well-nourished children. Acute malnutrition can happen within a few weeks. In 2011, 16% of Bangladesh's children-2.2 million children-were wasted (NIPORT et al. 2013). It was 15% and 17%, respectively, in the years 2004 and 2007 (NIPORT et al. 2005; NIPORT et al. 2009).

In Bangladesh in 2011, the percentage of underweight children was 36%. In 2004 and 2007 the rate was 43% and 41%, respectively (NIPORT et al. 2013).

Micronutrient deficiency is the third form of undernutrition. The most common micronutrient deficiencies are iron (anemia), iodine, and vitamin A. Iron-deficiency anemia in pregnancy is a risk for both the mother and the baby. A baby born to an anemic mother is at a much higher risk of dying at birth. An anemic mother is also more likely to have a child who becomes anemic. An anemic child may become sick more often and may not be able to fight off infection as well as well-nourished children. Anemia in childhood also has a negative impact on a child's cognitive (mental) development, which also has a negative impact on a child's ability to learn well in school. Similarly, iodine deficiency can have severe irreversible impacts on the brain development of a baby in its mother's womb. In fact, iodine deficiency is the leading cause of preventable permanent brain damage worldwide. Vitamin A deficiency in children can affect children's ability to fight off infections and can result in infections

becoming severe and prolonged. Vitamin A deficiency is also an underlying cause of child mortality.

All forms of undernutrition/malnutrition carry a risk of mortality, but the degree of risk is different for different types of undernutrition/malnutrition.

There are noticeable differences in stunting, wasting, and underweight between the children of the rich and the poor and between children in villages and in cities.

Bangladesh has reduced the rates of all three forms of malnutrition. However, experts say this progress is slow. A reporter has to know what the government, nongovernmental organizations (NGOs), and donors are doing to increase this rate.

Overnutrition occurs when the body takes in more nutrients than it requires for normal growth. This leads to excess fat storage in the body and is unhealthy. Overnutrition includes overweight and obesity, which present as a person being too heavy for his or her height.

Why should undernutrition/malnutrition be of concern in Bangladesh? What are the consequences?

Simply put, undernutrition leads to poor health and can be fatal. Globally, undernutrition is the underlying cause of 45% of deaths in children under 5 (Black et al. 2013). An undernourished child is also at increased risk of infection, which in turn leads to a higher risk of mortality (Rahman and Biswas 2009). Compared to normal birth weight infants, children born with LBW are 2-10 times more likely to die and they are at higher risk for childhood undernutrition and chronic diseases, such as diabetes and cardiovascular diseases in adulthood (Allen and Gillespie 2001; Behrman et al. 2004). Globally, vitamin A deficiency causes the deaths of about 1 million children each year.

Undernutrition in children delays child development, which means that children will physically develop more slowly; for example, they will learn to sit, walk, and talk later than their well-nourished peers. Undernutrition also undermines school performance, and has profound and irreversible effects on children's ability to learn (Dewey and Begum 2011). Undernourished children are more likely to enroll in school later, have more days out of school due to illness, and perform worse in school compared to their well-nourished peers (Behrman et al. 2004). It is estimated that undernutrition costs Bangladesh more than 7,000 Crore Taka (US\$1 billion) in lost productivity every year and even more in health care costs (Howlader et al. 2012).

Even though Bangladesh has achieved success in the health sector, it is still lagging behind in nutrition. It is assumed that the very poor African countries have a lot of malnutrition. Nutritionists say that, in some cases, Bangladesh is even worse off. For example, in many South Asian countries, including Bangladesh, the average weight gain of pregnant women is 5 kg. In African countries, the weight gain of pregnant women is around 10 kg.

What causes undernutrition/malnutrition?

Undernutrition results from not eating a variety of foods in enough quantities. Illnesses such as diarrheal diseases that do not allow food to be absorbed and used by the body can also cause undernutrition. Reasons for not eating enough food include families not being able to afford food or food not being available. In addition, how parents care for their children determines if children are well nourished. This includes the types, amounts, and frequency the food is given to children and if children are exclusively breastfed for the first 6 months of life.

What is the difference between undernutrition and hunger?

Although undernutrition can be caused by prolonged spells of hunger, it is not the same as hunger. Hunger is a sensation or a signal that a person needs to consume food. Undernutrition is caused by an inadequate supply of nutrients to enable the body to work well and remain healthy. Just because a person feels 'full' does not mean that he or she is well nourished. People need to regularly eat an appropriate variety of foods in adequate quantities to stay nourished and healthy.

How is Bangladesh's progress in nutrition measured?

Based on the available data, Bangladesh is doing relatively poorly in terms of nutrition. In order to measure the state of nutrition, a number of indicators have been used. In addition to the percentage of under-5 children who have chronic malnutrition or acute malnutrition and who are underweight, the following indicators are used:

- The percentage of babies born with LBW
- Nutrition status during adolescence
- Maternal nutrition
- The percentage of babies who are fed colostrum (first milk) within 1 hour of birth
- The percentage of babies who are exclusively breastfed (given only breastmilk and no other foods or liquids) up to 6 months of age
- The percentage of children who are breastfed up to 23 months in addition to other food
- The percentage of vitamin A capsules being given
- The percentage of people consuming iodized salt

What are some key terms associated with measuring undernutrition in Bangladesh?

- **Low birth weight.** The ideal weight at birth is at least 2.5 kg. An infant that is born weighing less than 2.5 kg has a higher risk of mortality.
- **Preterm birth** refers to babies born before the due date (babies that spend less than 37 weeks in the womb). These babies often weigh less than full-term babies. Bangladesh has one of the world's 10 highest rates of preterm births.
- **Anemia** is a form of malnutrition. A person is said to suffer from anemia when he or she has less than the ideal amount of hemoglobin in his or her blood. One of the primary causes of maternal death, sudden miscarriage, preterm babies, and LBW babies is maternal anemia. Anemia is also caused by infectious diseases, such as malaria, hookworm infestation, and schistosomiasis, and by genetic diseases. Women and children are high-risk populations: 42% of women aged 15-49 are suffering from anemia in Bangladesh, while 51% of children aged 6-59 months are suffering from anemia. The rates of anemia vary between the rich and the poor and between the educated and the uneducated.
- **Malnutrition during adolescence.** According to the government's manual on nutrition, one-third of adolescent girls in Bangladesh are suffering from malnutrition. Their height compared to their weight or their body mass index (BMI) is very low. Malnutrition is especially important among adolescent girls, because young girls are married early and they begin giving birth to children at a young age. If they are malnourished at the start of pregnancy at this young age, they have a higher risk of having a LBW baby.
- **Malnutrition among women of childbearing age.** Women whose height is less than 145 cm are called stunted; 13% women

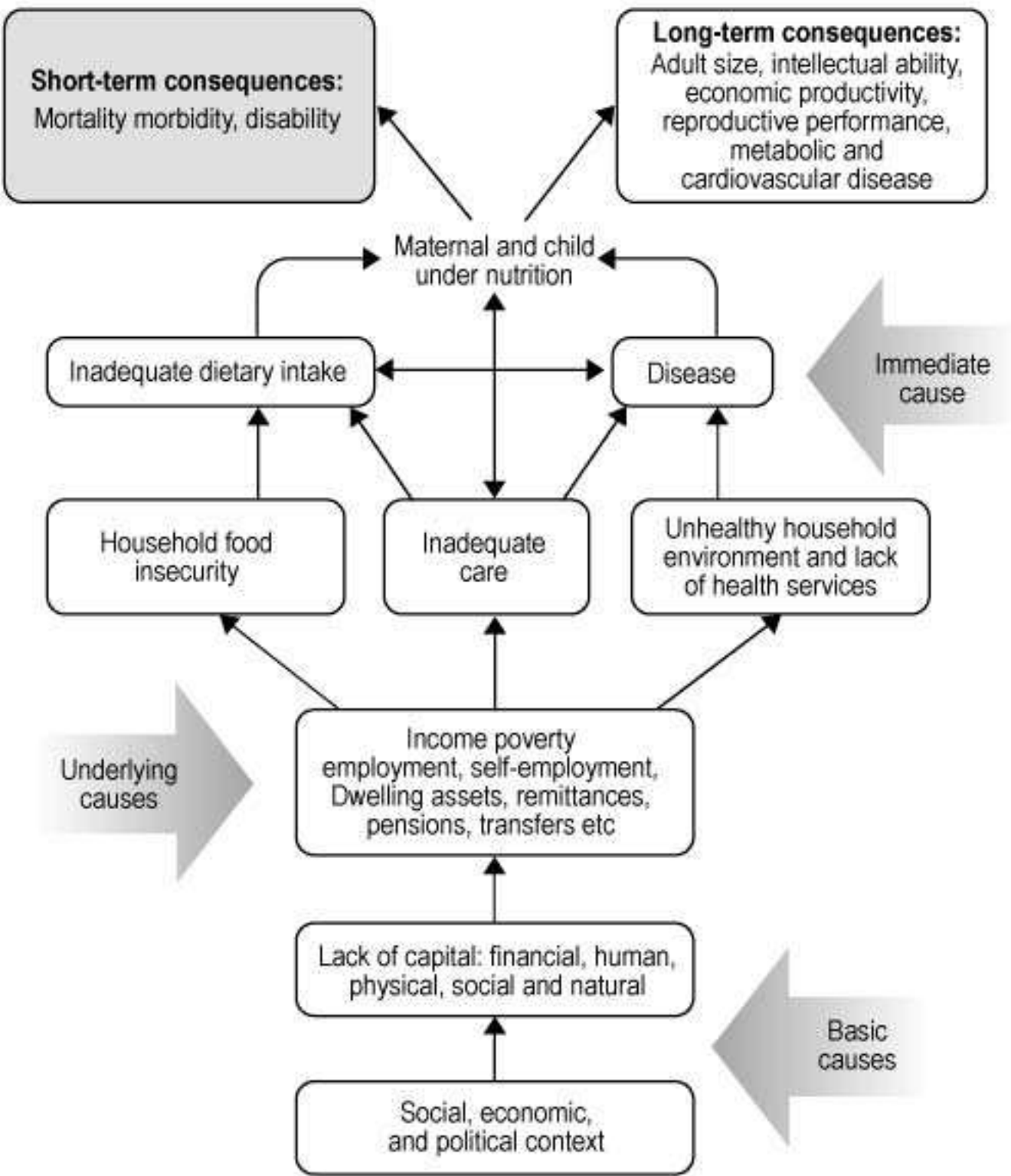
of childbearing age are stunted. These women face a lot of complications during pregnancy. One risk is that they will not gain enough weight in pregnancy and they may then have a LBW baby. There is also a high risk of their children having chronic malnutrition. Another important risk for short pregnant mothers is that they have a physical structure that may make giving birth to the child at delivery very risky.

- **Colostrum for newborns.** Colostrum is the first thick, yellow milk secreted by the breasts in the first few days after childbirth. Colostrum has many benefits: It contains antibodies and other protective proteins that protect against infections and help regulate a baby's developing immune system; it contains growth factors, which help the infant's intestine to mature and function; it is rich in vitamin A, vitamin K, and other nutrients; and it helps prevent or reduce jaundice, which can be common among babies. The 2011 BDHS says that 47% of infants are fed colostrum within the first hour of birth (NIPORT et al. 2013). This is an important indicator, because giving the baby colostrum and beginning breastfeeding within the first hour of birth can reduce the risk of death in the newborn and can ensure the newborn gets enough nutrition at this early stage. Some of the risk of newborn death can be reduced if more mothers feed their newborns colostrum within 1 hour of birth.
- **Exclusive breastfeeding during the first 6 months** refers to when an infant receives only breast milk and no other liquids or solids, not even water, with the exception of oral rehydration salts (ORS) or drops or syrups consisting of vitamins, mineral supplements, or medicines. Exclusive breastfeeding is very important to ensure young infants stay well-nourished in the first 6 months of their lives. According to BDHS 2011, the percentage of 6-month-olds who are exclusively breastfed is 64% (NIPORT 2013). In 2007, it was 43% (NIPORT 2009). In 4 years, the rate has gone up 21%. It is not recommended to provide any solid, semi-solid, or soft foods to children under 6 months of age as they are too young to be able to digest these foods.

- **Complementary feeding for children from 6 to 24 months of age.** Once infants reach the age of 6 months, they can begin eating semi-solid foods. Feeding children between the ages of 6 and 24 months is called complementary feeding. Complementary feeding refers to the use of age-appropriate, adequate, and safe solid or semi-solid food in addition to breast milk or a breast milk substitute. The process starts when breast milk or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant. According to statistics in Bangladesh, 96% of babies up to 1 year and 90% of babies up to 2 years are fed complementary food alongside mother's milk. But although these young children are fed food at the appropriate age, only 64% of children receive meals often enough (with enough frequency) to support their growth, only 25% receive the necessary variety of foods to grow well, and only 21% have a diet that is adequate to meet their nutritional needs (NIPORT et al. 2013). This is one important reason why young children in Bangladesh become chronically malnourished early.
- **Micronutrients.** Micronutrients refer to vitamins and minerals required by the body in very small quantities to function well throughout the life cycle. In Bangladesh, there are often deficiencies of vitamin A, iron, iodine, zinc, vitamin B12, and folic acid. The only survey conducted in Bangladesh to determine micronutrient deficiency revealed that 21% suffer from vitamin A deficiency; 44.6% of young children suffer from zinc deficiency; and 57.3% and 9.1% of women who are neither pregnant nor lactating suffer from zinc and folate deficiency, respectively. The national BDHS from 2011 found that 40% of women who are neither pregnant nor lactating suffer from anemia (NIPORT 2013).

UNICEF has divided the reasons behind malnutrition into three groups: basic, underlying, and immediate, as shown in Figure 2.

Figure 2
The fundamental causal model of malnutrition



Source: Black et al 2008

Basic causes. Malnutrition is rooted in a social, political, ideological, and economic context. For example, long-term political turmoil and instability can contribute to high malnutrition rates. One of the main causes of malnutrition is lack of capital.

Underlying causes. The underlying causes behind malnutrition can be divided into three broad categories: food insecurity, insufficient care and feeding practices, and an unhealthy environment along with the lack of a healthcare system. In addition, poor access to safe water and sanitation spreads diseases, which in turn leads to an increase in malnutrition.

Immediate causes. The immediate causes behind malnutrition are insufficient dietary intake and repeated infections. With infections, the body needs more nutrients, but there is often a loss of appetite and the body is less able to absorb required nutrients, resulting in malnutrition. Malnutrition and infection can be present simultaneously in the body. Malnutrition can lead to infection, and infection can lead to malnutrition. This is called the malnutrition-infection cycle. For example, an undernourished child might have diarrhea on a regular basis and may even suffer from pneumonia, and, if a child suffers from diarrhea and pneumonia regularly, it may lead to malnutrition.



6

The state of nutrition in
Bangladesh

The state of nutrition in Bangladesh

Table 1 provides demographic information for Bangladesh between 1997 and 2012. Specifically, the country's population has increased from 112 million in 1997 to more than 151 million in 2012. Populations continue to migrate from rural areas to urban areas.

Table 1
Demographic information

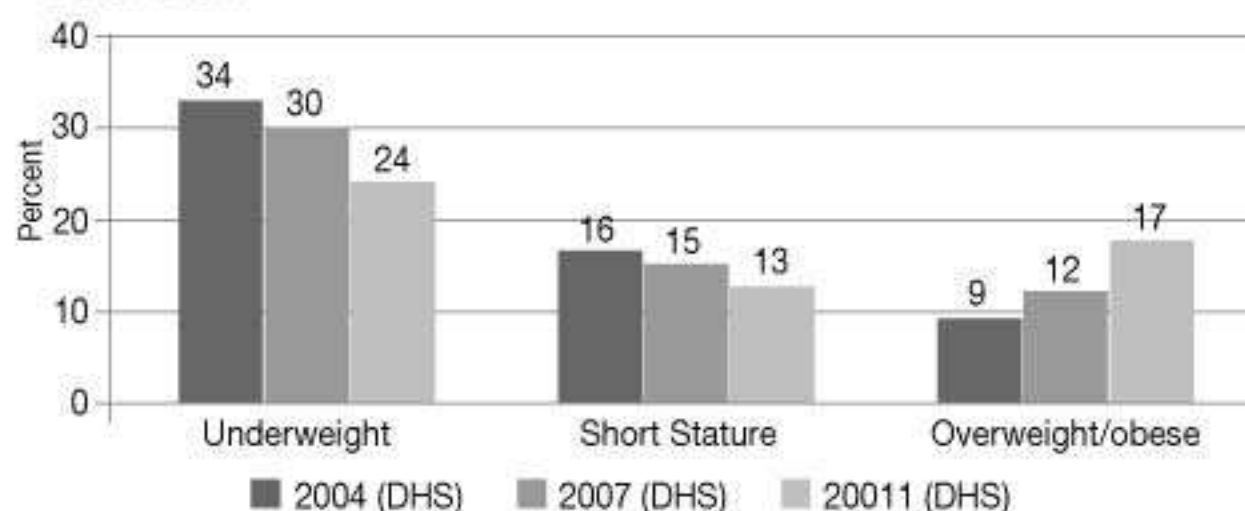
Indicator	1997	2012	Source
Population	112.0 million	151.6 million	BBS 2011
Population density	778 per sq. km	1015 per sq. km	BBS 2011
Rural population	80%	72%	BBS 2011
Population below poverty line	47.61%	31.51%	Bangladesh Economic Review 2012
Per capita Income	US\$255	US\$848	Bangladesh Economic Review 2012
Literacy rate	32.4%	56.1%	BBS 2011
Male literacy	38.9%	58.8%	BBS 2011
Female literacy	25.5%	53.4%	BBS 2011
Life expectancy -male	58.2 years	66.6 years	SVRS 2010
Life expectancy - female	57.9 years	68.8 years	SVRS 2010
Unemployment	56.5%	28%	BBS 2009

Maternal nutrition. The maternal mortality ratio is 194 per 100,000 live births. Women of reproductive age suffer from undernutrition (24% underweight) and anemia (42%). The percentage of women of reproductive age who have delivered in a health facility is 28.8%, while the percentage of those who delivered with a skilled provider is 31.7%. The total fertility rate has decreased in recent years to 2.3 children, but the fertility rate for adolescent girls is still extremely high.

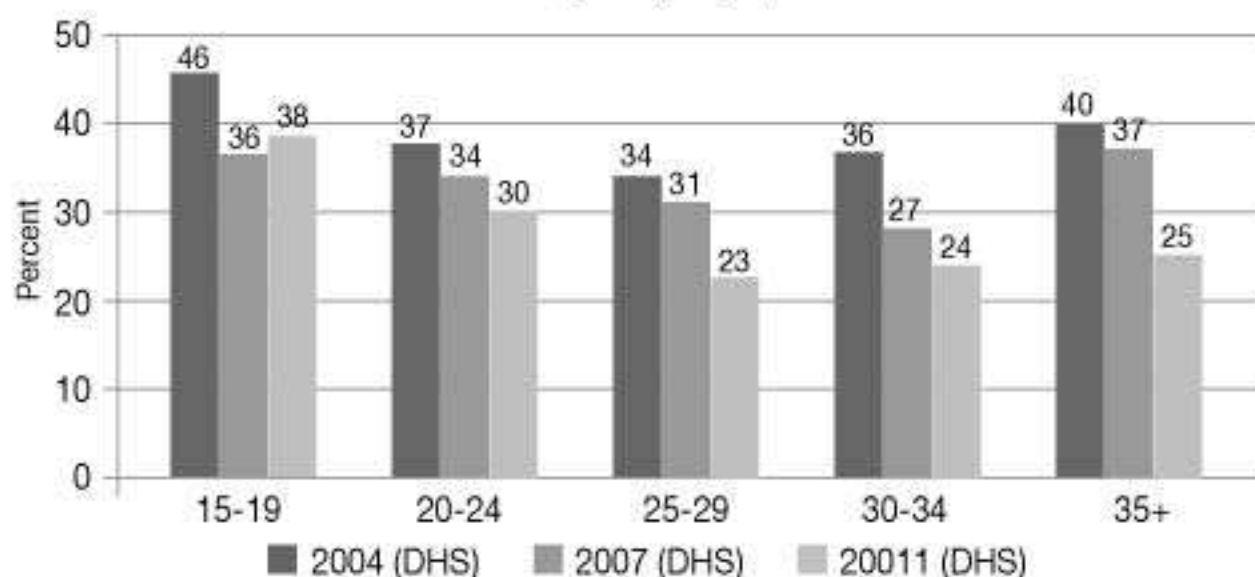
Table 2
Maternal health indicators

Maternal mortality ratio (per 100,000 live births)	194
Total fertility rate (children per women)	2.3
% of women 15-49 years with birth in the past 3 years who delivered in a health facility	28.8
% of women 15-49 years with birth in the past 3 years who delivered with a 'medically trained' or 'skilled' provider	31.7
% of women 15-49 years who are anemic (Hb< 11 g/dL, pregnant; Hb< 12 g/dL, non-pregnant)	42.4 (overall) 49.6 (pregnant) 40.0 (non-pregnant/ non-lactating)
% of women 15-49 who are underweight	24

Trends in Nutritional Status of Women (15-49 years)
2004-2011*



Trends in Maternal Underweight by Age, 2004-2011*



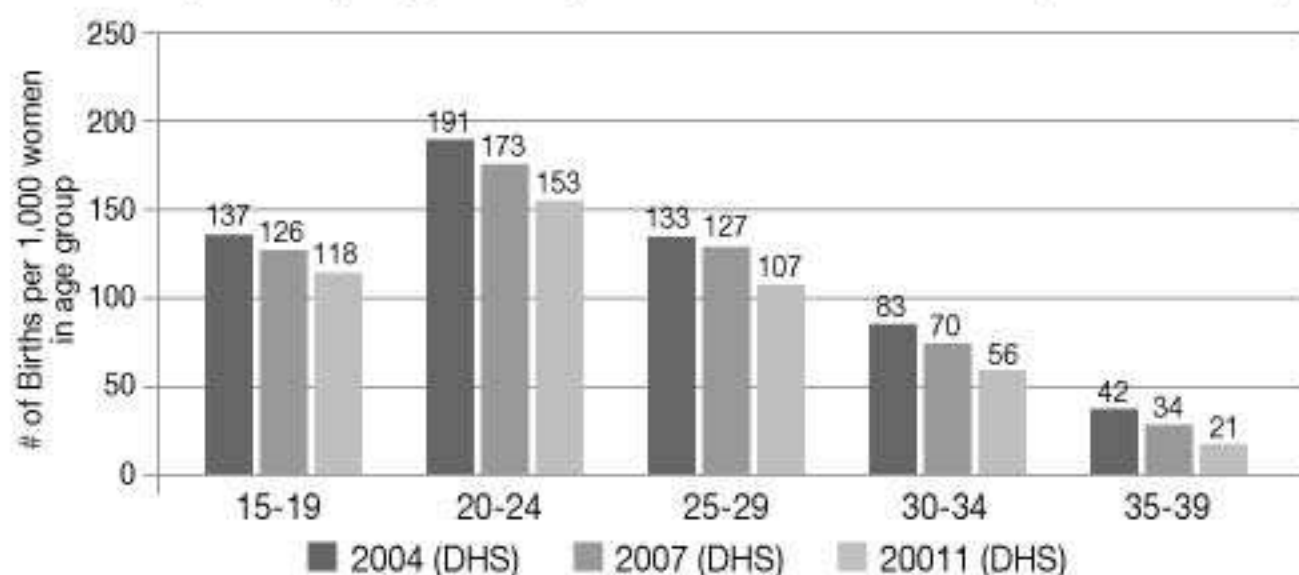
*"Ever-married" women 15-49 years with live birth in the past 3 years.

Adolescent nutrition. The median age at first marriage is 15.8 and the median age at first birth is 18.3. Childbearing frequently begins during adolescence, contributing to poor maternal nutritional status and birth outcomes, including high levels of LBW (22%). Underweight in women of childbearing age is the highest for adolescent girls 15-19 years of age. Twenty-four percent of 'ever-married' adolescent girls (and 38% of adolescents who have had a birth in the last 3 years) are underweight compared to their older peers. The age-specific fertility rate has remained consistently high, while the total fertility rate has reduced significantly.

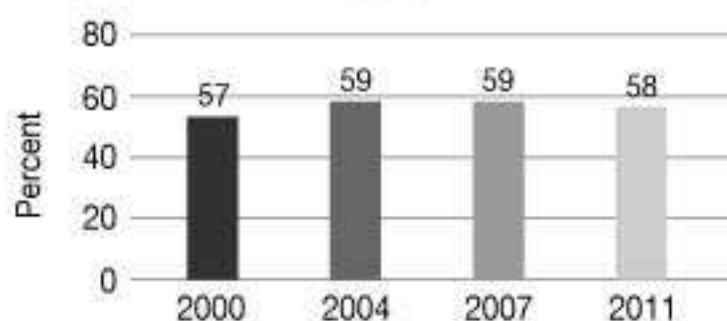
Table 3
Adolescent health and demographic indicators

Median age at first marriage (of women 20-49 years)	15.8
Median age at first birth (of women 20-49 years)	18.3
% of women 15-19 years who have begun child bearing by 19	58.3
% of 'ever-married' women 15-19 years who are underweight	24.0
% of women 15-19 years who have given birth in the last 3 years who are underweight	38.0

Fertility Rate by Age Among "Ever-Married" Women (15-39 Years)



Women 15-19 Years Who Have Begun Child bearing by 19



Maternal undernutrition underlies high levels of LBW (22%), stunting (41%, or 5.9 million children under 5), and wasting (16%, or 2.2 million children under 5) in Bangladesh.

Chronic malnutrition (low height-for-age or stunting). Since 2004, stunting among children under 5 years has declined 1.4 percentage points per year. However, 35% of children under 2 and 41% of children under 5 are stunted. The greatest increases in stunting prevalence occur between approximately 6 and 12 months of age, although due to the high rate of intrauterine growth restriction, LBW, and suboptimal breastfeeding practices, 10%-20% of children already have compromised growth in the first 6 months of life.

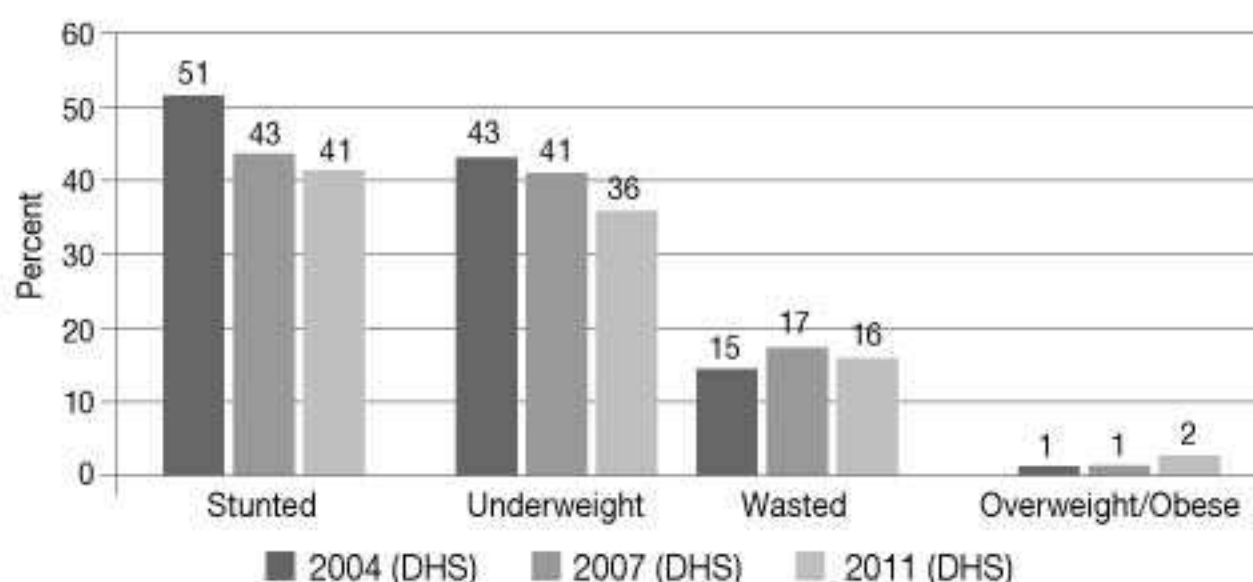
Acute malnutrition (low weight-for-height or wasting). The prevalence of acute malnutrition in Bangladesh has remained the same in recent years, around 16% across the under 5 age group. Children who are very small at birth are nearly twice as likely to be acutely malnourished as children who are average size or large at birth, and acute malnutrition is not correlated with maternal education or wealth quintiles in Bangladesh. Coverage with therapeutic services of children under 5 with severe acute malnutrition was estimated at 10% in 2012 (World Food Programme [WFP]/Bangladesh 2012).

Table 4

Child nutrition indicators (stunting and wasting)

% of children under 2 who are stunted	35
% of children under 5 who are stunted	41
% of children under 5 who are wasted	16

Trends in Nutritional Status of Children Under Age 5, 2004-2011



Child anemia. In addition to high maternal anemia, half of children under 5 are anemic and an alarming percentage of children 6-23 months of age are anemic (71%), according to BDHS data. Research estimates that roughly 20%-50% of anemia in young children in

Bangladesh is due to iron deficiency (icddr,b et al. 2013) caused by high levels of LBW (causing low iron stores at birth), maternal anemia, low intake of iron-rich foods in this age group, the absence of regular iron supplementation, and minimal use of deworming medication. Other causes of anemia may include deficiencies of vitamin A, folic acid, vitamin B12, and other B vitamins; arsenic contamination; and genetic hemoglobin disorders.

Table 5
Child health indicators (anemia)

% of children under 5 who are anemic	51
% of children 6-23 months who are anemic	71

Micronutrient deficiencies. A national salt iodization policy has been successful at reducing iodine deficiency, with more than three-quarters of children under 5 living in households with adequately iodized salt and the median urinary iodine concentration in the 'optimal' range among school-age children. Vitamin A deficiency among preschool children was estimated at 21% in 2011. Zinc deficiency affects 45% of preschool children and 57% of non-pregnant/non-lactating women. Twenty-two percent of non-pregnant/non-lactating women are deficient in vitamin B12 and 9% are deficient in folate (icddr,b et al. 2013).

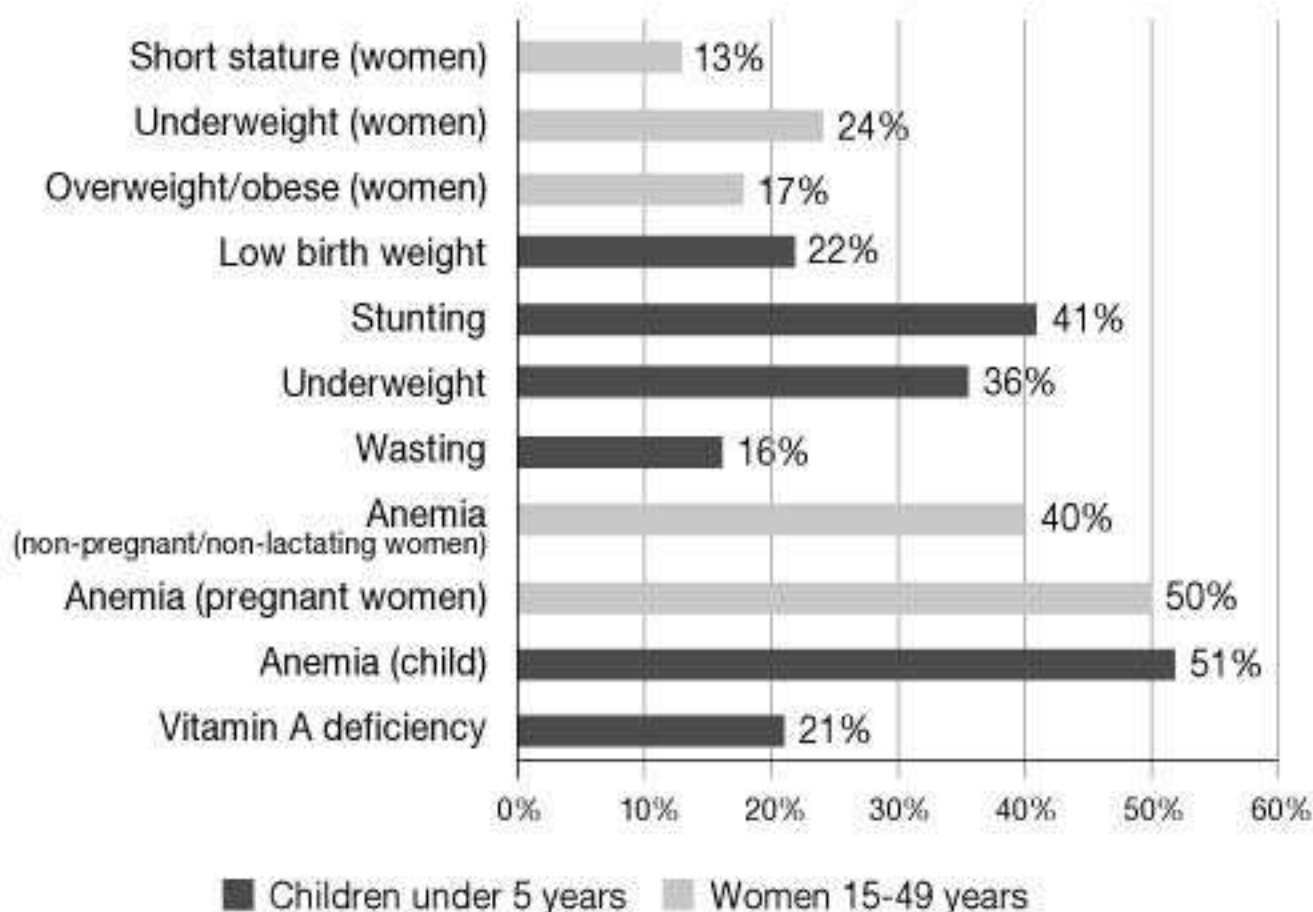
Table 6
Indicators related to micronutrient deficiencies

% of children under 5 living in households with iodized salt	83.2
% of women living in households with iodized salt	82.3
% of preschool children with vitamin A deficiency	21.0
% of preschool children with zinc deficiency	45.0

% of women 15-49 (non-pregnant/non-lactating) who are deficient in zinc	57.0
% of women 15-49 (non-pregnant/non-lactating) who are deficient in vitamin B12	22.0
% of women 15-49 (non-pregnant/non-lactating) who are deficient in folate	9.0

Figure 3

Undernutrition indicators among children and women*



* 'Ever married' women 15-49 years of age. Overweight/obese and underweight indicators exclude pregnant women and women with a birth in the previous 2 months.

Note: The National Micronutrients Status Survey 2011-12 estimated that 33% of children under 5 and 26% of non-pregnant/non-lactating women were anemic. The median urinary iodine concentration (UIC) for school-age children was 145.7 µg/L and for non-pregnant/non-lactating women, 122.6 µg/L; the proportion of school-age children with low UIC (< 100 µg/L) was 40% and was 42% among non-pregnant/non-lactating women, according to the survey.

Source: NIPORT 2013; icddr,b et al. 2013 (for vitamin A deficiency).

Food security. According to the Global Hunger Index,¹ Bangladesh is experiencing a serious level of hunger. One-quarter of households in Bangladesh report food insecurity with poor or limited food consumption, while 17% of the population is undernourished (von Grebmer et al. 2013 and WFP 2009).

Table 7
Food security indicators

Global Hunger Index (2013)	19.4 (serious level of hunger)
% of households with poor or limited food consumption (food insecure)	25
% undernourished in total population (percentage of the population who do not get enough to eat)	17

Diet diversity. The percentage of protein from animal sources is very low, at 9%, while the percentage of energy supply from cereals, roots, and tubers is 80%. This is an important indicator because in Bangladesh a majority of low-income families do not get enough variety of foods to have good nutrition. The lack of variety in the diet is a risk for malnutrition in women and children. In Bangladesh, the majority of the calories consumed are from starchy foods and the amount of protein obtained from animal foods is very low. Animal protein is important to help children grow well.

Table 8
Diet diversity indicators

% of dietary energy supply from cereals, roots, and tubers (2009-2010)	80
Average supply of protein from an animal source (g/capita/day) (2008-2010)	9

¹ The Global Hunger Index measures hunger by averaging the percent of the population that is undernourished, the percent of children under 5 years who are underweight, and the percent of children under 5 years who are dying.

Water, sanitation, and hygiene. Table 9 shows the percentage of the population with access to improved drinking water is 83%, but almost half the population does not have access to sanitation facilities (FAO 2013). This is an important indicator because the high level of infections in young children is due to poor hygiene behaviors, such as lack of handwashing with soap, but it is also because families do not have adequate access to clean and safe water and sanitation facilities.

Table 9

Water, sanitation, and hygiene indicators

% of population with access to improved drinking water sources (2011)	83
% of population with access to sanitation facilities (2011)	55

Nutrition and the life cycle: Who is affected?

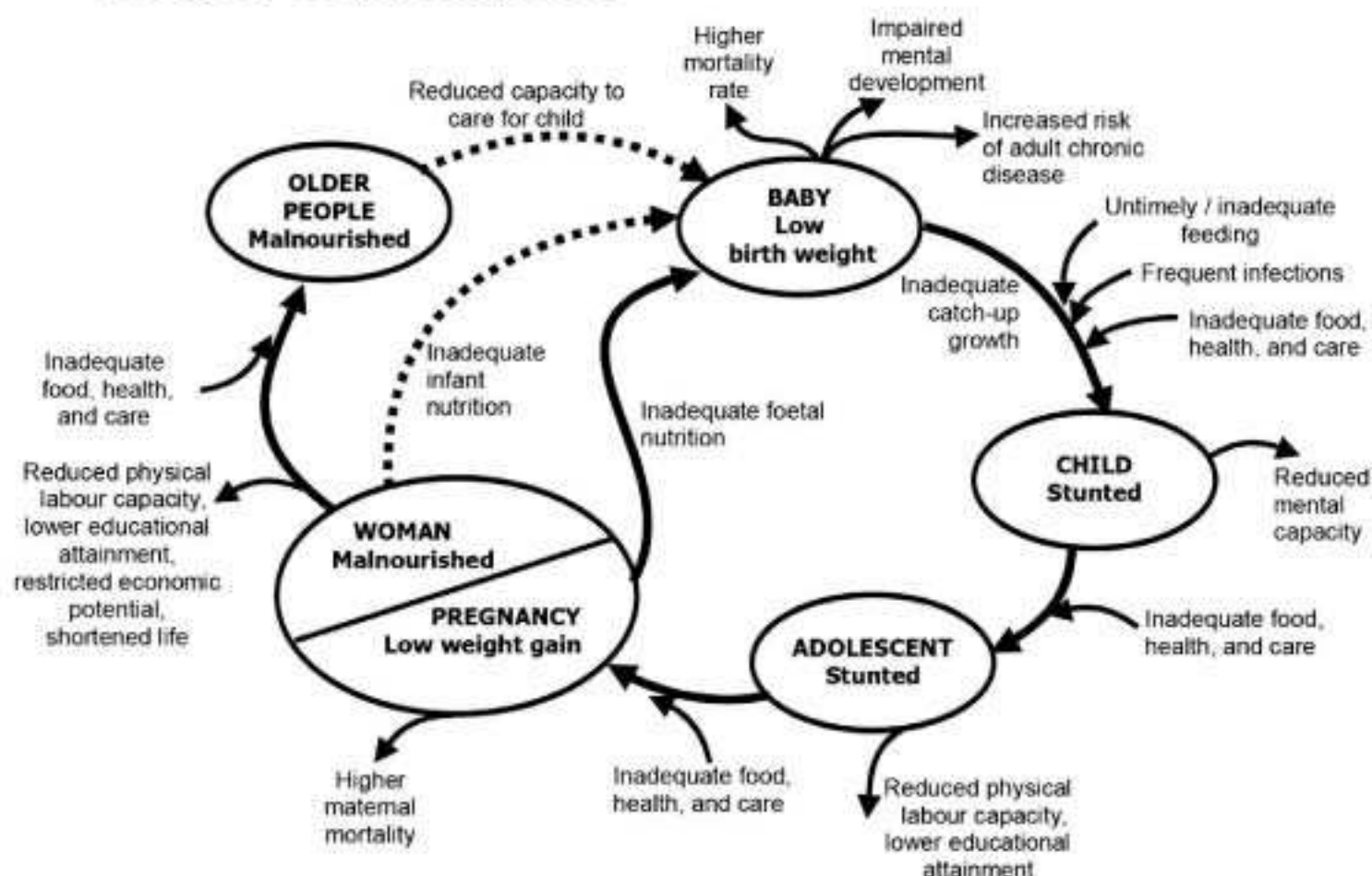
Who is affected by undernutrition in Bangladesh?

Undernutrition in children, adolescent girls, and mothers in Bangladesh is still one of the highest in the world. In Bangladesh, as in other parts of the world, undernutrition is intergenerational. Infants that are born with LBW go on to become undernourished children and adolescents. Then, adolescent girls are married early and many begin childbearing during their adolescent years while they themselves are undernourished. During their pregnancies, women and girls often gain inadequate weight, which results in the birth of a LBW infant.

This lifecycle of undernutrition (Figure 4) is a hallmark of the nutrition situation in Bangladesh. Even when infants are born with normal birth weights, undernutrition begins early in life. It is well established that preventing undernutrition among children under 2 should be the focus of nutrition interventions, and this is a main focus of the Scaling Up Nutrition (SUN) Movement (Scaling Up Nutrition Road Map Task Team 2010), of which Bangladesh is a member. Data

for Bangladesh increasingly suggest that there are four critical points early in the lifecycle during which undernutrition has the most significant consequences: children under 2 years of age, children under 5 years of age affected by acute undernutrition, adolescence, and pregnancy and the postpartum period (Howlader et al. 2012).

Figure 4
Lifecycle of undernutrition



Source: United Nations Standing Committee on Nutrition.

Undernutrition in children under 2

Undernutrition begins in infancy in Bangladesh. This is a result not only of LBW, but also of inadequate feeding practices. Yet undernutrition in infants and young children is preventable. Evidence shows that investing in improving and supporting optimal breastfeeding and complementary feeding practices can go a long way

in preventing undernutrition in children. The recent BDHS shows an improvement in exclusive breastfeeding rates, with two-thirds of mothers exclusively breastfeeding, but further improvement is needed (BDHS 2011).

At the national level, supporting mothers to exclusively breastfeed for 6 months-with continued breastfeeding and appropriate complementary feeding of the child thereafter-would prevent 19,000 infant deaths and more than 1.4 million episodes of diarrhea and acute respiratory infections. Breast milk is estimated to be worth approximately US\$2.5 billion a year in Bangladesh (Howlader et al. 2012). This estimate is the cost saving from not purchasing milk substitutes or spending on health care costs for infant illnesses related to inappropriate feeding practices. Given these benefits, continued support to enable mothers to optimally breastfeed their infants and children is imperative. Mothers, however, especially adolescent mothers, need family support, time, adequate rest, and nutrition to optimally breastfeed their infants.

While a majority (63%) of infants 6-9 months of age in Bangladesh do receive solid foods, as recommended, the frequency of feeding and diet diversity remains low. In 2011, only 21% of infants and children under the age of 2 had an adequate diet, that is, they were fed frequently enough and had adequate diet diversity. Preventing undernutrition among children under 2 is a shared family responsibility and a critical nutrition intervention for Bangladesh, given the persistent high prevalence of stunting among children.

To improve nutrition for children under 2, Bangladesh should focus on:

- Involving men and families to promote shared responsibility for young child nutrition at the family and community level
- Promoting family support for the mother, with an emphasis on time and resources to feed the child
- Promoting adequate dietary intake for the mother after birth, with an emphasis on increased quantities and improved quality and diet diversity to support optimal breastfeeding

- Promoting adequate rest and reduced workload for the mother after birth to support optimal breastfeeding
- Promoting exclusive breastfeeding of children under 6 months, with continued emphasis on early initiation (within 1 hour of birth), giving colostrum (which is the first milk that a mother makes), and discouraging giving the baby anything other than breast milk
- Promoting timely and appropriate introduction of foods to complement breast milk (complementary foods) at 6 months, emphasizing diversity and quality, quantity, age-appropriate frequency and consistency, hygiene and sanitation, and responsive feeding
- Promoting adding multiple micronutrient powders to complementary foods for children 6-23 months
- Promoting timely use of health services for immunizations, vitamin A supplementation, deworming, early treatment for illness, and screening and tracking infant growth
- Promoting optimal nutrition care of sick children, including continued feeding and increased fluids during illness; increased feeding after illness; and appropriate treatments, such as zinc and ORS for diarrhea

Undernutrition in children under 5

The prevalence of acute undernutrition or low weight-for-height is extremely high in Bangladesh. Acute undernutrition is often a result of recent, acute, and repeated infections where children lose weight; over time, this slows their growth and can lead to chronic malnutrition, which can lead to a permanent loss in height. The severity of acute undernutrition is also a very important consideration. The two levels of wasting of most significance are moderate and severe wasting. This is an important distinction because the risk of mortality is the greatest for severely wasted children; these children are on the brink of death and are 10 times more likely to die than

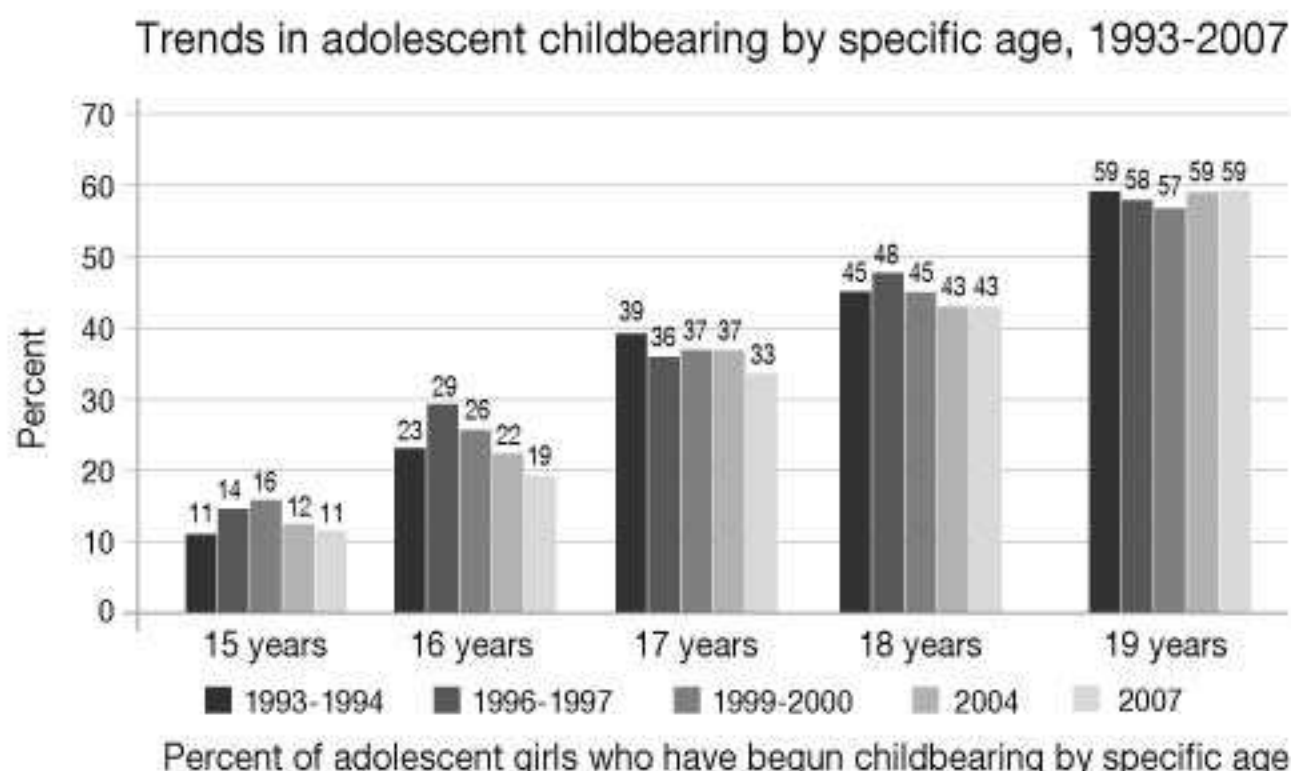
well-nourished peers. Children who are moderately wasted are also at increased of dying; they are four times more likely to die than their well-nourished peers. In Bangladesh, moderate and severe wasting in children affects 2.2 million children under 5 each year. Children who are severely acutely malnourished need specialized treatment because they are no longer able to eat regular foods and are depleted of many essential micronutrients. They need specialized food, referred to as ready-to-use therapeutic food (RUTF). These foods are prepackaged and require no preparation, which reduces the risk of infection for these highly vulnerable children. In addition, these foods are specially formulated to have high energy, protein, and nutrient content to help these children gain weight rapidly and become better nourished. Yet in Bangladesh, there are no services at the community or district level to treat these undernourished children. Despite Bangladesh's long-standing experience in treating severe wasting in hospital settings, greater efforts are needed to make services available at the community level. Over time, the prevalence of severe and moderate wasting in children under 5 has increased to almost 18% (NIPORT et al. 2009).

To treat and prevent severe and moderate wasting among children under 5, Bangladesh should focus on:

- Developing approaches for community-based management of acute malnutrition (CMAM) that would include:
 - ✓ Providing regular screening at the community level for detection, referral, and treatment of severe and moderate wasting cases
 - ✓ Providing RUTF for the treatment of severe wasting in children under 5
- Promoting optimal breastfeeding and complementary feeding to prevent wasting
- Promoting early treatment seeking for infections
- Developing community-level approaches to prevent and manage moderate wasting using food supplements

Figure 5

Trends in adolescent childbearing by specific age, 1993-2007



SOURCE : FANTA-2 Bridge Project (January 2012) based on publicly available information from Measure-DHS.

NOTES: % of adolescent (by single year of age at time of survey) who have initiated childbearing by survey year (Bangladesh DHS survey).

Undernutrition in adolescence

Although fertility rates have dropped dramatically over several decades in Bangladesh, one group among which fertility has remained virtually unchanged is adolescent girls 15-19 years of age. Consistently, each subsequent BDHS shows that the pattern has remained unchanged: 60% of girls 19 years of age have begun childbearing, putting them and their children at increased risk of undernutrition (NIPORT et al. 2009).

Relative to their older peers, adolescent girls are persistently more undernourished, further contributing to the high prevalence of maternal undernutrition, poor pregnancy outcomes, and LBW, ultimately leading to young child undernutrition (NIPORT et al. 2009). Data also show that adolescent mothers struggle to provide

optimum care for their infants relative to their older peers and that they need more support from family. Enabling adolescent girls to complete secondary education carries multiple benefits, including delaying marriage and first pregnancy; ensuring better nutritional status for them at the onset of pregnancy; and reducing undernutrition in their children in part through greater knowledge, capabilities, and caring capacity.

To improve adolescent nutrition, Bangladesh should focus on:

- Improving the nutritional status of adolescent girls, including pre-pregnant weight and iron-folate status

- Delaying marriage

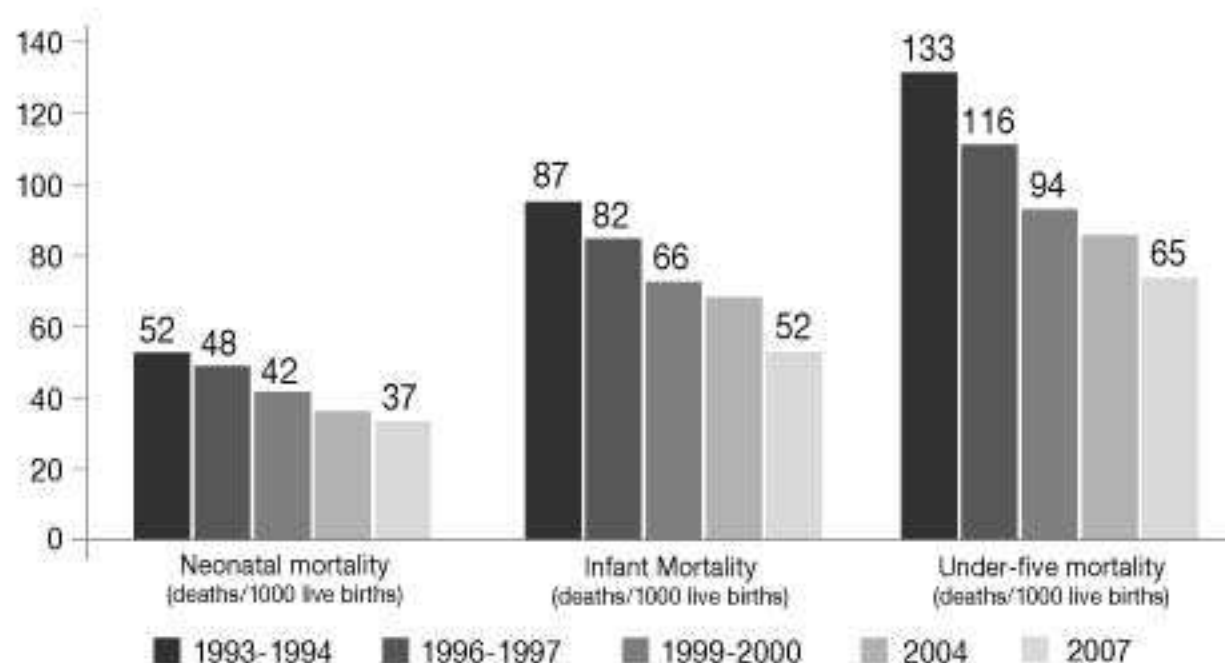
- Promoting secondary education completion for girls and boys

- Delaying first pregnancy

- Increasing use of contraception among married adolescents

Figure 6

Trends in neonatal, infant, and under-5 child mortality
1993-2007



SOURCE : FANTA-2/Bridge Project (January 2012) based on publicly available information from Measure-DHS.
NOTES: Neonatal, infant and under-five mortality by survey year (Bangladesh DHS surveys).

Undernutrition in pregnancy and the postpartum period

Undernutrition in pregnancy is a result of low pre-pregnant weight, young maternal age at onset of pregnancy, and inadequate weight gain during pregnancy (Allen and Gillespie 2001). This in turn contributes significantly to poor outcomes, such as increased risk of maternal, neonatal, and child deaths, and LBW.

The prevalence of LBW has fallen significantly in Bangladesh, but LBW is still widely prevalent and continues to affect one-third of births. LBW is a risk factor for neonatal deaths, which is estimated to be 37 per 1,000 live births (Bangladesh Bureau of Statistics [BBS] and UNICEF 2005). This is an important consideration for Bangladesh at this stage, because between 1993 and 2007 reductions in overall under-5 child mortality far outpaced reductions in infant and neonatal deaths. Increasingly, nutrition efforts in Bangladesh will need to focus on reducing neonatal and infant deaths. LBW in Bangladesh is not only a result of young maternal age and poor pre-pregnant nutritional status, but also of poor birth spacing, poor dietary intake (quality, quantity, and diversity), inadequate weight gain, high workload, and inadequate rest in pregnancy.

Micronutrient undernutrition during pregnancy can result in mental retardation and neural tube defects in the baby, and anemia in pregnancy is a risk factor for maternal mortality and perinatal mortality. About 18 million infants are mentally impaired each year as a result of maternal iodine deficiency in pregnancy (Micronutrient Initiative 2009). Almost a quarter million severe birth defects occur each year as a result of maternal folate deficiency, and 60,000 maternal deaths in pregnancy and child birth are attributable to severe iron deficiency anemia (World Bank 2006; BBS and UNICEF 2005).

Maternal nutritional status during the postpartum period is of critical importance to support optimal breastfeeding and allows the mother to restore nutritional status, which is depleted during pregnancy and lactation, for improved maternal health and future pregnancies.

To improve maternal nutrition during pregnancy and the postpartum period, Bangladesh should focus on:

- Involving men and families to ensure mothers get adequate care before, during, and after birth
- Integrating nutrition in maternal and newborn care services
- Improving mothers' diets during pregnancy and after birth
- Improving iron-folate status during pregnancy and after birth (through supplements)
- Promoting adequate rest and reduced workload in pregnancy
- Promoting birth spacing of at least 2 years between children
- Improving vitamin A status of mothers after birth (through supplements)



7

Nutrition initiatives

Nutrition initiatives

Nutritionists are not the only ones who can improve the prevailing condition of nutrition. Nor are doctors, nurses, and health workers the only ones who can improve the nutrition situation of the country. Everyone in society can take steps to contribute to improving the nutrition situation, even though these steps may seem unrelated to nutrition. For example, a lower rate of oppression against women would improve nutrition. A mother who is oppressed or tortured will not be able to breastfeed and take care of her child properly. Therefore, if individuals take it upon themselves to treat women properly and society is vigilant against oppression against women, the nutrition situation will improve.

Approaches to improve nutrition are divided into two categories: nutrition-specific interventions (or direct nutrition interventions) and nutrition-sensitive interventions (or indirect nutrition interventions).

Examples of nutrition-specific interventions to improve nutrition in Bangladesh include:	
• Promotion of optimal breastfeeding • Promotion of appropriate complementary feeding • Improved hygienic practices • Vitamin A supplementation • De-worming • Iron-folate supplements for pregnant and lactating women	• Promotion of good nutrition for adolescent girls and pregnant and lactating women • Salt iodization • Fortification of staple foods • Multiple micronutrient powders • Prevention of chronic malnutrition* • Treatment of severe acute malnutrition* with special foods, such as RUTF

**Multiple forms of malnutrition exist, but treating and preventing them require different approaches.*

Examples of multisectoral nutrition-sensitive interventions that are also essential to improve nutrition in Bangladesh include:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Family Planning: Delaying marriage and first pregnancy and improving the nutritional status of adolescent girls • Agriculture: Making nutritious food more accessible to everyone, and supporting small farms as a source of income for women and families • Clean Water and Sanitation: Improving hygiene behaviors and access to sanitation and safe water to reduce infection and disease • Education and Employment: Making sure that children start school early, complete secondary education, and stay well nourished so that they perform well in school and earn more in the future | <ul style="list-style-type: none"> • Health Care: Improving access to services to ensure that women and children stay healthy • Build Resilience: Establishing a stronger, healthier, more educated population, leading to sustained prosperity to better endure disasters and emergencies • Gender Equality and Women's Empowerment: Ensuring that men and families support women and their rights, empowering women to be leaders in their families and communities, leading the way to a healthier and stronger nation |
|---|---|

Direct interventions in nutrition

There are quite a few direct nutrition initiatives in the country that have played a large role in improving the health of mothers and children. These initiatives will last for a few more decades. It is important to have a clear understanding what they are and how they work.

The National Vitamin A Plus Campaign

One of the biggest nutrition-related problems in Bangladesh is the deficiency of vitamin A. The reason behind this is inadequate supply of vitamin A-enriched food. Vitamin A strengthens eyesight, protects the body from diseases, and acts as a preventive measure against diseases. A child might fall victim to night blindness and even slowly become blind due to vitamin A deficiency. Adults who have a sufficient amount of vitamin A stored in their liver are usually free from such risks.

The primary sources of vitamin A are fruits and deep green, yellow, and orange vegetables. Additionally, a large amount of vitamin A is found in liver, eggs, meat, and fish, especially 'mola n dhela' (small fish), and fish oil. Because a lot of families cannot regularly afford to feed children fish, meat, eggs, and liver, the government offers children vitamin A capsules.

Starting in 1973, vitamin A capsules were distributed throughout the country. In 1994, Vitamin A Week was started. Later, on National Immunization Day, vitamin A capsules were administered on certain occasions. A vitamin A dosage was administered with a polio vaccination after every 6 months.

The initiative of providing vitamin A capsules together with deworming is called the 'National Vitamin A Plus Campaign.' According to WHO regulations, in countries where the rate of worm infection is more than 50%, children must be dewormed after every 6 months. In Bangladesh, the rate of children being infected by worms (roundworm, hookworm, and pinworm) is very high. The worms leech off all the nutrition from the child's body, resulting in anemia and vitamin A deficiency. That is why the children must be dewormed.

In the Vitamin A Plus Campaign, child aged 6-11 months are given high-powered blue vitamin A capsules, children aged 1-5 years are given high-powered red vitamin A capsules, and all children 2-5 years of age are given a deworming albendazole tablet. During the campaign, there was also a lot of promotion about the benefits of

exclusive breastfeeding children until 6 months of age. Government health workers and volunteers worked all over the country in administering vitamin A capsules and deworming tablets to children through permanent and temporary centers (such as bus stands, train stations, ferry ghats, and airports).

Table 10
Applying vitamin A capsules: Schedule and amount

Target	Age	Amount of vitamin A capsule	Schedule
Child	6-11 months	100000 IU	Give 1 blue vitamin A capsule
Child	12-59 months	200000 IU	Give 1 red vitamin A capsule twice a year with an interval of 4-6 months on National Vitamin A Plus Campaign/National Immunization Day
Postpartum mother	N/A	100000 IU	Give 1 red vitamin A capsule to mother after child delivery (within 6 weeks)

There are no health risks associated with vitamin A and deworming tablets. These are completely safe for a child's health and have no dangerous side effects.

In order to make the Vitamin A Plus Campaign a success, various committees were formed, including the national steering committee; the core committee; and committees at divisional, district, and upazila levels. The importance of vitamin A capsule and deworming tablets was promoted in newspapers, radio, and television spots.

There was substantial progress made after this. In 2002, WHO and UNICEF started a program for food for children. It had five objectives:

1. Compiling and implementing all the regulations to make the food for children program effective
2. Feeding a child only mother's breast milk up till 6 months of age and ensuring the preservation, assistance, and promotion of mother's milk for the next 2 years
3. Alongside mother's milk, ensuring that the right amount of safe and requisite complementary food is provided at the right time
4. In case of abnormal situations (malnutrition, child with LBW, emergency situations, and HIV infection), to provide requisite guidelines regarding feeding of children
5. Discussing and finding out what the new policies and laws could be implemented to regulate the amount of food that is found in the markets as a substitute for mothers' milk.

Meanwhile, in 1992, the World Alliance for Breastfeeding Action started celebrating Global Breastfeeding Week. This week is also celebrated in Bangladesh. Journalists should investigate what steps are being taken by the government related to this event.

Initiative for hospitals:

Child-friendly hospitals

A year after Innocenti was declared in 1990, WHO and UNICEF undertook a program called 'Hospital - A Child's Friend' to promote and aid successful breastfeeding programs for children.

In 1992, the government of Bangladesh and UNICEF worked with the Bangladesh Breastfeeding Foundation to train staff in the creation of child-friendly hospitals. In each hospital, three doctors and one nurse were trained on breastfeeding techniques and counseling new mothers to breastfeed. Subsequently, the three doctors and one nurse trained

15-20 health workers. Overall, 449 of the country's hospitals were declared child-friendly hospitals. However, these activities were discontinued until April 2012, when the training resumed in 63 hospitals.

Regulations for child nutrition protection

In 2013, the government amended the law called 'breast milk substitutes (regulation of marketing) ordinance, 1984' and created a new mandate. The name of that new law is 'Breastmilk substitutes, baby food, commercially manufactured supplementary baby foods and its equipment (regulation of marketing) act, 2013.' The top nutritionists of the country said that this is much better than the old policy because:

- There was nothing in the old law about 'baby food' or 'commercially prepared supplementary baby food.'
- The provision for punishment if the law is broken is much stricter than before.
- It has been clearly mentioned in the law that doctors, nurses, and any other health workers cannot profit from baby food, substitute food, or commercially prepared supplementary food, or the equipment used to manufacture that food.? This regulation is given at the end of the ordinance. (See Appendix 1 of the ordinance; there are a lot of similar initiatives, for example, iodized salt, ensuring micronutrients in food, and enriching oil with vitamin A. Journalists can investigate each of these initiatives.)

The Institute of Public Health and Nutrition does the following work. Journalists can investigate where and how these activities are taking place.

Table 10

Applying vitaminA capsules: Schedule and amount

Area	Activity
Infant and young child feeding (IYCF)	Breastfeed child within 1 hour of birth
	Only breastfeed during first 6 months of birth
	Feed age-specific complementary food between 6 and 23 months of age
Cleanliness	Properly wash hands with soap before and after preparing food, before feeding child, and after defecation
Micronutrients supplement	Give vitamin A capsule to children 6-59 months old once every 6 months
	Give iron-folate to pregnant and lactating women and adolescent girls
	Provide powdered micronutrients to children 6-23 months old as supplement
	Provide oral saline and zinc to acute diarrhea-affected children
Deworming	Provide deworming drug to children 24-59 months old once every 6 months
Taking nutritious and nutrition enriched food	Give iron- and vitamin-enriched food to pregnant and lactating women and adolescent girls
	Take iodized salt and vitamin A-enriched oil at home
Acute malnutrition management	Identify and refer children 0-59 months old with acute malnutrition
	Admit children 0-59 months old with acute malnutrition to hospitals or provide treatment from the outpatient department according to national protocols
Maternal nutrition	Provide sufficient food and rest to pregnant and lactating mothers
	Micronutrients supplementation (iron, folic acid, calcium)
	Take nutritious food

Source: National Nutrition Services.

Indirect interventions for nutrition

Indirect interventions play a large role in improving the health and nutrition situation in Bangladesh. Food, agriculture, and education play a big part in this. For example, the principles, plans, laws, and regulations of the Ministry of Agriculture and Ministry of Food and Disaster Management largely determine the patterns of food production and the process of gaining ownership of it. Poor people have been provided with safety nets through vulnerable group development (VGD) and vulnerable group feeding. Open market sales or fair price cards help in regulation of food prices and increase accessibility of food for consumption. These interventions have indirectly helped the nutrition status of the country. However, it has not yet been possible to quantify to what extent these interventions have helped the nutrition situation. So far, it has only been recognized that they have played a role.

Job security during motherhood

A big reason why mothers refrain from breastfeeding is that they have to go back to work shortly after giving birth. To ensure working mothers are able to breastfeed their children up to 6 months of age, Prime Minister Sheikh Hasina announced during the inauguration of Global Breastfeeding Week 2009 that all government offices will give 6 months of fully paid maternity leave. Before this announcement, paid maternity leave was only 4 months. The government sent a notification about this matter on 9 January 2011. The Ministry of Education sent notifications of the government's mandate to all private educational institutes, which then began providing maternity leave of 6 months.

During the inaugural ceremony of Global Breastfeeding Week 2011, the prime minister declared that all organizations must provide 6 months of maternity leave with full compensation. However, most private organizations did not respond to the prime minister's request. There have been complaints that a lot of private organizations do not even give 4 months of maternity leave.

The Bangladesh Garments Manufacturer and Export Association (BGMEA) has expressed its concerns about implementing the prime minister's policy: If maternity leave is increased from 16 to 24 weeks, the birth rate will also increase!

BGMEA also expressed concern about workers not returning to work after taking advantage of this new policy. The longer period of absence would decrease workers' skills and dexterity. In fact, BGMEA thinks that the amount of maternity should be decreased to 12 weeks, as it is in India.

At present, the proposal for increasing maternity leave is with the Ministry of Labour and Employment (MOLE). The ministry will discuss the issues with all the sides and come to a decision. Afterward, the law may be amended.

Sayyed Sultan Uddin Ahmed, deputy executive director of the Bangladesh Institute of Labor Studies, said, 'The government has already implemented 6 months of maternity leave for female public workers. The main objective of this was ensuring exclusive breastfeeding for 6 months in order to ensure healthy and able-bodied future generation. In that line, it has been proposed that the labor law 2006 be amended to 6 months of leave.'

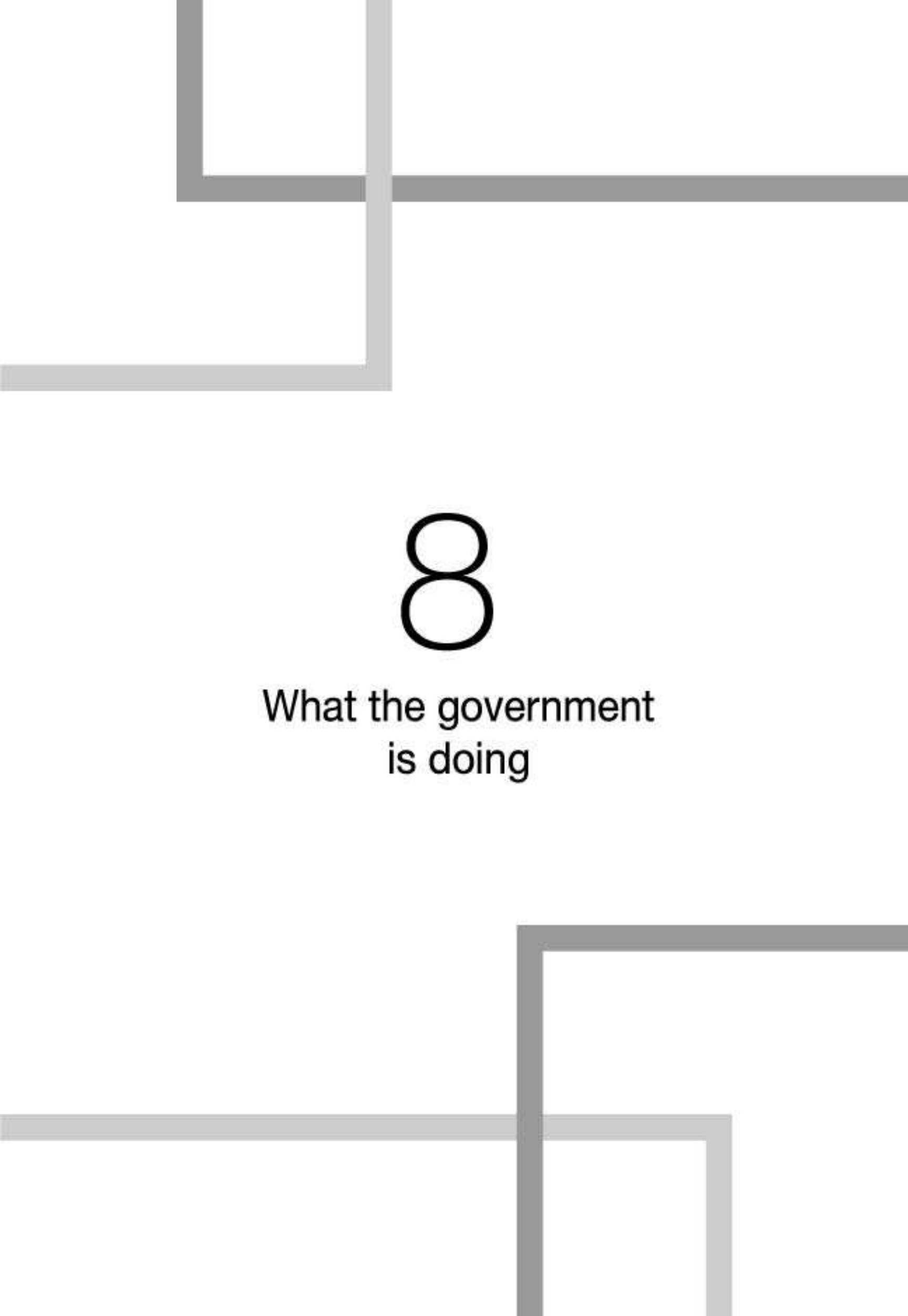
In comments sent to MOLE about maternity leave, BGMEA said that, since the 1980s, the garment industry has played a significant role in birth control. The continuous nature of work in the industry has made a large number of female workers think twice before getting pregnant. BGMEA also believes that if someone is absent for 6 months in an office, it would not be that much of a problem. However, in the garment industry, 80% of the workers are female, and no worker works solely on manufacturing an entire piece of clothing. In an assembly line of a company producing shirts, one worker works on sewing the body of the shirt, another on the collar, the next works on the cuffs, while another worker works on making the pockets. If one skilled worker is absent from this assembly line, the productivity rate will go down greatly. Productivity will be severely hampered. There will be a lot of administrative complications in filling this vacancy.

BGMEA also pointed out that maternity leave in Malaysia is 60 days, in Indonesia 90, in Korea 90, in China 19, in India 84, and the Philippines 60 (74 in cases of C-sections). These countries are much more economically developed than Bangladesh.

Labor Secretary Mikael Sheeper said, 'The law will not be amended keeping only the manufacturing industry in consideration. The present government is a friend to the women. The law would be amended taking women's needs into consideration.' He also added that the proposal from the various organizations like BGMEA is also being considered during the period when the law might be amended.

Regarding the opinion that increasing maternity leave might increase the birth rate, Secretary Sheeper said, 'These are fallacious arguments. Also it doesn't matter whether the worker is a government or private sector worker; there is no difference after she becomes a mother. Everyone has the same needs and desires.'

Md. Siddikur Rahman, chairman of BGMEA, said that the female workers of the garment industry play an important role in birth control. Because of the work, they tend to get married much later. Instead of directly answering the question of how extended maternity leave might increase the birth rate, he said that female workers are taking maternity leave even before giving birth. That is why the current system of 4 months or less of maternity leave is quite sufficient. Moreover, most of the day care centers in the garment factories are in deplorable condition. In some factories, there are dolls and toys, but only for show; there are no children in those day care centers. The mothers have to leave their children with their maternal or paternal grandmothers in the village. These children do not even get to be breastfed. Under such conditions, it is important that the law be amended.



8

What the government
is doing

What the government is doing

In the second section of the Constitution of the Democratic Republic of Bangladesh, the principles of state governance are described. In clause 18(1), it is stated: 'It is considered one of the primary duties of the state to improve the health and nutrition status of the people...'

The authors of the Constitution had included it in the principles of state governance, gauging the importance of nutrition. This is a reflection of the promises made by politicians regarding nutrition. Even though the principles in the constitution have been altered and amended a number of times, the section about nutrition has been kept wholly intact. Even though nutrition is a very important part of the Constitution, there have been complaints that the government has not been able to maintain continuity in the activities regarding nutrition. In many instances, the government has started various initiatives and projects, but there was a lack of coordination and continuity among them. Most of the time, they were independent and disconnected.

Pakistan era

A lot is heard in Bangladesh these days about nutrition, but 50 years ago the importance of nutrition was first recognized by authorities of Dhaka University. In 1957, a curriculum on nutrition was started in the university's Biochemistry Department. Then, in 1962, a national nutrition survey was conducted. Through this survey, a clear picture of severe malnutrition in the area then known as East Pakistan came to light. This led to an understanding of how important research on nutrition was. The Institute of Nutrition Science was then established in Dhaka University. The institute is now called the Institute of Nutrition and Food Science. Students are awarded MSc, MPhil, and PhD degrees through this and the Biochemistry Department.

Bangladesh era

The government of Bangladesh has taken various important steps in trying to eliminate malnutrition in the country. In 1974, the government established the Institute of Public Health Nutrition (IPHN) and gave the institute the mandate to develop rules, regulations, and strategies for nutrition-related programs and projects. The main objectives behind the establishment of this organization were to conduct research, provide training, and oversee nutrition-related activities. More specifically, the activities of this organization were researching the reasons, nature, spread, and intensity of malnutrition, and implementing national nutrition programs, plans, and projects as part of national development so that the right kind of treatment could be applied to diseases related to malnutrition and so that the right initiatives could be taken to combat malnutrition and to develop specific food technology. Implementation of rules and regulations, management of coordination among different organizations, and full utilization of human capital are also part of IPHN's responsibilities. IPHN's responsibilities also included serving as the technical secretariat for all activities related to nutrition. Overseeing the implementation of the breast milk substitution law (BMS code) and registration of children's food were also part of the duties of this organization.

In reality, IPHN has moved far away from those responsibilities. Journalists could do an investigative report on why this is so and what the benefits or losses have been as a result. The reasons behind the inability to build IPHN's institutional strength to carry out all the designated duties may not be a result of the government's lack of interest, but more likely poor planning.

In 1975, the Bangladesh National Nutrition Council (BNNC) was established by order of the president. The prime minister was made the chief of the council, whose members were ministers of related ministries, secretaries, junior administrators, law adjudicators, nutritionists, journalists, heads of related organizations, and departmental representatives of women. Responsibility for BNNC's management was given to the executive committee, whose chief was

the minister of the Ministry of Health and Family Welfare (MOHFW) and whose members were secretaries of various ministries and the heads of different organizations. BNNC also had a standing technical committee consisting of experts.

The core objectives of BNNC were implementation and update of the national food and nutrition policy, obtaining approval for various programs related to nutrition from different ministries and organizations, and overseeing and assessing various research on nutrition-related topics. Other activities and work include establishing a nutrition information and documentation center, compiling the national nutrition planning information, arranging national and international nutrition conference and training courses, promoting techniques and general information on nutrition, and providing monetary assistance for nutrition-related research. But no such activities of this national organization committee have been visible to anyone for a very long time. Journalists can investigate why this organization is not contributing to nutrition on a national level.

At the International Nutrition Conference held in Rome in December 1992, Bangladesh gave approval to the 'World Declaration and Plan of Action for Nutrition. 'Later, to provide instructions for the policies and programs concerning nutrition, the government created two deeds: the Bangladesh National Food and Nutrition Policy (1997) and the National Plan of Action for Nutrition (1997). Subsequently, the Country Investment Plan, the National Food Policy, and a draft nutrition policy were also created.

Several of the big nutrition projects that were implemented by MOHFW were actually helped by various international donors and NGOs. Two of these projects were the Bangladesh Integrated Nutrition Project (BINP) and the National Nutrition Project (NNP).

Bangladesh Integrated Nutrition Project

BINP, which was implemented from 1992 to 2002, was Bangladesh's first large-scale nutrition project. There were three broad components in this project:

- ✓ National nutrition activities: The objectives of this component were increasing awareness and establishing organizations on a national level; setting up an information, education, and communication program; promoting breastfeeding and distribution of vitamin A and folic acid; strengthening programs for eradication of anemia; and providing management, oversight, and assessment.
- ✓ Community-based nutrition activities: Implementing this part of the project through NGOs was the most important part of implementation. It involved measuring the weight of pregnant mothers and children every month, creating awareness about nutrition, and changing food habits on a household level. Mothers and adolescent girls suffering from malnutrition were given training in nutrition. Pregnant and lactating women suffering from malnutrition were given supplementary food. This was implemented through the government and NGOs. Nutrition management committees were formed at the upazila, union, and village levels.
- ✓ Development of indirect nutrition program: This was an attempt to connect agriculture, food, and other ministries with the nutrition program. According to official documents, BINP was implemented in 61 upazilas through 13,400 community nutrition centers. Some 700,000 children and 350,000 pregnant and lactating women benefited from this project. The percentage of stunted and wasted children went down in those areas where the project was implemented.

National Nutrition Project

Government officials have claimed that NNP started after being encouraged by the success of BINP. BINP ended in 2002. Two years after that, in 2005, NNP started as a part of the health, nutrition, and population spending program. NNP ended in 2009.

NNP was implemented along the same lines of BINP. Ten NGOs implemented the nutrition program in 105 upazilas, of which 61 were

under BINP. To ensure the food security of the project beneficiaries, the project added the vulnerable group development program, besides practicing homestead vegetable garden and poultry farming. The NGOs helped in the implementation of homestead vegetable gardening and poultry farming, and UNICEF's world health program provided aid through food in the vulnerable group development program. Even though BRAC was involved from the beginning of the project, it did not remain part of NNP through the program's conclusion.

National nutrition service (NNS)

After the end of NNP, there was no other nutrition-based project in the field. In January 2012, the National Nutrition Service (NNS) began (on paper, it was supposed to have started in July 2011). NNS will end in June 2016. While BINP and NNP were implemented as projects, NNS is being implemented as an operation plan (OP) by IPHN. The director of the IPHN is the line director of the OP. Implementing the OP has become the main function of the institute. There is a lot of criticism that IPHN has moved far away from its original responsibilities and duties.

The broad objective of NNS is to reduce the rate of malnutrition among the children, women, and underprivileged people of the country.

Specific objectives are:

- ✓ Implementing necessary nutrition services for the eradication of malnutrition and making them accessible to all
- ✓ Identifying and strengthening the coordination process of the important sectors and developing skilled manpower for nutrition service management, oversight, and nursing
- ✓ Building a nutrition information management system in line with the health information management system and strengthening nutrition research

NNS will be implemented in 64 districts of the country, and 1490 crore taka will be spent over the OP's 5-year duration.

By 2016, the government, through four types of nutrition service, will:

- ✓ Lower the rate of LBW children from 41% to 33%
- ✓ Bring down the rate of stunting from 43% to 30%
- ✓ Increase the percentage of children aged 6-59 months who are given vitamin A from 88% to 90%
- ✓ Increase the percentage of exclusively breastfed children from 43% to 50%.
- ✓ Increase the percentage of children aged 6-23 months who are given supplementary food from 41% to 52%

Where will nutrition service be found?

- ✓ Community clinics
- ✓ Upazila health centers
- ✓ District hospitals
- ✓ Mother and Child Welfare Center
- ✓ Medical College Hospitals

The work plan mentions training for all health and family planning activists in order to improve nutrition care. During the implementation of NNP, about 50,000 nutrition activists were employed. Many have criticized the unemployment rate of this huge workforce. Now, the Health and Family Planning Bureau's field workers have been given the work of nutrition care. Critics say these field workers operate under pressure and some of them are very old. So they are asking how can the fieldworkers properly carry out the extra responsibility of nutrition care?

The table below presents in brief NNS's services, availability of services, service providers, and persons responsible for supervision.

Table 12. The services of NNS

Level	Services	Service providers	Persons responsible (OP's name)
Community clinic	IYCF, BCC, GMP, CMAM, anemia, micro-nutrient supplement, deworming, referral	Community health care providers, health assistants, family welfare assistants	CBHC, MNCAH, MCRAH
Union family welfare center	IYCF, BCC, GMP, CMAM, anemia, micronutrient supplement, deworming, referral	Medical officers (MCH), SACMO, MA, FWVs	MCRAH
Upazila health complex	IYCF, BCC, GMP, CMAM, SAM, anemia, micronutrient supplement, deworming, referral	UHFPO, FWVs, nurses	MNCAH, MCRAH
District hospital	IYCF, BCC, GMP, CMAM, SAM, anemia, micronutrient supplement, deworming	Medical practitioners, specialists, nurses	HSM
District maternal and child welfare center	IYCF, BCC, GMP, CMAM, SAM, anemia, micronutrient supplement, deworming, referral	Medical officers, FWVs	MCRAH
Medical college hospital	IYCF, BCC, GMP, CMAM, anemia, micronutrient supplement, deworming	Medical officers, nurses, specialists	

It is necessary to mention that there are no nutrition-based activities by the health ministry in the cities. Studies show the nutrition status of slum children is very poor.

To be added to the mainstream

Government declared that nutrition will no longer be a separate service, and the process of merging it with mainstream health services is underway. This means that all nutrition-associated activities will be determined according to the capacities and abilities of the health sector. NNS will be implemented through the Health Department and the Family Planning Department. NNS will integrate the activities with other sectors, and advocacy will be a major aspect of NNS's work.

The issue of multisectoral nutrition initiatives has been discussed for a long time. To ensure that these initiatives are successfully implemented, it is necessary to distribute responsibilities to the appropriate ministries.

Multisectoral initiative

Providing nutrition is not possible unless food security is ensured. The Ministry of Agriculture has a vital role to play here. A supply of pure water and a working drainage system are indispensable. However, that is the duty of the Ministry of Local Government, the Ministry of Information, and the Ministry of Education, as they are responsible for making people aware of these issues. Work on nutrition is hard to carry out without these three ministries. Therefore, to improve the nutrition situation of the country, there is recognition that the activities of various ministries and cooperating institutions must be integrated. This integration requires the cooperation of the following ministries:

1. Ministry of Food and Disaster Management
2. Ministry of Agriculture
3. Ministry of Fisheries and Animal Resources
4. Ministry of Women and Children Affairs
5. Ministry of Local Government
6. Ministry of Planning

7. Ministry of Industry
8. Ministry of Information
9. Ministry of Commerce
10. Ministry of Social Welfare
11. Ministry of Education
12. Ministry of Finance

Apart from the ministries, integration among other sectors will also be needed. Those are:

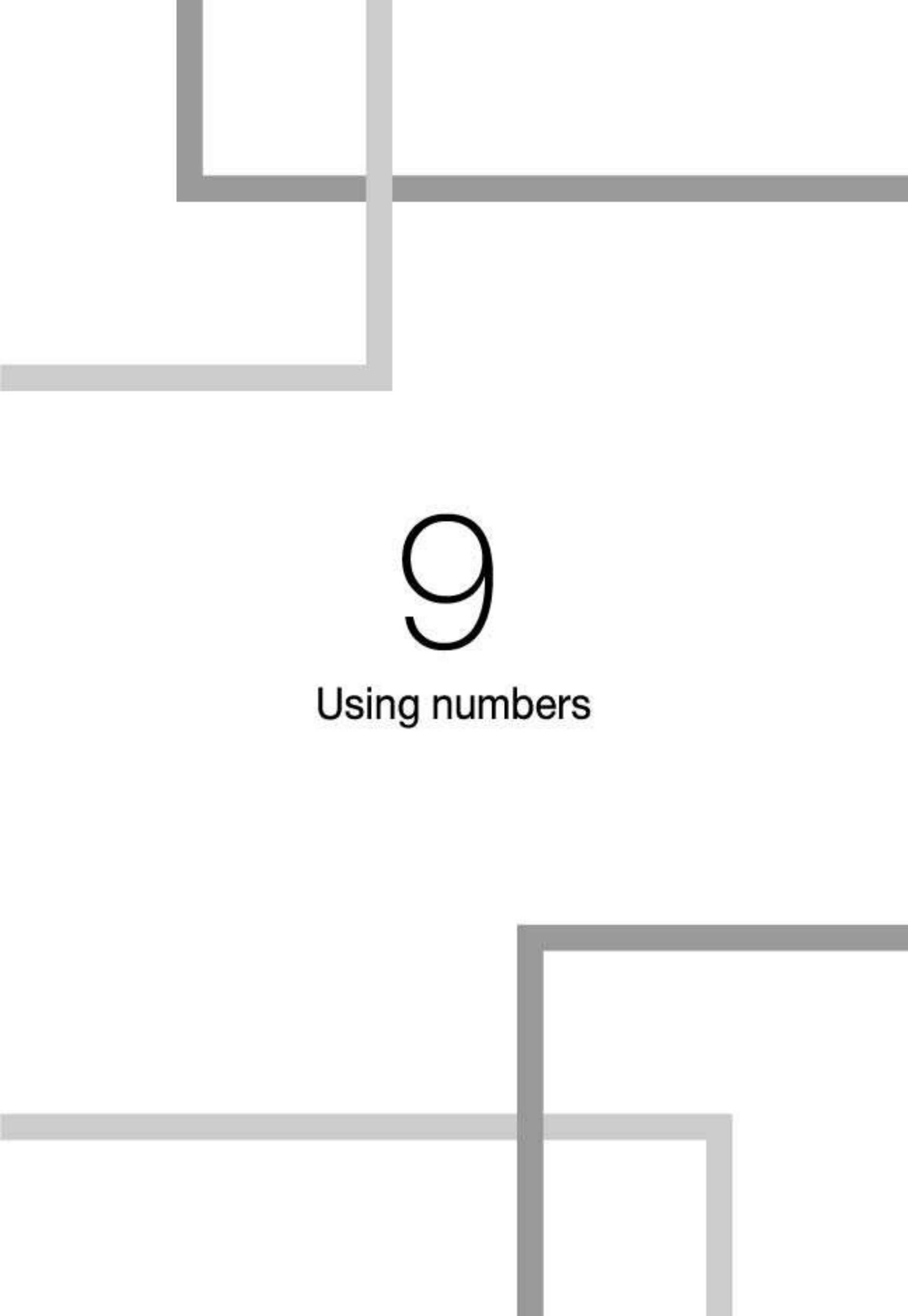
1. Development partners
2. Civil society
3. Private sector
4. NGO
5. Academic and research organization
6. Religious leadership
7. Professional organizations
8. Community leadership
9. Youth community
10. Media

A multisectoral steering committee led by the health secretary and an integration committee managed by the Secretary General of the health department have been formed to integrate the functions among different ministries and nongovernment sectors.

Table 13: Some milestones in nutrition in the international community

Year	Milestone
1975	• Forming a group of international vitamin A consultants
1991	• Ending hidden hunger: Montreal micronutrient conference, Montreal, Canada
1992	• 'World declaration and plan of action for nutrition' taken by the International Nutrition Conference • Bellagio meeting of Helen Keller International on lack of vitamin A and child death
2002	• Special session on children in the United Nations general assembly • Establishment of Global Alliance for Improved Nutrition (GAIN)
2006	• Establishment of the Micronutrient Forum
2007	• World Bank's 'Repositioning Nutrition as Central to Development'
2008	• Special edition of Lancet on maternal and child malnutrition • Establishment of micronutrition element as the development center in Copenhagen consensus • Global Agenda Council's establishment of World Economic Forum on food security
2009	• Castel Gyanadolapho Announcements • Announcement of private sector and joint calls on vitamin and mineral supply at the Micronutrient Forum in Beijing • Formation of Amsterdam initiative for malnutrition • Announcement of Obama administration's commitment on hunger • International Nutrition Conference in Bangkok; theme was 'Nutrition security for all' • G8's promise to give US\$20 million for food security and nutrition • Formation of the structure of SUN

Year	Milestone
2010	• G8 society's promise to give extra US\$5 million for next 5 years to achieve Millennium Development Goals 4 and 5 • Emphasis on mother and child health in Africa Development Agenda at African Union Summit • Finalization of the structure of SUN and announcement of roadmaps • United States government's announcement on the Feed the Future Initiative for world hunger and food security • United Nation Secretary-General's announcement on World Strategy Paper on woman and child health • Enlistment of nutrition security and importance in MDG summit by United Nation Secretary-General • Inclusion of nutrition in the document of MGD results in 2010 • Declaration of '1000 Days' partnership: change a future program by U.S. Secretary of State Hillary Clinton and Ireland's Foreign Minister Michael Martin • Call of African first ladies to put nutrition in the hub of development efforts
2011	• A higher-level program of SUN in the United Nations office
2012	• Giving the nutrition initiative the most attention in Copenhagen Consensus • Hunger conference during the London Olympics
2013	• 'Hidden Hunger Summit' held at Hohenheim in Germany • Lancet series on maternal and child nutrition • Conference on 'Nutrition for Growth' in London: Forming funds of US\$4.1 billion for nutrition-centered activities and US\$19 billion for nutrition-related activities • International nutrition summit in Granada



9

Using numbers

Using numbers

New information is always news. New information is collected from the latest surveys or research. New information can also be found by analyzing the study of any survey using one's own method.

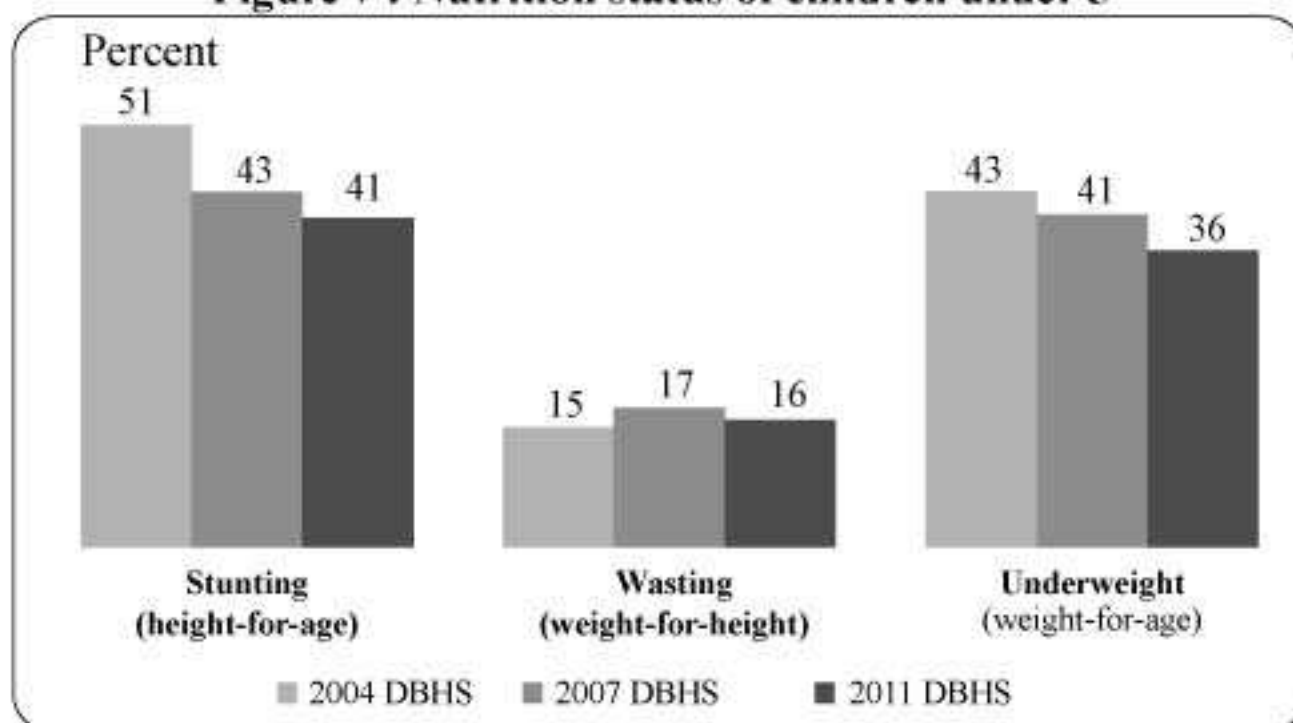
It has been found from the analysis of WFP and UNICEF that 75,000 children die every year because of malnutrition. If this information is right, it can be linked to a new analysis, that is, that 200 children die every day in a country solely as the result of malnutrition. The issue '200 children die every day because of malnutrition' is a major topic for news nowadays.

Similarly, more information and analysis can be found. The following sections explain this information with the help of charts and figures.

Nutrition condition of children under the age of 5

The figure below is focused on children's nutrition. It shows the nutrition status of children under age 5 in percent.

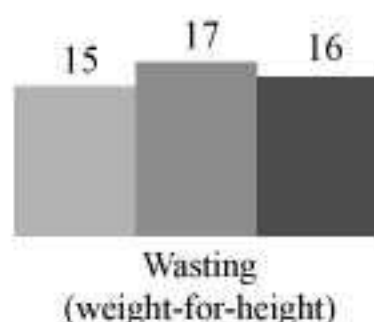
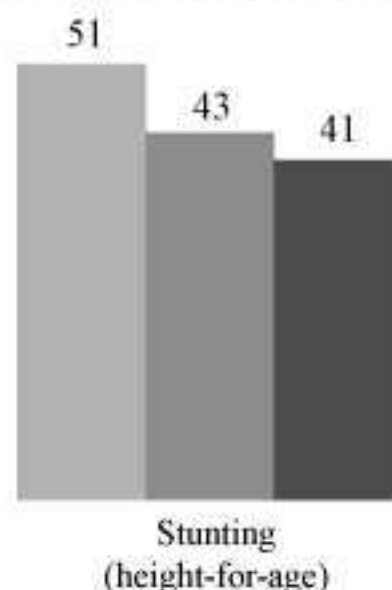
Figure 7 : Nutrition status of children under 5



Note : the data for all three surveys are based on the WHO

Three indicators of children's nutrition have been used in this design. Demographics and health surveys from 2004, 2007, and 2011 were used in this analysis. The first part shows the stunting situation, the second part shows the wasting situation, and the third part shows the underweight situation. What is the meaning of these three conditions?

Let's break the figure into its three parts. The first part shows that, in 2004, 51% of children under the age of 5 were found to be short for their age. In 2007, 43% of children under the age of 5 were considered short for their age. The percentage of short children decreased by 8% in 4 years. In 2011, 41% of children under age 5 were stunted. In the last 4 years (2007 to 2011), the percent decreased 2%.



In 2004, 15% children under the age of 5 were underweight compared to their height. In 2007, that figure was 17%, an increase of 2% of wasted children in 4 years. The 2011 survey showed that 16% children were wasted. In the last 4 years (2007 to 2011), the percent of wasted children decreased by 1%.

In 2004, 43 out of every 100 children were underweight for their age; that is, 43% of the children in the country were underweight. In 2007, that figure dropped to 41%, a 2% decrease in 3 years. The 2011 survey showed that 36% children were underweight. In the last 4 years (2007 to 2011), the percentage decreased by 5%.

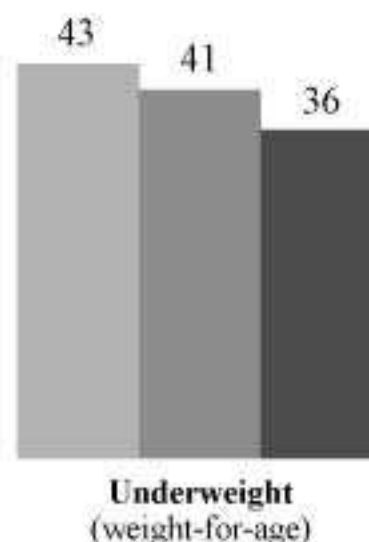


Figure 7 shows a trend that might be worth investigating. Some nutrition conditions of children have improved from 2004, although in some cases it moved slowly. The number of stunted children in the years between 2007 and 2011 did not decrease at the same rate as from 2004 to 2007. The change in wasted children is different; the rate of wasted children increased from 2004 to 2011, although only minimally. However, the condition did improve from 2007 to 2011, although, again, only a little. On the other hand, the rate of underweight children has decreased, both from 2004 to 2007 and from 2007 to 2011.

Figure 8

How does Bangladesh's nutrition situation compare to other countries?

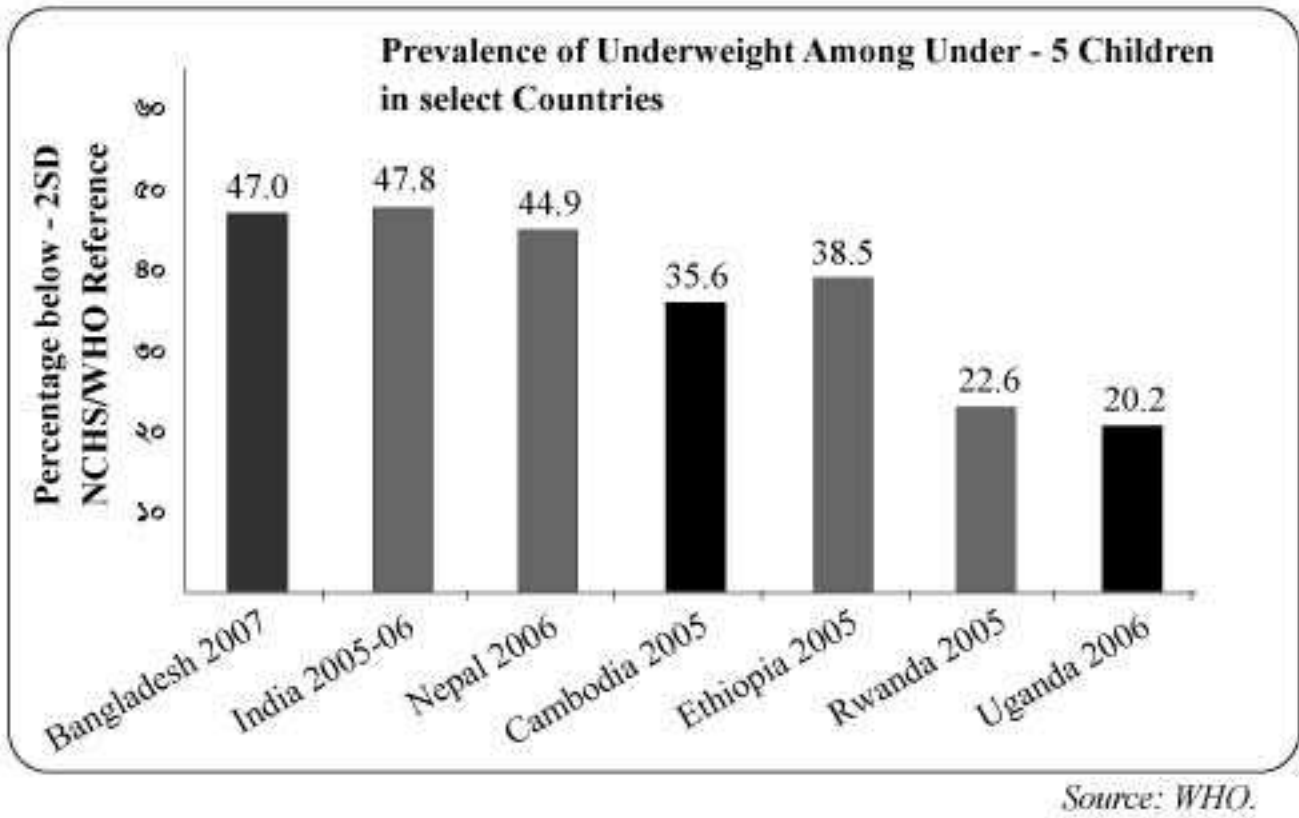


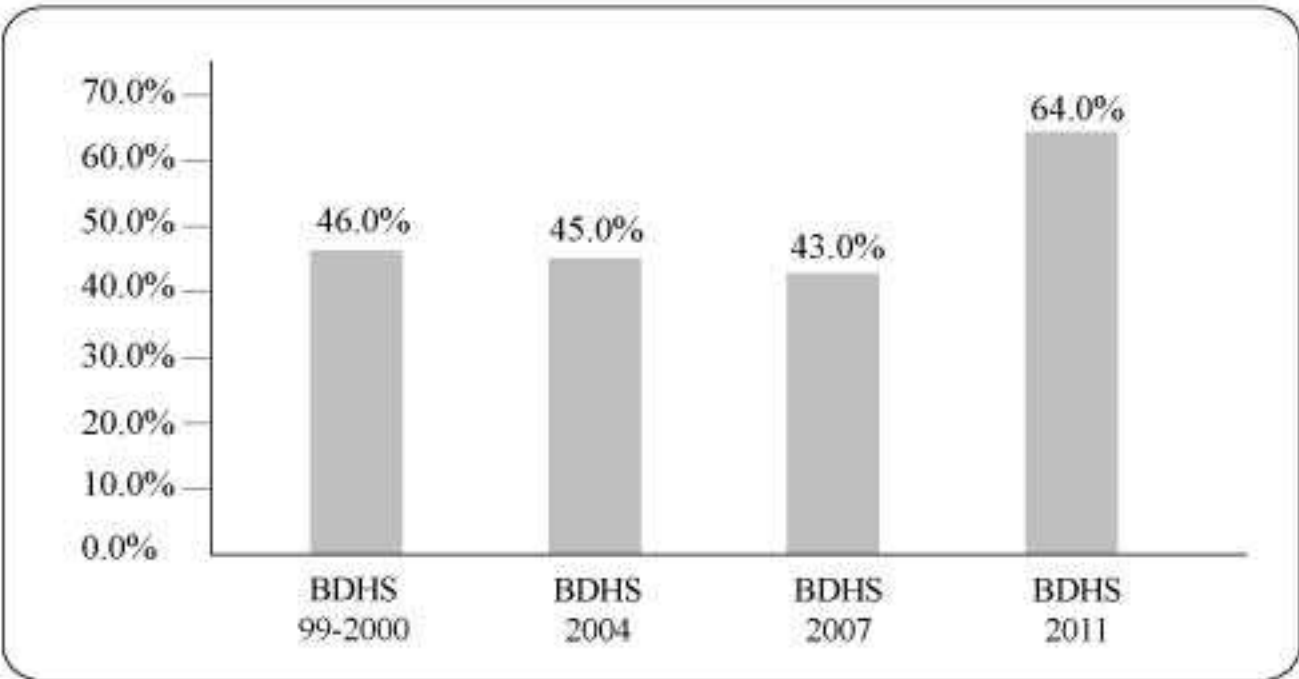
Figure 8 shows the prevalence of children under 5 who are underweight for their age in seven developing countries: Bangladesh, India, Nepal, Cambodia, Ethiopia, Rwanda, and Uganda. It says that 47% of Bangladeshi children under the age of 5 are underweight.

Only the prevalence of underweight of Indian children (47.8%) was worse than the prevalence of underweight of children in Bangladesh. The rate is 44.9% in Nepal, while Cambodia's conditions are better than all three of these countries.

Data for three African countries are shown in this figure as well. Except for Ethiopia, the conditions of two countries are better than the four Asian countries: 38.5% of children are underweight in Ethiopia, 22.6% in Rwanda, and 20.2% in Uganda. It is widely recognized that nutrition conditions in Africa are bad, but Figure 8 shows that the conditions in Bangladesh are worse than in some of the countries of Africa.

What are the possible explanations? Nutrition experts say pregnant women need more calories than non-pregnant women. Pregnant women need to gain weight. In Africa, pregnant women gain an average of 10kg, while in South Asia, they gain on average of 5 kg. This difference in weight gain has an influence on the child after birth.

Figure 9
Percentage of children who were exclusively breastfed for 6 months



Nutritionists say that the only food a child between 0 and 6 months old needs is mother's milk. It is not necessary to feed the child anything else up to 6 months, not even water. All infants' nutritional needs are met by breast milk. Breast milk alone is the most important thing to improve the nutrition condition of children. So the percentage of children who drink only breast milk in the first 6 months of their lives is an important indicator of nutrition.

Figure 9 shows the data regarding exclusively breastfeeding in Bangladesh from 2000 to 2011. The 2000 BDHS says that 46% of children drank only breast milk to the age of 6 months. In the 2004 survey, it decreased to 45%. The trend is even more evident in the 2007 survey, where the percentage dropped to 43%. However, the condition changed dramatically in the 2011 survey, which says that 64% of children of Bangladesh drank exclusively mother's milk to the age of 6 months.

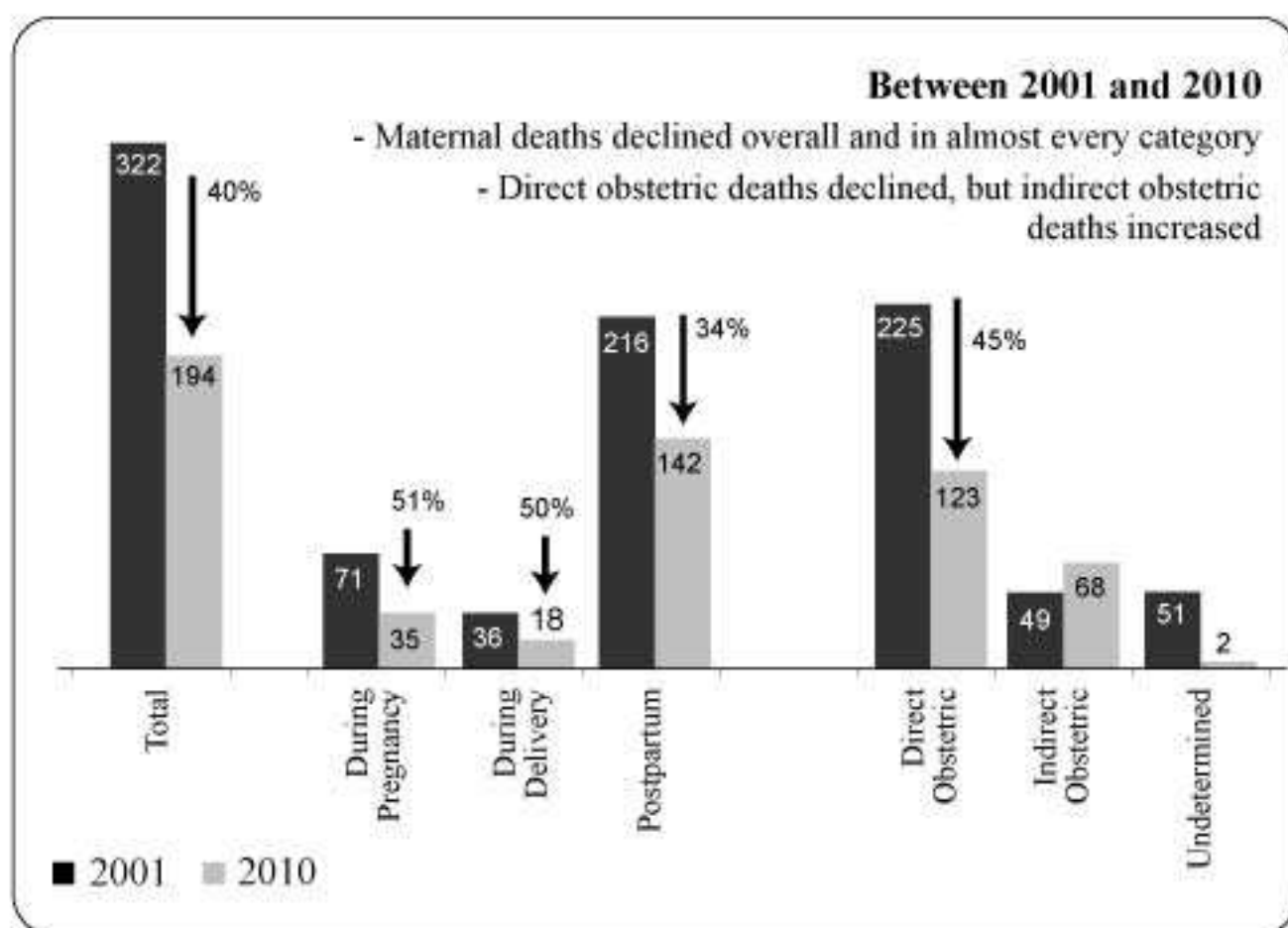
Here are two important questions for journalists to investigate. First, why did the rate decrease from 2000 to 2007? Second, what happened after 2007 for the rate to increase to 64%? Journalists should report on the reasons behind these changes and also on the steps government and private sector might have taken to affect the data.

Figure 10

Maternal mortality in Bangladesh

Figure 10 shows data related to maternal mortality in Bangladesh between 2001 and 2010. The 2001 survey shows that, for every 100,000 live births, 322 mothers died. Ten years later, the 2010 survey shows that number fell to 194 mothers per 100,000. The news is good: The rate of maternal death decreased 40% in 10 years.

Figure 10 shows data both aggregated and broken down into several categories. The rate of maternal mortality decreased in every category except indirect obstetric.



- ✓ During pregnancy, the number of maternal deaths per 100,000 live births decreased from 71 mothers in 2001 to 35 in 2010, a decrease of 51%.
- ✓ In 2001, 36 mothers per 100,000 died during delivery; in 2010, that number dropped to 18, a decrease of 50%.
- ✓ In 2001, 216 mothers per 100,000 died after pregnancy. That number dropped to 142 in 2010, a 34% decrease.
- ✓ The number of maternal deaths for direct deliveries was 225 in every 100,000 in 2001. In 2010, it was 123, a 45% decrease.
- ✓ On the other hand, maternal deaths for indirect deliveries increased by 19 percentage points, from 49% in 2001 to 68 in 2010.
- ✓ The specific reason behind the deaths of 51 mothers per 100,000 was unknown in 2001. That number was only 2 in the 2010 survey.

Journalists could ask many questions regarding these data. Why has the maternal mortality rate decreased 40%? What steps did the government take that affected these rates? What steps did the private sector take? What are the complications regarding indirect delivery? Why did the death rate increase for indirect obstetric deliveries? What steps are being taken to address this situation?

These types of figures and charts are common. WHO, UNICEF, the World Bank, Save the Children, and other international organizations publish reports about nutrition that frequently contain similarly displayed data. The job of a journalist is to analyze the data and to tell engaging, informative stories for their readers.

In some countries, population census and health surveys are conducted with the economic and technical aid of USAID, and these surveys are recognized internationally. They contain much basic information on nutrition conditions that journalists can use to raise awareness about Bangladesh's nutrition situation.



10

Looking for
subjects to report on

Looking for subjects to report on

Based on trainings that were held with journalists, the following list of potential topics for journalists to consider reporting on was created.

01. Nutrition in pregnancy
02. Underweight at birth
03. Child health
04. Child development
05. Child nutrition
06. Malnutrition
07. Disease from malnutrition
08. Short in height
09. Skinny
10. Underweight
11. Breastfeeding
12. Colostrums
13. Feeding breast milk just after birth
14. Feeding child
15. Giving up mother's milk and supplementary food
16. Beginning feeding other foods for the breastfeeding child
17. Complementary food
18. Food security and nutrition
19. Food production and nutrition
20. Food price and nutrition

21. Food availability and nutrition
22. Nutrition security
23. Balanced diet
24. Food habit
25. Child feeding (IYCF)
26. How to feed child when mother is at work
27. Maternity leave, day care center
28. Nutrition and food policy (BMS code, government policy, etc.)
29. Alternative to breast milk or commercial food
30. Lack of vitamins
31. Micronutrients
32. Water and drainage system, health rules and infection
33. Observation (World Breastfeeding Week, Secured Maternity Day, World Health Day, etc.)
34. School feeding
35. Safe food
36. Nutrition service
37. Teen health
38. Work plan of government

What can a district journalist see?

01. What is going on in NNS?
02. Whether the nutrition corner is going properly
03. Whether there is any trained manpower in different levels
04. Whether there are any logistics or supplies
05. Who does nutrition surveillance and how?
06. Who evaluates the work evaluation reports?

07. Collecting nutrition data

- ✓ Who gets nutrition service and how many get nutrition service?
- ✓ How many children suffer from malnutrition?
- ✓ How many children are underweight?
- ✓ What is the rate of anemia?
- ✓ Why are adolescents getting married and starting childbearing, which can lead to more malnutrition, so early?
- ✓ How many children take breast milk?
- ✓ What VGD actions are being taken?
- ✓ What other security actions are being taken?
- ✓ What is the school feeding policy?
- ✓ How can food be made safe? Is food adulteration safe?
- ✓ How can safe water and sanitation services be provided more effectively?
- ✓ What can be done about arsenic outbreaks?
- ✓ How well is the BMS code being implemented?
- ✓ What is the work of sanitary inspectors?
- ✓ How is nutrition management handled in emergency periods?

08. Multisector initiatives

On January 10, 2014 IPHN published a journal regarding government services in 201 projects. The journal contains data from the nutrition projects under both government and nongovernment initiatives in various districts. Journalists could report on these data by going through the list collected by IPHN.

Below are three sample articles. The first one was published in a local newspaper, the other two in national newspapers.

Organizers faced protest at the opening program of Keshobpur Nutrition Corner

A nutrition corner has been inaugurated at Keshobpur Upazila Health Complex. A discussion was organized for this occasion on Wednesday. Observers said Upazila chairman, Vice chairman, UP chairman, Upazila Nirabahi officer, officers of various bureau and journalists were invited in the program. Upazila Health Officer Dr.Abdus Samad distributed 700 taka and a packet of food among the guests and announced the termination of the meeting without following any regulation. Mongolkot UP chairman Monowar Hossain opposed as no discussion on the issue nutrition was made. The health officer then came under pressure. Meanwhile, although around 50 people were supposed to be invited, only 20-22 were actually invited and an allegation arose about confiscation of money. When asked, Dr.Samad replied that the meeting was finished due to insufficient time.

Workshop in name only, not in activities

The three-day workshop was completed in just two hours and the day-long workshop finished in just one-and-a-half hours. In some cases, expenses were shown, although workshops were not done. Participants were not given training materials.

Some workshops at the Institute of Public Health Nutrition (IPHN) were held under the same conditions. Health ministry sources stated that these workshops were organized under the National Nutrition Service from April to June last year. According to the calculation of the organization, 33186 people took part in those workshops. Among the participants, there were doctors, health and family planning officers of Upazila level, and journalists, students and public representatives. Most of the trainers were doctors.

Tk. 600 was allotted for each of the participants for the three-day workshop as remuneration. Bags, pens, exercise books and nutritional manuals were among the training materials.

Senior Secretary for the Health Ministry Humayun Kabir said he also heard about the irregularity. The ministry is thinking about an investigation. Punitive measures will be taken against the guilty if sufficient evidence can be obtained.

State of nutrition in Gauranadi: *In the Gauranadi Upazila Health center, a three-day-long workshop was held on 11th June. Two health associates and four assistants of family planning, who took part in the workshop, said the workshop lasted for one-and-a-half to two hours.*

It was reported that a doctor named Javed Jahangir from Dhaka took responsibility for the training. He did not take the training materials (bag, exercise book, pen, manual) along with him and did not give remuneration to anybody. He took the signatures of all who were present at the start of the training. At the end of the training two hours later, he told the Upazila health officer that he will send all the training materials and remuneration for the trainees after reaching Dhaka.

When asked about the matter, the Director of IPHN and line director Md. Ekhlashur Rahman said that the officer responsible for the training, Deputy Director Mir Mobarok Hossain, can elaborate the matter.

Mir Mobarok reported that 220 doctors were trained to conduct workshops at the Upazila level; Javed Jahangir is one of them. Mobarok Hossain provided a cell phone number to contact Javed. When contacted, someone picked the call up and said he was not Javed Jahangir and did not go to Gauranadi to conduct training.

Three-day workshop in 80 Upazilas: *IPHN conducted many workshops, including training for trainers (TOT) and training for doctors. Trained persons conducted a day-long workshop in 467 Upazilas. A three-day workshop took place in 80 Upazilas. Reporters investigated in some places where three-day workshops took place,*

and learned that, in some Upazilas, the training did not take place. Maheshkhali (Cox's Bazar), Juri (Moulvibazar), Dhorompasha (Sunamganj), Ulipur (Kurigram) and Patgram (Lalmonirhat) Upazilas had trainings for just half a day. Nikli of Kishoreganj had a half-a-day program, while no workshop took place in Taragonj of Rangpur. The same amount of remuneration was allotted for all participants, but in some Upazilas, the participants got different amounts.

Upazila health officers of these upazilas could not show any document or paperwork to reporters. They claimed that the people who went as trainers from Dhaka did not leave any copy of the documents. When asked, Mir Mobarak Hossain said that the training was done, documents will be shown later.

Nutrition science is one-and-a-half hour : The workshop on June 12 at Voirob Upazila health complex was supposed to be a daylong, but it was completed in one-and-a-half hours. UP panel chairman of Kalikaprased union of Voirab Upazila, Tajul Islam said: 'Just got in and out, got some money, ate some banana and snacks, but did not learn anything on nutrition.' Upazila Health Officer Momtazul said: 'In one word, we were in the darkness regarding this issue. Only 25 were present among the 50 invited. The workshop was finished before noon. The trainers, who came from Dhaka, did not leave any documents.'

Upazila Health Officer of Kuliar Char Abu Ubayad reported that the workshop began at 2pm and finished at 3pm. It was supposed to be a daylong; 32 people were present there.

Another workshop was organized for students on June 21 at Vairab Upazila complex. Twenty students of Vairab and Kuliar Char took part in it. It was supposed to be two days, long but it was finished just after two hours. Students of Vairab got Tk100 each and students of Kuliar Char got Tk. 250 each.

Marjia Jahan, a student of class IX of Voirab Jotir Uddin High school, said it was very difficult to comprehend something within such short span of time.

Nutrition is not safe in their hands : Eminent nutritionist MQK Talukdar says training makes workers aware, inspired and skillful. 'When a training that is supposed to be completed in three days is finished in just hours, no one has learned anything. That training will have no impact on the improvement of nutritional state in that area. This is disappointing.'

Executive director of the anticorruption organization TIB (Transparency International, Bangladesh) Iftekharuzzaman said liabilities for these sorts of vast and profound irregularities cannot be avoided by relevant officers.

Institute of Public Health Nutrition: Small in size, big in corruption

IPHN is small in size. The government's audit reports show that there are many instances of corruption in this organization. The investigations also found irregularities.

The audit report of FAPAD (Foreign Aid Project's Audit Director) under the comptroller and auditor general's (CAG) office shows that irregularities worth Tk. 25 crore 77 lakh have occurred in this organization in the 2011-12 fiscal year. Those irregularities include transactions of money in cash instead of check, unlimited photocopies, expenditures beyond allotment, false training program expenditures and embezzlement.

This organization is implementing the National Nutrition Services (NNS). According to the Ministry of Health, the allotment for the NNS was Tk. 65 crore in the 2011-12 fiscal year. The organization spent Tk. 40 crore 30 lakh in June after commencing the work in January. Of that, expenditure irregularities worth Tk. 25 crore 77 lakh occurred. FAPAD found a 62% irregularity in that expenditure.

Sources said the line director of NNS, M Ekhlur Rahman, is also the director of public health nutrition organization. Three project

managers (PMs) help him. Ten deputy project managers (DPMs) work under him. They all are physicians and they joined this organization at the end of 2011. Of them, five are involved with the politics of the ruling party Awami League. The director has no authority over them and two of them are also DPMs of another project. There are five former office staff members working in this organization, which violates government rules and regulations. On the other hand, regular staff cannot be utilized. These former and two to three members of the regular staff have formed a syndicate and have conducted rampant questionable activities.

Cash embezzlement: The officers of the projects gave Tk, 13 crore 79 lakh 74 thousand 90 to the physicians and civil surgeons in cash from January to June of the year 2012. The audit report showed that no receipt or cash adjustment voucher was used during the cash payment and the audit team did not find this cash payment logical.

The official concerned said that this is a violation of the rules. The government money must be paid through check and there must be acknowledgment of the payment having been received. On this point, the director of public health nutrition said, 'Some money sent through a courier service and some was handed over in cash, and, due to the lack of manpower, payments were not possible through checks.'

Unnecessary training: From this project, a huge amount of money was embezzled by showing the purpose of nutritional training program. An investigation showed that the three-day-long program ended up in one-and-a-half hours. The participants did not get the bags, writing pads and remunerations, but the expenditures have been showed for this purpose. An investigation report on this issue was published in September of last year.

According to the audit report of FAPAD, for different training purpose Tk, 10 crore 91 lakh 88 thousand has been spent in the last six months. But the audit team did not find the list of trainees and the trainers. Thus, the audit team raised the question of veracity of those training programs.

According to the audit report, huge amounts of money have been spent without any program schedules, program manuals, office orders, or attendance records of the trainees.

On this point, ex-line director of NNS, Prof. Ekhlasur Rahman, said that he was present personally at the training program in seven divisional cities and centrally in Dhaka. But he does not know about the other training programs.

False receipt: *The organization spent Tk270,000 in miscellaneous sectors, though there was no allotment. The receipts of procurement from different organizations were false and have the same handwriting. The phone numbers mentioned in those receipt are also false. After mentioning this information, the report said the audit team was not sure about the veracity of expenditure. The director gave an excuse for these irregularities. He said that these expenditures were approved in the following fiscal year, and according to him computer receipts are acceptable.*

Early preparation: *According to the investigation, there are additional irregularities. The organization is now supposedly collecting 'bribe' money to avoid the auditing process. Four staff members allege that the director skimmed off 5%-6% of the money from different expenditure sectors. At first, he denied this allegation. Then he said he would report about the matter after discussing it with an officer. That anonymous officer said the audit team created problems during auditing, that everything is 100% fair. Again, a bribe had to be given during the withdrawal of the allotted money from the ministry. That's why they skimmed off 4%.*

Whose work was done by whom: *To withdraw the money for the expenditure of the project, the officers signed the check kept with Kaniz Sohela Zabin (known as Zeba). She withdrew the money from the bank and handed it over to the relevant officers after keeping 6% of that money. However, Zabin said she did not keep aside any money.*

Zabin is assistant statistician of the organization and gets the salary of that position. But she works as the personal assistant of the director. On this point, the director said that the former director

brought her in this post. On the other hand, the original personal assistant has no work other than to just record attendance at meetings.

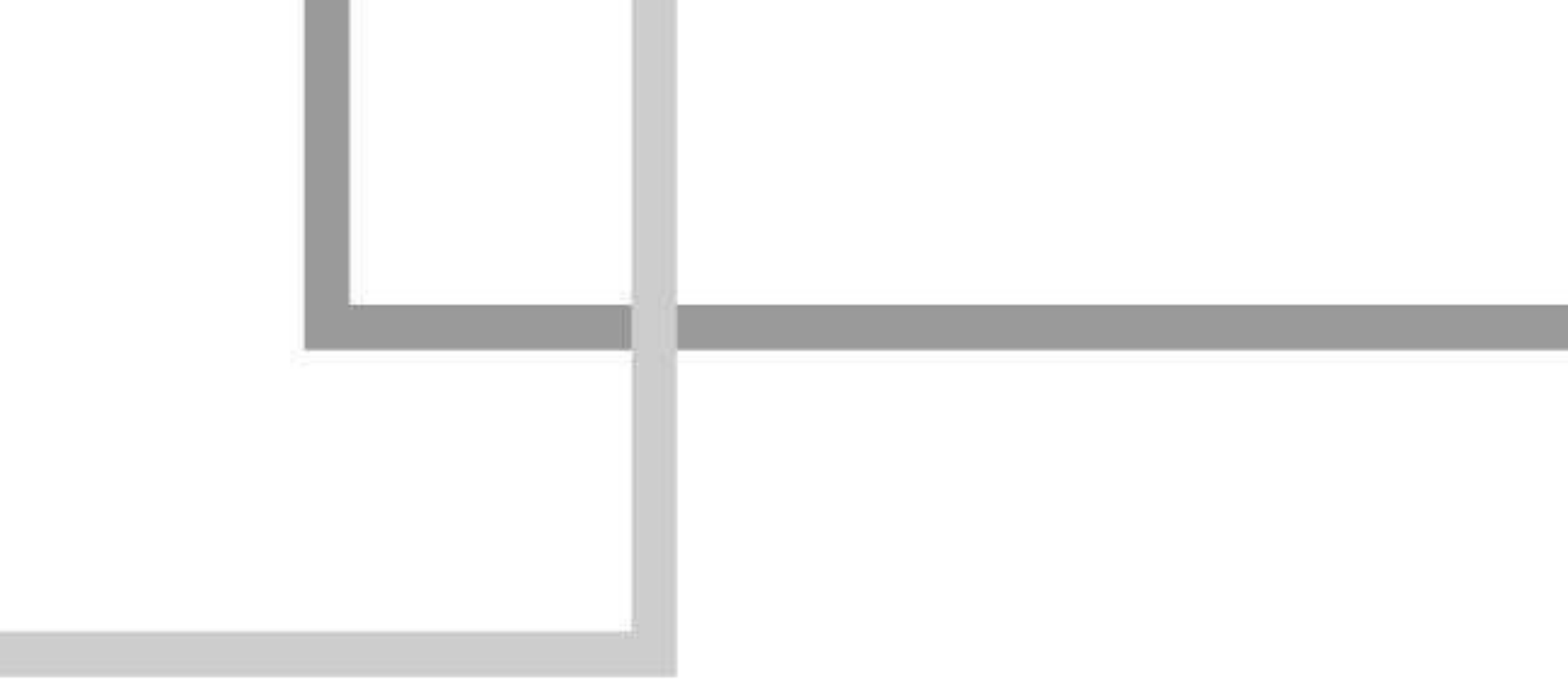
Zabin is working in a post other than her own post. But Abdul Awal still works as an accountant, although he retired from the government service four years ago.

Several officers said that Abdul Awal is the kingpin of the corruption in the organization. Project manager Ashraf Hossain Sarker used Abdul Awal for this purpose. In fiscal year 2011-12, the original accounts officer was not allowed to do his duty by Ashraf and Awal.

Ashraf said: 'Awal is a veteran and experienced person. That's why we asked him for help.' In his statement, Awal said that he helped the organization in some work with UNICEF.

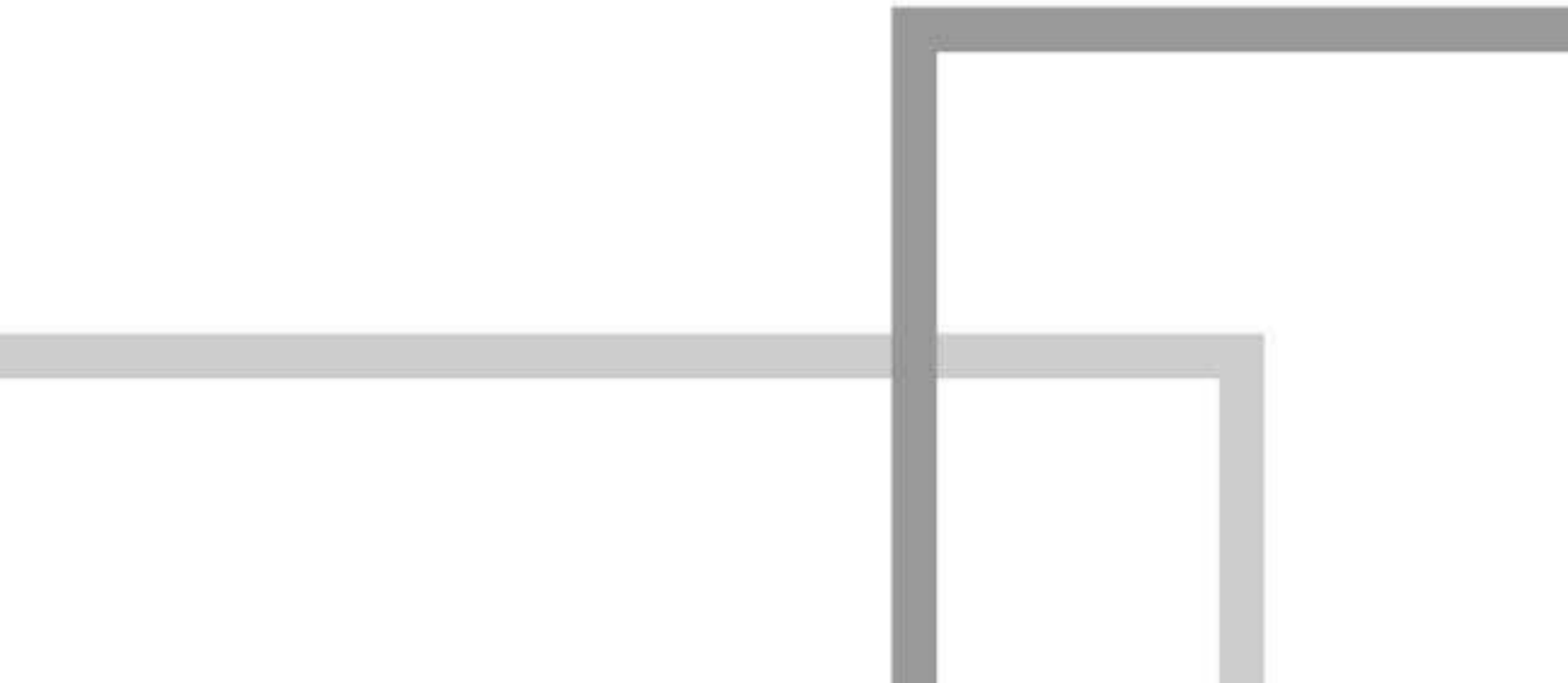
Besides Awal, Ashraf also used four other people-Shahabuddin Ahmed (chief assistant), Abdus Salam (junior biochemist), Abdul Kalam (technician) and M Jafar (House inspector). Ashraf said: 'We need them, so we are utilizing them.'

Oil trade: At least seven vehicles of the organization have been converted into CNG-driven vehicles, but the drivers regularly generate oil receipts. Ashraf said drivers create a lot of problems while running the vehicles on gas, so the vehicles are running on oil. The mileages of those vehicles are not being kept.



11

Journalist ethics



Journalist ethics

Although malnutrition is a problem that affects the rich and the poor in different ways, the poor suffer from it more. Malnutrition is most prevalent among the marginalized groups of society. In cities, slum children are the most affected by malnutrition. So journalists should focus on the malnutrition problem among the less-advantaged and subaltern people of society.

According to research, malnutrition is more acute in coastal districts than in other areas in the country. Therefore, the duties of district journalists are to collect data about malnutrition and what local government and NGOs are doing to improve nutrition, and publish news on this issue. Similarly, central-based journalists should publish news about the activities in those districts by the health, planning, or other ministries.

There has been some improvement regarding malnutrition of women, although, as a whole, malnutrition remains a large problem for Bangladesh's women. In this case, journalists should focus on the nutrition issues as they relate to women, for example, where they can get proper health and nutrition information and services.

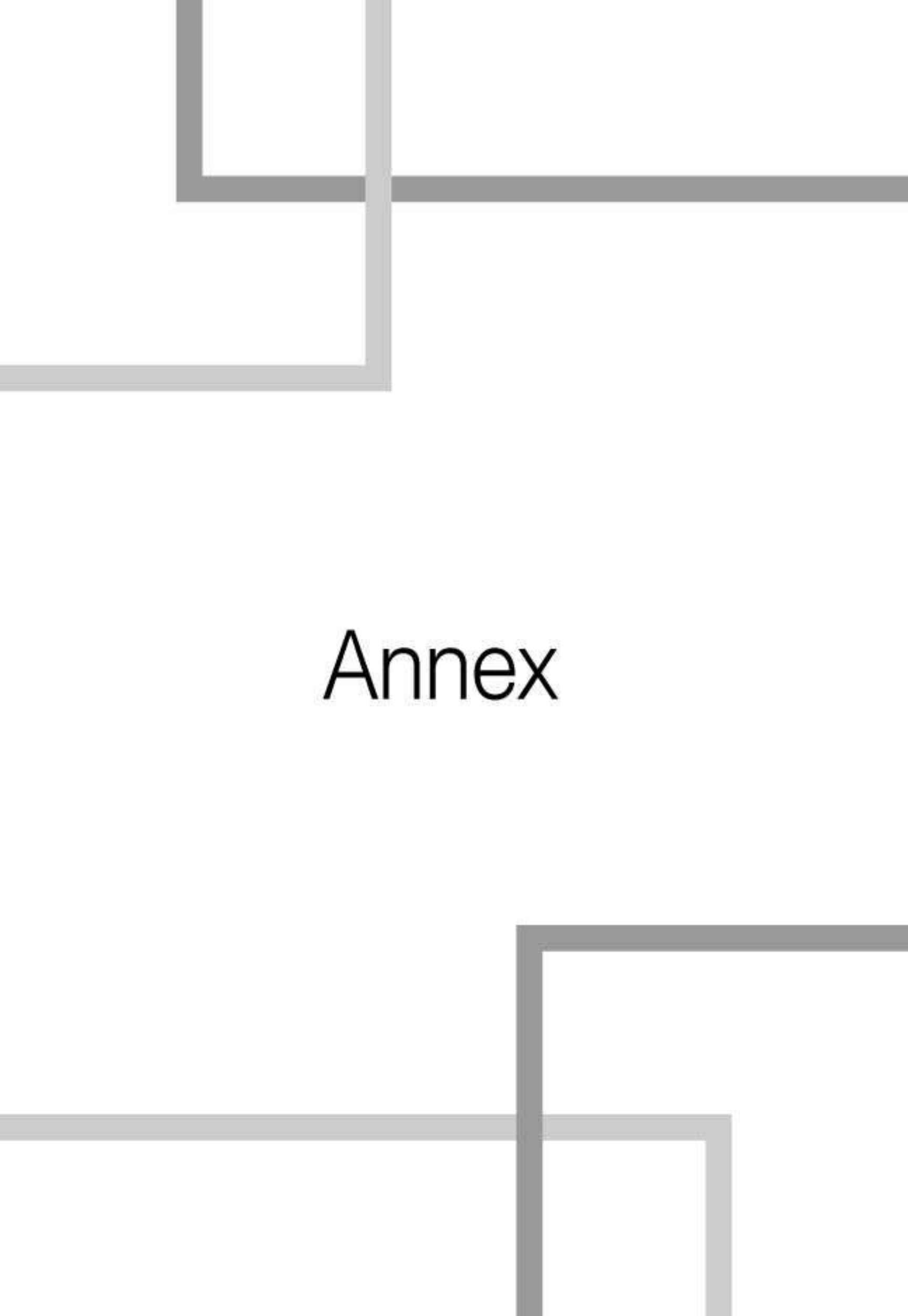
There are some trends in society that lead to child malnutrition. Prime among them is the use of 'alternate' food, that is, food other than breast milk. Business organizations use very aggressive techniques to get women to feed their children 'alternate' food, including delivering it to hospitals, physicians working at clinics, nurses, and other health workers. There are lots of organizations involved in the production of alternate food and in marketing and distributing it by talking about its benefits in fighting malnutrition. They build good relationships with

government policymakers and proactively engage in forming laws, principles, and regulations. They also release a lot of data in the form of research work. Journalists should not hesitate to push back against this trend.

In 2013, the government amended the 'breast milk substitute (regulation of marketing), 1984' and the named the new law 'alternate of breastfeeding, baby food, commercially produced extra food for baby and the equipment to use (marketing control), 2013.' The act clearly mentioned that physicians, nurses, and other health workers cannot take any monetary benefit from organizations that produce or market baby food or the equipment to use it. Journalists should be vigilant to make sure that these people do benefit from the production, marketing, or distribution of alternate food.

Those who report on science and health topics have to meet some additional standards. For example, while writing a report on a disease, a reporter should mention that people who suspect that they have that disease should see a physician to be prescribed medications that will work best for them. The same thing can be said about nutrition. During an outbreak of diarrhea, for example, physicians may advise patients to take medications besides oral saline.

There are many large food manufacturers in the world working on nutrition. They are investing money in food research, as well as arranging international conference on nutrition. Journalists should take advantage of the coverage of these conferences by asking intelligent, probing questions, like: Who arranged the conference? Who paid for the research? Who will benefit from the research?

The image features a minimalist design with thick, dark gray geometric lines. In the top-left corner, a horizontal line extends from the left edge, and a vertical line extends from the top edge, meeting at a right angle. In the bottom-right corner, a horizontal line extends from the left edge, and a vertical line extends from the bottom edge, also meeting at a right angle. The word "Annex" is centered in the middle of the page.

Annex

Annex A

References

1. Allen, L. and Gillespie, S. 2001. 'What works? A review of the efficacy and effectiveness of nutrition interventions.' ACC/SCN Nutrition Policy Paper No. 19. United Nations Administrative Committee on Coordination Sub-Committee on Nutrition (UN ACC/SCN) and Asian Development Bank.
2. Bangladesh Asiatic Society. 2003. *Banglapedia: National Encyclopedia of Bangladesh*. Dhaka.
3. Bangladesh Bureau of Statistics (BBS) and UNICEF. 2005. *National Low Birth Weight Survey of Bangladesh 2003-2004*. Dhaka: BBS.
4. Behrman, J.R.; Alderman, H.; and Hoddinott, J. 2004. 'Nutrition and Hunger.' In *Global Crises, Global Solutions*. Bjorn Lomborg (ed.). Cambridge, UK: Cambridge University Press.
5. Black, R.E. et al. 2008. 'Maternal and child undernutrition: global and regional exposures and health consequences.' *Lancet*. Vol. 371, pp. 243-260.
6. Black, R.E. et al. 2013. '*Maternal and child undernutrition and overweight in low-income and middle-income countries.*' *Lancet*. Vol. 382, pp. 427-51.
7. Dewey, K.G. and Begum, K. 2011. 'Long-term consequences of stunting early in life.' *Maternal and Child Nutrition*. Vol. 7. No. 3 supplement, pp. 5-18.
8. FAO. 2014. 'Statistics: Food Security Indicators.' <http://www.fao.org/economic/ess/ess-fs/fs-data/en/#.UwY1EvldXTo>.

9. Hossain, M. and Bhuyan, A.R. 2009. 'Energy and Protein Requirements of the Bangladeshi Children.' *Bangladesh Journal of Nutrition*. Vol. 25.
10. Howlader, Sushil Ranjan et al. 2012. *Investing in Nutrition Now: A Smart Start for Our Children, Our Future. Estimates of Benefits and Costs of a Comprehensive Program for Nutrition in Bangladesh, 2011-2021. PROFILES and Nutrition Costing Technical Report*. Washington, DC: Food and Nutrition Technical Assistance III Project (FANTA), FHI 360.
11. International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) and UNICEF. 2013. *National Micronutrients Status Survey 2011-12*. Dhaka: icddr,b and UNICEF/Bangladesh.
12. IPHN. 2012. *Training Guide on Nutrition.National Nutrition Services.Dhaka*.
13. Khondokar, Ruksana. 2013. Presentation on 'Effective reporting on nutrition' organized by MRDI. Dhaka, Bangladesh.
14. MRDI and FHI 360.2012. *Baseline Media Content Analyses*.
15. Micronutrient Initiative. 2009. *Investing in the Future: A united call to action on vitamin and mineral deficiencies*. Global Report 2009. Ontario: Micronutrient Initiative.
16. NIPORT. 2012. *Bangladesh Maternal Mortality and Health Care Survey 2010*. Dhaka.
17. NIPORT, Mitra and Associates, and ICF International. 2013. *Bangladesh Demographic and Health Survey 2011*. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.
18. NIPORT, Mitra and Associates, and Macro International. 2009. *Bangladesh Demographic and Health Survey 2007*. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.

19. NIPORT, Mitra and Associates, and ORC Macro. 2005. *Bangladesh Demographic and Health Survey 2004*. Dhaka, Bangladesh and Calverton, Maryland: NIPORT, Mitra and Associates, and ORC Macro.
20. Rahman, A. and Biswas, H. 2009. 'Nature and Extent of Malnutrition in Bangladesh: Analysis of Survey Results.' *Bangladesh Journal of Nutrition*. Vol. 25.
21. Scaling Up Nutrition Road Map Task Team. 2010. 'A Road-Map for Scaling-Up Nutrition.' http://un-foodsecurity.org/sites/default/files/SUNRoadMap_English.pdf.
22. UNICEF. 2012. *Nutrition Glossary, A Resource for Communicators*. Division of Communication. Geneva, Switzerland: UNICEF.
23. VonGrebmer, K. et al. 2013. 2013 Global Hunger Index: *The Challenge of Hunger: Building Resilience to Achieve Food and Nutrition Security*. Bonn; Washington, DC; and Dublin: Welthungerhilfe, International Food Policy Research Institute, and Concern Worldwide.
24. WFP/Bangladesh. 2012. *WFP Bangladesh Nutrition Strategy 2012-2016*. Dhaka: WFP.
25. WFP et al. 2009. *Bangladesh Household Food Security and Nutrition Assessment Report 2009*. IPHN, MOHFW, UNICEF, and WFP.
26. World Bank. 2006. *Repositioning Nutrition as Central to Development: A Strategy for Large-Scale Action*. Washington, DC: World Bank.

Annex B

Glossary

SL	Term	Definition
01	Acute malnutrition	A form of undernutrition also known as wasting. It is a result of a sudden lack of an adequate amount or variety of food or a severe or repeated infection. Severe wasting is a form of undernutrition that can be fatal. Acute malnutrition can happen within a few weeks. There are different levels of severity of acute malnutrition: moderate acute malnutrition (MAM) and severe acute malnutrition (SAM). In children, it can be measured using the weight-for-height nutritional index.
02	Adequate basic ration	A ration that meets a population's minimum energy, protein, fat, and micronutrient requirements in emergency situations where the population is dependent on food assistance. The initial energy requirement used to design rations in emergencies is 2,100 kcal per person per day, which can then be adjusted to the changing local situation. The rations should be culturally acceptable and appropriate for all population subgroups (such as infants and young children).
03	Anemia	A sign of malnutrition. When there is less than the ideal amount of hemoglobin in the blood, a person is said to suffer from anemia. One of the primary reasons of maternal death, sudden miscarriage, preterm babies, and low birth

SL	Term	Definition
		weight babies is maternal anemia. It is also caused by infectious diseases, such as malaria, hookworm infestation, and schistosomiasis, and genetic diseases. Women and children are high-risk populations. 42% of women aged 15-49 and 51% of children aged 6-59 months are suffering from anemia in Bangladesh. There are varying rates of anemia among the rich and poor and the educated and the uneducated.
04	Angular stomatitis	A sign of riboflavin (vitamin B2) deficiency, characterized by inflammation at the corners of the mouth.
05	Anthropometric status	The growth status of an individual's body measurements in relation to population reference values.
06	Anthropometry	The study and technique of human body measurement. It is used to measure and monitor the nutritional status of an individual or population group.
07	Artificial feeding	The feeding of infants with only a breast milk substitute.
08	Ariboflavinosis	A clinical condition resulting from a deficiency in riboflavin (vitamin B2). Clinical signs include the presence of angular stomatitis.
09	Beriberi	A syndrome caused by thiamin (vitamin B1) deficiency. There are many clinically recognizable syndromes, including wet

SL	Term	Definition
		beriberi (which affects the cardiovascular system), dry beriberi (which affects the nervous system), and infantile beriberi (which affects infants breastfed by women with thiamin [vitamin B1] deficiency).
10	Bitot's spots	A clinical sign of vitamin A deficiency, characterized by dryness of the eyes and accompanied by foamy accumulations on the conjunctiva that often appear near the outer edge of the iris.
11	Blanket feeding	The feeding of an affected population without targeting specific groups.
12	Body mass index (BMI)	Defined as an individual's body mass (in kg) divided by height (in meters squared): $BMI = \text{kg/m}^2$. Acute malnutrition in adults is measured using BMI.
13	BP 5	A fortified, high-energy biscuit designed to be used in the acute phase of disaster relief operations (also used as a supplement to local food in feeding programs for the treatment of moderate malnutrition).
14	BP 100	A ready-to-use-therapeutic food (RUTF) designed to be used in the rehabilitation and treatment phase of severely malnourished children and adults.
15	Breast milk substitute	Any food marketed or otherwise represented as a partial or total replacement for breast milk, whether or not suitable for that purpose.

SL	Term	Definition
16	Chronic malnutrition	A form of undernutrition. Also known as stunting. It is a result of a prolonged lack of an adequate amount or variety of food and/or repeated infections that reduce appetite and that do not allow the body to absorb nutrients and minerals from food. Chronic malnutrition takes place over several months or years. In children, it can be measured using the height-for-age nutritional index.
17	The Code	The International Code of Marketing of Breast-Milk Substitutes adopted by the World Health Assembly (WHA) in 1981, and regularly updated through subsequent WHA resolutions.
18	Colostrum	The first thick, yellow milk secreted by the breasts in the first few days after childbirth. Colostrum has many benefits: It contains antibodies and other protective proteins that protect against infections and help regulate a baby's developing immune system; it contains growth factors, which help the infant's intestine mature and function; it is rich in vitamin A, vitamin K, and other nutrients; and it helps prevent or reduce jaundice, which is common among babies.
19	Community-based management of acute malnutrition (CMAM)	CMAM refers to the management of acute malnutrition through: 1) inpatient care for children with severe acute malnutrition (SAM) with medical complications and all infants under 6 months old with SAM; 2) outpatient care for children with SAM without medical complications; 3) community outreach; and 4)

SL	Term	Definition
		services or programs for children with moderate acute malnutrition (MAM) that may be provided, depending on the context. CMAM evolved from Community-Based Therapeutic Care, which is a community-based approach for the management of acute malnutrition in emergency settings, and comprises the key components of community outreach, supplementary feeding programs, outpatient care programs, and stabilization centers. Other variants of CMAM include ambulatory care or home-based care for SAM.
20	Complementary feeding	The use of age-appropriate, adequate, and safe solid or semi-solid food in addition to breast milk or a breast milk substitute. The process starts when breast milk or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant. It is not recommended to provide any solid, semi-solid, or soft foods to children under 6 months of age. The target range for complementary feeding is generally considered to be 6-23 months.
21	Cretinism	A severe mental and physical disability that occurs in the offspring of women who have severe iodine deficiency, which occurs during the first trimester of pregnancy.
22	Dry feeding	Food provided in the form of a dry (take-home) ration.
23	Early initiation of breastfeeding	Breastfeeding within 1 hour of birth.

SL	Term	Definition
24	Early warning system	An information system designed to monitor indicators that may predict or forewarn of impending food shortages, worsening of the nutritional situation, or famine.
25	Edema	An excessive accumulation of fluids in the body's tissues or cavities. A particular kind of edema-bilateral pitting edema (fluid retention on both sides of the body)-is a clinical sign of severe acute malnutrition (SAM). There are different clinical grades of edema: mild, moderate, and severe.
26	Emergency school feeding	Food distribution at schools provided as a cooked meal or supplement in school or as a take-home ration. It aims to relieve short-term hunger and improve school attendance and performance.
27	Enrichment	Also known as fortification, this is the process of adding micronutrients, or restoring those lost during processing, to food products. Examples include the enrichment of wheat flour with vitamin B1, niacin, and iron.
28	Exclusive breastfeeding	A condition under which an infant receives only breast milk and no other liquids or solids, not even water, with the exception of oral rehydration salts (ORS) or drops or syrups consisting of vitamins, mineral supplements or medicines. Exclusive breastfeeding is strongly recommended for infants aged 0-6 months.
29	Exclusive breastfeeding rate (EBR)	Percentage of infants under 6 months old who receive only breast milk, and no other solids or liquids, including water (usually based on

SL	Term	Definition
		24-hour dietary recall), with the exception of vitamin or mineral supplements and medicines.
30	Facility-based care for severe acute malnutrition (SAM)	Refers to the management of severe acute malnutrition (SAM) with or without medical complications in inpatient care until weight recovery is achieved. Before the development of community-based management of acute malnutrition (CMAM) or in the absence of the CMAM approach, children with SAM were exclusively managed as inpatients receiving medical treatment and nutrition rehabilitation until weight recovery was achieved.
31	Famine	A highly technical term to be used under very specific circumstances. Different definitions of famine exist because there are different classifications that are used to measure levels of food insecurity and that set cut off limits for determining different phases of food security. These classifications typically use indicators such as anthropometrics and mortality. One example is the Famine Magnitude Scale of Howe and Devereux, which classifies the magnitude of famines-food secure, food insecure, food crisis, famine, severe famine, and extreme famine-based on livelihood measures and measurements of mortality and child malnutrition to categorize a situation. Using this scale, famine conditions are defined as a crude mortality rate, e.g., ≥ 1 but < 5 per 10,000 per day and/or wasting $\geq 20\%$ but $< 40\%$ and/or prevalence of edema. Another example is the Integrated Food Security and

SL	Term	Definition
		Humanitarian Phase Classification system, which classifies phases into 'generally food secure,' 'moderately/borderline food insecure,' 'acute food and livelihood crisis,' 'humanitarian crisis,' and 'famine/human catastrophe.' Here, a famine/human catastrophe is classified by the key reference outcomes: crude mortality rate > 2/10,000/day; acute malnutrition > 30%; disease pandemic; food access/availability extreme entitlement gap, much below 2,100 kcal per person per day; water access/availability < 4 L/person/day; destitution/displacement: large scale, concentrated; civil insecurity widespread: high-intensity conflict; and livelihood assets: effectively complete loss.
32	Follow-on/follow up formula	Breast milk substitute formulated for infants aged 6 months or older.
33	Food fortification	The addition of micronutrients to a food during or after processing to amounts greater than were present in the original food product. Also known as enrichment.
34	Food security	Access to sufficient, safe, and nutritious food needed for a healthy and active life.
35	Food taboos	Foods that are not eaten for cultural or religious reasons.
36	Formula 75 (F 75)	The milk-based diet (75 kcal/100ml) recommended by the World Health Organization (WHO) for the stabilization of

SL	Term	Definition
		children with severe acute malnutrition (SAM) in inpatient care.
37	Formula 100 (F 100)	The milk-based diet (100 kcal/100ml) recommended by the World Health Organization (WHO) for the rehabilitation of children with severe acute malnutrition (SAM) after stabilization in inpatient care. This product was used in this context before ready-to-use therapeutic food (RUTF) was available. Its current principal use in community-based management of acute malnutrition (CMAM) services is for children with SAM who have severe mouth lesions and cannot swallow RUTF and who are being treated in inpatient care. Diluted F-100 is used for the stabilization and rehabilitation of infants under 6 months of age in inpatient care.
38	Fortificant	Vitamins and minerals added to fortify foods.
39	Fortified-blended food (FBF)	A blend of partially precooked cereals (wheat, corn, rice, and/or soy) fortified with vitamins and minerals. FBF may contain pulses, oil seeds, vegetable oil, milk powder, and/or whey protein concentrate. FBF is usually mixed with water and cooked as porridge. Examples of FBFs are corn-soy blend (CSB), now available as Supercereal (formerly CSB+) for children over 24 months old and adults, and Supercereal Plus (previously CSB++) for children 6-24 months old.
40	General food distribution or general food ration	Distribution of a combination of food commodities to an emergency-affect population.

SL	Term	Definition
41	Global acute malnutrition (GAM)	The total number of children between 6 and 59 months old in a given population who have either moderate acute malnutrition(MAM)or severe acute malnutrition(SAM). (The word 'global' has no geographic meaning.) When GAM is equal to or greater than 15% of the population, the nutrition situation is defined as 'critical' by the World Health Organization (WHO). In emergency situations, the nutritional status of children between 6 and 59 months old is also used as a proxy to assess the health of the whole population.
42	Goiter	Swelling of the thyroid gland in the neck caused by iodine deficiency.
43	Growth monitoring and promotion	Individual-level assessment where the growth of infants and young children are monitored over time in order to identify and address growth faltering and growth failure.
44	Height-for-age	A measure of linear growth. A child who is below—2 SD from the median of the World Health Organization (WHO) reference population in terms of height-for-age is considered short for his/her age, or stunted, a condition reflecting the cumulative effect of chronic malnutrition. If the child is below—3 SD from the reference median, the child is considered to be severely stunted. A child between—2 SD and—3 SD is considered to be moderately stunted.
45	High-energy peanut butter paste	A common ready-to-use therapeutic food (RUTF) that is a high-protein and high-energy peanut-based paste that tastes slightly

SL	Term	Definition
		sweeter than peanut butter. It requires no water for preparation or refrigeration and has a 2-year shelf life, making it easy to deploy in difficult conditions to treat severe acute malnutrition (SAM). It is distributed under medical supervision, predominantly to parents of malnourished children whose nutritional status has been assessed by a doctor or a nutritionist.
46	Home-modified animal milk	A breast milk substitute for infants up to 6 months old prepared at home from fresh or processed animal milk, suitably diluted with water and with the addition of sugar and micronutrients.
47	Home-based care	Care and/or nutrition interventions given to individuals in their homes.
48	Infant and young child feeding (IYCF)	Term used to describe the feeding of infants (under 12 months old) and young children (12-23 months old). IYCF programs focus on the protection, promotion, and support of exclusive breastfeeding for the first 6 months, on timely introduction of complementary feeding, and on continued breastfeeding for 2 years or beyond. Issues of policy and legislation around the regulation of the marketing of infant formula and other breast milk substitutes are also addressed by these programs.
49	Infant feeding in emergencies	Concerned with protecting and supporting optimal infant and young child feeding (IYCF) for children under 2 years in

SL	Term	Definition
		emergency situations. This includes protection and support for early, exclusive, and continued breastfeeding; reducing the risks of artificial feeding for non-breastfed infants; and appropriate, timely, and safe complementary feeding. Infants who are not breastfed and who are particularly at risk in emergency settings also need protection and support.
50	Infant formula	A breast milk substitute formulated industrially in accordance with applicable Codex Alimentarius standards. The Codex Alimentarius Commission was established in 1963 by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) to protect the health of consumers and to ensure fair practices in the international food trade.
51	Infant feeding equipment	Bottles, teats, syringes, and baby cups with or without lids and/or spouts.
52	Infant mortality rate (IMR)	Probability of dying between birth and exactly 1 year of age expressed per 1,000 live births.
53	Inpatient care for the management of severe acute malnutrition (SAM) with medical complications	Inpatient care is a community-based management of acute malnutrition (CMAM) service to treat children with SAM with medical complications until their medical condition is stabilized and the complication is resolved (usually 4-7 days). Treatment then continues in outpatient care until weight recovery is achieved. Inpatient care for SAM with medical complications is provided in a hospital or health facility with 24-hour care capacity.

SL	Term	Definition
54	Iodine deficiency disorder	One of a range of abnormalities that result from iodine deficiency, including reduction of IQ (on average a 10%-15% reduction), goiter, and cretinism.
55	Kwashiorkor	A clinical form of acute malnutrition resulting from protein-energy deficiency characterized by edema (swelling). Children with kwashiorkor typically have bilateral pitting edema, reduced fat and muscle tissue, skin lesions (dermatitis), and frequent skin infections, and appear apathetic and lethargic.
56	Low birth weight (LBW)	A birth weight of less than 2.5 kg. An infant that is born weighing less than 2.5 kg has a higher risk of mortality.
57	Macronutrient	One of a group of fats, proteins, and carbohydrates that are needed for a wide range of body functions and processes.
58	Malnutrition	A broad term commonly used as an alternative to undernutrition, but that technically also refers to overnutrition. People are malnourished if their diet does not provide adequate nutrients for growth and maintenance or if they are unable to fully utilize the food they eat due to illness (undernutrition). They are also malnourished if they consume too many calories (overnutrition).
59	Marasmus	A clinical form of acute malnutrition characterized by severe weight loss or wasting. Marasmic children are extremely thin

SL	Term	Definition
		and typically have grossly reduced fat and muscle and thin flaccid skin and are irritable.
60	Maternal mortality ratio (MMR)	Number of women who die during pregnancy and childbirth per 100,000 live births.
61	Maternal death	The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.
62	Micronutrients	Essential vitamins and minerals required by the body in miniscule amounts throughout the life cycle.
63	Micronutrient deficiency	A consequence of reduced micronutrient intake and/or absorption in the body. The most common forms of micronutrient deficiencies are related to iron, vitamin A, and iodine deficiency.
64	Micronutrient deficiency disease	A condition when certain micronutrients are severely deficient owing to insufficient dietary intake, insufficient absorption, and/or suboptimal utilization of vitamins or minerals, resulting in potential development of specific clinical signs and symptoms. Beriberi, pellagra, and scurvy are examples of micronutrient deficiency diseases.
65	Micronutrient malnutrition	Suboptimal nutritional status caused by a lack of intake, absorption, or utilization of one or

SL	Term	Definition
		more vitamins or minerals. Excessive intake of some micronutrients may also have adverse effects.
66	Mid-upper arm circumference (MUAC) indicator	Low MUAC is an indicator for wasting, used for a child 6-59 months old. MUAC < 110 mm indicates severe wasting or severe acute malnutrition (SAM). MUAC $\geq$ 110 mm and < 125 mm indicates moderate wasting or moderate acute malnutrition (MAM). MUAC cut offs are being debated. For example, new suggestions could be MUAC < 115 mm for SAM and $\geq$ 115 and < 125 for MAM. MUAC is a better indicator of mortality risk associated with acute malnutrition than weight-for-height.
67	Moderate acute malnutrition (MAM)	MAM, or moderate wasting, is defined as weight-for-height between -2 and -3 SD from the median weight-for-height for the standard reference population.
68	Multiple micronutrient powder	Home-based supplement that contains most of the micronutrients needed used by sprinkling on food. Proposed for children aged 6-23 or 6-59 months to improve the quality of complementary food or for pregnant mothers.
69	Neonatal mortality rate (NMR)	The number of neonates dying before reaching 28 days of age, per 1,000 live births in a given year.
70	Night blindness	Inability to see well in the dark or in a darkened room. An early sign of vitamin A deficiency.

SL	Term	Definition
71	Nutritional index	A means of measuring nutrition status. Different nutritional indices measure different aspects of growth (e.g., wasting, stunting, and underweight) and thus have different uses. The main nutritional indices for children are weight-for-height; mid-upper arm circumference (MUAC)-for-age, sex, and height; height-for-age, weight-for-age, all compared to values from a reference population. In emergency situations, weight-for-height (wasting) is commonly used for nutritional assessments.
72	Nutritional requirements	The amount of energy, protein, fat, and micronutrients needed for an individual to sustain a healthy life.
73	Nutritional screening	Individual-level assessment where each person is measured to identify and refer those needing further check-ups or such services as supplementary or therapeutic feeding.
74	Nutritional status	The anthropometric or micronutrient status of an individual.
75	Nutrition surveillance	The regular collection of nutrition information that is used for making decisions about actions or policies that will affect nutrition. In emergency situations, nutritional surveillance is part of early warning systems to measure changes in nutritional status of populations over time to mobilize appropriate preparation and/or response.
76	Nutrition survey	Survey to assess the severity, extent, distribution, and determinants of malnutrition

SL	Term	Definition
		in a population. Nutrition surveys in emergencies assess the extent of undernutrition or estimate the numbers of children who might require supplementary and/or therapeutic feeding or other nutritional support.
77	Outpatient care for management of severe acute malnutrition (SAM) without medical complications	Outpatient care is a community-based management of acute malnutrition (CMAM) service treating children with SAM without medical complications through the provision of routine medical treatment and nutrition rehabilitation with ready-to-use therapeutic food (RUTF). Children attend outpatient care at regular intervals (usually once a week) until weight recovery is achieved (usually 2 months).
78	Pellagra	A disease caused by niacin (vitamin B3) deficiency, which affects the skin, gastrointestinal tract, and nervous systems. Sometimes called 'the 3 Ds': dermatitis, diarrhea, and dementia.
79	Preterm birth	A birth before the due date (babies who spend less than 37 weeks in the womb). Preterm babies often weigh less than full-time babies.
80	Public nutrition approach	A broad population-based approach to address nutritional problems that explicitly recognizes the complex and coexisting causes of malnutrition; the different types of interventions to address nutrition, which range from the individual to the population level; and the broader social, political, and economic factors that determine nutritional status.

SL	Term	Definition
81	Rapid nutrition assessment	An assessment that is carried out quickly to establish whether there is a major nutrition problem and to identify immediate needs of the population. Screening individuals for inclusion in selective feeding programs is also a form of rapid nutrition assessment.
82	Ration	The ration or 'food basket' usually consists of a variety of basic food items (cereals, oil, and pulses) and, possibly, additional foods known as complementary foods (meat or fish, vegetables and fruit, fortified cereal blends, sugar, and condiments) that enhance nutritional adequacy and palatability.
83	Ready-to-use infant formula	A type of breast milk substitute that is nutritionally balanced and packed in a form that is ready to use for infants who do not have the option of being breastfed.
84	Ready-to-eat meals	A type of emergency ration that is a nutritionally balanced, ready-to-eat, and complete food. They generally come in two forms: as compressed, vacuum-packed bars or as tablets.
85	Ready-to-use supplementary food (RUSF)	Also called medium-quantity, lipid-based nutrient supplements because they are given in smaller amounts than ready-to-use therapeutic food (RUTF). Most RUSFs contain oil, dried skim milk, peanuts, sugar, vitamin mineral premix, and maltodextrin. Brands of RUSF include Plumpy-Doz (in tubs containing a weekly ration) and Plumpy'Sup (in 1-day sachets).

SL	Term	Definition
86	Ready-to-use therapeutic food (RUTF)	An energy-dense, mineral- and vitamin-enriched food specifically designed to treat severe acute malnutrition (SAM). RUTF has a similar nutrient composition to F-100. RUTF is soft, crushable food that can be consumed easily by children from the age of 6 months without adding water. Unlike F-100, RUTF is not water based, meaning that bacteria cannot grow in it and that it can be used safely at home without refrigeration and in areas where hygiene conditions are not optimal. It does not require preparation before consumption. Plumpy' Nut is an example of a commonly known lipid-based RUTF.
87	Rehabilitation phase	The third phase of treatment for complicated severe acute malnutrition(SAM) or initial treatment for uncomplicated SAM. It aims to promote rapid weight gain and to help the individual regain strength through regular feeds of high-nutrient and energy-dense foods and is ideally implemented as outpatient treatment.
88	Relactation	Induced lactation (breastfeeding) in someone who has previously lactated.
89	Replacement feeding	For infants who are not being breastfed, the provision of a nutritionally adequate diet until the age at which they can be fully fed on family foods.
90	ReSoMal	Oral rehydration solution for children with severe acute malnutrition(SAM).

SL	Term	Definition
91	Rickets	A disease caused by vitamin D deficiency that affects bone development; severe cases result in bowing of the legs.
92	Scurvy	A disease caused by vitamin C deficiency. Typical signs of scurvy include swollen and bleeding gums and the slow healing of wounds or reopening of old wounds.
93	School feeding	Provision of meals or snacks to school children to improve nutrition and promote school attendance.
94	Seasonality	Seasonal variation of various factors, such as disease, sources of food, and the agricultural cycle, that affect nutritional status.
95	Selective feeding program	A supplementary feeding or therapeutic care program.
96	Sentinel site	Selected community or service delivery site, used to detect changes in context, program, or outcome variable. Communities or areas are selected for a number of reasons, such as vulnerability to food insecurity in times of stress. Sentinel sites can range from health centers to villages to districts.
97	Severe acute malnutrition (SAM)	A result of recent (short-term) and severe deficiency of protein, energy, and minerals and vitamins leading to loss of body fats and muscle tissues. SAM is defined by the presence of bilateral pitting edema or severe wasting (mid-upper arm circumference

SL	Term	Definition
		[MUAC]< 110 mm [cutoff being debated] or a weight-for-height<−3 z-score [WHO standards] or weight-for-height < 70% of the median [NCHS references]). A child with SAM is highly vulnerable and has a high mortality risk. SAM can also be used as a population-based indicator defined by the presence of bilateral pitting edema or severe wasting.
98	Severe wasting	Severe wasting is a sign of severe acute malnutrition (SAM). It is defined by a mid-upper arm circumference (MUAC) < 110 mm (cut off being debated) or a weight-for-height <−3 z-score (World Health Organization [WHO] standards) or WFH < 70% of the median (NCHS references). Severe wasting is also called marasmus. The child with severe wasting has lost fat and muscle and appears very thin (e.g., signs of 'old man face' or 'baggy pants' [folds of skin over the buttocks]).
99	Sphere Project/ Sphere Standards	The Sphere Project Humanitarian Charter and Minimum Standards in Disaster Response is a voluntary effort to improve the quality of assistance provided to people affected by disaster and to enhance the accountability of the humanitarian agencies in disaster response. Sphere has established Minimum Standards in Disaster Response (often referred to as Sphere Standards) and indicators to describe the level of disaster assistance to which all people have a right. See www.sphereproject.org .

SL	Term	Definition
100	Stabilization center	Inpatient care facility established for the treatment of severe acute malnutrition (SAM) with complications.
101	Stabilization phase	The initial phase of inpatient treatment for complicated severe acute malnutrition (SAM). It is intended to stabilize and read just the patient's metabolism through the use of special foods (F-75) and medical treatment and allows for close monitoring of the patient and for urgent therapy if complications develop. It is also known as 'Phase I' or the 'initiation phase.'
102	Stunting	Technically defined as below-2 SD from median height-for-age of a reference population. See chronic malnutrition.
103	Supplementary feeding program	There are two types of supplementary feeding programs. 'Blanket supplementary feeding programs' target a food supplement to all members of a specified at-risk group, regardless of whether they have moderate acute malnutrition (MAM) or not. 'Targeted supplementary feeding programs' provide nutritional support to individuals with MAM. To be effective, targeted supplementary feeding programs should always be implemented when there is sufficient food supply or an adequate general ration for the general population, while blanket supplementary feeding programs are often implemented when general food distribution for the household has yet to be established or is inadequate for the level of food security in the population. The supplementary ration is

SL	Term	Definition
		meant to be additional to, and not a substitute for, the general ration.
104	Supplementary suckling	A technique used to induce lactation by providing therapeutic milk to an infant while he or she is suckling. When suckling, the child gets therapeutic milk from a tube attached to the mother's nipple. Suckling stimulates breast milk production, which eventually replaces therapeutic milk.
105	Supplementation (micronutrient)	Provision of micronutrients via a tablet, capsule, syrup, or powder.
106	Therapeutic care	Feeding and medical treatment to rehabilitate severely acutely malnourished children.
107	Therapeutic feeding program	A program that admits and treats severe acute malnutrition (SAM) either at the health facility level or on an outpatient basis.
108	Therapeutic milk	One of a group of milk-based products supplemented by fats, sugar, micronutrients, and other nutrients used in the treatment of severe acute malnutrition (SAM). Examples include F-75 and F-100, although other brands and local-based therapeutic milks exist.
109	Therapeutic paste	A generic term referring to lipid-based products used in the treatment of severe acute malnutrition (SAM).
110	Transition phase	The second phase of inpatient treatment for complicated severe acute malnutrition (SAM). It is intended to adapt progressively to the

SL	Term	Definition
		large amounts of food and nutrients that will be offered in the rehabilitation phase (outpatient or inpatient) and to monitor the patient.
111	Undernutrition	Occurs when the body does not get the right amount and type of nutrients it requires to maintain health. In children, undernutrition is manifested by a child being short compared to healthy children of the same age and sex (a condition known as chronic malnutrition or stunting), low weight for his or her height (known as acute malnutrition or wasting), or low weight for his or her age (known as underweight).
112	Underweight	Also known as weight-for-age. Underweight is a composite form of undernutrition that includes elements of stunting and wasting and is defined by a weight-for-age (WFA) z-score below 2 SDs of the median (World Health Organization [WHO] standards). This indicator is commonly used in growth monitoring and promotion (GMP) and child health and nutrition programs aimed at the prevention and treatment of undernutrition.
113	Under-5 mortality rate (U5MR)	Probability of dying between birth and exactly 5 years of age expressed per 1,000 live births.
114	Wasting	Technically defined as below –2 SD from the median weight-for-height of a reference population.
115	Weight-for-age	A composite index of weight-for-height and height-for-age that does not distinguish

SL	Term	Definition
		between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his age because he is stunted, because he is wasted, or both. Weight-for-age is a good overall indicator of a population's nutritional health.
116	Weight-for-height	Describes current nutritional status. A child who is below –2 SD from the reference median for weight-for-height is considered to be too thin for his/her height, or wasted, a condition reflecting acute or recent nutritional deficit. As with stunting, wasting is considered severe if the child is below –3 SD below the reference mean. Severe wasting is closely linked to mortality risk.
117	Wet feeding	Food aid provided in the form of a cooked ration to be consumed on site.
118	Wet nursing	Breastfeeding by a woman of a baby that is not her own.
119	Xerophthalmia	'Dry eyes,' which can be caused by vitamin A deficiency. Other eye signs of vitamin A deficiency related to the eyes include night blindness, Bitot's spots, and corneal ulcerations.
120	Z-score	The World Health Organization (WHO) Global Database on Child Growth and Malnutrition uses a z-score system to express the anthropometric value as a number of SD (or z-scores) below or above the reference mean or median value. WHO uses a cut-off

SL	Term	Definition
		point of <-2 SD to classify low weight-for-age, low height-for-age and low weight-for-height as moderate and severe undernutrition, and <-3 SD to define severe undernutrition. The cut off point of $>+2$ SD classifies high weight-for-height as overweight in children.

Note: Many of the definitions in the glossary were adapted from: UNICEF. 2012.

Annex C

Contact Details

Government of Bangladesh

Directorate General of Health Services

Mohakhali, Dhaka-1212

Tel : +88 02 8816459

Fax : +88 02 8813875

Email : info@dghs.gov.bd

Web : www.dghs.gov.bd

Directorate General of Drug Administration

105-106, Motijheel Commercial Area Dhaka-1000

Tel : +88 02 9556126

Fax : +88 02 9568166

Email : drugs@citech.net

Web : www.dgda.gov.bd

Department of Public Health Engineering

DPHE Bhaban, 14, Shaheed Captain Mansur Ali Sarani

Kakrail, Dhaka-1000

Tel : +88 02 9343358

Fax : +88 02 9343375

Web : www.dphe.gov.bd

Directorate General of Family Planning

6 Kawran Bazar, Dhaka-1215

Tel : +88 02 9119568, 9119463, 9119572, 9142642, 9135858

Fax : +88 02 9124523

Web : www.dgfpmis.org

Health Engineering Department
Ministry of Health and Family Welfare
105-106, Motijheel C/A, Dhaka-1000
Tel : +88 02 7169313
Fax : +88 02 7169312
Email : info@hed.gov.bd
Web : www.hed.gov.bd

Institute of Public Health Nutrition Bangladesh
Mohakhali, Dhaka-1212
Tel : +88 02 8821361
Fax : +88 02 9898671
Web : www.iphn.gov.bd

Ministry of Health and Family Welfare
Bangladesh Secretariat, Dhaka
Tel : +88 02 9559216
Fax : +88 02 9559216
Email : sasadmin2@mohfw.gov.bd
Web : www.mohfw.gov.bd

National Institute of Population Research and Training
Tel : +88 02 8821361, 9899414
Fax : +88 02 9898671
Web : www.niport.gov.bd

International NGOs

Alive & Thrive
1825 Connecticut Avenue, NW Suite
Washington, DC 20009-5721
Tel : 202 884-8000
Fax : 202 464-3966
E-mail : aliveandthrive@fhi360.org
Web : www.aliveandthrive.org

Concern Worldwide

House - 15 SW(D), Road - 7

Gulshan - 1, Dhaka

Tel : +88 02 8816923, 8818009, 8811469

Fax : +88 02 8817517

Web : www.concern.net

Food and Agriculture Organization of the United Nations

House - 37, Road - 8

Dhanmondi, Dhaka- 1205

Tel : +88 02 8831415, 8118015-8

Fax : +88 02 8113446

E-mail : FAO-BD@fao.org

Web : www.fao.org

Food and Nutrition Technical Assistance III Project

1825 Connecticut Avenue, NW

Washington, DC 20009

Tel : 1+202-884-8000

Fax : 1+202-884-8432

Email : fantamail@fhi360.org

Web : www.fantaproject.org

Helen Keller International

House - 10F, Road - 82

Gulshan - 2, Dhaka -1212

Tel : +88 02 9886958, 9853919, 8823055

Fax : 9855867

Web : www.hki.org

icddr,b

68 Shaheed Tajuddin Ahmed Sharani

Mohakhali, Dhaka-1212

Tel : +88 02 9827001-10

Fax : +88 02 9827075, 9827077

Web : www.icddrb.org

International Food Policy Research Institute

House - 10A, Road - 35, Gulshan- 2, Dhaka-1212

Tel : +88 02 9898686, 989 3434

Fax : +88 02 9896760

E-mail : a.ahmed@cgiar.org

Web : www.ifpri.org

Pathfinder International

Bangladesh Country Office

House - 15A, Road - 35

Gulshan - 2, Dhaka-1212

Tel : +88 02 9005727

Web : www.pathfinder.org

REACH

WFP, IDB Bhaban, E/8-A, RokeyaSharani

Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

Tel : +88 02 918 3022

Email : mary.manandhar@one.un.org

Web : www.reachpartnership.org

Save the Children

House - CWN (A) 35, Road - 43, Gulshan - 2, Dhaka 1212

Tel : +88 02 9861690

Fax : +88 02 9886372

E-mail : michael.foley@savethechildren.org

Web : www.savethechildren.org/site/c.8rKLIXMGIpI4E/b.6150521/k.1450/Bangladesh.htm

Terre des hommes

House - 141 (5A), Road - 4

Banani - A, Dhaka

Tel : +88 02 8835114

E-mail : mariejeanne.hautbois@tdh.ch

Web : www.tdh.ch

UNICEF

BSL Office Complex, 3rd Floor
(Dhaka Sheraton Hotel Annex)

1, Minto Road, Dhaka

Tel : +88 02 8852266

Fax : +88 02 9335641-2

Email : dhaka@unicef.org

Web : www.unicef.org

World Food Programme

IDB Bhaban(16 Floor) E/8-A, RokeyaSharani
Sher-e-Bangla nagar, Dhaka-1207

Tel : +88 02 9183022 -25

Fax : +88 02 9183020

Web : www.wfp.org

World Health Organization

GPO Box 250 Dhaka-1212

Tel : +88 02 8831415

Fax : +88 02 8831423

Email : registryban@searo.who.int

Web : www.who.int

World Fish

House - 22B, Road - 7, Block - F, Banani, Dhaka

Tel: +88 02 8813250

Fax: +88 02 8811151

Web: www.worldfishcenter.org

Other Organizations

Bangladesh Breastfeeding Foundation

Room- 197-200, Institute of Public Health (IPH)

Mohakhali, Dhaka-1212

Tel : +88 02 9860801, 8831134

Fax : +88 02 8813292

Email : info@bbf-bd.org, breastfeeding.bd@gmail.com

Web : www.bbf-bd.org

Bangladesh Pediatric Association

Plot - 7/3c, Barabag

Section - 2, Mirpur, Dhaka

Tel : +8801713003110

Fax : info@bpad.org

Web : www.bpabd.org

BRAC Bangladesh

BRAC Centre, 75 Mohakhali, Dhaka-1212

Tel : +88 02 9881265, 8824180-7

Ext : 3155, 3158, 3107, 3161

Fax : +88 02 8823542

E-mail : info@brac.net

Web : www.brac.net

CARE Bangladesh

Mission Management Office (MMO)

Pragati Insurance Bhaban (9th - 13th floor)

20-21, Kawran Bazar, Dhaka - 1215

Tel (MMO) : +88 02 9140492

Tel : +88 02 9112315, 9119294, 9111508

Fax : +88 02 8114183

Email : info@bd.care.org

Web : www.carebangladesh.org

Civil Society Alliance for Scaling up Nutrition, Bangladesh

BRAC Centre

75 Mohakhali, Dhaka

Tel : +88 02 9881265

Fax : + 88-02-8823542, 88-02-8823624

Web : www.sunca.org

Food Security Nutritional Surveillance Project

James P. Grant School of Public Health

5th Floor, (Level-6), icddr, b Building

68, ShahidTajuddin Ahmed Sharani

Mohakhali, Dhaka-1212

Tel : +88 02 9827501- 4 Ext : 6020,6007

Fax : +88 02 8831683

Web : www.fsnsp.net

Obstetrical & Gynaecological Society of Bangladesh

10/7 Iqbal Road (Ground Floor)

Block-A Mohammadpur, Dhaka-1207

Tel : 88 01199486199, 88 01718810718

Email : ogsb@agni.com

Web : www.ogsb.org

Micronutrient Initiative

Apartment- B- 3, House - 17

Road - 42, Gulshan - 2, Dhaka-1212

Tel : +88 02 9899896

Fax : +88 02 8815154

Web : www.micronutrient.org

Social Marketing Company

SMC Tower, 33, Banani C/A, Dhaka - 1213

Tel : +88 02 9821074-80

Fax : +88 02 9821581, 9821957

E-mail : smc.corp@smc-bd.org

Web : www.smc-bd.org

Other web address (International Organization)

Bill and Melinda Gates Foundation

www.gatesfoundation.org

Canadian International Development Agency

www.acdi-cida.gc.ca/home

Centre for Disease Control and Prevention (CDC)

www.cdc.gov

GAIN (Global Alliance for Improved Nutrition)

www.gainhealth.org

International Fund for Agricultural Development

www.ifad.org

Program for Appropriate Technology in Health

www.path.org

United States Agency for International Development (USAID)

www.usaid.gov

UK Department for International Development

www.DfiD.gov.uk

World Bank

www.worldbank.org

World Vision International

www.wvi.org

Annex D

Breast Milk Substitute Code

Registered No D A-1



Additional copy

Published by Authority

Sunday, September 22, 2013

Parliament of Bangladesh

Dhaka, 22 September, 2013 / 07 Aswin, 1420

The underwritten Act passed by the Parliament has received the consent of the President on 22 September 2013 (07 Aswin 1420) and it is hereby published for information to the public:

Act No. 35 of the year 2013

An Act for the purpose of repeal of the Breast Milk Substitutes (Regulation of Marketing) Ordinance, 1984, and to reintroduce the law with amendments.

Whereas by repealing the Breast-milk substitutes (Regulation of Marketing) Ordinance 1984 (Ordinance No. XXXIII of 1984) with amendments, it is necessary to enact and reintroduce the law:

Therefore by this the following Act has been made:

1. Short title and Commencement:—(1) The Act will be called the Breast Milk Substitutes, infant foods, commercially prepared complementary foods for children and related accessories (Regulation of Marketing) Act, 2013.

(2) It shall be effective immediately.

2. Definitions:—Unless there is anything repugnant in the subject or context, in this law,-

(a) National Advisory Committee' means a national advisory committee formed under clause 8;

(b) 'Receptacle' means any form of packaging such as a box, bottle, casket, tin, can, barrel, container, case, tube, mug, sack, wrapper or other things in which any breast-milk substitute or infant food or commercially prepared complementary food for children is filled, put or placed for sale or distribution;

(c) "Determined" means decided by the by law;

(d) "Director" means Director of Institute of Public Health Nutrition;

(e) "promotion/advertisement" means to make any attractive campaign by advertisement for promoting the marketing, sale or distribution of breast milk substitutes, infant foods, commercially prepared complementary foods, or accessories for use of those;

(f) "Criminal Procedure" means Code of Criminal Procedure, 1898 (Act V of 1898);

(g) "Breast-milk substitute" means any food prepared, marketed or otherwise represented as a partial or total replacement of breast-milk, any baby food up to six months of age;

(h) "Baby food" means any food prepared, marketed or presented otherwise for partial, or complete as substitute for babies after complete six months of age;

(i) "Label" means any display attached to a container in writing, drawing, branding, marking, stamping, printing, picture or designed;

(j) "Commercially prepared complementary food for children" means any food from 6 (six) months of age after birth until 5 (five) years of age which is commercially prepared with necessary nutritional requirement whatever the name is called by;

(k) "Advertisement" means notice, leaflets, envelope, prints including any documents, electronic media, email, internet, written or printed announcement or presentation using sound or light or any other method will be included;

(l) "Person" means company, society, organization, group of people, registered or unregistered, importer, producer, marketing agency, distributor and sellers of Breast Milk substitutes, baby food, commercially prepared complementary foods for its use accessories will be included;

(m) "Health Worker" in relation to fulfil the objective of this law, means a person engaged to provide health care services to an infant, mother of infant and pregnant women;

(n) "Health care facility" means a public or private institution or organization or private practitioner's clinic or private health service center for child, mother of child or pregnant woman and child day care center or any other child care facility will be include in it;

3. Priority of the law:—This provisions of this Act will be given priority over any other law or deeds with status of the law in force containing whatever differences.

4. Prohibition against Breast milk substitute, infant food etc.:—(1) No person shall print, display, promote exhibit, distribute, circulate, or publish any advertisement or engage himself in any such work for import, produce locally, marketing, sell, or distribution

promoting the use of any breast-milk substitutes, baby food, commercially prepared complementary foods for children and accessories for its use.

(2) Under overall context of sub Section (1), especially among others, the following under stated activities shall not be done, such as:

(a) Distribute to the public, specially persons, students or members of their families who are engaged in health, nutrition or education leaflets, handbills or similar any deeds which has advertisement of breast milk substitutes, baby food, commercially prepared complementary foods, or accessories for its use;

(b) For the objective of promoting the sell or attraction to breast milk substitutes, baby foods, commercially prepared complementary foods and its accessories:

(i) To propose or give anybody gift materials, discount coupon, reduced price, or free materials;

(ii) To give any kind of financial or any other facilities by its manufacturers organizing or sponsoring any seminar, conference, symposium, workshop, training, scientific meeting, education tour, or attending international conference, higher education, engaging in research to anybody or officer and staff of health center or health workers;

(iii) To offer financial incentive or any other gift to any health professional or any member of his/her family;

(iv) To use any health service center or any medicine selling center;

(c) To organize any completion or any function or giving any assistance for children;

(d) To give impression or conduct any activity to create a belief that breast milk substitute, baby foods or commercially prepared complementary foods are substitute for breast milk, better than breast milk or equivalent to breast milk;

(e) To directly contact or give provocative proposal to any pregnant woman, lactating mother or mothers of children;

(f) To distribute leaflets or gifts related to breast milk substitute, baby food, commercially prepared complementary foods and accessories for its use during promotion of commodities specially children's goods (such as diaper, clothes, toy, doll, cosmetics, toiletries etc.);

(g) To donate or distribute breast milk substitute, baby food, commercially prepared complementary foods and accessories for its use to any organization or rescue shelters to save or reduce risk of children under 5 years or affected or endangered pregnant woman or newly delivered woman due to natural calamity defined in sub clause (11) of Clause 2 of the Disaster Management Law 2012 (Law no 34 of 2012);

(h) To perform defined any other work.

5. Rules related to import, local production, sell etc. for breast milk substitute, baby food etc.:—No body shall be able to import, produce locally, market, sell, or distribute breast milk substitute, baby food, commercially prepared complementary foods and accessories for its use without registration under this law.

6. Information on the container and labeling of breast milk substitute, infant foods etc.:—(1) Without undermining the provisions of any other law for the time being, no body shall be able to sell and distribute breast milk substitute, baby food, commercially prepared complementary foods and accessories for its use unless in each container and its label is printed or mentioned with distinct, easily visible, readable, easy to understand Bangla and bright color heading "Important information", such as:

(a) An statement on "There is nothing substitute of Breast milk or its equivalent" be printed just immediate below the name of the product in equal size letters of the name of the product;

(b)Batch No., registration number and dates of manufacturing and date of expiry;

(c) Where applicable, " Breast milk substitute, baby food, are not real source of child nutrition" or " commercially prepared complementary foods are not real source of child nutrition" a warning message;

(d) used ingredients and its analysis;

(e) Instruction for preservation;

(f) defined any other description.

(2) Sub Section (1) mentioned any container or labeling:

(a) No picture of baby or mother or both or any other picture be allowed;

(b) No graphics, cartoon pictures shall not be used for easy identification of breast milk substitute, baby food, commercially prepared complementary foods;

(c) No word as suitable for child or useful for baby shall not be printed;

(d) Defined any other description shall not be printed or contained.

(3) Clear instruction guide shall be provided on proper method of its preparation and information regarding composition and use.

7. Educational or other information:—In order to give services before birth or after birth, communication with pregnant women, lactating mother or mothers of children Informational or educational materials, whether written, audio or visual, with others, the following information shall be included:

(a) The benefits and superiority of breastfeeding;

(b) Appropriate methods of breastfeeding and to maintain that;

- (c) Early initiation of breastfeeding within 1(one) hour of birth, the value of exclusive breastfeeding for six months, after 6 (six) months by the side of breast milk, benefits of giving homemade complementary foods and giving importance to continue breastfeeding up to two years of age;
- (d) Information on how breast-milk substitute, baby foods, commercially prepared complementary food and accessories (feeding bottles, pacifiers etc.) are harmful for new born babies;
- (e) Information on easy preparation of complementary foods at home using local ingredients (such as locally produced fruits, vegetables, fish, meat, milk, egg etc.) and information on how to encourage to feed those to children;
- (f) Information on injury to health of baby and mother, obstacle to raise good citizen of state, social and economic loss and its ill effect due to use of breast-milk substitute, baby foods, commercially prepared complementary food;
- (g) Difficulties for return to breastfeeding again after using breast milk substitutes and baby foods;
- (h) Any other subject as specified.

8. Formation of National Advisory committee:—(1) To promulgate the objectives of this law, there will be a committee called National Advisory Committee.

- (2) The committee will be of 9 (nine) members including the Chairman.
- (3) The Chairman and the members will be nominated for a period of 3 (three) years and with the conditions decided by the Government.
- (4) Meetings of the committee and other activities will be conducted in prescribed manner.

(5) Institute of Public Health Nutrition will provide necessary secretarial and other supports to accomplish activity of the aforesaid committee.

9. Activities of the committee:—The activities of the National advisory Committee will be the following, such as:

- (a) To advise the Government on appropriate monitoring and undertaking actions on International Code of Marketing of breast-milk substitute, baby foods, commercially prepared complementary food and accessories for its use;
- (b) To act as vested, directed or fixed other activities by the Government to fulfill the objectives of this Act; and
- (c) any other acts as specified.

10. Registration of Breast milk substitute, baby foods etc.:—

- (1) In order to fulfill the objectives of this Act, the Director will issue the registration for Marketing of breast-milk substitute, baby foods, commercially prepared complementary food.
- (2) Under Subsection (1) to get registration, every application is to be submitted to the Director in a prescribed manner, form, conditions and on payment of fees.
- (3) Application submitted under sub Section (2) will have to be registered within 60 (sixty) days according to the law and Rules made under this Act.
- (4) Under this Section, registration certificate shall mention the duration and conditions necessary for registration.
- (5) Under sub Section (3), duration of every registration will be 3 (three) years from the date of registration and will be renewable after submitting the prescribed fees.

11. Postponment of registration and cancellation etc.:—(1) The Director in the prescribed procedure will be able to postpone or cancel the registration for violation of this Act or any Rules made under this Act or violation of conditions mentioned in the registration or if any incorrect information provided to get the registration.

(2) No registration can be postponed or canceled without giving a notice for at least 15 (fifteen) days to the recipient of registration under sub Section (1).

(3) Any person aggrieved by the order given under sub Section (1) shall be entitled to file appeal to the Government within 30 (thirty) days from the date of receipt of the order.

(4) Under sub Section (3), decision has to be made within 60 (sixty) days from the date of filing of appeal, and the decision of the Government in this regard shall be final.

12. Punishment:— (1) If any body violates any provisions of this Act, then the violation will be an offence and for that he will have to suffer imprisonment up to 3 years or fine of taka 5,00, 000 (Five lakh) or both.

(2) If any child becomes ill or dies from use of Marketing of breast-milk substitute, baby foods, commercially prepared complementary food, it will be a punishable offence under this law and for that the company manufacturing the breast-milk substitute, baby foods, commercially prepared complementary food or its accessories will have to suffer imprisonment for 10 (ten) years or fine of taka 50,00, 000 (fifty lac) or both and the fine will be given as compensation to the family of the victimised child in a prescribed manner.

13. Punishment for repetition of offence:—If anybody repeats the offence second time or repeatedly mentioned under this Act, he will be sentenced consecutively in double for that offence.

14. Committing offence by Company:—(1) If any offence under this law has been committed by any company, having direct association with that offence, every director, manager, secretary, partner, officer and staff will be deemed to have committed the offence unless he can prove that the offence has occurred without his knowledge or he has tried his level best to prevent that offence.

(2) If the Company, mentioned in Sub Section (1) is a body corporate, the Company will be separately accused and guilty besides the person found accused and guilty in sub Section (1) but as per the provisions of Criminal Procedure, the company will be punished by fine only.

Explanation—in this clause

(a) "Company" means any commercial organization, partnership business, society or organization are also included;

(b) In case of commercial organization, "Director" means any partner or member of the board of mangement is included.

15. Cancellation of goods, equipment associated with the offence—If any offence occurred under this Act, the goods and materials, equipment or any other things involved in creation of offence, those will be liable to be forfeited/confiscated and destroyed in appropriate cases.

16. Right to enter etc.—Director or his empowered officers will be entitled to enter any place or in any vehicle or search under this law or regulation made under this law, in reasonable time where any material or commodity associated with the offence have been hidden or stored in a building, godown or place.

17. Application of the Code of Criminal Procedure.—Under this Act, lodging of any complaint, investigation, trial and disposing of appeal, provision of the Code of Criminal Procedure will be applicable.

18. Application of law No. 59 of the year 2009:— Notwithstanding any provisions contained in this Law, offences punishable under this Act shall be treated under the Mobile Court Act, 2009 (law No. 59 of the year 2009).

19. Special provision regarding imposition of fine:— Notwithstanding any other provisions stipulated in the Code of Criminal Procedure, in case of imposing monetary fine to anybody under Section 12, the court imposing fine shall have the power under this Act.

20. Cognizability of offence and Bailability:— Notwithstanding anything contained in the Code of Criminal Procedure, all offences under this Act shall be cognizable and non bailable.

21. Power of framing Rules:— In order to fulfill the objectives of this law, the government will be able to frame Rules by giving notification in the government gazette.

22..Removal of difficulties:— In case of difficulty for implementation of any provisions of this Act, due to obscurity of any Clause, keeping consistency with other provisions of this Act, the Government by notification in the gazette will be able to give clarity or explanation of that provisions and direction for course of action.

23. Publication of the English text:—(1) After introduction of this Act, the government will publish an English version of the law by notification in the government gazette, which will be known as the Authentic English version (Authentic English Text) of this law.

(2) When there is conflict between the English and Bangla versions, the Bangla version will be given preference.

24. Repeal and preservation- (1) The Breast-Milk Substitute (Regulation of Marketing) Ordinance, 1984 (Ordinance XXXIII of 1984) is hereby repealed.

(2) Even after repeal, any case is under trial or in progress under the repealed law, will have to be resolved under the law in force at that time.

Md. Mahfuzur Rahman
Secretary

Printed by Md. Nazrul Islam (Deputy secretary) Deputy Director,
Bangladesh Government press, Tejgao, Dhaka. Published by Abdur Rashid
(Deputy Secretary, deputy Director, Bangladesh form and publication office,
Tejgao, Dhaka. Website: WWW.bgpress.gov.bd

