Food Security

Food is necessary for us to survive but sometimes we don't get food for some reason or the other, or we don't eat food. Have you ever starved or been without food for a day or two? How did you feel when you were hungry? How can anyone stay alive without food for a long period of time? Think of the reasons why any individual or family has to remain hungry. Discuss these issues with your teacher.

Let us examine the following situations:

A picture of drought in Madhya Pradesh: Around 80 years ago, there was a severe drought in the West Nimar region. How did the people survive this natural calamity? The students of a local school interviewed the elders of their village and documented their findings. A description in the document is given below:

"Nothing grew during the drought. People ate whatever they could lay their hands on. They ground and ate the leaves, bark and any other portion of trees. There was no edible vegetation available in the forests during the drought. Food-grain was very expensive. Normally, five kilos of food-grain cost a rupee. But during the drought you could not even buy one kilo of food-grain for five rupees. That's why people used to boil *jowar*



Figure 20.1: Hunger-stricken humans and animals

in water and drink the brew. Grain was so scarce that this brew was highly diluted. It was so clear and thin that one could see the reflection of the rafters of the roof when it was poured into a *thali* to drink. The bark of trees was ground with *bajra* to get enough flour to prepare *rotis* to eat. Food-grain was so expensive that you ate a fistful of grain and drank water from the *matka* to stay alive. Every part of the tree was consumed. Even soil was eaten."

(Source: Rookhi Sookhi, Aadarshila Shikshan Kendra, 2014)

(Source: Adapted from 'Poverty and Famines', Amartya Sen)

The great Bengal famine: Around 30 lakh people perished in the famine that ravaged Bengal in 1943. It started with a small drop in the production of food-grain as a result of bad weather conditions. This fall in output set in motion a vicious chain of events that led to the terrible famine. Imports of food-grain from abroad were also affected. Traders began hoarding food-grain, which led to a steep rise in their prices. Farmers, too, retained food-grain for their personal consumption so very little food-grain reached the market for sale. The prices of all food-



Figure 20.2: A family affected by drought and hunger, 1943

grain rose rapidly. The government also made little effort to combat hoarding and rising prices or to augment supplies of food-grain to overcome the shortages. As a result, prices of food-grain rose to alarming levels. The sky rocketing prices hit the most vulnerable among the poor especially hard – daily labourers, fishermen, carpenters, headload workers, etc. Food-grain soon went beyond their reach and they began to perish of hunger in large numbers. The dance of death had begun.

Invisible, long-term hunger: If you look at the pictures below, you will think these people are healthy. But looks can be deceptive. This woman and girl are victims of malnutrition. There are large numbers of people who are malnourished. Externally, their bodies look more or less normal but internally they are very weak. They are victims of invisible hunger. It isn't as if these people do not eat. They do. But because of their poverty and low income level they do not get enough to eat every day. If this situation of not getting enough to eat continues for a long time, it creates a situation of long-term hunger. Such a situation is extremely dangerous from the point of view of their health. Nutrition surveys reveal how widespread this situation is. You will read more about it in this chapter.





Figure 20.3: long-term (Invisible) hunger people

Has the area in which you live experienced drought or famine in any year? Talk to your elders and prepare a report about how they faced such a situation?

What differences can you see between hunger resulting from famine and long-term hunger? Explain these differences.

Explain the vicious chain of events that led to the alarming rise in food-grain prices during the Bengal famine

What is food security?

The three scenarios described above bring out the misery of people who are victims of hunger and starvation. The concept of food security is built on these scenarios. Humans need food in addition to air and water to stay alive. Food security is to ensure the availability of adequate quantities of nutritious food and to also ensure that this food is within the reach of all people and they are capable of obtaining it.

Food security has three dimensions:

- 1. **Availability** of food in India.
- 2. Access to food through government programmes.
- 3. **Affordability** of food (purchasing power) in the market.

The Government of India enacted the Food Security Act – also called the Right to Food Act - in 2013 to ensure food security in the country. Under this act, which applies to the majority of the people, eligible households are provided food-grain every month at subsidised prices.

Chhattisgarh state enacted the Chhattisgarh Food Security Act 2012 with the objective of making food-grain available in adequate quantities to all its citizens. The act states that it will "provide for food and nutritional security by ensuring access to adequate quantity of food and other requirements of good nutrition for people of the state, at affordable prices, at all times to live a life with dignity and for matters connected therewith".

(Source: Chhattisgarh Food Security Act 2012)

Availability of Food-grain in India

The objective of food security can be realised only if food is available in adequate quantities. Food availability includes the availability of food-grain like wheat, rice, *dal*, coarse grains, etc. Food-grain production has increased manifold over the past five decades as a result of the implementation of various government plans. Food-grain production has increased four-fold since India gained independence. We can trace this growth in food-grain production in the following table:

Table 20.1: Food-grain	production and	l availability in India
------------------------	----------------	-------------------------

Year	Population (million tonnes)	Food-grain production (million tonnes)	Total imports/s export (million tonnes)•	Total available food-grain (million tonnes)
1951	363.2	48.1	(+)4.8	52.9
1961	442.4	72.0	(+) 3.5	75.5
1971	551.3	94.9	(+) 2.0	96.9
1981	688.5	113.4	(+) 0.7	114.1
1991	851.7	154.3	(-) 0.1	154.2
2001	1033.2	172.2	(-) 2.9	169.3
2010	1185.8	190.8	(-) 2.2	188.6
2011	1201.9	213.9	(-) 2.9	211

• **Note:** If imports exceed exports in any year, the total available food-stock increases. This increase is shown by a (+) sign. Similarly, if exports exceed imports, the total available food-stock decreases. This is shown by a (-) sign.

(1 million tonnes = 10 lakh tonnes. 1 tonne = 1000 kg).

(Source: Economic Survey 2015-16)

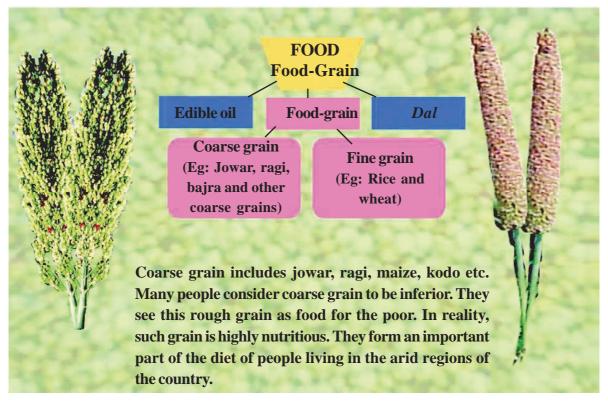


Figure 20.4: Coarse grain

The above statistics reveal that India was facing severe foodstuff shortages at the time the country gained independence. The government had to import 4.8 million tonnes of food-grain from abroad to ensure adequate supplies in the country. In the subsequent years, food-grain production grew as the population increased. The government had to still import some food-grain to maintain adequate supplies. Food-grain production increased rapidly from the decade of the 1970s, making the country more self-sufficient in food supply and reducing the quantity of food-grain that needed to be imported.

At the time of independence, the country faced a shortage of all food-grain, including wheat, rice, pulses, oilseeds and coarse grains. Planned development led to the growth in production of all food-grain. But the biggest gains in production were in wheat and rice while the increase in coarse grain, pulses and oilseeds, which are highly nutritious, was comparatively modest.

The figures in Table 20.1 reveal that food-grain production increased in India. To understand food availability, it isn't enough to know the total food production. We also have to calculate how much food is available to every person in the country. The per capita availability tells us whether we are self-sufficient in food and whether sufficient food is available for all the people. To calculate the daily per capita food availability, we have to first divide the total food production in the country by the population to get the annual availability and then divide the figure by 365 (number of days in the year) to get the daily availability.

 Year
 Daily per capita food availability (in gm)

 1951
 399

 1991
 496

 2010
 \

 2011
 481

Table 20.2: Daily per capita food availability

(The change in food-stocks has not been included in the above calculation)

The calculations in the table are based on the figures contained in Table 20.1. They show that the daily per capita food availability has risen steadily but this increase is insufficient to match the growth in population.

We do not get our requirement of nutritious elements by consuming food-grain alone. We also require to consume fruit, vegetables, milk, meat, eggs, etc to meet our nutrition needs. Their consumption indicates that people a getting a balanced diet.

Calculate the daily per capita food availability in 2010 on the basis of the figures contained in Table 20.1.

What is your opinion of coarse grains?

Why is it necessary for a country to know the per capita food availability?

Access to food

To ensure food security, in addition to ensuring food availability in adequate quantities it is also necessary to ensure that all people have access to food. Some people grow the food-grain they need but the majority of people have to buy food-grain in the market so they depend on public supplies available in the market. People who live in urban areas or who don't possess land are totally dependent on the open market. Many people are poor and unemployed. Keeping the situation of such people in mind, the government undertakes several schemes in its efforts to achieve the objective of food security for all.

Let us re-examine the Chhattisgarh Food Security Act 2012 and its programmes in the light of this objective. We shall now discuss some of these programmes, such as the public distribution system (PDS), integrated child development schemes (ICDS) and the mid-day meal programme (MDM).

Public Distribution System (PDS): The PDS is an ambitious scheme run by the government. A network of fair price shops has been set up across the country to make available foodstuff such as rice, wheat, sugar, gram, salt, kerosene etc at subsidised prices to the country's most needy people. Eligible households can buy their monthly supply of a fixed quantity of these essential commodities from these fair price shops by producing their ration cards. Today, this network of fair price shops covers almost every village and town in the country. Their number presently exceeds 4.63 lakh, with Chhattisgarh alone having 11,088 shops as on October 2014.

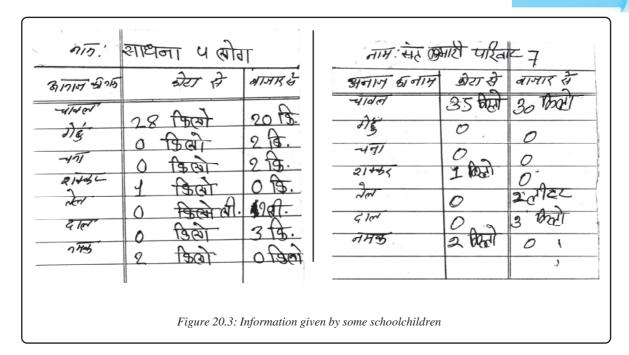
The Food Corporation of India (FCI) ensures a steady supply of food-grain to the fair price shops to meet their distribution needs. The FCI buys wheat and rice at the government-fixed minimum support price from farmers in states with surplus food-grain production. The government announces the minimum support price in advance to encourage farmers to grow these crops and increase their production. The purchased grain is stored safely in large warehouses to maintain a steady supply of food-grain to the fair price shops. The FCI has another objective in storing food-grain – to create a buffer stock. The volume of grain in the buffer stock is determined by the country's present and future needs, especially to meet scarcities or shortages caused by a fall in grain production as a result of bad weather or natural calamities.

We collected some data on the food-stocks available in the homes of some school-children at school. We asked the children where their families buy their food-grain and other foodstuff. We also asked them whether the foodstuff they bought in the fair price shops was enough to meet their monthly requirements. Children reported that their families bought food-grain from both the fair price shop (Quota) as well as from the open market. As an example the information provided by two students is contained in Figure 20.5.

Why is a public distribution system essential to ensure food security?

Project work:

Make a table similar to Table 20.3 listing the food commodities bought by your family in a month from the fair price shop and the open market. Analyse your list.



How are the fair price shops managed in your area? What are the commodities sold through the PDS? Prepare a report.

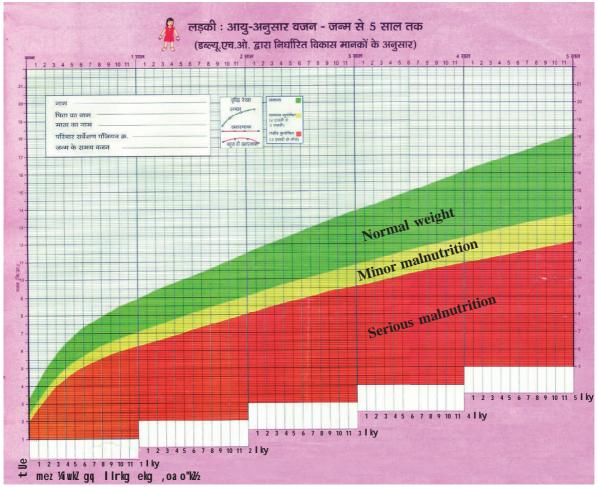
Integrated Child Development Scheme (ICDS): Under this scheme, a network of *anganwadis* has been set up in the country to monitor the health of pregnant and lactating mothers as well as children aged 6 months to six years and to provide them with nutritious food and other services. This is the most crucial age for the mental and physical growth and development of children, with 90% of their mental development occurring during this phase. Hence, they receive their vaccinations on schedule and undergo routine health check-ups, with age-appropriate nutritional supplements provided as they grow up. They also receive pre-school education and health education.

According to the National Institute of Nutrition (NIN) in Hyderabad, 43% of Indian children are underweight for their age. This poses a big challenge for the ICDS programme. You saw in Table 17.6 in the chapter 'Understanding development' that the percentage of malnourished children in the country is quite high. The physical development of children after birth is monitored with the help of a weight graph to see if their growth is appropriate to their age. If you visit an *anganwadi* you will see this growth graph displayed on the wall.

The growth graph (Graph 20.1) is different for boys and girls. The child's weight from birth to 60 months (5 years) is registered in the table. The weight is considered to be normal if it within the range given in the table. If the weight is less than normal for the age, it indicates mild malnutrition. If the weight is far below normal, it indicates severe malnutrition. In such a situation, the child requires adequate care and additional nutrition supplements. Normally, a child requires only the mother's milk from birth to 6 months and additional quantities of nutritious food given at small intervals after 6 months.

Graph 20.1

Age-related weight range (for girls) from birth to 5 years as per WHO standards of physical development



Two three-year-old girls, Santhoshi and Rambai, weigh 10.5kg and 13kg respectively. What is their nutrition status as per Graph 20.1?

Six months later, Santhoshi still weighs 10.5kg while Rambai weights 14kg. Compare their nutritional status by plotting their physical growth on the graph.

Explain the role of anganwadis in providing food for small children and pregnant women.

Mid-day meals (MDM): Many children eat very little food and go to school hungry. They cannot study well because they do not have the energy to study. The mid-day meal scheme seeks to resolve this problem and ensure food security for these children.

The mid-day meal scheme is an important programme run in all government schools (primary and upper primary) in all the states in the country. In addition to free and compulsory education for all schoolchildren aged 6 years to 14 years, they also get an afternoon meal. They get nutritious food in the government specified MDM menu.

Is the MDM scheme necessary to ensure food security? Explain with reasons.

Purchasing power and the market

The majority of people depend on the open market to get the food they need. Farmers grow food-grain for their personal consumption and depend on the market for a few other food commodities. The non-farming classes – labourers, traders, salaried workers etc – buy most of their food supplies in the market. Those with sufficient purchasing power can buy all the food they require. Those with low purchasing power depend on government food-distribution schemes for their food supplies. They also have to buy some food commodities in the market but their purchasing power is so low that

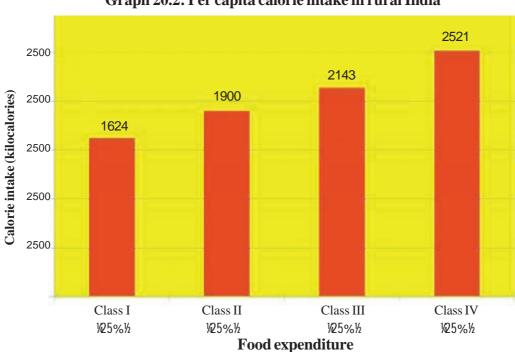


Figure 20.5: Schoolchildren eating their mid-day meal

they cannot buy nutritious food in adequate quantities. They fall prey to many illnesses like malnutrition because of their long-term lack of nutritious food.

The energy our body gets from food is measured in calories. A person living in an urban area requires 2100 calories of energy every day to remain healthy while a person living in a rural area who does physical labour requires 2400 calories a day. An NSSO survey has revealed that both urban and rural dwellers get less calories than this average.

According to a survey conducted in 2004, the people living in rural areas can be divided into four classes on the basis of their expenditure. The share of food commodities in their expenditure is given in Graph 20.2.



Graph 20.2: Per capita calorie intake in rural India

If we examine the figures in Graph 20.2, we see that the per capita calorie intake of people in Class I (1,624 calories) is considerably lower than the average daily per capita requirement of 2,400 calories. The situation is similar for people in Class II and Class III. The main reason why these working class people cannot get their daily calorie requirement is their low purchasing power.

Who are the people who depend totally on the market for their food requirements?

What do you think is the possible reason for people having so little money to spend on their food requirements? How does this affect their health?

Nutritional status

We discussed food availability, accessibility and affordability (people's purchasing power) in the context of ensuring food security for all. We also learned how various government schemes support the poor. But are all people really enjoying food security? The easiest way to find out is to medically examine them or use a scientific method to assess their nutritional status. The most widely used method is to calculate the body-mass index (BMI), based on the individual's age, height and weight. The BMI method is approved by the World Health Organisation (WHO).

We easily recognise a severe malnourished person. Such people are very weak and look ill or are excessively overweight. But we cannot always recognise people suffering from long-term malnutrition or hunger. In India, such people constitute 30-40% of the population. Ensuring food security for this huge segment of the population is both a challenge and a matter of concern. We read about the WHO growth chart to monitor the growth of children from birth to the age of five years while discussing the ICDS. BMI can also be used to find out the malnutrition status of children aged 5 years to 19 years. It looks at the height and weight in relation to age to determine the body mass index of the individual.

We calculated the BMI of some schoolchildren and found deficiencies in the physical growth and nutritional status of some of them. We discussed the data with them and examined their eating habits, going into details of what constitutes nutritious food and a balanced diet. As an example, let us calculate the BMI of one child:

Name: Rani (female)

Age: 15 years 6 months

Height: 1m and 34cm (1.34m)

Weight: 26kg

BMI = Body weight (in kg)/height x height (in metres)

Rani's BMI = $26/1.34 \times 1.34$ = 26/1.79 = 14.52 Let us now examine Rani's BMI in the WHO growth chart, which is given at the end. This chart covers children aged 5 years to 19 years. There are separate charts for boys and girls. According to the chart, Rani's BMI falls under 'malnourished (underweight)'. She, thus, requires additional nutritional supplements.

Calculate your BMI and use the WHO chart to find out your physical development and nutritional status.

Discuss your nutritional status and diet with your teacher and guardian.

Children usually stop growing (in height) once they reach the age of 19 years. Hence, another scale is used to measure the BMI of adults. Once the BMI is calculated, the nutritional status can be determined from the following chart:

S No	BMI	Body status	Comments
1	Below 18.5	Underweight	Nutritious diet required
2	18.5 to 24.9	Normal	Healthy body
3	25.0 to 29.9	Beginning of obesity	Balanced diet and exercise needed
4	Over 30.0	Obesity	Balanced diet, exercise plus special treatment

Table 20.6: BMI analysis for adults

According to an NIN report, 35% of Indian adults have a BMI below 18.5 while 10% have a BMI exceeding 25.0.

One possible reason for malnutrition among infants is that their mothers do not get nutritious food. The mother's physical well-being directly affects the nutritional status of the child. Even today, many women do not get nutritious food and other supplements (especially during pregnancy). The development of the foetus is thus affected. Infants are born underweight and are prey to malnutrition from birth. They remain malnourished as they grow. As adults, their ability to give birth to healthy children is compromised. This cycle is perpetuated. Only when nutritious food is available can this cycle be broken and the goal of food security be achieved.

EXERCISES

- 1. Choose the correct option in the following:
- 1. The Chhattisgarh Food Security Act was passed in:
 - a) 2011

b) 2012

c) 2013

d) 2014

8.

2.	By which age does 90% of the mental development of children take place?			
	a) 2 years	b) 3 years		
	c) 4 years	d) 5 years		
3.	BMI stands for:			
	a) Body measurement	b) Index body measurement indicator		
	c) Body mass indicator	d) Body mass index		
4.	At what price does the FCI buy food-grain in the market?			
	a) Local price	b) Wholesale price		
	c) International price	d) Minimum support price		
2. Fil	l in the blanks in the following:			
1.	People living in urban and ru calories	ral areas require		
2.	Coarse grain is the staple diet of peo	ople living in regions.		
3.	The ICDS monitors the nutritional s	status of children aged to years.		
4.	Eligible households receive their mo	onthly ration of food-grain at		
5.	New-born children should be fed	till the age of six months.		
6.	The mid-day meal scheme is run in schools.	and		
7.	The	class is most vulnerable to malnutrition.		
3. G	ive your comments on the following	ing:		
1.	Minimum support price			
2.	Buffer stock			
3.	Fair price shops			
4.	Daily per capita food availability			
4.	What are the objectives of food sec	purity?		
5.	Which people are most affected by food insecurity?			
6.	How are daily wage workers affect etc? Share your thoughts.	ed by happenings like curfew, market shutdowns, strikes,		
7.	What was the reason for the sudden spurt in the production of food-grain in the country?			

How does food supply affect long-term natural calamities like drought or famine?

- 9. What steps has the government taken to widen the food security net. Describe any three schemes.
- 10. How does the FCI support the public distribution system?
- 11. Why does the government hold a buffer stock?
- 12. How does long-term hunger affect health?
- 13. Who were the people most affected by the Bengal famine of 1943?
- 14. Do you think invisible hunger is an obstacle in the nation's development?
- 15. What are main dimensions of food security? Discuss in detail.
- 16. What is a balanced diet? Why does our body need it?
- 17. Look at Table 1.5 in the chapter 'Understanding development' and explain why children aged under 5 years are underweight and short for their age, keeping in mind their nutrition status.

Project work:

18. Find out the nutritional status of the young and old in your family or your neighbouring family.

BMI-for-age BOYS 14 to 18 years

World Health Organization (based on the WHO chart)

Years months	Malnourished (underweight)	Normal	Malnourished (Obesity)
14 0	Less than 15.5	15.5 to 25.9	More than 25.9
14 1	Less than 15.5	15.5 to 26.0	More than 26.0
14 2	Less than 15.6	15.6 to 26.1	More than 26.1
14 3	Less than 15.6	15.6 to 26.2	More than 26.2
14 4	Less than 15.7	15.7 to 26.3	More than 26.3
14 5	Less than 15.7	15.7 to 26.4	More than 26.4
14 6	Less than 15.7	15.7 to 26.5	More than 26.5
14 7	Less than 15.8	15.8 to 26.5	More than 26.5
14 8	Less than 15.8	15.8 to 26.6	More than 26.6
14 9	Less than 15.9	15.9 to 26.7	More than 26.7
14 10	Less than 15.9	15.9 to 26.8	More than 26.8
14 11	Less than 16.0	16.0 to 26.9	More than 26.9
15 0	Less than 16.0	16.0 to 27.0	More than 27.0
15 1	Less than 16.1	16.1 to 27.1	More than 27.1
15 2	Less than 16.1	16.1 to 27.1	More than 27.1
15 3	Less than 16.1	16.1 to 27.2	More than 27.2
15 4	Less than 16.2	16.2 to 27.3	More than 27.3
15 5	Less than 16.2	16.2 to 27.4	More than 27.4
15 6	Less than 16.3	16.3 to 27.4	More than 27.4
15 7	Less than 16.3	16.3 to 27.5	More than 27.5
15 8	Less than 16.3	16.3 to 27.6	More than 27.6
15 9	Less than 16.4	16.4 to 27.7	More than 27.7
15 10	Less than 16.4	16.4 to 27.7	More than 27.7
15 11	Less than 16.5	16.5 to 27.8	More than 27.8
16 0	Less than 16.5	16.5 to 27.9	More than 27.9
16 1	Less than 16.5	16.5 to 27.9	More than 27.9
16 2	Less than 16.6	16.6 to 28.0	More than 28.0
16 3	Less than 16.6	16.6 to 28.1	More than 28.1
16 4	Less than 16.7	16.7 to 28.1	More than 28.1
16 5	Less than 16.7	16.7 to 28.2	More than 28.2
16 6	Less than 16.7	16.7 to 28.3	More than 28.3
16 7	Less than 16.8	16.8 to 28.3	More than 28.3
16 8	Less than 16.8	16.8 to 28.4	More than 28.4
16 9	Less than 16.8	16.8 to 28.5	More than 28.5
16 10	Less than 16.9	16.9 to 28.5	More than 28.5
16 11	Less than 16.9	16.9 to 28.6	More than 28.6
17 0	Less than 16.9	16.9 to 28.6	More than 28.6
17 0	Less than 17.0	17.0 to 28.7	More than 28.7
17 2	Less than 17.0	17.0 to 28.7	More than 28.7
17 3	Less than 17.0	17.0 to 28.8	More than 28.8
17 4	Less than 17.1	17.1 to 28.9	More than 28.9
17 5	Less than 17.1	17.1 to 28.9	More than 28.9
17 6	Less than 17.1	17.1 to 29.0	More than 29.0
17 0	Less than 17.1	17.1 to 29.0 17.1 to 29.0	More than 29.0
17 7	Less than 17.1 Less than 17.2	17.1 to 29.0 17.2 to 29.1	More than 29.0
17 8	Less than 17.2 Less than 17.2	17.2 to 29.1 17.2 to 29.1	More than 29.1
	Less than 17.2 Less than 17.2		1
17 10		17.2 to 29.2	More than 29.2
17 11	Less than 17.3	17.3 to 29.2 17.3 to 29.2	More than 29.2
18 0	Less than 17.3	17.3 (0 27.2	More than 29.2

BMI-for-age GIRLS 14 to 18 years

World Health Organization (based on the WHO chart)

Years months	Malnourished	Normal	Malnourished
	(underweight)		(Obesity)
14 0	Less than 15.4	15.4 to 27.3	More than 27.3
14 1	Less than 15.5	15.5 to 27.4	More than 27.4
14 2	Less than 15.5	15.5 to 27.5	More than 27.5
14 3	Less than 15.6	15.6 to 27.6	More than 27.6
14 4	Less than 15.6	15.6 to 27.7	More than 26.3
14 5	Less than 15.6	15.6 to 27.7	More than 27.7
14 6	Less than 15.7	15.7 to 27.8	More than 27.8
14 7	Less than 15.7	15.7 to 27.9	More than 27.9
14 8	Less than 15.7	15.7 to 28.0	More than 28.0
14 9	Less than 15.8	15.8 to 28.0	More than 28.0
14 10	Less than 15.8	15.8 to 28.1	More than 28.1
14 11	Less than 15.8	15.8 to 28.2	More than 28.2
15 0	Less than 15.9	15.9 to 28.2	More than 28.2
15 1	Less than 15.9	15.9 to 28.3	More than 28.3
15 2	Less than 15.9	15.9 to 28.4	More than 28.4
15 3	Less than 16.0	16.0 to 28.4	More than 28.4
15 4	Less than 16.0	16.0 to 28.5	More than 28.5
15 5	Less than 16.0	16.0 to 28.6	More than 28.5
15 6	Less than 16.0	16.0 to 28.6	More than 28.6
15 7	Less than 16.1	16.1 to 28.7	More than 28.6
15 7	Less than 16.1	16.1 to 28.7	More than 28.7
15 9	Less than 16.1	16.1 to 28.7	More than 28.7
15 10	Less than 16.1	16.1 to 28.8	More than 28.8
15 10	Less than 16.2	16.2 to 28.8	More than 28.8
16 0	Less than 16.2	16.2 to 28.9	More than 28.9
16 1	Less than 16.2	16.2 to 28.9	More than 28.9
16 2	Less than 16.2	16.2 to 29.0	More than 29.0
16 3	Less than 16.2	16.2 to 29.0	More than 29.0
16 4	Less than 16.2	16.2 to 29.0	More than 29.0
16 5			
16 6	Less than 16.3 Less than 16.3	16.3 to 29.1 16.3 to 29.1	More than 29.1 More than 29.1
16 7	Less than 16.3	16.3 to 29.1	More than 29.1
16 8	Less than 16.3	16.3 to 29.1	More than 29.2
16 9			
	Less than 16.3	16.3 to 29.2	More than 29.2
16 10	Less than 16.3	16.3 to 29.2	More than 29.2
16 11	Less than 16.3	16.3 to 29.3	More than 29.3
17 0	Less than 16.4	16.4 to 29.3	More than 29.3
17 1	Less than 16.4	16.4 to 29.3	More than 29.3
17 2	Less than 16.4	16.4 to 29.3	More than 29.3
17 3	Less than 16.4	16.4 to 29.4	More than 29.4
17 4	Less than 16.4	16.4 to 29.4	More than 29.4
17 5	Less than 16.4	16.4 to 29.4	More than 29.4
17 6	Less than 16.4	16.4 to 29.4	More than 29.4
17 7	Less than 16.4	16.4 to 29.4	More than 29.4
17 8	Less than 16.4	16.4 to 29.5	More than 29.5
17 9	Less than 16.4	16.4 to 29.5	More than 29.5
17 10	Less than 16.4	16.4 to 29.5	More than 29.5
17 11	Less than 16.4	16.4 to 29.5	More than 29.5
18 0	Less than 16.4	16.4 to 29.5	More than 29.5