

Third First MBBS Integrated Teaching Module: Nutrition

Pramukhswami Medical College

Batch 2016

29th-30th July 2019

Community Medicine Case Answer Key

Sarlaben Talpada is a 35 year old woman who has gone to supervise the preparation of food for children in Dali Prathmic Sarkari Shada. There are 200 students in the primary section.

The amount of raw food being used to cook the meal for today is as follows:

Raw Food Group	Total raw food being used in Primary School (200 students)
Cereals (Rice)	15kg
Pulses (Daal)	2kg
Vegetables	6kg
Oil	1Litre
Milk	40 Litres
Sukhadi	1 serving

During the supervision, she is observing all the proceedings in the kitchen. She observes the two ladies-Tarlaben and Somiben-working dedicatedly in the school kitchen. Sarla even helps them as she realizes that the two of them alone, are struggling to make the food for 200 children.

Once the food is prepared, the children are served the food. As school ends, Sarla goes home with her daughter, Taruna, who studies in class 3 of that school.

During the time she spent there, Sarla had observed 2 gross mistakes. She decides to contact the appropriate authorities to help rectify the mistakes.

Within the next one month, the errors were resolved. Sarlaben was satisfied.

Questions with Answer Key

1) a. What government scheme is the above described scene most likely to fall under?

Ans. Mid-Day Meal Scheme

b. Which is the nodal ministry for this scheme?

Ans. Ministry of Human Resource Development, Department of School Education & Literacy, Government of India

c. Who are the beneficiaries of this government scheme?

Ans. Children in classes I – VIII in Government, Local Body and Government aided schools, and Education Guarantee Scheme (EGS), Alternative & Innovative Education (AIE) centres, Special Training centres (STC) and Madarasas and Maktabas supported under the Sarva Shiksha Abhiyan.

d. Is this a centrally sponsored scheme or a State sponsored scheme? Explain the Centre-State division of funds in Gujarat.

This is scheme having Central-State sharing. In Gujarat, the proportion of sharing is as follows: 60% Central funding, 40% State funding.

Revised Cooking cost per child per school day w.e.f. 01.04.2019			
Stage	Total Cost	Central-State Sharing	
		Non-NER States and UTs with Legislature(60:40)	
		Central (60%)	State (40%)
Primary	Rs.4.48	Rs.2.69	Rs.1.79
Upper Primary	Rs. 6.71	Rs. 4.03	Rs. 2.68

2) Describe and elaborate the intervention under which Sarlaben's role in this scheme is explained.

Ans. The intervention under which Sarlaben's role is defined in MDMS is "Mother's Watch", which is a part of Community Participation.

Community Participation:

The intention is to empower mothers of the children covered under the programme to supervise the preparation and serving of the meal and to exercise an effective vigil. Mothers are encouraged to take turns to oversee the feeding of the children, thus ensuring quality and regularity of the meal. For this, they need to devote only a couple of hours once or twice in a month. This simple intervention of 'mothers watch', gives them a voice and a role and greater ownership of the programme. More and more States /UTs are including mothers in supervision committee as well.

Effective mobilization of mothers would include:

- i. Preference to women in engagement of cooks cum helpers
- ii. Orienting mothers towards their role in supervision of the preparation and cooking of meal.
- iii. Bringing home to them the fact that their involvement, as the prime stake-holder, would substantially improve the regularity and quality of the meal.
- iv. Sensitizing mothers to the critical aspects of the programme required to be supervised by them.
- v. Formalisation of ways of maintaining rosters to enable mothers to take turns on specified days of the year and participate effectively.
- vi. Getting their suggestions on strengthening the programme strategies, to enhance community involvement, value addition to meals, etc.

3) What according to you are the 2 gross mistakes that Sarlaben observed? What are the ideal recommendations?

- a) There is a deficit in weight of certain raw food groups as compared to the standards set by the MDMS.

Raw Food Group	Total raw food being used in Primary School (200 students)	Ideal amount of raw food that should be used for 200 Primary School students according to MDMS Food Norms	Deficit For 200 students (Column 3- Column 2)
Cereals (Rice)	15kg	20kg	5kg
Pulses (Daal)	2kg	4kg	2kg
Vegetables	6kg	10kg	4kg
Oil	1Litre	1kg	0
Milk	40Litres	40 Litres	0
Sukhadi	1 serving	1 serving	0

Calculations are as below:

Food norm with effect from 1-12-2009		
S. No.	Items	Quantity per day/Child for Primary Section
		Ideal amount for 200 children calculated
1	Food grains	100 gms x200 children =20,000gms=20kg
2	Pulses	20 gmsx200 children= 4000gm=4kg
3	Vegetables (leafy also)	50 gmsx200children=10,000gm=10 kg
4	Oil & fat	5 gmsx200children=1000ggms=1kg
5	Salt & condiments	As per need

b) The number of staff in the kitchen does not meet the norms set by the MDMS.

The staffing norms are:

- One cook-cum-helper may be engaged in a school having upto 25 students
- Two cooks-cum-helpers for schools having 26 to 100 students
- One additional cook-cum-helper for every addition of upto 100 students.

Hence, here the deal number would be:

2 cooks-cum-helper for 100 children + 1 additional cook-cum-helper for 100 more children
= 3 cooks-cum-helpers

Deficit= 1 cook cum helper

4) Can you identify any innovations being practiced in Dali? If yes, attempt to explain them.

❖ Innovative Practices followed in the State of Gujarat

1) "Sukhadi Project"

To increase the utilization of food grain and enhance calorie and protein intake by students to enhance the coverage.

- Sukhadi is being served once in a week
- "Sukhadi" recipe is approved by the CFTRI & nutrition experts
- It is prepared using wheat, jaggery and oil

2) Provide Milk in MDM

Sanctioned budget 2015-16: To provide pasteurized 200 ml. of milk in all non-tribal developing blocks for 1,91,706 beneficiaries of 21 blocks at the cost of Rs.72.55 crore.

5) What are the minimum calories and proteins that a beneficiary under MDM would receive?

Ans. The scheme guidelines envisage to provide cooked mid-day meal with:

- 450 calories and 12 g of protein to every child at primary level
- 700 calories and 20 g of protein at upper primary level.

6) Show how the minimum raw food norms would fulfill the calorific and protein requirement of the beneficiaries for Primary level according to the Mid-Day Meal Scheme.

Sr. No.	Food Items	Primary	Energy from MDMS amount	Protein from MDMS Amount
1	Foodgrains	100 gms	100gmx 350kcal= 350 kcal	100gm/100gm x 6.5 gm = 6.5 gm
2	Pulses	20 gms	20gm/100gm x 330kcal= 66kcal	20gm/100gm x 22gm= 4.4 gm
3	Vegetables (leafy also)	50 gms	50gm/100gm x 30kcal= 15kcal	50gm/100gm x 4gm= 2gm
4	Oil & fat	5 gms	5gm/100gm x 900 = 45 kcal	0
5	Salt & condiments	As per need	-	-
	Total		476 kcal (Which is more than the minimum 450kcal)	12.9 gm (Which is more than the minimum 12gm)



Mid Day Meal Scheme

Ministry of Human Resource Development
Department of School Education & Literacy
Government of India



(Source: http://mdm.nic.in/mdm_website/)

❖ Objectives

The objectives of the mid day meal scheme are:

1. **Improving the nutritional status of children** in classes I – VIII in Government, Local Body and Government aided schools, and Education Guarantee Scheme (EGS), Alternative & Innovative Education (AIE) centres, Special Training centres (STC) and Madarasas and Maktabas supported under the Sarva Shiksha Abhiyan.
2. **To Enhance Enrolment, Retention and Attendance** and to Encourage poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.
3. **Providing nutritional support to children of primary stage in drought-affected areas**

❖ History of national roll out of Mid day meal scheme

Mid Day Meal in schools has had a long history in India. The **National Programme of Nutritional Support to Primary Education (NP-NSPE)** was launched as a Centrally Sponsored Scheme on **15th August 1995**, initially in 2408 blocks in the country. By the year 1997-98 the NP-NSPE was introduced in all blocks of the country.

❖ Meal provision

The scheme guidelines envisage to provide cooked mid-day meal with:

- **450 calories and 12 g of protein to every child at primary level**
- **700 calories and 20 g of protein at upper primary level.**

This energy and protein requirement for a primary child comes from cooking 100 g of rice/flour, 20 g pulses and 50 g vegetables and 5 g oil, and for an upper primary child it comes from 150 g of rice/flour, 30 g of pulses and 75 g of vegetables and 7.5 g of oil.

Food norm with effect from 1-12-2009			
S. No.	Items	Quantity per day/Child	
		Primary	Upper Primary
1	Foodgrains	100 gms	150 gms
2	Pulses	20 gms	30 gms
3	Vegetables (leafy also)	50 gms	75 gms
4	Oil & fat	5 gms	7.5 gms
5	Salt & condiments	As per need	As per need

Food Group	Energy (kcal/100gm)	Protein (g/100 gm)
Food grains (Rice)	350	6.5
Food grain (Wheat)	350	12
Pulses	330	22
Vegetables	25-40	2-4
Oil and Fat	900kcal/100 mL	0
Salt and Condiments	-	-

The present provisions are as given below:-

1. Free supply of food grains @ 100 grams per child per school day at Primary and @ 150 grams per child per school day at Upper Primary.

- Subsidy for transportation of food grains is provided to 11 special category states at PDS rate prevalent in these states and up to a maximum of Rs.75.00 per quintal for other than special categories States/UTs
- In addition to food grains, a mid-day meal involves major input, viz. cost of cooking, which is explained below. **Cost of cooking includes cost of ingredients, e.g. pulses, vegetables, cooking oil and condiments.** In order to cover the impact of price rise in the items of consumption in the MDM basket, the cooking cost has been revised upward annually since 2010.

Revised Cooking cost per child per school day w.e.f. 01.04.2019 (view Letter dt.24-06-2019)						
Stage	Total Cost	Central-State Sharing				
		Non-NER States and UTs with Legislature(60:40)		NER-States (90:10), 3 Himalayan States and UTs with Legislature		UTs without Legislature (100%)
		Central (60%)	State (40%)	Central	State	
Primary	Rs.4.48	Rs.2.69	Rs.1.79	Rs.4.03	Rs.0.45	Rs.4.48
Upper Primary	Rs. 6.71	Rs. 4.03	Rs. 2.68	Rs. 6.04	Rs. 0.67	Rs. 6.71

- A separate provision for payment of honorarium to cook-cum-helper @ Rs. 1000/- per month has been made.

One cook-cum-helper may be engaged in a school having up to 25 students

Two cooks-cum-helpers for schools having 26 to 100 students

One additional cook-cum-helper for every additional 100 students.

- Provision of mid day meal during summer vacation in drought affected areas.

❖ Community Participation

The intention is to empower mothers of the children covered under the programme to supervise the preparation and serving of the meal and to exercise an effective vigil. Mothers are encouraged to take turns to oversee the feeding of the children, thus ensuring quality and regularity of the meal. For this, they need to devote only a couple of hours once or twice in a month. This simple intervention of 'mothers watch', gives them a voice and a role and greater ownership of the programme. More and more States /UTs are including mothers in supervision committee as well.

Effective mobilization of mothers would include:

1. Preference to women in engagement of cooks cum helpers
2. Orienting mothers towards their role in supervision of the preparation and cooking of meal.
3. Bringing home to them the fact that their involvement, as the prime stake-holder, would substantially improve the regularity and quality of the meal.
4. Sensitizing mothers to the critical aspects of the programme required to be supervised by them.
5. Formalisation of ways of maintaining rosters to enable mothers to take turns on specified days of the year and participate effectively.
6. Getting their suggestions on strengthening the programme strategies, to enhance community involvement, value addition to meals, etc.

Source - <http://mdm.nic.in/>

❖ Innovative Practices followed in the State of Gujarat

3) "Sukhadi Project"

To increase the utilization of food grain and enhance calorie and protein intake by students to enhance the coverage.

- Sukhadi is being served once in a week
 - "Sukhadi" recipe is approved by the CFTRI & nutrition experts
 - It is prepared using wheat, jaggery and oil
 - State government had contributed Rs. 25.00 crores for oil and jaggery in the year 2015-16
 - Nutritional characteristics of each serving of sukhadi:
-

Items	Item Std.1-5(gms)	Std. 6-8(gms)
Wheat	20	25
Jaggery	15	20
Jaggery	15	20
Oil	10	12
Total Calories	214	267

4) Provide Milk in MDM

Sanctioned budget 2015-16: To provide pasteurized 200 ml. of milk in all non-tribal developing blocks for 1,91,706 beneficiaries of 21 blocks at the cost of Rs.72.55 crore.