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REVIEW ARTICLE

# NUTRITIONAL PROBLEM IN MANDSAUR (M.P.)

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**ABSTRACT**

Malnourishment and starvation has taken its toll twice on Subash Bheel (a resident of Hingua village, in Badwani district in Madhya Pradesh) who lost 2 of his children (Rakesh and Gaurav) in the last two months. Subhash is a landless tribal with no means of livelihood. This year, the panchayat could provide work for only two days and each day's work fetches a meager amount of Rs 20. Subhash's family consists of 9 members and there is barely, ½ a kg of flour (Atta) at his house. Under such deplorable conditions, a helpless and hopeless Subhash says that, he could not even provide medical facility to his dying children. The lives of three more innocent children of this village, have been laid down at the alter of malnutrition and food insecurity.

## INTRODUCTION:

### Nutrition:

The Adivasis of Mandsaur in Madhya Pradesh are always on the move. Their web of activity revolves around the pond in the village, where one finds ample "Samai"grass. The people of the village collect the wild Samai grass in big quantities, they then, dry the grains from the grass to make it into powder and they use this powder to make themselves 'rotis'. This wild grass has become popular among the villagers for long, not because the grass is their traditional food or nutritious enough, but because; it is a substitute for food. It is this wild grass which extinguishes the burning sensation caused by hunger. The starving villagers keep ample of this grass in their homes, though; its consumption causes many diseases which ultimately becomes a death trap for them. In this village, men live in such horrible and unimaginable condition that one can hardly set the line of division between the life of an animal and that of a man. The line seems to merge in this village.

Jatasankar village, in Chatterpur District has a different story to say, the children in this village go to the school in their area not to study, but because, the drain which runs from the school provides them with ample supply of drinking water! It is not at all surprising that, 8 out of the 32 malnourished children in the village died in the preceding months because the children and adults of the village survive on wild grass for food. The authorities in this area argue that, the grass which the villagers consume, to hold on to the string of existence, is actually their traditional food!

Pockets of malnutrition deaths, have surfaced regularly in the state of Madhya Pradesh in the past seven months.The state stands testimony to the fact that about 55%of the children here are malnourished and there have been 169 malnutrition deaths, within such a short time span. As usual, the state government authorities never acknowledge that the deaths have been due to malnutrition. They are always, quick and prompt in declaring that the deaths have been due to malaria or measles or diarrhea.

Malnourishment and starvation has taken its toll twice on Subash Bheel (a resident of Hingua village, in Badwani district in Madhya Pradesh) who lost 2 of his children (Rakesh and Gaurav) in the last two months. Subhash is a landless tribal with no means of livelihood. This year, the panchayat could provide work for only two days and each day's work fetches a meager amount of Rs 20. Subhash's family consists of 9 members and there is barely, ½ a kg of flour (Atta) at his house. Under such deplorable conditions, a helpless and hopeless Subhash says that, he could not even provide medical facility to his dying children. The lives of three more innocent children of this village, have been laid down at the alter of malnutrition and food insecurity.

Malnourishment is a stage which catches up with a person due to long periods of depravation from nutritious food. Each individual requires taking in a minimum amount of nutritious food to keep him healthy. When this minimum requirement is not fulfilled the human body becomes weak and the resistance capacity of the person is reduced considerably. The basic indicator of



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malnutrition is weight and height which should be proportional to age. Malnourishment paves the way for a number of diseases like fever, vomiting, measles, diarrhea etc to catch up with people easily. Under ordinary circumstances these diseases are not deadly and are curable, but when a malnourished child is caught up with these diseases, it becomes a death trap for it. This explains why, in almost all the malnutrition deaths reported, the prima facie cause may be some ordinary disease, but on ultimate analysis it is evident that the underlying cause of the death was malnutrition. The government authorities, who are always eager to wash their hands off these deaths, are quick in denying the actual cause and declaring that the deaths have been due to the diseases.

The dotted mud houses in Shahadole are pitch dark at night, the children in the village with lean limbs, swollen bellies and dirt all over them, are a perfect picture of malnutrition and the disastrous condition that exists in the village. They do not have enough food to keep them alive, let alone the fact that they have never ever seen the gates of school. The lesson that these children learn from childhood is, how to survive on a liquid made from a mixture of 8 liters of water in 1 kg of rice, for long periods.

Though India has been dubbed as a welfare state, little is done for the welfare of the poor, as is evident from the situation of the state. The tribals of Madhya Pradesh who were a self-sufficient lot earlier (i.e. before the invasion of the so called civilized people and their laws, technology, market system etc), are the worst affected where, the question of malnutrition arises. Children are perhaps the most severely affected group and, this can be attributed to the fact that 80% of a child's mental and physical growth takes place in the initial two years. During this time the child should be given ample nutrition and care and the absence of nutrition hampers the overall growth and development of the child. A child, who weighs less than 2 kgs at birth, is 3 times more vulnerable to die of ordinary diseases, and when this is coupled with lack of good nutritional food and medicines the vulnerability becomes 20 times more for a child below 5years.

Shyamlal, who lives in Mahalwari village in Khalwa, has a shocking saga of starvation and debt to reveal. Four of his children are severely malnourished and he is not in a position to provide food or medicines to them. In order to save his children from the clutches of death, Shyamlal borrowed some grain from a moneylender in his village and because there was no medical facility available in his village he also borrowed Rs.800 to take his children to private doctors. Never the less after all this his child died and now he is heavily indebted to the moneylender to whom he has to pay Rs.800 plus double the amount of grain he borrowed.

If we go by the data provided by the Government of Madhya Pradesh, about 57 lakhs of children in Madhya Pradesh are malnourished. A number of programme's have been chalked out by the state to wash out the problem of malnutrition, but they are all undertaken by the state for name sake alone, without yielding much results. The indifferent attitude of the government can be gauged from the fact that, in the state of Madhya Pradesh alone, there are1.06 cores of children in the age group0-6, and out of these, only 23.3 lakhs i.e., barely22% have been brought into the realm of the Integrated Child Development Scheme which aims at providing a reasonable level of nutrition to poor children. The allocations made by the state governments for nutrition has shown little or no increase in the recent years .The prescribed financial norm indicated by the centre is Rs 1 per beneficiary, per day on an average, which is to include cost of fuel, food, transport, administration and condiments. The norm was set in 1991 and has never been revised since then. As against this the state of Madhya Pradesh has spent only Rs 0.49 per beneficiary, per day on SNP.

The state has been clearly indifferent in dealing with the situation. The state spends fortunes on trifle and silly things, but it state seems very little responsible for the ever increasing deaths occurring due to malnutrition. It has been aptly said that, hunger is now considered as a curse which some in the society have to live with, though actually, it is the reflection of our misplaced emphasis towards growth for a few. Starvation deaths are a shame for a country hoping for an 8% GDP growth and a respectable place in the international community.

Proccesses of taking in and utilizing food substances. Food generates energy and supplies materials used in body tissues and proccesses. Calories are supplied by carbohydrates (sugars and starches), fats, and proteins. Other nutrients include minerals, vitamins, and dietary fibre. Minerals are used in many ways iron for heamoglobin , calcium for bones, teeth, and cellular processes; sodium and potassium to regulate homeostasis, iodine to roducethyroid hormones. Trace minerals have functions that are less well-understood. Fibre is not broken down chemically in the body but aidsdigestion, lowers blood cholesterol, and may help prevent some cancers and hypertension. Different amounts of these nutrients exist in different foods; a varied diet ensures an adequate supply.



 

Nutritional supplements, required by some people, do not compensate for an unhealthy diet. Sufficientwater is always essential. Inadequate nutrient intake or absorption leads to malnutrition and disease

**Table 1: Data from the Kuposhan Niwaran Abhiyan**

| Bal Sanjevani Campaign-Phase | Unit | No. of children weighted | General Category | First Grade | Second Grade | Third Grade | Fourth Grade | Total I+II+III+IV |
|---|---|---|---|---|---|---|---|---|
| First Phase | Percentage | 62.33 Lacs | 42.43 | 32,72 | 19.36 | 4.34 | 1.15 | 57.57 |
| 2-8 October 2001 | No. of Children | | 26.44 | 20.39 | 12.07 | 2.71 | 0.72 | 62.33 |
| Second Phase | Percentage | 57.03 | 44.87 | 33.22 | 18.83 | 2.53 | 0.55 | 55.13 |
| 14-20 February, 2001 | No. of Children | Lacs | 25.59 | 18.95 | 10.74 | 1.44 | 0.32 | 57.03 |
| Third Phase | Percentage | 59.17 | 43.60 | 33.99 | 19.49 | 2.38 | 0.54 | 56.40 |
| 16-20 September, 2002 | No. of Children | Lacs | 25.80 | 20.11 | 11.53 | 1.41 | 0.31 | 59.17 |
| Fourth Phase | Percentage | 60.89 | 44.85 | 33.32 | 19.76 | 1.72 | 0.35 | 55.15 |
| 5-11 May, 2003 | No. of Children | Lacs | 27.30 | 20.29 | 12.03 | 1.05 | 0.22 | 60.89 |

| Sr. No | District | Percentage | | | | |
|---|---|---|---|---|---|---|
| | | First phase | Second phase | Third phase | Fourth phase | Fifth phase |
| 1. | Rajgarh | 58.55 | 55.19 | 55.48 | 49.74 | 57.15 |
| 2. | Sagar | 53.81 | 50.94 | 51.26 | 49.74 | 60.68 |
| 3. | Ujjain | 56.35 | 51.15 | 56.06 | 53.27 | 48.69 |
| 4. | Bhopal | 53.54 | 50.64 | 51.34 | 50.30 | 50.05 |
| 5. | Indore | 46.05 | 41.84. | 44.31 | 47.13 | 48.20 |
| 6. | Shahdol | 61.75 | 52.33 | 59.73 | 57.80 | 64.62 |
| 7. | Dewas | 54.60 | 53.05 | 52.67 | 54.12 | 52.04 |
| 8. | Umariya | 59.73 | 54.21 | 58.28 | 53.18 | 55.70 |
| 9. | Tikamgarh | 57.97 | 57.62 | 58.59 | 57.84 | 55.28 |



 

| | | | | | | |
|---|---|---|---|---|---|---|
| 10. | Dindori | 58.34 | 56.33 | 57.46 | 56.68 | 56.06 |
| 11. | Sidhi | 57.78 | 57.43 | 60.25 | 60.18 | 61.07 |
| 12. | Sheoni | 60.42 | 54.95 | 57.04 | 52.99 | 56.37 |
| 13. | Dhar | 65.00 | 62.08 | 61.71 | 59.42 | 60.26 |
| 14. | Mandsore | 58.40 | 57.45 | 59.76 | 58.40 | 58.66 |
| 15. | Harda | 62.18 | 57.21 | 59.68 | 58.33 | 61.43 |
| 16. | Hoshangabad | 55.27 | 50.79 | 52.03 | 50.26 | 49.69 |
| 17. | Jabalpur | 57.21 | 51.42 | 55.34 | 54.11 | 54.68 |
| 18. | Narsingpur | 52.74 | 50.44 | 53.62 | 51.50 | 53.84 |
| 19. | Khargoan | 65.98 | 60.59 | 63.15 | 59.17 | 59.93 |
| 20. | Betul | 61.47 | 60.97 | 59.15 | 58.58 | 59.24 |
| 21. | Khandwa | 59.10 | 57.24 | 57.15 | 54.96 | 58.48 |
| 22. | Jhabua | 60.78 | 66.17 | 61.72 | 59.48 | 58.80 |
| 23. | Chatterpur | 61.97 | 57.39 | 56.31 | 53.33 | 52.10 |
| 24. | Badwani | 61.86 | 61.66 | 60.50 | 59.11 | 59.25 |
| 25. | Shajapur | 57.96 | 54.14 | 56.91 | 55.37 | 54.45 |
| 26. | Chindwada | 53.61 | 51.17 | 52.71 | 51.75 | 51.88 |
| 27. | Gwalior | 48.30 | 45.08 | 46.41 | 44.08 | 47.42 |
| 28. | Panna | 60.99 | 38.30 | 60.28 | 58.63 | 60.68 |
| 29. | Datiya | 55.15 | 52.82 | 53.38 | 53.12 | 54.76 |
| 30. | Murena | 50.10 | 47.46 | 54.46 | 49.95 | 51.39 |
| 31. | Katni | 57.42 | 56.95 | 61.74 | 59.12 | 59.69 |
| 32. | Satna | 58.72 | 56.69 | 58.51 | 55.96 | 55.22 |
| 33. | Bhind | 46.88 | 45.04 | 46.21 | 47.15 | 45.98 |
| 34. | Mandla | 61.35 | 60.38 | 58.24 | 58.61 | 59.20 |
| 35. | Ratlam | 53.71 | 54.62 | 55.04 | 71.20 | 49.20 |
| 36. | Balaghat | 65.10 | 58.20 | 60.05 | 60.38 | 60.33 |



 

| | | | | | | |
|---|---|---|---|---|---|---|
| 37. | Neemach | 56.93 | 49.84 | 52.58 | 51.74 | 56.12 |
| 38. | Reeva | 53.30 | 54.15 | 53.51 | 53.69 | 52.44 |
| 39. | Shivpuri | 60.95 | 56.21 | 60.24 | 54.90 | 56.96 |
| 40. | Sehore | 58.62 | 59.27 | 57.77 | 54.42 | 54.85 |
| 41. | Guna | 60.05 | 56.87 | 57.04 | 56.96 | 55.65 |
| 42. | Damoh | 57.59 | 59.00 | 57.38 | 59.38 | 60.42 |
| 43. | Vidisha | 58.47 | 61.69 | 56.42 | 54.14 | 56.04 |
| 44. | Raisen | 55.41 | 50.73 | 51.98 | 51.30 | 49.39 |
| 45. | Sheopur | 63.72 | 58.28 | 61.30 | 61.36 | 60.54 |
| 46. | Burhanpur | _ | _ | - | - | 55.26 |
| 47. | Ashoknager | - | - | - | - | 63.05 |
| **TOTAL (STATE LEVEL)** | | **57.57** | **55.14** | **56.40** | **55.18** | **55.24** |

**Recommended dietary intake:**

The recomanded dietary intake(RDI) is the amount of the nutrient to be actually consume in ordernm to meet the requirements of the body.Recomanded dietary intakes are hence based on the requirements . Now what do we mean by the term “requirement” ? the requirmnet for the particular nutrient is the minimum amounts that needs to be consumed to prevent symptoms of deficiency and to maintain satisfactory levels of thre nutrient in the body.

The RDIs are basically the remquirments plus safty margin.

The safty margin addedm on the cover factor like :

- Variation in the requirement from individual to individual.
- Periods of lowm intake.
- Nature of diet.
- Cooking losses.

We have gained about the idea about the concept of requirements and recomanded dietary intakes. There arwe tghree important points that we need to remember:

(1) RDIs set hogh enough to meet the needs of almost all healthy people:In other words a generous margin is usually given for individual variation in a population of normally healthy individuals.

(2) RDIs do not apply to the people who are suffering from a disease which influences the nutrients need: A disease can cause an increase or decrease in the requirement of one or more specific nutrients. Some medicines prescribes during illness influence the nutrients need.

Recommended dietary intake for the adults based onsex age body size and activity level:in the case of adult there are substantial variation in RDIs particularly for enrgy and protein depending on the age body weight and activity pattern

Some of cielant feature of recommended dietary intake and how they are expressed are summurised in the following points:

1.RDIs expressed in term of kilo calories (K cal),grams , milligram or micrograms(µgm).

2.RDIS for enrgy for adult man and woman are based on activity levels:Activitry levels can be describr as sedentary moderaste and heavy. The more the activity the higher would be RDIs for energy.

3.RDIs for riboflavin niacin and thiamine are dependent for RDIs for energy:the relationship for rsis for these vitamins and energy as follows:

RDIs for Thiamine: 0.5mg/1000Kcal

RDis for riboflavin:0.6/1000Kcal

RDIs for niacin:6.6/1000Kcal

**Anthropometric Measurements of Nutrition:**

Anthrhpometric, measures simply refer to the measerment of body szre.You mayrecall reading earlier in Block 3 that measuring hod! we~ght and height provide



 

useful data for analysing growth and for determining body size and composition Growth is measured in terms of weight for age or height for age. reflects the sum total of what has occurred up to that point in time. Besides height and weight, measuring body circumference facilitates identification of the degree of body fat and the amount of lean body tissues i.e. muscles in the body. It aids in the identification of PEM and obesity. The four most commoniy used and simple body measurements (which serve as good indicators of nutritional status), therefore, are:

Height for age
Weight for age
Arm circumference for age
Weight for height

**Height for age:** Length or height is a very reliable measure that reflects the total increase in size of the individual up to the moment it is determined (and could indicate adequate nutritional status). For example, we know that normally a baby measures 50 cm at birth. This birth length increased to 75 cm at one year of age. By the age of four years the child is 100 cm tall. Thereafter, the child gains about 5 cm in height every year, until the age of 10 years. Recording the height would, therefore, help us to know whether the child is growing normally and is in good health or not. But it is also important to note that height changes too slowly to be used by itself to detect changes in growth pattern within a short time interval. In other tenns, it is not a very sensitive measure for short duration malnutrition.

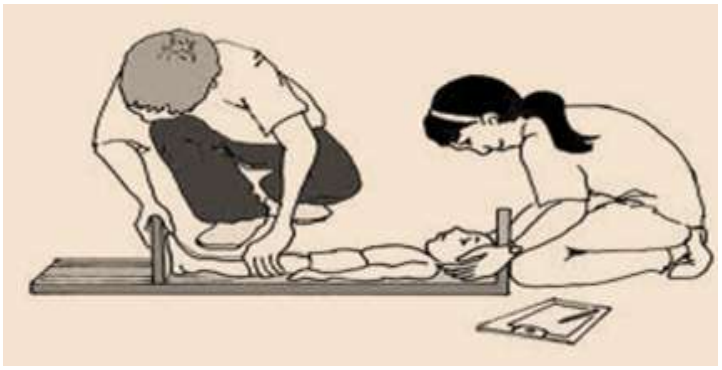

**Figure 1: height measurement of child**

**Weight for Age** (WFA) is a term in which is one of the conditions for a race. It means that a horse will carry a set weight in accordance with the Weight for Age Scale. This weight varies depending on the horse's age, its sex, the race distance and the month of the year.

Weight for age is a commonly used indicator of body size, and it reflects the level of food intake**.** The relative change of weight with age is more rapid than that of height and is much more sensitive to changes in the growth pattern of the individual. Significant changes can be observed over periods of few days. Therefore, unlike height for age, weight for age is, a very sensitive measure of short duration malnutrition. The weight of children should be recorded regularly to check if there is regular gain in weight.

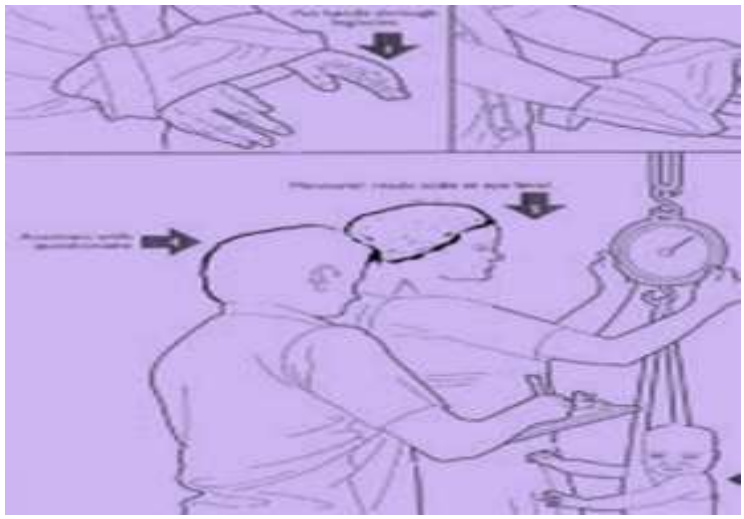

**Figure 2: weight measurement**

d) **Mid upper arm circumference (MUAC)** : The mid upper arm circumference is an useful indicator of nutritional status of individuals and communities. How does this measure reflect the nutritional status of individuals is what we shall study first Arm circumference, we might be aware basically includes bone, fat and muscle. Fat and I muscle, you know, are the body's energy and protein reserves. These reserves are I reduced in the body if the body does not absorb or take enough food as appears in **r** the case of protein energy malnutrition thus resulting in reduced arm circumference.

Arm circumference normally increase with age, but between one to five years it doesI not change much and remains fairly constant**.** At this time the baby fat is replaced muscle.Measuring the arm circumference of this age group would, therefore, give a good idea whether the child is in good health or not. The mid arm circumference for age of well nourished Indian children. A measurement below 80per cent of the normal i.e. <12.5 cm indicates severe malnutrition and a measure between 12.5 cm and 13 5 cm indicates moderate malnutrition.

**The MUAC is, therefore, an easy and useful measure for assessing thinness or muscle wasting in children in the age group 1-5 years.** Like weight for height this measure too has an advantage that one does not need to know the exact age of the child in order to know the nutritional status. We move with the assumption that the mid arm circumference of children between the age one to five years remains fairly constant at about 15-16 cm. Any reduction in this measvre is, therefore, indicative of advanced malnutrition.

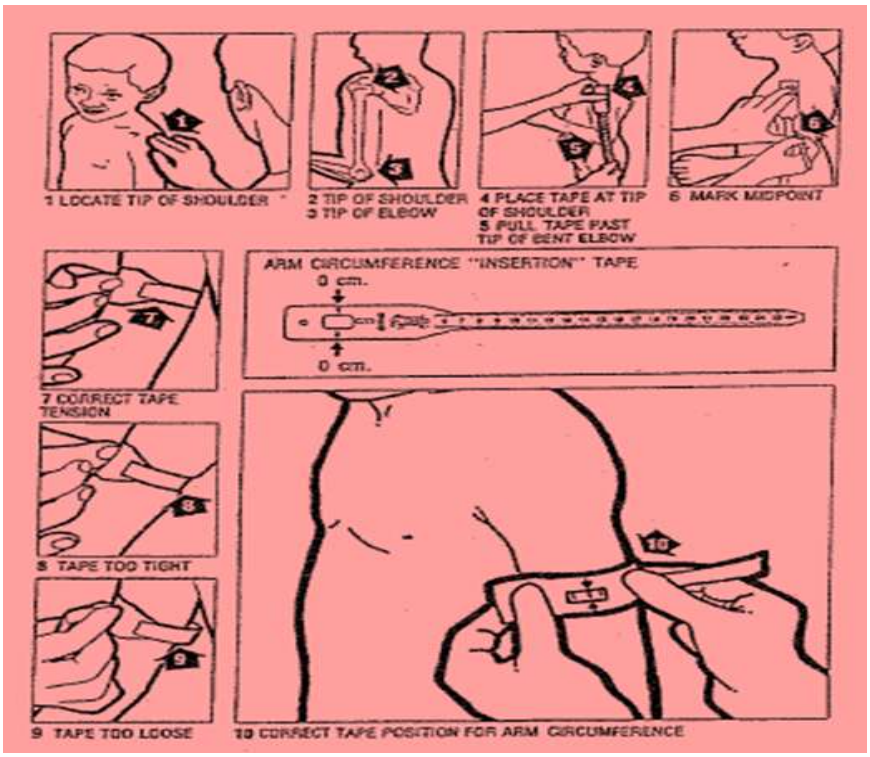


**Figure 3: Measurement of MUAC**

We can measure the roundness/fatness of a child's arm, using any ordinary measuring tape by placing it around the middle part of the child's left arm and recerding the value. However, in the field situation the arm circumference measurement is most commonly taken using a tricoloured strip called the ***tricolour arm tape.*** The tricoloured strip is a flexible but a non-stretchable plastic tape. A specimen tape is given in the margin alongside. The tape has three colours - red, yellow, green- in that order at appropriate cut off points. The red zone is 12.5 cm long, the yellow zone is 1 cm long and the remaining portion is green. This can be best understood, by practically using the tape. Get hold of a child in the age group 1-5 years. Now place the tape around the middle part of the child's left upper arm. Next put the red end beside the green or yellow part of the strip. See which colour the red end comes opposite to.

**Health:**

Health is the level of functional or metabolic efficiency of a living being. In humans, it is the general condition of a person's mind and body, usually meaning to be free from illness, injury or pain(as in "good health" or "healthy"). The World Health Organization (WHO) defined health in its broader sense in 1946 as "a state of complete physical, mental, and social well-being and not



 

merely the absence of disease or infirmity." Although this definition has been subject to controversy, in particular as lacking operational value and because of the problem created by use of the word "complete," it remains the most enduring. Other definitions have been proposed, among which a recent definition that correlates health and personal satisfaction. Classification systems such as the WHO Family of International Classifications, including the International Classification of Functioning, Disability and Health (ICF) and the International Classification of Diseases (ICD), are commonly used to define and measure the components of health.

**1. Mental health**:

Mental health is a term used to describe either a level of cognitive or emotional well-being or an absence of a mental disorder. Mental health is the capacity to express our emotions and adapt to a range of demands.

The World Health Organization describes mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". Mental Health is not just the absence of mental illness.

**2. Physical health:**

Physical Health is the general condition of a person in all aspects. It is also a level of functional and/or metabolic efficiency of an organism.

Physical fitness is the result of regular physical activity, proper diet and nutrition, and proper rest for physical recovery. Physical fitness often includes the following types:

- Agility
- Balance
- Body Composition
- Cardiovascular endurance
- Coordination
- Flexibility
- Muscular strength and endurance
- Speed

**3.Socialhealth:**

Social Health of individuals refers to that dimension of an individual's well-being that concerns how he/she gets along with other people, how other people react to him/her, and how he/she interacts with social institutions and societal mores.

Among this eight children three are look very weak and there reflaction is very slow and we cosider him as the target children and our totally focus on these childrens.

**Malnutrition:**

**Introduction:**

Malnutrition is the condition that results from eating a diet in which certain nutrients are lacking, in excess (too high an intake), or in the wrong proportions. The verb form is "malnourish", "malnourishment" is sometimes used instead of "malnutrition". A number of different nutrition disorders may arise, depending on which nutrients are under- or over-abundant in the diet. In most of the world, malnutrition is present in the form of under-nutrition, which is caused by a diet lacking adequate calories and protein not enough food, and of poor quality. Extreme undernourishment is starvation, and its symptoms and effects are inanition. While malnutrition is more common in less-developed countries, it is also present in industrialized countries. In wealthier nations it is more likely to be caused by unhealthy diets with excess energy, fats, and refined carbohydrates. A growing trend of obesity is now a major public health concern in lower socio-economic levels and in developing countries as well.

**Definition:**

Malnutrition is a medical condition caused by an improper or insufficient diet. Malnutrition is technically a category of diseases that includes undernutrition, obesity and overweight, and micronutrient deficiency among others. However, it is frequently used to mean undernutrition from either inadequate calories or inadequate specific dietary components for whatever reason.

**Malnutrition problem in MP:**

Malnutrition refers to the situation where there is an unbalanced diet in which some nutrients are in excess, lacking or wrong proportion. Simplify put, we can categorise it to be under-nutrition and over-nutrition. Despite India's 50% increase in GDP since 1991, more than one third of the world's malnourished children live in India. Among these, half of them under 3 are underweight and a third of wealthiest children are over-nutriented.

While high rates of malnutrition, child and maternal mortality have challenged this state, UNICEF and the State Government are making a positive impact with a range of programmes. These include training thousands of village health workers to recognize and treat sick babies, and encouraging women to rest and eat well-balanced meals during pregnancy. New hospital units for sick newborns are also saving lives.

Thousands of children are languishing and sinking closer to starvation deaths in Madhya Pradesh. The National



 

Family Household Survey (2006) put the number of malnourished children in this central Indian state at a whopping 6 million which is over 60 per cent of its total number of children under 5 years of age. Out of these 6 million malnourished children, 1.3 million have Severe Acute Malnutrition (SAM) and another 1 million have Moderate Acute Malnutrition (MAM). The situation is nothing short of a full-blown crisis that the Global Hunger Index places Madhya Pradesh between Chad and Ethiopia in its list of the world's worst malnutrition ratings.

While government departments are trying to downplay the severity and evade criticisms, reports of deaths due to malnutrition sporadically surface in the media while many deaths go unreported. Though malnutrition is pervasive across the country, which has an estimated 200 million underweight children at any given time, Madhya Pradesh remains *the* most affected state. MP's infant mortality is still one of the highest in India, with 72 out of 1000 children dying every year. At this rate, an estimated 130,000 children die every year in this state

**Figure 4: Some childrens which affect by malnutrition**

**Deaths and only Deaths:**

We would like to bring to your kind notice the sensitive and burning issue with regard to the critical condition of malnutrition in Madhya Pradesh. There have been 85 deaths due to malnutrition and related diseases in the state in the last 7 months which require urgent intervention. We are releasing this alert note to share the critical situation and the state's response to the problem of malnutrition.

It is an established fact that, 55% of the children in Madhya Pradesh are malnourished and hence require special attention. Due to the intervention of the media and the people's organizations, the situation has come to light and became an issue of debate and campaign .The main cause behind this is the non-compliance with the required minimum levels of nutrition. 80%of a child's mental and physical growth takes place in the initial two years. During this time the child should be given ample care and nutrition. In the case of a malnourished child, there is absence of enough nutrition and care during this period, and hence, the over all development of the child is affected and hampered.The basic indicator of malnutrition is weight and height of the child which is proportional to its age. In India 55%-60% of the children do not stand up to the mark. The resistance capacity of an individual is also linked to the standard of malnourishment. A severely malnourished child will no doubt have very little resistance capacity. This in turn paves the way for a number of diseases like fever, vomiting, measles, diarrhea etc to catch up with them. Under normal circumstances ,these diseases are not very dangerous and are curable easily .But as far as a malnourished child is concerned, these diseases become



 

a death trap .It is unforgivable that the system as well as the society has not given much priority to the matter ,which has already taken a huge toll on the poor.

**Diseases follow by the malnutrition:**

- PEM (Protein Energy Malnutrition)
- Xerophthalmia (Caused by Vitamin A deficiency).

**Protein energy malnutrition:**

Protein-energy Malnutrition (PEM) arises due to deficiency of both dietary energy and proteins. Since energy is mainly supplied by carbohydrates and fats. We can say that protein energy malnutrition is due to deficiency of proteins, carbohydrates and fats in the diet. It is the most important nutritional disorder affecting the children in our country in the age period of 1-5 years.

PEM is largely responsible for the fact that in poor families many children born, do not survive to the age of 5 years. PEM results in retarded body growth of the child in both height and weight.

Two common diseases caused by protein-energy malnutrition are **Kwashiorkor** and **Marasmus**.

**Causes of Protein Energy Malnutrition in Mandsaur (MP):**

When PEM is purely due to dietary deficiency, it is termed as the primary type. This begins at the foetal stage and continues into infancy and childhood. Nearly 25% of the paediatric hospital beds in India are occupied by children suffering from malnutrition and around 80% of hospitalised children are malnourished to some extent. Hence this contributes to the infant mortality ratio in a big way.

Secondary malnutrition arises due to a serious illness like tuberculosis, cancer or inability of the body to absorb nutrients for e.g. in bowel disease like ulcerative colitis, metabolic syndromes and long standing gastro-enteritis.

Dietary factors contributing to PEM are inadequate breast feeding by the mother due to inability of mother's body to make milk due to inadequate nutrition, stopping breastfeeding early in case of working mothers and inadequate supplementation of other foods, ignorance of weaning and weaning foods, inverted or cracked nipples in mother causing difficulty in breastfeeding. Another important reason is nipple confusion when the baby is switched from breast to the artificial nipple and bottle. Formula milk may not be well tolerated leading to diarrhoea.

Problems in the mother such as mental or psychiatric illnesses, post-natal depression (severe cases), poor maternal health like anaemia and having too many children in quick succession or having twins may lead to the mother producing not enough milk to meet the demand of the infants.

Traditional methods which are harmful to the baby may be practised in villages and rural areas such as not offering colostrum (the fluid that comes out of the nipple in the first few hours after delivery) which is very healthy and boosts the baby's immune system and withholding breast milk when the baby has diarrhoea. Even in remote areas, health professions should conduct antenatal classes for mothers-to-be and educated them.

All kinds of infections in the baby such as oral ulcers, gastroenteritis, food poisoning, diarrhoea and serious conditions such as congenital heart or kidney disease may cause inability to suckle which causes malnutrition. Thus, infection and malnutrition is a vicious cycle as one contributes to the other.

Low socioeconomic status of the people coupled with the desire to have more children (especially boys) is the social malady that many uneducated people suffer from.

Some more causes are listed as follows:

**Poverty:**

PEM occurs in poor Indian communities. It is commonly seen in families of landless agricultural labours, and tribal communities without any regular earnings among others. In India, PEM is seen in backward communities of Harijans, nomadic tribes and children in urban slums. These communities are poor, illiterate and generally have large families.

**Maternal malnutrition**:

Nutritional status of the mother determines the state of nutrition of the child to be born. If the nutritional status of the mother is poor, the chances of the offspring being malnourished are higher. Maternal malnutrition results in low birth weight of offspring. A poor Indian infant starts life with a handicap. The weight at birth of such an Indian child is lower than the normal children. You are aware that a normal infant is about 3 kg at birth. Infants with birth weights lower than 2500 grams (2.5 kg) are considered as low birth weight babies, In rural areas (villages) among poorer groups for every 100 children about 30-35 have low birth weight. In well fed, normal and healthy children this is noticed only in less than ten out of 100 children. Children who develop PEM often begin life with a low birth weight.

**Infections and poor hygiene**:

Generally, kwashiorkor follows attacks of diarrhoea (frequent loose motions) or an attack of measles.In the urban slum areas, artificial feeding with commercial milk



 

foods is common. The mothers may follow unsound and unhygienic methods of feeding the child. Feeding bottles may not be properly sterilized. Flies may be allowed to sit on the nipple of the feeding bottle. This may lead to frequent diarrhoea and lead to marasmus.

**Ignorance**:

Both the forms of PEM occur as a result of ignorance of the mother, in addition to poverty. The mother, due to ignorance,.delays the introduction of supplementary food (in addition to breast milk), even upto the age of 1 year. This practice is not good since such a dietary restriction leads to PEM in children who are underfed.

**Wrong child feeding practices**:

The child is usually given the same diet taken by adults. The typical Indian diet is based on qereals and is quite bulky for a small child. This would mean that the child can consume only smaller amounts of the food at one time. But you remember that the child should be given frequent meals at least five to six times a day to meet the daily requirement of nutrients. However, traditionally an 1ndian child is fed thrice a day.As a result, the child does not got adequate food. Consequently, the child cannot get enough energy, protein which is the major cause of **PEM** in India. ***It may be mentioned here that the protein intake is, however, just a little less than what is required. It is the intake of energy which is largely.***

Classification of protein energy malnutrition

Protein energy malnutrition has been classified in many ways, two of the important types are mentioned below.

**Clinical classification**

- Kwashiorkar
- Marasmus

**(a)Kwashiorka :**

Kwashiorkar comes from an African word meaning `displaced child' referring to the illness of the older infant who is denied breast milk when the new baby is born. Kwashiorkar is common in children between one and five years. It is due to a protein deficiency which occurs after protein rich foods are discontinued during weaning and the child is given food low in proteins and calories.

**Causes of kwashiorkor**:

Kwashiorkor is most common in areas where there is:

- Famine
- Limited food supply
- Low levels of education (when people do not understand how to eat a proper diet)

This disease is more common in very poor countries. It often occurs during a drought or other natural disaster, or during political unrest. These conditions are responsible for a lack of food, which leads to malnutrition.

Kwashiorkor is very rare in children in the United States. There are only isolated cases. However, one government estimate suggests that as many as 50% of elderly people in nursing homes in the United States do not get enough protein in their diet.

**Sympoms of Kwashiorkor:**

**Oedema**:

Oedema is the excessive accumulation of fluid in the intercellular spaces of the tissues. Oedema is usually observed on the lower limbs, but it may also be distributed all over the body including the face. Remember kwashiorkor should not be diagnosed without the presence of oedema. But how can we detect oedema?We can detect oedema by pressing the skin over the shin of the leg with your Fingers. Because of accumulation of fluid under the skin, when you press there will be a depression at the place where the pressure is applied.

**Irritability:**

The child suffering from kwashiorkor is generally irritable and has no interest in hidher surroundings.

**Failure of growth**:

Growth failure is an early sign and we can notice this by taking body weight. Children with kwashiorkor weigh only about 60 per cent of the weight of normal children for their age. For example, a three year old healthy normal boy weighs about 13.5 kgs. whereas, another boy of same age but suffering from kwashiorkor may only weigh 60 per cent of 13.5 kg i.e about 8 kg. In other words, they are very much lighter than healthy normal children of their age.

**Skin changes:**

In addition to the above manifestations, there may be characterist changes. The skin becomes thick and appears as though it has been varnished. The skin of the child may peel off easily leaving behind cracks or sores.



 

**Figure 5: Child affected by kwashiorkor**

**Hair Changes**: The hair may become sparse and can be easily pulled off. The hair usually loses its black colour and appears reddish brown.

**Moon Face:** The face of the child suffering from kwashiorkor may appear puffy with the cheeks sagging. This sign is normally known as moon face.

**Marasmus:**

Marasmus is a form of severe malnutrition characterized by energy deficiency. A child with marasmus looks emaciated. Body weight is reduced to less than 60% of the normal (expected) body weight for the age. Marasmus occurrence increases prior to age 1, whereas kwashiorkor occurrence increases after 18 months. It can be distinguished from kwashiorkor in that kwashiorkor is protein deficiency with adequate energy intake whereas marasmus is inadequate energy intake in all forms, including protein. Protein wasting in kwashiorkor may lead to edema.

**Child suffering from Marasmus**

Some common clinical features of marasmusinclude:

**Muscle Wasting**: The characteristic sign of marasmus is the extensive wastingof musclc with Illtle or no fat under the skin. We use the term wasting to meanemaciation or thinnes of the body**.** The ribs become very prominent. Because of the absence of the fat the skin will develop a number of folds, particularly on the buttoc the child with marasmus , thus, can be described as skin and bones.

**Failure to thrive**: - There is fallure to thnve and the child suffering from marasmus usually is irritable and fretful. In fact, the child is often so weak that the cry of the child cannot even be heard.

**Growth failure**: Failure to grow is aiother important feature of the disease.The children often weigh about 50 per cent or less of normal children for their age. For example, a healthy normal one year old child weighs about 10 kg, whereas, a maranikc child would weigh only about 5 to 6 kg.

**Observation:**

**Badwani - Hingua,** a village in **Sendhwa Tehsil** has catapulted to center stage since it is here that the lives of five innocent children have been laid down at the alter of food insecurity (Reported on 26th October, 2004). Given below are the names and details of the children -

- Gaurav Subhash Bhil aged 1 year, Bhilati settlement of Hingua village,
- died on 2nd Sept 2012.
- Rakesh Subhash Bhil aged 3 years, Bhilati settlement of Hingua village, died on 24th Sept 2012
- Parvati Bai Chattersingh Bhil aged 5 years,Bhilati settlement of Hingua village ,died on 2nd of October Jija Mandsaur
- Bai Jairam Bhil aged 3 year, Bhilati settlement of Hingua village, died on 8th Oct 2012
- Ajay Jairam Bhil aged 7 year, Bhilati settlement of Hingua village, died on 10th October 20012.

Due to malnutrition, their health condition was such that, many diseases caught up with them. Their families were in abject poverty and hence were not even in a position to provide medical facility to them. The Chief Medical Health Officer of Badwani district has confirmed that the deaths have been due to malnutrition. There are 40 more children in this village who are severely malnourished and in grave danger. 184 other children are in the IIIrd stage of malnutrition here. To top it all, 24 surrounding villages are also facing similar grave and critical conditions of malnutrition according to the information provided by Seema Prakash Michael of Spandan Samaj Sevi Samiti, an organization which works in the area of right to food.



 

Malnutrition is the burning problem of Madhyapradesh today. There are a number of children Affected by the malnutrition in recent days in the India and particularly in Madhyapradesh. Even M.P. is number one position in the malnourished childrens cases. So as a dietician it is our responsibilities to make the situation easy for the people so they live freely in M.P.I have to decide to conduct survey in the rural areas of the M.P. particularly in the our district known as Mandsaur.I decide to make a survey about the nutrition status of the particular childs and suggest the treatment for them and try to make them happy.

I decide to take a survey in the rual and in the slum area of the our city name as **Ayodhya Basti** in which a Anganwadi centre run by the government of M.P. I make a the contact witgh the supervisor Of the particular organisation name **Mrs Sandhya Sharma** and consult hern about the nutritional status of the childs of the organisation I choose abnout 4-6 childs for conversation or group discussion in particular childs.

I decide to make a plan according tio which I have to make a conversation whioth the particular childs and planning according to **child to child conversation.** I have to make sure that there are particular two or three child particularly look malnourished among in six childrens of the community.dietary surcvey is one of the complicated survey among all the survey belonging to the community of our region because every person have there particular dit according to which the dietary survey is affected by person to person .we choose eight children among which the conversation takes place .

1)Anil
2)Anwar
3)Monika
4)Shekher
5)Vinita
6)Neesha
7)Arvind
8)Aayush

-To make a proper conversation with each other there are suitable environment is essential

-To provide him a suitable environment for conversation is arrange by us.I make a meeting of those children and try to serve the proper environment, so they make the all things easily.

Firstly we have to concern abouit the nutritional status of all childrens

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Anil | 1 | Boy | 6 | 68 | NOT SATISFIED |
| 2 | Anwar | 1 | Boy | 9.5 | 75 | SATISFIED |
| 3 | Monika | 3 | Girl | 14 | 94 | SATISFIED |
| 4 | Shekher | 2 | Boy | 9.5 | 80 | NOT SATISFIED |
| 5 | Vinita | 4 | Girl | 16 | 101 | SATISFIED |
| 6 | Neesha | 3 | Girl | 11.5 | 85 | NOT SATISFIED |
| 7 | Arvind | 1 | Boy | 9.5 | 75 | SATISFIED |
| 8 | Aayush | 1 | Boy | 9.5 | 78 | SATISFIED |

**Table 2: observation table of nutritional status of childrens in local Area**

**Nutritional status:**

*Nutritional status is the condition of health of a individual as influenced by the utilizataion of nutrients.*

After the proper conversation of the child we have to choose the chiolds which have the malnutrition problem or who look like ill health condition.

They are…… **Anil**
**Shekher**
**Neesha**

These three childs continuously take a low energy diet as according to the nutritional status of these three children is very low as according to the WHO definition .So in this situation as dietition we have to solve the nutritional problem and make them healthy and suggest a therapeutic diet for him as we study in our blocks and in our course.

**Definition of therapeutic diet**:

Therapeutic foods are foods designed for specific, usually nutritional, therapeutic purposes as a form of dietary supplement. The primary examples of therapeutic foods are used for emergency feeding of malnourished children or to supplement the diets of persons with special nutrition requirements, such as the elderly**.** Therapeutic foods are usually made of a mixture of protein, carbohydrate, lipid and vitamins and minerals. Therapeutic foods are usually produced by grinding all



 

ingredients together and mixing them. "The mixing process allows for the protein and carbohydrate components of the food to be embedded in the lipid matrix.

The size of the particles in the mixture has to be less than 200 µm for the mixture to maintain its consistency. Using this method, the therapeutic food is produced and packaged without using water, which would eliminate the issue of spoilage. Some therapeutic foods require the addition of water before administering, while others can be consumed as-is. Therapeutic foods are designed and manufactured to ensure that they are ready to eat straight from the packaging. Those foods resist bacterial contamination and require no cooking.

**Treatment of Malnutrition:**

**PEM** is caused due to deficiency of energy and protein in the diet or in other words, due to lack of food. So one of the major objectives of the treatment is to feed the child energy and protein-rich foods, so that his requirements are met and there is adequate weight gain. This treatment can be very well done at home with judicious selection of energy and protein-rich foods. However the children with severe malnutrition most often, require hospitalization since they may also have associated infections like severe gastroenteritis (infection of digestive tract) and severe respiratory infections. If you come across such a case, ask the mother to take the child to a health centre where treatment for these infections is given first priority. In the initial stages it will be difficult to feed such children. They may require feeding through a rubber tube passed through the nose into the stomach till they are able to take the food by mouth. Initially only high calorie liquid foods are given. We can also treat some of these cases at the homes of the children with proper supervision, if they do not have any severe infections like diarrhoea etc. **The main principle in the treatment of the severe forms of PEM is to provide adequate energy and protein through dietary means.**

| **Rajasthani mix** |
| --- |
| A preparation based on local foods which nmaly Rajsthani mix and successfully used in the treatment of kwashiorkor or marasmus is the Rajsthani Mix. This Rajsthani mix which is not a commercial food, can be prepared even in rural households belonging to poorer families. It consists of roasted wheat (40 gm), roasted bengal gram dal (15 gm), roasted ground nut (10 gm) and sugar juggery 30 (gm).we can prepare ladoos or sweet kheer with this mixture or it can becook with milk to improve thetest and quality. In about 4-5 weeks,the children with kwashiorkor recoverfully with dietary tretmentthough cases of marasmus take longer period.it is important toremember that during the first week the child require persuasive efforts and coaxing for feeding.after this once the child recover appetite feeding becomes much easiers.In young children 6-22 months , who also have a problem I swallowing solid food ,one can make athin groul of the Rajsthani mix by adding a few grams(1/2 teaspoon) pf ARF powder (germinated wheat flour powder)addition of ARF would help makemake it thin but at the same time retain its nutritive value.The child with PEM can easily drink up. |

**Diet for Treating Kwashiorkor:**

Because people with kwashiorkor have been deprived of a nutritionally adequate diet for a long time, a medical professional should monitor and plan their food regimen. Treatment should start with a gradual introduction of carbohydrate foods such as fruits, starchy vegetables, breads and cereals to provide calories. Then the persons should consume foods containing proteins such as meat, fish, poultry, eggs, soybeans and legumes. Milk and milk products are also rich in protein. However, children suffering from kwashiorkor may be lactose-intolerant and may need lactase enzyme supplements to digest milk, yogurt and cheese.

**Prevention of kwashiorkor:**

1) Prevention of PEM should start with the mother of the child. You have learnt that children with low birth weights often develop PEM. As you here already learnt, the main reason for low birth weight is maternal-malnutrition i.e. the mother of the child consumes inadequate quantities of energy and protein during her pregnancy. We have to, therefore, ensure that a pregnant woman consumes extra food to meet the additional needs of pregnancy. A simple thumb-rule is to ensure that pregnant women consume additional amounts ef fa,& equal to one normal meal every day during pregnancy. In the case of poorer families supplementary food (food in addition to home diet) can be given to the pregnant women during the last three months of pregnancy under government's feeding programmes. These steps would help in improving the birth weights of the children.

2) Mother's milk is the best food for an infant. Lactating mothers should be encouraged to breast feed their children as long as possible. By the age of about 6



 

months, however, mother's milk alone is not adequate for the child. Supplementary food should be provided to the children by the age of six months, in addition to breast milk. These can be cereal-pulse and nut mixes (for eg. wheat, bengal gram and groundnut mix) and can be prepared at home by the mother. You could refer to Annexures 3 and 4 of Block 3 for more ideas on Supplementary foods for infants and Annexure 5 for nutritious snacks fo preschoolers.

3) Children should be fed 5-6 times asday. We have already learnt that cereal-based Indian diets are quite bulky and unless the child is fed frequently it cannot meet the energy and protein requirements.

4) Infections like diarrhoea and respiratory infections increase the risk of PEM. Prompt treatment of these infections would, therefore, help to prevent PEM. In addition, during diarrhoea and any other infection, food should not be restricted. The child should be fed as usual.

5) Protection of children against diseases like tuberculosis or measles, whooping cough by immunization is another important aspect in the prevention of PEM. Under the universal immunization programme all the infants receive immunization against all these diseases which are important contributory factors. Mothers should be educated to avail of these services.

| *Age* | *Texture* | *Frequency* | *Amount at each meal* |
|---|---|---|---|
| Up to 6 months | Exclusive breast feeding as often as the child wants day and night | At least 8 times in 24 hours | |
| 4 - 6 months | Observe signs of hunger: feed only if the child appears hungry after BF, shows interest to solid foods or/ and has not appropriate weight gain. | If hungry: 2 times per day plus frequent breastfeeds. | 2 - 3 tablespoonfuls. |
| From 6 months | Soft porridge, well mashed vegetable, meat, fruit. | 2 times per day plus frequent breastfeeds. | 2 - 3 tablespoonfuls |
| 7 - 8 months | Mashed foods. | 3 times per day plus frequent breastfeeds. | Increasing gradually to 2/3 of 250 ml cup. |
| 9 - 11 months | Finely chopped or mashed foods and foods that baby can pick up. | 3 meals plus 1 snack between meals plus breastfeeds. | ¾ of a 250 ml cup/bowl |
| 12 - 24 months | Family foods, chopped or mashed if necessary | 3 meals plus 2 snacks between meals plus breastfeeds. | A full 250 ml cup/bowl |

**Table 3: recommendation of complementary feeding**

**Administration's response:**

Malnutrition is not a problem which can be solved in a week's time and it is no doubt, a long drawn process. The response of the state government in this arena is not at all encouraging. Every time deaths occur in a village, the state government authorities go to the place and provide medical and nutritional facilities to the people there. But the problem here is that the government is not taking proper and serious steps to identify such villages in advance i. e. before such mishaps occur. Providing relief after the deaths have occurred, should not be the strategy of the state, instead, such villages should be identified at the earliest and steps should be taken to provide medical and nutritional facilities at the earliest, so that deaths can be prevented in future. In the year 2001, in a study conducted by CEHAT, it was an established fact that 80% children of Bhil tribal community are severely malnourished. This report was also submitted to the Government and Supreme Court (Case No. 196/2001, PUCL Vs Union of India and Others). In spite of all this, the authorities have turned a blind eye to the situation.

**Government Doctor says:**

Dr. Lakshmi Baghel, District CMHO, Badwani stated that the severely malnourished children come from those families who migrate to Maharshtra in search of employment. It means that the district administration fails to provide enough employment opportunities to the poor tribal families and it is the children in turn, who are made to pay with their lives for the lapses on the part of the State. It is vital to note here, that the authorities are not made accountable for any lapses at their end. The question of accountability which ought to be given much



 

thought, does not find place any where in the scenario The past eight months, stand testimony to the fact that, there have 28 malnutrition deaths in the state. The acute condition has been highlighted by the media and peoples oriented NGOs working in the state much to the embarrassment of the state government authorities at different instances. But the fact remains that it is not being taken seriously by the concerned authorities.

This grave situation continues in other districts of Madhya Pradesh as well-

**Mandsaur-** In Dhundhadaka village in Mandsaur district 8 children died due to malnourishment and measles within a period of 12 days in August and September.

**Neemuch-** In Chaldu village of Neemuch district, within a span of two months, 7 tribal children died due to malnutrition. The lack of availability of medical facilities in the village, adds to the difficulties of these tribals. Around 10 families here are on the verge of collapse due to starvation and they have not yet been given Antyodaya cards.

**Khandwa-** In March 2012, 3 children of Saidabad village of Khalwa block of Khandwa district died due to malnutrition and this was brought to the notice of the State authorities by the Right to Food Campaign. This matter was also brought to the notice of the Commissioners of the Supreme Court as well, who in turn issued notice to the Chief Secretary of the state. An interesting fact to be noted in this behalf is that, the state did not think it necessary to, at the least send a reply to the Commissioners. Five months later, on 11th of September 5 more children lost their lives in village Mohalkheri village of the same block.

**Shivpuri-**The Sahariya dominated Shivpuri district is also severely malnourished. But the story of ICDS program is worth mentioning which due to political and un-accountable administrative system is not functioning properly. The supplementary food for children has not been available with the Anganwadies for last 12 months even after the intervention of Supreme Court Commissioners on this issue.

**Morena –**In the Pahardgarh block of this district which is a tribal dominated area, death due to malnutrition is nothing new. I n the months from June to August the following children lost their lives due to malnutrition in the villages of Maanpur, Mara, Jaderu, Dhaundha,Khora and Kusmani:

1. Guddi D/OPuran Adivasi.
2. Pappu S/OKedar Adivasi.
3. Vikas S/O Rasula Adivasi.
4. One year old son of Mahesh Adivasi.
5. Four year old daughter of Ramvaran.

Apart from this, during this period there is one reported case of abortion of a lady (Lakshmi W/O Ramdayal.) due to malnutrition from this area.

| Sr. No. | District | Village | No of Deaths | Cause of Deaths | Period |
|---|---|---|---|---|---|
| 1 | Mandsaur | Dhundhadaka | 5 | Malnutrition | October'04 |
| 2 | Neemuch | Chaldu | 8 | Malnutrition and Measles | August.'04 |
| 3 | Damoh | Bhaisatola | 7 | Malnutrition | August'04 |
| 4 | Khandwa | Saidabad Mohalkheri | 8 | Malnutrition | March-Sept'04 |
| 5 | Morena | Maanpur,Mara, Jaderu, Khora and Dhaundha | 5 | Malnutrition | June–August'04 |
| 6 | Shivpuri | Different parts of Shivpuri | 50 | Malnutrition and Measles | March–May'04 |

**Some of the nutritional programmes of Government of India:**

**Integrated child development services(ICDS):**

Integrated Child Development Services (ICDS) Government of India sponsored programme, is India's primary social welfare scheme to tackle malnutrition and health problems in children below 6 years of age and their mothers. The main beneficiaries of the programme were aimed to be the girl child up to her adolescence, all children below 6 years of age, pregnant and lactating mothers. The gender promotion of the girl child by trying



 

to bring her at par with the male child is a key component of the scheme.

The programme's main aim is to provide nutrition, health and educational services to children before and after birth and through the early childhood period so that their proper physical, mental and social development is ensured. The 4pecific objectives of ICDS are to :

i) Improve the nutritional and health status of children in the age group of 0 to 6 years and adotlecents.

ii)lay the fonndationfor proper psychological.physical and tocial development of the child.

iii) reduce The incidence of mortility,morbidity). malnutrition and school drop-out.

Objectives:-

1. To raise the health and nutritional level of poor Indian children below 6 years of age
2. To create a base for proper mental, physical and social development of children in India
3. To reduce instances of mortality, malnutrition and school dropouts among Indian children
4. To coordinate activities of policy formulation and implementation among all department of various ministries involved in the different government programmes and schemes aimed at child development across India.
5. To provide health and nutritional information and education to mothers of young children to enhance child rearing capabilities of mothers in country of India.

**Scope of services:**

The following services are sponsored under ICDS to help achieve its objectives:

1. Immunization
2. Supplementary nutrition
3. Health checkup
4. Referral services
5. Pre-school non formal education
6. Nutrition and Health information

**Mid day meal scheme (MDM):**

The Midday Meal Scheme is the popular for school meal programme in India which started in the 1960s. It involves provision of free lunch on working days in schools. The key objectives of the programme are: protecting children from classroom hunger, increasing school enrollment and attendance, improved socialization among children belonging to all castes, addressing malnutrition, and social empowerment through provision of employment to women. The scheme has a long history, especially in the state of Tamil Nadu. The scheme was introduced statewide by the then Chief Minister K. Kamaraj in the 1960s and later expanded by the M. G. Ramachandran government in 1982. It has been adopted by most Indian states after a landmark direction by the Supreme Court of India on November 28, 2001. The success of this scheme is illustrated by the tremendous increase in the school participation and completion rates in Tamil Nadu. NGO's have a main part in the preparation of the midday meal scheme .

(i) It is the case of the Union of India that there has been full compliance with regard to the Mid Day Meal Scheme (MDMS). However, if any of the States gives a specific instance of non-compliance, the Union of India will do the needful within the framework ofthe Scheme.

(ii) We direct the State Governments/ Union Territories to implement the Mid-Day Meal Scheme by providing every child in every Government and Government assisted Primary Schools with a prepared mid day meal with a minimum content of 300 calories and 8-12 grams of protein each day of school for a minimum of 200 days. Those Governments providing dry rations instead of cooked meals must within three months start providing cooked meals in all Govt. and Govt. aided Primary Schools in all half the Districts of the State ( in order of poverty ) and must within a further period of three months extend the provision of cooked meals to the remaining parts of the State.

(iii) We direct the Union of India and the FCI to ensure provision of fair average quality grain for the Scheme on time. The States/ Union Territories and the FCI are directed to do joint inspection of food grains. If the food grain is found, on joint inspection, not to be of fair average quality, it will be replaced by the FCI prior tolifting.

**Objectives of the scheme are:**

1.To boost Universalisation of education by improving enrolment, attendance, retention and learning levels of students, especially those belonging to disadvantaged sections.

2.To improve nutritional status of student of Students of primary & upper schools.

3. To give economical assistance to the poor women.

**MNREGA** (**Mahatma Gandhi National Rural Employment Guarantee Act**)The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is an Indian job guarantee scheme, enacted by legislation on 25 August 2005. The scheme provides a legal guarantee for at least one hundred days of employment in every financial year to adult members of any household willing to do public work-related unskilled manual work at the statutory minimum wage of ₹120 per day in 2009 prices.If they fail to do so the govt. has to pay the salary at their homes.



 

MNREGA was launched on 2 February 2006 from Anantapur in Andhra Pradesh and initially covered 200 of the "poorest" districts of the country. The Act was implemented in phased manner; 130 districts were added from 2007 to 2008. With its spread to over 626 districts across the country, the flagship program of the UPA Government has the potential to increase the purchasing power of rural poor, reduce distress migration and to create useful assets in rural India. Also, it can foster social and gender equality as 23% workers under the scheme are Scheduled Castes, 17% Scheduled Tribes and 50% women. In 2010–11, 41 million households were employed on NREGA worksites

**1.TARGETED PUBLIC DISTRIBUTION SCHEME (TPDS):**

(i) It is the case of the Union of India that there has been full compliance with regard to the allotment of foodgrain in relation to the TPDS. However, if any of the States gives a specific instance of non-compliance, the Union of India will do the needful within the framework of the Scheme.
ii) The States are directed to complete the identification of BPL families, issuing of cards and commencement of distribution of 25 kgs. grain per family per month latest by 1st January.

**2. ANTYODAYA ANNA YOJANA:**

(i) It is the case of the Union of India that there has been full compliance with regard to the allotment of foodgrain in relation to Antyodaya Anna Yojana. However, if any of the States gives a specific instance of non-compliance, the Union of India will do the needful within the framework of the Scheme.
(ii) We direct the States and the Union Territories to complete identification of beneficiaries, issuing of cards and distribution of grain under this Scheme latest by 1st January.
(iii) It appears that some Antyodaya beneficiaries may be unable to lift grain because of penury. In such cases, the Centre, the States and the Union Territories are requested to consider giving the quota free after satisfying itself in this behalf.

**4. NATIONAL OLD AGE PENSION SCHEME (NOAPS)**

(i) It is the case of the Union of India that there has been full compliance with regard to the National Old Age Pension Scheme. However, if any of the States gives a specific instance of non-compliance, the Union of India will do the needful within the framework of the Scheme.
(ii) The States are directed to identify the beneficiaries and to start making payments latest by 1st January, 2002.
(iii) We direct the State Govts./ Union Territories to make payments promptly by the 7th of each month.

**5. ANNAPURNA SCHEME:**

The States/ Union Territories are directed to identify the beneficiaries and distribute the grain latest by 1st January, 2002.

**6. INTEGRATED CHILD DEVELOPMENT SCHEME (ICDS):**

(i) We direct the State Govts./ Union Territories to implement the Integrated Child Development Scheme (ICDS) in full and to ensure that every ICDS disbursing centre in the country shall provide as under:

(a) Each child up to 6 years of age to get 300 calories and 8-10 grams of protein;
(b) Each adolescent girl to get 500 calories and 20-25 grams of proetin;
(c) Each pregnant woman and each nursing mother to get 500 calories & 20-25 grams of protein.
(d) Each malnourished child to get 600 calories and 16-20 grams of protein;
(e) Have a disbursement centre in every settlement.
(ii) It is the case of the Union of India that there has been full compliance of its obligations, if any, under the Scheme. However, if any of the States gives a specific instance of non-compliance, the Union of India will do the needful within the framework of the Scheme.

**7. NATIONAL MATERNITY BENEFIT SCHEME (NMBS)**

(i) We direct the State Govts./ Union Territories to implement the National Maternity Benefit Scheme (NMBS) by paying all BPL pregnant women Rs. 500/- through the Sarpanch 8-12 weeks prior to delivery for each of the first two births.
(ii) It is the case of the Union of India that there has been full compliance of its obligations under the Scheme. However, if any of the States gives a specific instance of non-compliance, the Union of India will do the needful within the framework of the Scheme.

**8. NATIONAL FAMILY BENEFIT SCHEME:**

(i) We direct the State Govts. / Union Territories to implement the National Family Benefit Scheme and pay a BPL family Rs. 10,000/- within four weeks through a local Sarpanch, whenever the primary bread winner of the family dies.

**9.** We direct that a copy of this order be translated in regional languages and in English by the respective States/ Union Territories and prominently displayed in all Gram Panchayats, Govt.School Buildings and FairPrice Shops.

**10**. In order to ensure transparency in selection of



 

beneficiaries and their access to these Schemes, the Gram Panchayats will also display a list of all beneficiaries under the various Schemes. Copies of the Schemes and the list of beneficiaries shall be made available by the Gram Panchayats to members of public for inspection. **11**. We direct Doordarshan and AIR to adequately publicise various Schemes and this order. We direct the Chief Secretaries of each of the States and Union Territories to ensure compliance of this order. They will report compliance by filing affidavits in this Court within 8 weeks from today with copies to the Attorney General and counsel for the petitioner.

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