

CHAPTER-III

Public Nutrition And Health

2 marks Answer Questions:

Question1: Define public health nutrition.

Answer: Public health nutrition focuses on promoting good health and preventing nutrition-related illnesses in the population through government policies and programs.

Question2: What are the immediate causes of malnutrition at the individual level?

Answer: Inadequate or faulty dietary intake and disease or infections are immediate causes of malnutrition at the individual level.

Question3: Explain the term "Iodine Deficiency Disorders (IDD)."

Answer: IDD refers to health issues resulting from insufficient iodine intake, leading to conditions like goitre and mental retardation.

Question4: Mention two strategies for combating nutritional problems in India.

Answer: Food fortification and dietary diversification are two strategies to combat nutritional problems in India.

Question5: Name a government program focused on preventing blindness due to vitamin A deficiency.

Answer: The National Prophylaxis Programme for Prevention of Blindness due to Vitamin A deficiency addresses this issue.

4 marks Answer Questions:

1. Question: What is the significance of focusing on nutrition, particularly in the context of child mortality?

- **Answer:** Malnutrition is a major contributor to child mortality, causing at least 50% of deaths in children under five years of age.

2. Question: How does low birth weight affect individuals in the long term?

- **Answer:** Low birth weight, often leading to adverse effects in adulthood, can impact physical and mental development, potentially causing child mortality.

3. Question: What is the concept of "hidden hunger" in the context of nutrition?

- **Answer:** Hidden hunger refers to micronutrient deficiencies, such as iron, zinc, vitamin A, vitamin C, vitamin D, iodine, folic acid, and B12, which are prevalent but not always visible.

4. Question: Explain the concept of the "double burden of malnutrition" in India.

- **Answer:** India faces both undernutrition and overnutrition issues, with a rising problem of overnutrition due to changes in dietary patterns and a sedentary lifestyle.

5. Question: Why is the coexistence of malnutrition and communicable diseases a challenge for public health professionals?

Answer: Malnourished individuals, whether undernourished or overnourished, are more vulnerable to the adverse consequences of communicable diseases, posing challenges for treatment and prevention

7 MARKS QUESTIONS

1.Explanation of Terms:

- **Stunting:** Stunting refers to short stature or low height for age, indicating chronic malnutrition and inadequate growth.
- **Low Birthweight Baby:** A baby weighing less than 2500 grams (2.5 kg) at birth is considered a low birth weight baby.
- **IDD (Iodine Deficiency Disorders):** A range of health problems caused by insufficient iodine in the diet, including goiter, cretinism, and mental retardation.
- **Wasting:** Wasting is a condition where a person's weight is too low for their height, indicating acute malnutrition.
- **Double Burden of Malnutrition:** The coexistence of both undernutrition and overnutrition in a population.
- **Marasmus:** Severe undernutrition due to a deficiency of food and energy.
- **Kwashiorkor:** A form of severe malnutrition, especially in children, caused by protein deficiency despite an adequate caloric intake.

2.What is Strategies to Combat Public Nutrition Problems:

- Medicinal or Nutrient-Based Approach:
 - Nutrient Supplementation: Providing nutrient supplements to vulnerable groups.
 - Therapeutic Treatment: Targeted treatment for individuals with specific nutrient deficiencies.
 - Prevention Programmes: Targeted preventive measures for specific nutrients and target groups.
- Food-Based or Diet-Based Strategies:
 - Fortification: Adding nutrients to food to address deficiencies.
 - Dietary Diversification: Promoting a diverse and nutritious diet.
- Both approaches have advantages and challenges, and a long-term goal is to shift towards food-based approaches.

3.what is Public Health Nutrition:

- Public health nutrition is the field concerned with promoting good health through the prevention of nutrition-related illnesses and the implementation of government policies and programs to address these issues.
- It involves large-scale, organized, and multidisciplinary approaches to solve population-wide nutrition problems, focusing on vulnerable groups.

4.What areCommon Nutritional Problems in India:

- Protein-Energy Malnutrition (PEM): Occurs due to inadequate intake of energy and protein, especially affecting children.
- Micronutrient Deficiencies: Include deficiencies in iron, vitamin A, iodine, zinc, vitamin D, folic acid, and B12.
- India faces the double burden of malnutrition, with both undernutrition and overnutrition becoming prevalent.

5.What are Consequences of IDA and IDD:

- Iron-Deficiency Anemia (IDA): Leads to fatigue, shortness of breath, and adverse effects on cognitive functions, especially in children.
- Iodine Deficiency Disorders (IDD): Causes goiter, mental retardation, and congenital abnormalities, particularly affecting fetal development during pregnancy.

6.what is Scope of Public Health Nutrition and Career Choices:

- Public health nutritionists work in outreach programs, ICDS, government consultations, and various developmental programs.
- Career choices include roles in teaching, research, entrepreneurship, school health programs, corporate CSR programs, and organizations dealing with large-scale feeding programs.

Multiple-Choice Questions (MCQs):

1. What percentage of deaths in children under five years of age is attributed to malnutrition?

- a) 30%
- b) 50%
- c) 70%
- d) 90%

Answer: b) 50%

2. Which of the following is a major concern in India, contributing to the "double burden of malnutrition"?

- a) Overnutrition
- b) Undernutrition
- c) Both a and b
- d) None of the above

Answer: c) Both a and b

3. What is the term used to describe deficiencies in iron, zinc, vitamin A, vitamin C, vitamin D, iodine, folic acid, and B12?

- a) Macronutrient deficiencies
- b) Micronutrient deficiencies
- c) Protein-energy malnutrition
- d) Overnutrition

Answer: b) Micronutrient deficiencies

4. According to the passage, what is the most common cause of childhood blindness?

- a) Iron-deficiency anemia
- b) Vitamin A deficiency
- c) Iodine deficiency disorders
- d) Protein-energy malnutrition

Answer: b) Vitamin A deficiency

5. What does IDD stand for in the context of nutritional problems in India?

- a) Integrated Dietary Disorders
- b) Iodine Deficiency Disorders
- c) Iron Digestion Disorders
- d) Indian Dietary Deficiency

Answer: b) Iodine Deficiency Disorders

Fill in the Blanks:

1. **Public health nutrition is the field of study concerned with the promotion of good health through the prevention of _____ in the population.**

Answer: nutrition-related illnesses/problems

2. **The government program launched in Rajasthan in March 2018, targeting stunting, under-nutrition, anaemia, and low birth weight, is called _____.**

Answer: POSHAN Abhiyaan

3. _____ **is the most common nutritional disorder worldwide, prevalent in both developed and developing countries.**

Answer: Iron-deficiency anemia

4. _____ **is the first level of contact with the health system and is provided through a network of primary health centres (PHCs).**

Answer: Primary health care

5. **A person is considered underweight when his/her body weight is less than adequate for his/her _____.**

Answer: age

summary

The public nutrition and health, particularly focusing on the prevention of undernutrition and overnutrition to maintain optimal nutritional status in the population. The chapter discusses the significance of addressing malnutrition, emphasizing its impact on child mortality, growth retardation, and micronutrient deficiencies. It also highlights the economic costs of malnutrition and the need for trained public health professionals.

The text introduces the concept of public health nutrition, defining it as the field concerned with promoting good health through the prevention of nutrition-related issues and government policies aimed at addressing them. It emphasizes the multidisciplinary nature of public health nutrition, distinguishing it from clinical nutrition and dietetics.

Key nutritional problems in India, such as protein-energy malnutrition (PEM) and micronutrient deficiencies, are discussed. The chapter identifies factors contributing to undernutrition, including insufficient access to food, poor maternal and child care practices, inadequate water/sanitation, and health services. It also mentions the coexistence of undernutrition and overnutrition, with lifestyle changes leading to obesity-related diseases.

The text outlines basic causes, underlying causes at the household/family level, and immediate causes at the individual level, providing a comprehensive view of the factors related to undernutrition. It also touches upon communicable diseases and their consequences for those who are undernourished or have lower immunity.

The chapter emphasizes the need for a trained cadre of public health professionals, particularly public health nutritionists, to address these issues. It defines a community and describes the role of public nutritionists in promoting good nutrition, preventing nutritional problems, and implementing strategies at the community/public level.

Basic concepts of public health nutrition are discussed, highlighting the integration of nutritional, biological, behavioral, social, and managerial sciences. The chapter introduces strategies and interventions to tackle nutritional problems, including the government's efforts such as the POSHAN Abhiyaan.

Two broad approaches—diet or food-based strategies and nutrient-based or medicinal approaches—are explained. Food-based strategies involve preventive and comprehensive measures, such as dietary diversification, horticulture interventions, and fortification, while nutrient-based approaches focus on supplementation.

The chapter concludes by listing various nutrition programs operating in India, such as ICDS, nutrient deficiency control programs, food supplementation programs, food security programs, and self-employment and wage employment schemes. It also briefly discusses the role of public nutritionists in health care and their scope in various settings.

Overall, the text provides an overview of the challenges and strategies in the field of public nutrition and health, emphasizing the importance of a comprehensive and multidisciplinary approach to address these issues.