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**COURSE TITLE: NUTRITION PLANNING AND POLICY**

**COURSE CODE: NTD 404**

**QUESTION**

1. List and explain the types of food fortification?
2. Enumerate five advantages and disadvantages of food fortification?

**ANSWER**

1. **Types of food fortification are**:
2. Mass fortification
3. Targeted fortification
4. Market driven fortification
* **Mass fortification**: Mass fortification is the term used to describe the addition of one or more micronutrients to foods commonly consumed by the general public, such as cereals, condiments and milk. Mass fortification is nearly always mandatory. It is usually instigated and regulated by the government sector. It is generally the best option when the majority of the population has an unacceptable risk of being or becoming deficient in specific micronutrients.
* **Targeted fortification**: In targeted food fortification programmes, foods aimed at specific subgroups of the population are fortified, thereby increasing the intake of that particular group rather than that of the population as a whole. Examples include: complementary foods for infants and young children, foods developed for school feeding programmes, special biscuits for children and pregnant women, and rations (blended foods) for emergency feeding and displaced persons. It can be either mandatory or voluntary depending on the public health significance of the problem it is seeking to address.
* **Market driven fortification**: The term “market-driven fortification” is applied to situations whereby a food manufacturer takes a business-oriented initiative to add specific amounts of one or more micronutrients to processed foods. Market-driven fortification is always voluntary, but governed by regulatory limits. Market-driven fortification can play a positive role in public health by contributing to meeting nutrient requirements and thereby reducing the risk of micronutrient deficiency.
1. **Advantages of food fortification**
2. If consumed on a regular and frequent basis, fortified foods will maintain body stores of nutrients more efficiently and more effectively than will intermittent supplements.
3. It has the potential to improve the nutritional status of a large proportion of the population, both poor and wealthy.
4. Food fortification does not require people to change their eating habits.
5. It is usually possible to add one or several micronutrients without adding substantially to the total cost of the food product at the point of manufacture.
6. The effect of fortification is both fast and broad.
7. Fortification does not affect organoleptic properties.
8. Fortification is the most cost effective approach to prevent nutrient deficiencies.
9. It can be introduced quickly through existing marketing and distribution system.
10. Benefits of fortification are readily visible.
11. Food fortification is sustainable as it is socially acceptable.
12. When properly regulated, fortification carries a minimal risk of chronic toxicity.

**Disadvantages of food fortification**

1. While fortified foods contain increased amounts of selected micronutrients, they are not a substitute for a good quality diet that supplies adequate amounts of energy, protein, essential fats and other food constituents required for optimal health.
2. A specific fortified foodstuff might not be consumed by all members of a target population.
3. Fortified foods often fail to reach the poorest segments of the general population who are at the greatest risk of micronutrient deficiency.
4. The nature of the food vehicle may limit the amount of fortificant (nutrients use in fortification) that can be successfully added.
5. Interactions can occur between fortificant that adversely affect the stability of the nutrients.
6. Infants and young children, who consume relatively small amounts of food, are less likely to be able to obtain their recommended intakes of all micronutrients from universally fortified staples or condiments alone.
7. Food fortification is not the ultimate solution of a nutritional deficiency.