

FINAL EXAMINATION

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Diploma in Food Security and Nutrition in Humanitarian Emergencies

NB: The questions carry 5 marks

1. Discuss the principals of humanitarian chatter in emergency

There are 3 principles that govern humanitarian operations in emergency. They include the following;

Affected population are entitled to a decent life and dignity, meaning despite displacement, races, background, and cultural differences.

Rule of non-return force – this states that any refugee or internal displaced person should not be forcefully returned to the country or place of origin without the consent of the latter.

The third point is the entitlement of the population to genuine protection – any parties to an emergency are entitled to all forms of life and food security protection and comfort.

2. Discuss the challenges affecting cash transfer programs in an emergency

There are more challenges affecting cash transfer in almost every emergency in the course of cash related humanitarian assistance worldwide, they include mainly the listed below;

Security concerns to staff and recipients this means, there are related threats specially in the before, during and after the transaction. There is a big need to put in place some mechanisms to guarantee the safety of staff and beneficiaries which include better financial transactions intermediaries easing sending and receiving of cash to the most vulnerable population.

Price of inflation in the local market. There is always fear to high increase of prices commodities due to inflow of too much cash. Assessing the availability and functionality of the local markets considering capacities and areas of improvement.

The problem of likely to pay taxation or diversion by authorities. There is need to understand and employment the humanitarian principles especially being independent while maintaining good working relations with them.

Risk for theft cases in the course of the activity for instance, before and after delivery of the cash transfer. It is good scan and employ the security environment of the project area before conducting the exercise. Mitigating measures should be put in place in order to minimize or completely control the related potential risks.

Remoteness of the rural population and location. Most of the time, humanitarian cash assistance is directly needed in the deep remote villages/areas where access to infrastructures such as roads, telecommunication, financial facilities are zero or limited.

3. Outline three factors to consider when selecting the commodities for the food ration.

Understanding the dynamics of food consumption, utilization and other cultural norms is very paramount. The following are the factors to consider before deciding the kind of food assistance to give to any population in need;

Risk of micronutrient deficiency diseases, meaning lack of micronutrient nutrition.

Dietary and nutritional value – meaning we should consider diversity contents of the food.

Food preparation and process, for instance is the food easy to cook by the population, knowledge of processing, storage and preparation.

Acceptability of the food assistance. Remember to put potential recipients in mind especially their cultural and psychological approaches to food aid.

Quality and quantity, storage, meaning food assistance should be of good value and enough to satisfy the stomach of the people who receive the assistance.

4. Discuss three objectives of nutrition surveillance system in emergency

Nutrition surveillance system refers to a process of monitoring changes in the nutritional status of a population over a certain period of time. The main objectives are to:

Identify appropriate response strategies i.e. need for food, medicine, essential household items and etc.

Highlight and advocate as per evolving emergency situation.

Understanding of triggers in a certain area for better and rationale response plan.

5. Discuss four groups that are more vulnerable to malnutrition that others giving reasons for vulnerability.

The four vulnerable groups to malnutrition include:

Under age five years children – this is because children are still in development stage hence quality and quantity food are needed by the body for physiological and metabolic functioning of the body system. At toddler stage, children play a lot hence more energy intake requirement. Also, this category does not contribute food decision.

Pregnancy and lactating women – this group requires more food intake to cater for the baby as well the huge need in the mother performing metabolic physiological functions. Here foods rich in all types of vitamin namely micronutrients as well macronutrients. Some women in some cultures or family do not participate in food decision making process, hence making them to be vulnerable too. Lactating women require more in order to compensate the fluid lost during birth, breast feeding of the baby.

Old age – this category needs special feeding due to low digestion and sometimes lack of appetite, however provision of unique foods often a challenge specially during emergencies where sources and means are limited or completely destroyed. Most of the aged people are even not consider to making decision related to food consumption and utilization.

The sick people – more energy is needed by white blood to fight the bacteria, viruses, fungi causing the sickness. More nutritious food that comprises of all necessary required nutrients and vitamins continuously needed to compensate and swap off cells and lost energy. Empathy should be put into HIV/AIDS patients on good feeding habits so that ARVs function in the body.

6. Describe the synergistic relationship between malnutrition and disease occurrence in an emergency set up.

General speaking, a weak and malnourished person cannot resist diseases because it not immune enough to fight the sickness more for instance lack of iron cause weak immune.

Vitamin A is necessary for vision, deficiency interferes with eye vision.

Vitamin D necessary for bone development, lack of it causes abnormal bone development.

7. Describe the micronutrients of public health concern in emergencies

Vitamin C – necessary for maintenance of completeness of tissues in the body, deficiency results to poor wound healing, bleeding. The sources are most fruits and green vegetables.

Vitamin K – essential for blood clotting. Deficiency results to no blood clotting. The sources include; liver, green leaves.

Vitamin E – functions as fat soluble antioxidant and primary defender of the body from destruction against oxidation, protecting the lipids and other vulnerable components of cells membrane. Deficiency result to hemolysis of red blood cells. Sources are groundnut, pumpkin seeds.

Vitamin A is necessary for vision, deficiency interferes with eye vision. Sources include, egg, white meat

Vitamin D necessary for bone development, lack of it causes abnormal bone development. Sources include, sunlight, and etc.

8. Identify an emergency that has occurred in the recent past and describe the common nutrition problems identified.

Armed conflict – this manmade disaster caused wide spread displacement of vast population across South Sudan ending up in the congestions, swamps, hence more exposure to water borne and vector diseases. No food available for weeks, or months. Malnutrition scale up especially among the PLW, U5, aged, and the sick.

Flood – this natural calamity causes untimely displacement to even yearly. Push population in flood prone areas to congestion in high grounds, loss of human and livestock due to drowning in deep water, destruction of properties including their livelihoods. This situation is occurring much along the low lands of South Sudan 's Upper Nile and Bhar El Ghazel regions.

9. Outline five emergency situations that have occurred in the last 10 years in your country.

South Sudan is more prone to both manmade and natural disasters due to lack of early warning system, lack of preparedness to adapt to the emergencies. Continuously armed conflict since pre-independence and post-independence keeps government institutions weak and unfunctional. The list is long however, below being major frequent threats:

- a. Armed conflict
- b. Political instability that lead to weak institutions, infrastructures etc.
- c. Flood
- d. Drought
- e. Crop infestation

10. Discuss four factors that would expose a household to food insecurity.

Unemployment – this is mainly caused by lack of skill or relevant educational background. Household with unskilled breadwinner faces food insecurity because getting income from job market is hard or completely impossible. The solution should be acquisition of relevant skill training needed in the labor market.

Disasters – both natural and manmade calamities happening in Africa result to untimely displacement of population to other locations that may have no job due to scarce resources as result of congestion. The prolonged civil war in South Sudan remains the major factor of unemployment because people are displaced internally or outside with no or few jobs available for them. Farming and other livelihood activities are not happening due to fear of safety/insecurity.

Political instability - due to ongoing conflict in South Sudan also in Somalia, government institutions are weakened or corrupted, economy, finances and infrastructures are either destroyed or services corrupted. Road, public health facilities, trade services are not in place, making population food insecure.

Cultural taboos or practices – in some communities in Africa, women, children and old age are could not contribute to food decision making process, including consumption, utilization. Some food sources are not eaten or prohibited for example pig among Muslims, insects and worms among Nuer community in South Sudan.

11. Discuss food taboos in your community that would expose an individual to food insecurity

Food taboos in some communities remain big concern. There is slow progress on food eating adaptation as result of communities' interactions and modernization. Few challenges exposing an individual to food insecurity among Nuer community in particular mostly during olden days/rural population:

Man eating first before women, aged, children. This had been a practice in olden ages, with few occurrences in the rural areas.

Perception – there has been negative perceptions on some sources of foods of unsafe for human consumption. Even today not only Nuer people but also other communities in South Sudan and to entire Africa not consuming such food products; frogs, insects, sea worms and fish, rats, squirrels, monkeys, the list is long. The reason is more of psychological of simply non-introduction of these food since the past generations.

Poor food storage and storage – this is a big concern among river lake Nilotic speaking community staying in South Sudan. Preservation of vegetable/green leaves, fruit from trees, seeds remain a hug challenge. This is because of knowledge gap, more agricultural extension trainings are needed in aware these population on simple preservation methods.

Poor eating habit/consumption/utilization – there is nutrition knowledge gap here. Population either eat mono food without putting on diversity of the diet for better result. The luck is that there is a time plenty of milk, fish or livestock meat. However, including fruits and green vegetable remain a concern.

12. Discuss how governance would influence food security

Fair or unfair governance would influence food security at individual household and entire community in either way;

Infrastructures – availability of roads, airport, public health facilities, public education and etc would for sure affect food availability to enable population accessing commodities they need for the living. Those expenses beyond the purchasing power a family a time cater for by the government available facility.

Laws and policies – trade regulations in control of market exploitations help population meet the rationale family economy hence purchase power remains normal according to economic situations in the country. Unfair imposition of a certain policy against the masses decry them from making the both ends meet. A food security policy is very paramount in the country.

Stable political will – where is fair politics in the country, allowing freedom of expression, movement and logical rights food insecurity is minimal. In the case of South Sudan and Somalia, politicians must come to common understanding to enable population to retain their food security status otherwise catastrophe will continue.

13. Discuss five challenges that Kenya might have in addressing food supply issues in relation to population

Rural – urban migration; there is massive movement of population from remote/rural areas to the more modernized areas in search for better life such education, job, health facility, recreational centers and etc. This migration leaves the agricultural rural areas with less embodied people to work in the farms for food production. Continuously migration means more population with less food production, hence less food supply from agricultural centers mainly located in the rural.

Epidemic disease such as HIV/AIDS – this a big threat to the world 's population and Kenya also. The young people are ending sick AIDS leaving no one to work the farm land or other productive livelihood for family living , hence negative effect on food supply to individual household as well as entire community leading to street children of the sick/deceased. Old people are forced to remain and take care of the orphans with food supply challenge.

Crime and alcoholics – there is huge percentage among the young adults resorting to high consumption of alcohol and substances which leads to misuse of time into unproductive. Some druggists are in criminology practices, making their people realizing gap of food security.

Infrastructures – regardless of main cities such as Nairobi, Nakuru, Mombasa with modern roads, still there are parts of this country unreached via tarmac road. The old roads are broken and need repairs, for instance; Turkana and North eastern counties/regions. Other means such as railways completely not in place.

Considering the fact these areas are drought prone locations, there need to bridge the gap of road network and railway.

Technology – Kenya still faces lack of modern farming techniques and equipment. There is need for continued support to farmers with necessary agronomic trainings as well provision of modern tools and equipment to enable them produce and supply the produces to the market.

Political will - Kenya is seen in move of it democracy however, there is need to keep working fair political practices to avoid recurrent of post elections violence which had happened in a row.

14. Discuss the common coping strategies adopted by household in your community when there is crop failure.

Crop failure in South Sudan due flood destruction, drought or infestation. It poses negative threats to the population however, for life to continue they often go for coping mechanisms as such:

Selling out of livestock for exchange of food crop or non-food items. Household with cattle/shoats sells in order to get cash to secure food crop. It uncommon for cattle keeping household to sell cows in South Sudan until situation is too problematic. It is better in the urban where cattle market is good, while in the remote areas it is a throw-away price. This is negative in language of food security because a family loses productive asset cheaply.

Migration – where there is no food produced, moving the family to other locations in search of food either relief aid, employment etc.

Giving out children to relatives who are better food security than you until situation is finished. This has been a practice even in search of better education for a child. It is a good idea however, parents need to assess the living relations between the relatives and the child. Some children end up in slavery, housemaids, non-attendance to intended purpose i.e. education, babysitting, temporary relocation etc.

Begging/sharing – sharing is rampant in almost all over South Sudan however, diminishing with impact of modernization and scarce resources especially in the urban areas. The practice is just simply helpful most of

the time. Asking a relative or friend timely even when one is in less critical event. Opinion wise, would be better to reduce the frequency.

Change/adapt to new livelihood activities – the good news is that most of my communities in South Sudan do multipurpose livelihood activities such as agro-pastoralizing, fishing, petty trade etc. In time of crisis related to crop infestation/crop failure they go fishing and small petty trades especially the women, who are the immediately receivers of massive complaints and requests of feeding from the small children.

15. Discuss the factors that would influence targeting in a refugee camp.

Targeting in the refugee camp can be influenced mainly by community or individual personal characteristics such as ages & gender, nutritional status level, physiological factors. In details they include the following:

Nutritional status – in a camp where malnutrition is experience in a certain high extent, empathy is put to deliver high nutritious foods including micronutrient components. For example, extra supplementary feeding program i.e. fortified food such as unmix, CSB etc.

Age – young children are in need of high nutritious food due to growth and development, cells require energy to function. Under five years children should be considered as vulnerable group because they are unable to cater for their food, no movement in search for food, could not participate in decision making process related to food production, consumption.

Physiological – those with sickness require more nutritious food to enable body function in fight against bacteria, viruses or fungi. Pregnant and lactating women require special feeding due to their body requirement of energy and micronutrients as result of body loss during pregnancy, loss of body fluid in blood, birth delivery with loss of too much water/fluid, fetus requirements, breastfeeding the baby also. So, where there are this group, there is need to provide the basic nutrition requirement.

Feeding/cultural practices – the ways include the traditional cooking or eating habit affect the delivery of assistance. Humanitarian actors should often assess the traditions and customs of the benefiting community before the project design.

Gender/sex – the role women or men do different hence affecting the amount of energy intake of an individual. Men require more energy intake than just simple protein or vitamin. This is different case among the women where by vitamin or protein including micronutrients matter a lot than for high energy intake for them.

16. Give two differences between maltose and fructose.

The main difference is that maltose is carbohydrate, a disaccharide, formed from the digestion of starch by amylase; is converted to glucose by maltase while fructose is carbohydrate, a monosaccharide ketose sugar.

The second difference in formula whereby maltose is $C_{12}H_{22}O_{11}$ while fructose is $C_6H_{12}O_6$

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This is the same as question 16 above.

The main difference is that maltose is carbohydrate, a disaccharide, formed from the digestion of starch by amylase; is converted to glucose by maltase while fructose is carbohydrate, a monosaccharide ketose sugar.

The second difference in formula whereby maltose is $C_{12}H_{22}O_{11}$ while fructose is $C_6H_{12}O_6$.

18. Distinguish between rickets and osteomalacia. State the main functions of vitamin K in the body.

a. Rickets and osteomalacia

Rickets is the softening and weakening of bones in children, usually because of an extreme and prolonged vitamin D deficiency. While osteomalacia is the similar condition but adults.

The effects of the conditions differ according to age category, of example rickets in long term result to bow legs, failure to grow, an abnormally curved spine, bone deformities, dental defects, seizures among the children while prolong osteomalacia situation lead to fractures among older adults.

In lay man language, osteomalacia is a prolong impacts of rickets that manifest from childhood up to adulthood. Simply osteomalacia results from long term severity or chronically of rickets.

Both can be prevented or treated using involving provision of enough vitamin D and calcium, mutually required to harden and strengthen (mineralize) bones and treating underlying disorders that might cause the conditions.

Exposure to sunlight is also recommended to get vitamin D. There are no reports of defect of sun light absorption by the body, however, too much sun heat could result to loss of water from the body through sweat and vapor causing dizziness and consequently collapse.

b. Functions of vitamin K in the body

Help in blood clotting

Synthesizes bone protein

Deficiency leads to no blood clotting.

19. Distinguish between monosaccharides and disaccharides

Monosaccharides are the simplest carbohydrate with formula of $C_x (H_2O)$ while disaccharide is the combination of two monosaccharides with formula of two – OH.

All monosaccharides are reducing sugar while disaccharides are non-reducing.

Both monosaccharides and disaccharides have sweet taste.

20. What are the factors that lead to the following in an emergency setting:

i) Diarrheal diseases

Poor or insufficient/quality water supplies for domestic usage.

Poor practices of personal, home, domestic or environmental hygiene

Present of stagnant water causing water borne diseases, worms, snails and etc.

ii) Measles

Overcrowding and congestion of living/sleeping places.

Lack of clean or proper sleeping materials. E.g. mats, blankets, clothing and etc.

Unavailability EPI mass vaccinations among the children at the emergency settings.

iii) Acute Respiratory infections

Exposure to dust and smoke pollution.

Congestion and stay/sleeping at openness.

Exposure to dusts and other adverse climatic conditions.

Inaccessing health facility for public health and treatment.

iv) Malaria

Vector due to stagnant water causing breeding of mosquitoes.

No mosquito nets and lack preventive care.

Lack of health facility to treat malaria patients.