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**AFRICA INSTITUTE FOR PROJECT MANAGEMENT STUDIES (AIPMS)**

**DIPLOMA IN WATER SANITATION AND HYGIENE (WASH)**

**MODULE TWO**

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# **Why is hand washing an essential aspect in WASH interventions?**

# Because hand washing is the act of cleaning hands for the purpose of removing soil, dirt and micro-organisms.

# If water and soap is not available, hands can be cleaned with ash instead.

# A substitute for tap water is pouring water from a hanging jerry can.

# Keeping hands clean is one of the most important steps we can take to avoid getting sick and spreading germs to others.

# Many diseases and conditions are spread by not washing hands with soap and clean running water.

# Proper hand washing remains the most effective way of removing germs and harmful bacteria from our hands.

# This prevents the spread of diseases and keeps your environment safe, fresh and clean.

# Proper hand washing creates a safer working environment for the medical staff and the patients.

# The nature of many kinds of medical procedures is very delicate. It usually deals with exposed internal organs, passing drugs in the body so in these particular cases hand washing has to be taken seriously because harmful bacteria can easily get into our bodies to cause more harm.

# It helps in the prevention of diarrhoea and uncomfortable intestinal diseases.

# Regular washing of hands will remove this faecal matter and bacteria from our hands even when we have contacted them from other people or objects.

# Hand washing helps in the prevention of common eye infections commonly caused by the bacteria that get into the eyes from our hands.

# Hand washing helps in the obstruction of respiratory tract infections.

# The germs that cause respiratory tract infections include bacteria viruses and even some fungi.

# The symptoms include coughing, sneezing, runny nose, nasal congestion.

# Hand washing helps in the reduction of the bacteria content on the hands.

# Bacteria have been known to linger on the hands and if you don’t wash your hands, they will stay on your hands and make way to your eyes, mouth.

# Good hand hygiene will reduce the risk of food poisoning and health care associated infections being passed from one person to another.

# In general, proper hand washing keeps us healthy. (1)

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# **What are the main standards in WASH interventions in emergencies?**

# In cases of emergencies people often live under unsanitary living conditions such as inadequate sanitation, lack of water or poor hygiene make affected populations even more vulnerable and prone to diseases.

# Having inadequate water can lead to increased instances of diseases and lack of hygiene can contribute to diarrhoea, cholera, measles and other hygiene related diseases.

# Out breaks in emergencies for this reason water sanitation and hygiene are often among the most important elements in humanitarian emergencies.

# The main standards are:

# Providing sufficient quantities of safe water, arrangement of basic sanitation, promoting good hygiene behaviour.

# Ensuring that the personnel receive training on the critical role of hand washing in emergency settings.

# This is very crucial as it’s the same personnel that will go out and sensitise people on how to ensure proper hand washing.

# Ensuring hand washing awareness this can be done by providing hand washing information on how it is important to wash the hands with soap if it is not available ash can be used as a substitute.

# Protecting water supplies from contamination. This can be done by urging people not to dump waste materials or faecal matter near water supplies as if they do that they will be just make themselves more prone to diseases.

# Providing water that is safe for cooking and other essential hygiene purposes, in cases of emergencies most of the times people lack of access to clean water therefore, one of the standards in WASH is to ensure that people have clean water that they would use for cooking and other hygiene purposes.

# Ensuring that people have containers to obtain and store water cleanly, it should be realised that in cases of emergencies people usually don’t have where they can keep their clean and safe water, therefore the WASH should ensures that people have containers were they can store their water thus keeping it safe and clean

# Distributing soap, water purification tablets and family water kits and education awareness surrounding proper hygienic habits in emergencies, this in the long run will make the people disease free and healthy. (1)

# Emergency WASH intervention standard differ from development intervention because of the speed, scale and approach that are taken in emergency response activities.

# The need of emergency affected population are often immediate, requiring rapidly increasing access to water and sanitation services.

# These situations also require the promotion that maybe unfamiliar to the populations (e.g. treating water with chlorine for the first time).

# Therefore 13 specific invention common standard are:

# Pumping wells flooded with saltwater; well disinfections; large-scales source treatment; small-scale source treatment; chlorine-based household water treatment; filtration-based household water treatment; other household water treatment; latrines; latrine alternatives; hygiene promotion; hygiene kits; environmental hygiene; and multiple WASH interventions carried out as a package.

# As a detail for the above listed interventions are as follow

# 1). Pumping wells flooded with saltwater-saltwater: flooding can occur because of hurricane, storm surge or tsunami. Agencies pump wells to remove saltwater and debris, then chlorinate to disinfect the water.

# 2). Well disinfection: chlorine is used to disinfect contaminated wells. Liquid and powder chlorine are used through two primary approaches. Shock and pot chlorination. (Shock) Where a single dose of chlorine is added directly into the well, is intended to quickly clean the well

# And (pot chlorination) where a porous container is filled with sand and powdered chlorine is inserted into a well, is intended to slowly dispersed chlorine and treat the water over an extended time.

# 3). Large scale source treatment: bulk water treatment (BWT) is a general term that include systems that are operated by agencies without beneficiary involvement, often able to treat between 1000 to 15000 L per hour. Treatment and storage could be in semi-permanent tanks, temporary bladders or water trucking tanks.

# 4). Small scale source-based water treatment: this occur at the source and is applied to one container at a time. Its include chlorine dispensers and bucket chlorination.

# 5). Chlorine-based HWT: is a product distributed in emergencies, those are tablet of 1-167mg sodium dichlorisoisocyanurate used to treat 1-20L of water; liquid solution in a small bottle of 1-1.25% sodium hypochlorite used to treat 20L of water;

# 6). Filters: which include simple screens, ceramic, sand and hollow-fibre filters usually easy to use and remove harmful microbes larger than the filters effective pore size.

# 7). Other HWT: like solar disinfection using (SODIS) by exposing transparency filled bottled water under the ultraviolet light of the sun with maximum 6hours as well as boiling and flocculation etc…….

# 8). Latrines: are temporary or semi-permanent structures made from cement, plastic, bricks or local materials intended to isolate faeces from the environment. They are constructed for individual household or in clusters to serve a large communities or camp.

# 9). Latrine alternative: they are single disposable use defecation bags use as a temporary solution in the initial days after an emergency or where latrines can not be build. Beneficiaries defecate into bags and dispose it through a collection system establish by an emergency agency

# 10). Hygiene promotion: to educate affected population on disease risk and transmission routes. Often in emergency, hygiene promotion is condensed into key messages such as the need to wash hands at critical times. Promotion can be at schools, in large community groups or at the house hold level.

# 11). Hygiene kits: equip affected population to act on hygiene promotions also hygiene kits distributions often provide the population with HWT products, soap, buckets, feminine hygiene materials, toothbrushes, and other materials, depending on the context. the large distribution component can be also non-food items such as blankets, cooking pots or other hygiene kits and offer flexibility to disaster affected household or large community.

# 12). Environment hygiene: such effort aims to protect the population from existing or new risks by reducing environmental pathways of disease transmission. Environmental hygiene intervention can include collecting rubbish, disinfecting household object or even improving land drainage. Household spraying is an environmental hygiene intervention where a disinfectant (mostly chlorine) is sprayed on household surfaces by trained responders to prevent inter-familiar of disease.

# 13). WASH packages: are carried out in combination with several interventions including component of water, sanitation and hygiene. (2)

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# **Waste management is becoming one problem in the emergencies. Why?**

# Unplanned human settlements as most of them lack any sort of infrastructure and trash is disposed of indiscriminately mostly due to rapid urban population. Open dumping of garbage facilitates the breeding of disease vectors such as flies, mosquitoes.

# Lack of enforcement of sanitation bye laws and building regulations in most of the developing countries.

# Illegal dumping sites this therefore leads to the pollution of the surface and the ground water.

# Lack of public awareness on good sanitary practices. Most of the people in the developing countries mostly those in the rural areas lack awareness on how important it is to keep proper hygiene. (1)

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# **Discuss how environmental health and sanitation affect the nutritional status of the vulnerable groups**

# An estimated 663 million people worldwide do not have access to an improved drinking water source (UNICEF/ WHO 2015) and an estimated of 1.9 billion people rely on drinking water that is faecal contaminated.

# An estimated one third of the world population lack access to an improved sanitation facility.

# In terms of hygiene unlike household access to drinking water and sanitation, no global mechanism exists to monitor hand washing practices in homes and communities.

# Lack of access to proper sanitation can affect the nutritional status of the vulnerable groups in many ways.

# This is mainly through diarrhoea diseases, intestinal parasite infections.

# Diarrhoea is the leading cause of mortality and morbidity among the children under 5 years of age, diarrhoea can affect nutritional status by causing loss of appetite, mal absorption of nutrients.

# Intestinal parasitic infections like round worms affect millions of people worldwide, these are caused by poor sanitation

# Lack of improved water sources, poor sanitation and hygiene expose billions of people particularly children and the vulnerable to a wide range of diseases and these are the major contributors to the world’s morbidity and mortality.

# Many people die from water borne diseases every year.

# Significant evidence suggests that poor sanitation plays a considerable role in increasing risk of severe acute malnutrition and stunting particularly in children.

# The provision of safe drinking water and sanitation, improvements in hygiene would contribute significantly to the nutritional challenges and to health improvements. (1)

# **Assuming you have been appointed to head an organisation dealing with health development in your area, describe the critical factors that you will consider in planning the health service in that area**

# Health service planning aims to improve health service delivery to better meet the health need of the population

# Therefore, I would ensure effective communication, with this I would identify the target audiences and the messages that need to be delivered to them so as to improve their quality of health.

# Encourage community partnerships and actions to identify and resolve health related issues as the community members will be directly involved in the discussions that would help improve their health standards

# Identify and investigate health issues and health hazards affecting the people in my community

# Provide my community members with the required health services

# Build a strong implementation foundation by developing a project plan with tasks, responsibilities, timeframes and dependencies

# Observe the health status of my community members so as to recognize and solve community health issues

# Notify my community members, educate and empower them regarding health problems (1)

# **REFERENCES:**

# (AIPMS) Water and sanitation course references materials and guidance. Ecole Polytechnique de Lousanne

# [www.3ieimpact.org](http://www.3ieimpact.org) ; international Initiative for Impact Evolution.

(2)[Introduction to Household Water Treatment and Safe Storage | Coursera](https://www.coursera.org/learn/water-treatment); https://www.coursera.org/learn/water-treatment ; Ecole Polytechnique de Lousanne

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